Bloomberg School of Public Health

Catalog
2005–06

Protecting Health, Saving Lives—Millions at a Time
The Johns Hopkins Bloomberg School of Public Health

The Johns Hopkins Bloomberg School of Public Health is dedicated to the education of research scientists and public health professionals, a process inseparably linked to the discovery and application of new knowledge; and through these activities, to the improvement of health and prevention of disease and disability around the world.
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# 2005-2006 Academic Calendar

## SUMMER TERM

**SUMMER INSTITUTES** ................................................................. Begin week of May 23  
Internet-Based/Part-Time MPH New Student Orientation .......... Sat June 4 - Sun June 5  
**REGULAR SUMMER TERM** ....................................................... F July 8 - F Aug 26 (36 class days)

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW STUDENT ORIENTATION/REGISTRATION</td>
<td>W July 6 &amp; Th July 7</td>
</tr>
<tr>
<td>Instruction Begins for Summer Term</td>
<td>F July 8</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>Varies per course schedule</td>
</tr>
<tr>
<td>1st Term Registration Ends for Continuing Students</td>
<td>W Aug 24</td>
</tr>
<tr>
<td>Last Class Day of Summer Term</td>
<td>F Aug 26</td>
</tr>
</tbody>
</table>

## 1ST TERM  

<table>
<thead>
<tr>
<th>Th Sep 1 - W Oct 26 (39 class days)</th>
</tr>
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</table>

### 1ST TERM

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>NEW STUDENT ORIENTATION/REGISTRATION</td>
<td>M Aug 29 - W Aug 31</td>
</tr>
<tr>
<td>Instruction Begins for 1st Term</td>
<td>Th Sept 1</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>Th Sept 1 - W Sept 14</td>
</tr>
<tr>
<td>LABOR DAY RECESS</td>
<td>M Sept 5</td>
</tr>
<tr>
<td>2nd Term Registration Ends</td>
<td>F Oct 21</td>
</tr>
<tr>
<td>Last Class Day of 1st Term</td>
<td>W Oct 26</td>
</tr>
</tbody>
</table>

## 2ND TERM

<table>
<thead>
<tr>
<th>Th Oct 27 - Th Dec 22 (39 class days)</th>
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### 2ND TERM

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Instruction Begins for 2nd Term</td>
<td>Th Oct 27</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>Th Oct 27 - W Nov 9</td>
</tr>
<tr>
<td>THANKSGIVING RECESS</td>
<td>Th Nov 24 - Su Nov 27</td>
</tr>
<tr>
<td>Registration Begins for 3rd &amp; 4th Term</td>
<td>M Dec 5</td>
</tr>
<tr>
<td>Last Class Day of 2nd Term</td>
<td>Th Dec 22</td>
</tr>
</tbody>
</table>

### Internet-Based/Part-Time MPH New Student Orientation

**Sat Jan 7 - Sun Jan 8**  
*No classes on Monday, Jan 16*

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Term Registration Ends</td>
<td>F Jan 13</td>
</tr>
<tr>
<td>MARTIN LUTHER KING, JR. HOLIDAY RECESS</td>
<td>M Jan 16</td>
</tr>
</tbody>
</table>

## 3RD TERM

<table>
<thead>
<tr>
<th>M Jan 23 - F Mar 17 (40 class days)</th>
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### 3RD TERM

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction Begins for 3rd Term</td>
<td>M Jan 23</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>M Jan 23 - F Feb 3</td>
</tr>
<tr>
<td>Last Class Day of 3rd Term</td>
<td>F Mar 17</td>
</tr>
<tr>
<td>SPRING RECESS</td>
<td>M Mar 20 - F Mar 24</td>
</tr>
<tr>
<td>4th Term Registration Ends</td>
<td>T Mar 21</td>
</tr>
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</table>

## 4TH TERM

<table>
<thead>
<tr>
<th>M Mar 27 - F May 19 (40 class days)</th>
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### 4TH TERM

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Instruction Begins for 4th Term</td>
<td>M Mar 27</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>M Mar 27 - F Apr 7</td>
</tr>
<tr>
<td>Last Class Day of 4th Term</td>
<td>F May 19</td>
</tr>
<tr>
<td>PUBLIC HEALTH CONVOCATION CEREMONY</td>
<td>W May 24</td>
</tr>
<tr>
<td>UNIVERSITY COMMENCEMENT CEREMONY</td>
<td>Th May 25</td>
</tr>
<tr>
<td>RESIDENCY PROGRAM ENDS</td>
<td>F June 30</td>
</tr>
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</table>
The University

HISTORICAL BACKGROUND
The Johns Hopkins University
The Johns Hopkins University was incorporated in 1867 under the terms of a $7 million bequest from Johns Hopkins, a Quaker merchant of Baltimore, who directed that the funds be used for the establishment of a university and a hospital. Instruction in the University began in 1876, three years after his death.

The historic role of the University was clearly defined by the first president, Daniel Coit Gilman, in his inaugural address: "The university is a place for the advanced special education of youth who have been prepared for its freedom by the discipline of a lower school. Its form varies in different countries. ... But while forms and methods vary, the freedom to investigate, the obligation to teach, and the careful bestowal of academic honors are always understood to be among the university functions. The pupils are supposed to be wise enough to select and mature enough to follow the courses they pursue."

The Johns Hopkins University was to be different from the traditional American college. In his inaugural address, President Gilman laid down certain points about which he felt there was general agreement. He branded as "useless" the dispute between the old or literary education and the new scientific education. He spoke of the value of remote utility in contrast to immediate advantage: "Those ventures are not always most sagacious that expect a return on the morrow. It sometimes pays to send our argosies across the seas; to make investments with an eye to slow but sure returns. So is it always in the promotion of science."

In discussing curriculum, Gilman recognized the fact that university trustees and administrators must select the branches of learning that are to be encouraged, since one university cannot possibly encourage all. The criterion should be the "requirements and deficiencies of a given people, in a given period," not "an absolute standard of preference." Students should be free of routine; investigators should be "free, competent, and willing"; research and teaching should supplement one another.

"The object of the University," said Gilman, "is to develop character. It misses its aim if it produces learned pedants, or simple artisans, or cunning sophists, or pretentious practitioners. Its purport is not so much to impart knowledge to the pupils, as to whet the appetite, exhibit methods, develop powers, strengthen judgment, and invigorate the intellectual and moral forces. It should prepare for the service of society a class of students who will be wise, thoughtful, progressive guides in whatever department of work or thought they may be engaged."

The School
The Johns Hopkins Bloomberg School of Public Health is the oldest school of public health in the world. When it was established in 1916, the School's founders originally designated their new institution "the School of Hygiene and Public Health," to pay homage to two honored European traditions of the day. Hygiene was included in the name to emphasize the founders' devotion to basic research and the uncovering of new knowledge about disease and its prevention—in that era, hygiene was used by the finest German universities to mean rigorous laboratory investigations into the biological nature of health and disease. Similarly, by including public health in the School's name, the founders were paying tribute to another European tradition, this time from England, a nation admired for its skillful design of practical programs to improve the overall health of populations.

By 2001, when the School's name was officially changed to the Johns Hopkins Bloomberg School of Public Health, hygiene was dropped from the name because this word had lost its hard-science connotations over the intervening 85 years, becoming a mere synonym of sanitation. In spite of these changes in the institution's name, however, the School of Public Health continues to honor its dual commitment to both research and practice, and to providing the highest quality education in public health and the sciences basic to it.

Moreover, the School's close proximity to Washington, D.C., and to the national executive and legislative branches of government, give students the opportunity to gain first-hand understanding of how public health policy is made. Opportunities also exist for observing and interacting with state and local health agencies.

PRESENT PERSPECTIVES

University Divisions
Within the University and Hospital there is increasing emphasis on interdivisional and inter-institutional cooperation in education and research programs. The School of Public Health offers an unusually rich environment in the health sciences, in part because of its
close proximity to and cooperative relationships with the other divisions of the University.

The other divisions include Johns Hopkins Medicine, the School of Nursing, and the William H. Welch Medical Library, all located in East Baltimore; the Zanvyl Krieger School of Arts and Sciences, the School of Professional Studies in Business and Education, and the Whiting School of Engineering, all on the nearby Homewood campus; the Paul S. Nitze School of Advanced International Studies in Washington, D.C.; the Applied Physics Laboratory in Laurel, Md.; and the Peabody Institute in Baltimore.

The School of Public Health

The School provides opportunities for graduate education, research, professional practice, and service in diverse fields, including the primary intellectual disciplines of public health; quantitative sciences such as biostatistics, epidemiology, and demography; basic and applied research; social policy; planning, management, and evaluation of the delivery of health services; and the biological and environmental health sciences. These programs are designed for individuals from a wide variety of professional and academic backgrounds and experience in health.

The School is organized into the following departments: Biochemistry and Molecular Biology; Biostatistics; Environmental Health Sciences; Epidemiology; Health Policy and Management; International Health; Mental Health; Molecular Microbiology and Immunology; and Population and Family Health Sciences. Within the next year, a new department of Behavior and Health will take shape.

Within the broad concepts of health protection and disease prevention, specialized academic interests include quantitative and analytic methodologies, health policy, health finance and management, outcomes assessment, chronic diseases, injury and violence prevention, substance abuse, epidemiologic patterns of risk factors, health promotion and practice, health behavior and communications, human genetics, infectious diseases, vector biology, infant and women’s health, health problems in the developing world, nutrition, interactions between behavior and health, reproductive health and family planning, environmental health engineering and chemistry, physiology, toxicology, occupational safety and health, and molecular biology.

The School offers courses at the University’s Montgomery County Campus. More information is provided in the Continuing Professional Education chapter of this catalog.

The School also has cooperative relationships with its East Baltimore community, and with both private and public organizations at the local, state, national, and international levels, including academic, governmental, and service organizations, all of which enhance the breadth and depth of the School’s curriculum.

Johns Hopkins Medicine

Johns Hopkins Medicine is the name of the governance structure for the Hospital/Health System and the Johns Hopkins University School of Medicine. The Chief Executive Officer for Johns Hopkins Medicine and Dean of the Medical Faculty oversees the organization.

The Johns Hopkins Hospital is a separate corporation and has an endowment independent of the University, but the relations between the Hospital and the School of Medicine are close, in accordance with the wish of their founder. The head of each clinical department of the hospital is also the professor and director of the corresponding academic department of the School of Medicine.

The School of Medicine is organized into preclinical and clinical departments. The preclinical departments are Biological Chemistry; Biomedical Engineering; Biophysics and Biophysical Chemistry; Cell Biology; Comparative Medicine; the History of Medicine; Molecular Biology and Genetics; Neuroscience; Pharmacology and Molecular Sciences; and Physiology. The clinical departments are Anesthesiology and Critical Care Medicine; Dermatology; Emergency Medicine; Medicine; Neurology; Neurosurgery; Obstetrics and Gynecology; Oncology; Ophthalmology; Orthopedic Surgery; Otolaryngology–Head and Neck Surgery; Pathology; Pediatrics; Physical Medicine and Rehabilitation; Psychiatry; Radiology; Surgery; and Urology.

Objectives of the School’s curriculum include integrating basic science and clinical experiences, expanded use of case-based small group learning sessions, and early experience with community-based practice.

The School of Nursing

The School of Nursing has been an academic division of the University since 1984, offering both upper-division undergraduate and graduate curricula. Hopkins Nursing has a historic legacy that dates back to 1889 when it was founded as a diploma school of the Johns Hopkins Hospital. The School established the foundation for a national model in nursing education in the 1890s with Hopkins leaders later founding the National League for Nursing and the American
Today, the School of Nursing is a global leader in nursing research, education and scholarship and is ranked among the top 10 nursing higher education institutions in the country. The School’s community health program is second in the nation and the nursing research program holds a position among the top 10 nursing schools for securing federal research grants. The School continues to maintain its reputation for excellence and educates nurses who set the highest standards for patient care, exemplify scholarship, and become innovative national and international leaders in the evolution of the nursing profession and the health care system.

The Homewood Campus
The Homewood campus facilities of the University, where the undergraduate and other graduate programs are located, are available to School of Public Health students. These facilities include the Zanvyl Krieger School of Arts and Sciences, the Whiting School of Engineering, and the School of Professional Studies in Business and Education. Cooperation between the various divisions of the University makes many of the courses, lectures, and other opportunities available to all students of the University.

The Paul S. Nitze School of Advanced International Studies
The School, located in Washington, D.C., provides advanced professional education in the field of international service, as well as scholarly research relevant to the problems of the United States and its public and private institutions in their relations with the governments and institutions of other countries.

The Peabody Institute
The Institute is recognized as one of the leading professional schools of music in the country.

The Applied Physics Laboratory
The Applied Physics Laboratory conducts research and development primarily for national security, and for non-defense projects of national and global significance. Areas of non-defense research include biomedicine, transportation, and educational computer applications.
Academic Resources

LIBRARY FACILITIES

The William H. Welch Medical Library

The William H. Welch Medical Library provides the Johns Hopkins Medical Institutions (School of Medicine, the Johns Hopkins Bloomberg School of Public Health, Johns Hopkins School of Nursing, Johns Hopkins Hospital, Kennedy-Krieger Institute) and its affiliates with information services that advance research, teaching, and patient care.

By registering as library users, faculty, staff, and students can search a range of databases, and take advantage of the library's information services and classes. The Welch Web (www.welch.jhu.edu) provides users with Internet access to databases in many disciplines, and a collection of online full-text journals. Online resources are available 24 hours per day from any location.

The library's education program is designed around tools and technologies for biomedical communication. Classes are offered on basic computing applications, computer networking, electronic mail communication, searching online databases, and scientific writing. Microcomputers and selected software are available for use in the library.

The library also offers a liaison service to faculty, staff, and students (www.welch.jhu.edu/liaison/). The library owns over 400,000 books and journal volumes, and subscribes to over 3,000 online journals. Interlibrary loan and document delivery services are available online through WelDoc (www.welch.jhu.edu/services/ill.html). Photocopy machines are located at all Welch service sites.

Other service sites in the Welch system are the Adolf Meyer Library, with a focus on neuroscience and psychiatry, and the Nursing Information Resource Center. A special library of historical materials, administered by the Department of the History of Medicine, Science and Technology, is located on the third floor of the Welch building.

The Abraham M. Lilienfeld Library

The Lilienfeld Library is the primary resource within the School for information in the fields of public health, management science, and the social sciences. Located on the ninth floor of the Hampton House building, the library provides Access to online and print information in all areas of interest to the School's students and faculty. In fall 2004, the Population Center print collection became the online Population Digital Collection. A new service center called a touchdown suite on the fourth floor replaced the second floor satellite facility in the Wolfe Street building. The total library print collection is approximately 30,000 volumes of books, pamphlets, and government reports. The library currently receives approximately 254 print periodicals many of which are also available online through WelchWeb. In addition to the Lilienfeld Library, the departments of Biochemistry, Biostatistics, and Molecular Microbiology and Immunology maintain reading rooms that house specialized collections.

The Sheridan Libraries


Located on the Homewood Campus, the Eisenhower Library is Hopkins’ main research library and a University-wide resource supplementing the libraries on other campuses.

The Libraries’ materials and services reflect the development and increasing diversification of resources used for research and scholarship. Of particular interest for the Johns Hopkins Bloomberg School of Public Health students are the collections in the social, physical, and life sciences. In addition to traditional collections distinguished by their breadth and depth, the Eisenhower Library offers an expansive collection of electronic information resources. These include over 7,000 full-text journals, full-text and image files, extensive abstracting and indexing sources, and statistical, cartographic, and full text publications from the U.S. government.

A highly qualified, service-oriented staff is available to assist users in making full use of the library’s resources. For more information about the library’s resources and services, consult the libraries’ website at http://www.library.jhu.edu.

The Eisenhower Library’s collection includes over 2.6 million printed volumes, over 21,000 serial subscriptions, 4 million microforms, over 200,000 maps, and numerous audio-visual, manuscript, and archival resources. Rare books, archives, and sheet music are located in Eisenhowers Special Collections Department. Other special collections locations include the Garrett Library at Evergreen House (4545 N. Charles St.) and the George Peabody Library (17 East Mt. Vernon Place).
The Johns Hopkins Bloomberg School of Public Health faculty, students, and staff are eligible for access to the Eisenhower library upon presentation of a valid Johns Hopkins Bloomberg School of Public Health ID card. Borrowing privileges require a Welch Library card.

The library’s regular hours are from 8 a.m. to midnight Monday through Thursday; 8 a.m. to 10 p.m. Friday and Saturday and 10 a.m. to midnight on Sunday. Consult the libraries’ website for extended, holiday, and summer hours. For hours of the three Special Collections locations, please call 410-516-8348.

INFORMATION SYSTEMS

The Department of Information Systems serves as the central computing resource for the School of Public Health. The department provides computer hardware, software, and support services for public health instruction, research computing, and administrative use. The department provides email, calendar, and other web applications through a secure portal, my.jhsph.edu. The primary server platform is Microsoft Windows. All desktop computers are connected to a 10MB switched Ethernet network. All the systems are connected to the Internet. Access to these facilities is provided at three computer labs. These facilities are available 24 hours per day, seven days per week. A wireless network is also available for use with laptops and other smaller computer devices. For the most current information, please visit the School’s website at my.jhsph.edu.

JOHNS HOPKINS ENTERPRISE DIRECTORY (JHED)

JHED is the University’s web directory (http://jhed.jhu.edu). All faculty, staff, and students are included in the directory; however, individuals have the ability to determine which data elements may be accessible on both the Intranet and Internet levels. Students are encouraged to make their address, phone number, email, and photo available on the Intranet view. Members of the Hopkins community are granted secure access to the directory via their login IDs (LID) and passwords. Students’ LIDs and passwords also provide access to WEB Services (https://registration.jhu.edu/). All JHU students may use this service to provide current and complete address information, including email addresses. Students are also encouraged to check their registration and grades via WEB Services.

Questions regarding access to JHED should be directed to JHED Support at 410-516-HELP.
Academic Information

REQUIREMENTS FOR ADMISSION AND DEGREE CANDIDACY

The Johns Hopkins Bloomberg School of Public Health offers opportunities for graduate and postgraduate study to degree candidates and special students (those who are not in a degree program; refer to the Administrative Regulations chapter for more information) with varied interests and backgrounds.

The School welcomes applications from qualified individuals regardless of race, color, sex, religion, sexual orientation, national or ethnic origin, age, disability, or veteran status. For further information regarding the University Nondiscriminatory Policy, see the Administrative Regulations chapter. The School reserves the right to limit the number of students admitted to any program and to dismiss any student whose work is deemed unsatisfactory for any reason.

ADMISSIONS PROCEDURE

Application for admission is made online at www.jhsph.edu or on standard forms, which may be obtained by contacting the Admissions Office, Johns Hopkins Bloomberg School of Public Health, 615 N. Wolfe Street, Suite E1002, Baltimore, MD 21205; phone 410-955-3543; email: admis@jhsph.edu.

Application Deadlines—Applications are processed in the Admissions Office on a rolling basis; however, most departments and programs do not begin reviewing applications until after October 1. International students are advised to apply early due to the time required to process visa applications.

The following application deadlines refer to a fully completed application, including all required supporting items such as an application fee, transcripts, recommendations, test scores, a current résumé, and a personal statement.

Note: (1) The application deadlines for the full-time MPH program differ from those for the Part-time/Internet-based MPH programs, and (2) applications for postdoctoral fellow may be submitted at any time.

September 1
MPH Part-time/Internet-based (January start)

October 31
Occupational Medicine Residency Program (for physicians only)

December 1
Department of Epidemiology—doctoral programs
Department of Health Policy and Management—doctoral programs
Department of Mental Health—doctoral programs
MPH full-time (July start)
General Preventive Medicine Residency Program (for physicians only)
Public Health Ophthalmology Program (not offered every year)

January 2
Department of International Health—all programs
Department of Population and Family Health Sciences—all programs

January 10
Department of Biochemistry and Molecular Biology—doctoral program

January 15
Department of Biostatistics—doctoral programs
Department of Environmental Health Sciences—doctoral programs
Department of Health Policy and Management—ScM in Genetic Counseling
Department of Molecular Microbiology and Immunology—doctoral programs

February 1
Department of Biostatistics—master’s programs
Department of Health Policy and Management—MHS programs
Department of Mental Health—MHS programs
Department of Molecular Microbiology and Immunology—ScM program
MPH Part-time/Internet-based (June)

April 1
Department of Environmental Health Sciences—master’s programs (applications received by the April 1 deadline will receive full consideration for admission; following this deadline, applications will be accepted on rolling basis until enrollment reaches capacity)
Department of Epidemiology—master’s program
Graduate Training Program in Clinical Investigation—all programs
Department of Molecular Microbiology and Immunology—MHS programs (international
June 1
Department of Biochemistry and Molecular Biology—
master’s programs
Department of Molecular Microbiology and
Immunology—MHS programs (domestic applicants)

APPLICATION REQUIREMENTS
A completed application consists of an application and
completed supporting forms filled out completely. The
application should include:
1) A statement of objectives summarizing past edu-
cation, training, and experience, as well as present
interests and future aims.
2) A resumé or curriculum vitae, and a list of publi-
cations, if any.
3) A complete set of official transcripts (including
marks sheets and diplomas for international study,
where applicable) from each academic institution
attended beyond the secondary level.
4) Recommendations. Three recommendation forms
are provided with the application materials.
Applicants should forward them to persons who
are acquainted with their professional and/or acad-
emic performance.
5) A non-refundable application fee is required of all
applicants (except current JHU students and/or
those applying for a postdoctoral fellowship). For
applicants applying online (which is encouraged),
the application fee is $45.00. Applicants who
complete a paper application must pay a fee of
$75.00. Students in financial need who are cur-
rently enrolled at a U.S. school may have the
application fee waived only at the written request
of the financial aid officer from their academic
institutions.
6) Standardized test scores. All MPH applicants are
required to submit scores of the Graduate Record
Examination (GRE) or scores of other graduate
admissions tests such as the MCAT or the LSAT
(JD/MPH only). Departmental (non-MPH)
applicants are required to submit the results of
the GRE. Applicants should indicate the Johns
Hopkins Bloomberg School of Public Health
(code number 5352) as a score recipient.

STUDENT RIGHTS AND
RESPONSIBILITIES FOR THE
ADMISSIONS PROCESS
An offer of admission will be contingent upon the
Admissions Office’s receipt of all official application
documents. Students with missing documents may be
unable to register after two terms of enrollment.

Federal legislation gives each student who is admit-
ted and enrolled at the Johns Hopkins Bloomberg
School of Public Health a right of access to his/her
educational records. This includes the letters of recom-
men dation submitted in the admissions process. An
applicant may waive this right, if so desired, by sign-
ing the waiver statement on each recommendation
form before sending it to the person from whom a let-
ter of recommendation is being requested. Signing this
waiver is not required as a condition for admission to,
receipt of financial aid from, or receipt of any other
services or benefits from the Johns Hopkins
Bloomberg School of Public Health.

Deposits—All accepted degree and regular special
student applicants will be required to furnish a non-
refundable deposit of $600. The deposit will be
applied toward expenses in the first term of enroll-
ment. In cases where there are deferments, the deposit
can be applied to the student account for a maximum
two year deferment period. After that time, the
deposit will not be refunded nor will it be applied to
any subsequent tuition charges.

International Students—Applicants from other
countries are subject to the same requirements con-
cerning admission and candidacy as are applicants
from the United States. Proficiency in the English lan-
guage is a requirement for admission to the School.
Applicants from countries where English is not the
language of university level instruction will be required
to submit the results of the Test of English as a
Foreign Language (TOEFL). Applicants should
arrange to take the TOEFL well in advance of apply-
ing and should indicate the Johns Hopkins Bloomberg
School of Public Health (code number 5352) as a
score recipient.

COURSE EVALUATIONS
At the end of each academic term, students are
encouraged to participate in a course evaluation
process. The questions on the course evaluation form
have been carefully crafted to gather information
about the quality of the instructor and the course con-
tent. The responses are used to recognize excellent
instructors and courses, and to identify where
improvements can be made. The evaluation results for
each course can be accessed by term, through the
course evaluation website at
http://www.jhsph.edu/Crsevals, or by course, through
the course database at
http://commprojects.jhsph.edu/courses/. The
Associate Dean for Graduate Education and Research
meets quarterly with the Student Committee for Course Evaluations. This committee is comprised of student representatives from each academic department and the MPH program. Students interested in serving on this committee should contact the Associate Dean for Graduate Education and Research in W1025.

**DEGREE PROGRAMS**

**Master of Public Health**

Ronald Brookmeyer, PhD  
*Chair of the MPH Program*

**Associate Chairs**  
Jacqueline Agnew, MPH, PhD  
Marie Diener-West, PhD  
Holly Grason, MA  
Sukon Kanchanaraksa, PhD  
Gary Ketner, PhD  
Laura Morlock, PhD, MA  
George Rebok, PhD  
Andrea Ruff, MD  
John Scocca, PhD  
Edyth Schoenrich, MD, MPH  
Susan Tonascia, ScM  
James Yager, PhD

The MPH is a Schoolwide program designed to provide students with a population perspective on health. The program prepares students to become leading public health professionals capable of addressing current global public health problems through multidisciplinary approaches that apply the latest scientific knowledge.

Please contact the MPH office by phone, 888-548-6741, or email, mphprog@jhsph.edu, with any questions about the programs. Or visit the MPH web pages, www.jhsph.edu/Academics/MPH.

**MPH Academic Program**

The MPH is a flexible program that can be customized to meet a variety of professional and career goals. Students may study on a full-time or part-time basis. Full-time and part-time students have the same academic requirements and receive the same degree.

**Full-time Study**

The full-time option is a concentrated eleven-month course of study at the East Baltimore campus. The program begins with an orientation in July.

**Part-time/Internet-based Study**

The part-time MPH Program offers opportunities for working professionals to complete the degree within three years. Part-time students may blend a mix of traditional courses and short-term intensive summer and winter institutes offered on the Baltimore campus with courses at locations such as Montgomery County, Maryland and internet-based courses. Students can earn up to 80% of their academic credits online. Matriculation is in January or June. Part-time MPH students should also refer to the list of on-line courses to fulfill the MPH curriculum (http://distance.jhsph.edu/offering/full_web.cfm).

For more information on the MPH Academic program, visit: www.jhsph.edu/Academics/MPH/current_courses.html

**MPH Curriculum**

The MPH program provides a balance between a broad-based core curriculum and opportunities to pursue individual interests. The MPH curriculum is grounded in the critical disciplines and competencies of public health and includes course work in the following areas:

- Biological Sciences  
- Biostatistics  
- Environmental Health  
- Epidemiology  
- Management Sciences  
- Problem Solving in Public Health  
- Social and Behavioral Sciences  
- Policy, Law and Ethics

The MPH Individualized Goals Analysis is completed within two terms of matriculation and is an opportunity for students to develop a plan for their MPH program of study that meets their educational and professional goals. The MPH Capstone Project is an opportunity for students to apply the competencies and skills they acquire in the program to a public health problem relevant to their professional goals and interests.

For a complete listing of the MPH curriculum, visit www.jhsph.edu/academics/degreeprograms/MPH/prospective_students/curriculum2005_06.html
Admission Requirements
The minimum requirements for admission to the MPH program are:
1. A baccalaureate-level degree
2. Additional health-related experience beyond the baccalaureate level. This requirement can be satisfied in several ways:
   a. A minimum of two years full-time post-baccalaureate work experience in a health field or other fields related to public health
   b. A doctoral degree in a field underlying public health
   c. Completion of two years of medical school curriculum.
   d. This requirement may be waived for applicants to the MPH/JD, MPH/MSN, and MPH/MSW degree programs.
3. College-level courses in:
   a. Quantitative sciences (calculus, algebra, and statistics)
   b. Biology
   c. A health-related science course or another biology course.
4. Scores from a standardized test of aptitude (GRE, MCAT, GMAT, LSAT).
   a. MPH applicants who have a graduate degree beyond the baccalaureate, or have a medical degree may request their application be reviewed without submission of standardized tests. However, the absence of scores may place the application at a disadvantage in the admission selection process.
5. English proficiency, measured by the TOEFL exam, for students from non-English speaking countries (minimum 600 on the paper-based and 250 on the computerized exam). For a listing of countries that require the TOEFL see http://www.jhsp.edu/Academics/MPH/toefl.html
6. Official transcripts from each college and university attended.
7. Curriculum Vitae or resume.
8. Personal statement of experience and career goals and objectives in pursuing the MPH degree, including how the program will help in attaining those goals.
9. Three letters of recommendation which address the applicant's potential for success in a public health career.

For more detailed Admissions information, visit www.jhsp.edu/Academics/MPH/admissions_MP_H.html.

Graduation Requirements
Students should consult the MPH Program Manual for a detailed list of graduation requirements. The manual can be accessed at:
www.jhsp.edu/academics/MPH/current_manuals.html.
1. Total of 80 units required for graduation
2. At least 60 units in formal School of Public Health coursework that is not special studies
3. Students must maintain a grade “C” or better in all required MPH core courses and courses that meet concentration area requirements that are offered for a letter grade
4. Complete the MPH Goals Analysis
5. Complete the MPH Capstone project
6. Internet-based/part-time students must complete at least 16 units of coursework in a face-to-face format; not special studies
7. Maintain minimum academic standards as described in the MPH Student Program Manual. Failure to maintain minimum standards is grounds for dismissal from the program.
8. Complete the School's Academic Ethics module.

MPH Customized Programs and Concentration Areas
Full-time MPH students may either elect an optional concentration area or customize their program of study. Regardless of whether a student elects a concentration or customizes the program of study, all students must complete the MPH core course requirements, the MPH Individualized Goals Analysis, and MPH Capstone Project. Students electing a concentration must complete a number of required course units as specified by the concentration area over and above the MPH core course requirements. Students who customize their program of study complete the core MPH requirements and then choose elective courses for the remaining units in consultation with their faculty advisors.

Part-time/Internet-based MPH students participating through a predominantly off-campus format will not be able to elect a concentration, but can use the concentrations as a guideline to customize the curriculum for specialization in a particular area of public health.
**MPH Concentrations**

**CHILD HEALTH** *(for full description, visit www.jhsph.edu/academics/mph/child%20health.html)*

The MPH concentration in Child Health focuses on understanding the health problems and health status of children across the globe, the nature and scope of the multiple determinants of children’s health status, and the range of public health programs to address the health and wellbeing of children and their families, in developed and developing countries. The goals of the concentration are to provide students with an understanding in several critical areas including:

1. The underlying determinants of children’s health status in developing and developed countries, including socio-economic, demographic, developmental, behavioral, cultural, political, environmental, and other determinants
2. The content of specific health problems of children, including nutritional issues, injury, infectious diseases and HIV, chronic and disabling conditions, adolescent health concerns, and others
3. The design, development, implementation, and evaluation of public health programs to improve the health and well-being of children, including immunization programs, child survival strategies, primary health care, health promotion and disease prevention efforts, and injury prevention

*Faculty Concentration Directors: Andrea Ruff, MD, Associate Research Professor, International Health; Bernard Guyer, MD, MPH, Professor, Population and Family Health Sciences*

**ENVIRONMENTAL AND OCCUPATIONAL HEALTH** *(www.jhsph.edu/academics/mph/envir%20occ%20health.html)*

The MPH concentration in Environmental and Occupational Health provides a comprehensive introduction to environmental and occupational health. These two highly related fields represent a multi-disciplinary approach to the assessment and control of factors in our personal and professional environments that adversely affect human health. The concentration is designed to provide students with basic knowledge related to:

1. Chemical, biological, and physical agents and the media in which they distribute in our local, regional, and global environments, as well as psychosocial factors
2. The basic biological mechanisms by which environ-

**EPIDEMIOLOGICAL AND BIOSTATISTICAL METHODS FOR PUBLIC HEALTH AND CLINICAL RESEARCH** *(www.jhsph.edu/academics/mph/epi%20biost%20methods.html)*

The MPH concentration in Epidemiological and Biostatistical Methods for Public Health and Clinical Research is designed for students with quantitative backgrounds who are seeking to gain additional skills in epidemiologic study design and statistical data analysis. The goal of this concentration is to prepare students to participate in the design, conduct and analysis of research studies in public health and put concepts into practice. This concentration is best suited for students who have already worked in a particular substantive area and have identified specific research questions.

The competencies gained from this concentration include:

1. Articulating an appropriate question/hypothesis
2. Identifying an appropriate study design and data set for answering the question
3. Obtaining IRB approval
4. Gaining familiarity with aspects of data management
5. Identifying and applying appropriate statistical methods and correctly interpreting results
6. Gaining familiarity with tracking and recording steps in the analysis of a data set
7. Writing up the results of a data analysis for a professional publication
8. Oral presentation of the results

*Faculty Concentration Directors: Rosa Crum, MD, Associate Professor, Epidemiology; Marie Diener-West, PhD, Professor, Biostatistics*
HEALTH LEADERSHIP AND MANAGEMENT
(www.jhsph.edu/Academics/MPH/Management%20in%20Public%20Health.html)

The MPH concentration in Health Leadership and Management provides students with an understanding of the issues and challenges of leading and managing health service organizations. The concentration is aimed at practitioners whose responsibilities require them to have leadership skills and an understanding of management, but who neither require nor want a full management degree. Students gain a fundamental understanding of the management of health service organizations in a range of settings in both the United States and other countries (especially low- and middle-income countries). Topics covered include:

1. The healthcare environment
2. Leadership development, including building a shared mission and vision
3. Organizational design
4. Strategic positioning and planning
5. Organizational stakeholders and governance
6. Human resources
7. Managing conflict
8. Quantitative tools for management
9. Budgeting and financial management
10. Approaches to process improvement, including continuous quality improvement
11. Measuring and monitoring organizational performance
12. Change management and transformational leadership

Through a variety of teaching methods (lectures, laboratories, group work, seminars, case methods, individual assignments) and application of the Hopkins leadership and management paradigm, students will be able to demonstrate the skills and competencies to function effectively in a healthcare organization.

Faculty Concentration Directors: David Peters, MD, MPH, DrPH, Assistant Professor, International Health; William Ward, Jr, MBA, Associate Public Health Professor, Health Policy and Management

HEALTH POLICY AND FINANCING
(www.jhsph.edu/academics/MPH/health%20policy%20financing.html)

The MPH concentration in Health Policy and Financing develops skills and knowledge related to analysis and decision-making for health systems' organization, financing, and service delivery—in the United States and internationally. The curriculum focuses on health policy analysis and formulation, financing, organization, and oversight of health systems; and policies and programs for disease prevention, injury control, and other public health priorities. This concentration area is aimed at developing skills, knowledge, and competencies for policymakers, policy analysts, and senior managers of health systems. The concentration emphasizes planning and managing national and international programs, institution building, teaching, and research in these areas. Students acquire a solid foundation in policy analysis, an understanding of key health policy issues, and substantive knowledge of health care systems and public policies and programs in the U.S. and in selected low-, middle-, and high-income countries. The required curriculum provides students with a sound knowledge of the processes through which public policy decisions are made; training in basic quantitative and analytic methods; and the skills needed to use and critique data, research findings, and program evaluations in the development of health policy. The curriculum provides an overview of changes occurring in the U.S. and internationally in health sector policy and financing—comparing countries at different levels of income and with varying health system infrastructures. Topics include the role of government in the health sector, sources of revenue for the health sector, health insurance systems, provider organization and payment methods, and access to health care.

Faculty Concentration Directors: Tom Oliver, PhD, Associate Professor, Health Policy and Management; Hugh Waters, PhD, Assistant Professor, International Health

HUMANITARIAN ASSISTANCE: HEALTH AND HUMAN RIGHTS
(www.jhsph.edu/academics/MPH/humanitarian%20assistance.html)

The MPH concentration in Humanitarian Assistance: Health and Human Rights is concerned with protection and advocacy for vulnerable populations worldwide. These include refugees and at-risk domestic populations. The coursework helps students understand why populations become vulnerable and the health needs of these populations. Advocacy and protection of rights for populations and individuals is stressed. Students gain expertise in methods to provide assistance to refugees and displaced populations and other vulnerable groups. Students interested in disaster management gain expertise in disaster preparedness, management, and mitigation. A variety of methods are used to teach students basic skills including:

1. Documenting human rights
2. Protecting and advocating for the vulnerable
3. Control of epidemic diseases among displaced populations
4. Methods of measurement in disasters
5. Disaster planning
6. Planning feeding programs for displaced populations
7. Implementing and monitoring assistance programs

Students gain understanding in identifying vulnerable populations; public health care for refugees and displaced persons; basic human rights principles; human rights law, conventions, declarations, and agreements; causes and mitigation of natural disasters; environmental health issues in displaced populations; and human rights impact assessment of policies and interventions.

Faculty Concentration Directors: Gilbert M. Burnham, MD, Associate Professor, International Health; Robert Lawrence, Associate Dean for Professional Education and Programs and Professor, Health Policy and Management

INFECTIOUS DISEASES
(www.jhsph.edu/academics/mph/infectious%20diseases.html)

The MPH concentration in Infectious Diseases provides students with competencies in multiple disciplines including epidemiology, immunology, microbiology, parasitology, and vector-borne diseases to address critical problems in the control and prevention of infectious diseases. Students who complete the concentration gain special expertise in the pathogenesis, epidemiology, and control of infectious diseases appropriate for careers within state health departments, federal agencies conducting research, and the pharmaceutical industry. Students are exposed to the fundamental concepts underlying the epidemiology and control of a number of infectious diseases affecting global health.

Faculty Concentration Directors: Clive Shiff, PhD, Associate Professor, Molecular Microbiology and Immunology; Ken Nelson, MD, Professor, Epidemiology; Neal Halsey, MD, Professor, International Health

PUBLIC HEALTH NUTRITION
(http://www.jhsph.edu/Academics/MPH/PHNutrition.html)

The MPH concentration in Public Health Nutrition provides students with an opportunity to focus their study on nutrition, and integrate this information with other coursework in order to develop the skills to address nutrition problems in the United States and around the world.

Students choosing this concentration will gain an understanding of:
1. The major nutritional problems of public health importance
2. The methods for assessing nutritional status, and the use and interpretation of nutritional indicators
3. The methods for establishing the causal role of nutritional factors on health and disease status
4. The design and implementation of nutrition programs to improve the nutrition and health of diverse populations

Faculty Concentration Directors: Laura E. Caulfield, PhD, Associate Professor, Center for Human Nutrition, Department of International Health; Eliseo Guallar, MD, DrPH, Assistant Professor, Department of Epidemiology

PUBLIC HEALTH PREPAREDNESS IN PRACTICE
(www.jhsph.edu/academics/mph/public%20health%20preparedness.html)

The MPH concentration in Public Health Preparedness in Practice develops the knowledge and skills that are required for the practice of public health and leading national public health preparedness efforts. The course sequence includes courses in tracking the health of populations, assessment of public health risks, public health practice, public health preparedness (including emergency management), and communicating to the public and the media. Critical issues including bioterrorism, disease surveillance, and protecting our food and water are explored. The competencies that are developed, which are based on the Council on Public Health Linkages’ framework for the core competencies of public health practice, include:
1. Monitoring health status to identify community health problems
2. Diagnosing and investigating health problems and health hazards in the community
3. Informing, educating, and empowering people about health issues
4. Mobilizing community partnerships to identify and solve health problems
5. Developing policies and plans that support individual and community health efforts
6. Enforcing laws and regulations that protect health and ensure safety
7. Linking people to needed personal health services and assuring the provision of health care when otherwise unavailable
8. Assuring a competent public health and personal health care workforce
9. Evaluating effectiveness, accessibility, and quality of personal and population-based health services
10. Conducting research for new insights and innovative solutions to health problems

*Faculty Concentration Directors: Tom Burke, PhD, Professor, Health Policy and Management; Lynn Goldman, MD, Professor, Environmental Health Sciences*

**SOCIAL AND BEHAVIORAL SCIENCES IN PUBLIC HEALTH**

([www.jhsph.edu/academics/mph/social%20behavioral%20sciences.html](http://www.jhsph.edu/academics/mph/social%20behavioral%20sciences.html))

The MPH concentration in Social and Behavioral Sciences in Public Health provides students with competencies in the following areas:

1. Theoretical basis of social and behavioral sciences approach to health and illness. These have implications for both behavioral interventions and understanding psychosocial influences on health and social policies that affect health.
2. Behavior change intervention design and implementation
3. Behavior change program evaluation

Students completing this concentration can focus on skills in designing, implementing, and evaluating programs promoting healthy behaviors in international and/or domestic settings. Students can also focus on analysis of psychological and social influences on health and behavior. They can obtain skills necessary for working with diverse populations on a variety of health topics and in non-profit organizations and government agencies at all levels. Students completing this concentration may be eligible to take the national certifying exam to become a Certified Health Education Specialist.

*Faculty Concentration Directors: Andrea Gielen, ScD, Professor, Health Policy and Management; Michael Sweat, PhD, Associate Professor, International Health*

**WOMEN’S AND REPRODUCTIVE HEALTH**

([www.jhsph.edu/academics/mph/womens%20reproductive%20health.html](http://www.jhsph.edu/academics/mph/womens%20reproductive%20health.html))

The MPH concentration in Women’s and Reproductive Health focuses on understanding the health status of women with regard to their general and reproductive health and the health of their newborn, the determinants of their health status, preventive strategies and programs to address their health, and the well being of their newborn. Students may opt to focus on women's health in general, reproductive health, or their health during pregnancy and of their newborn, domestically or in a developing country setting. The goals of the concentration, applicable to both domestic and international issues, include providing students with competencies and understanding in several critical areas including:

1. The scope and magnitude of health problems for women with regard to their health in general or reproductive health, with a focus across the lifespan, including infectious, chronic, and disabling conditions
2. The determinants of women’s and reproductive health, including socio-economic, cultural, behavioral, environmental, political, and other determinants
3. Analytic skills in the core MPH courses, as they are applied to women's and reproductive health, as well as other possible skills, including demographic, evaluative, and epidemiologic methods
4. Design, development, and implementation of public health programs and clinical interventions to improve the reproductive health and well-being of women, including programs related to family planning services, safe motherhood, and health during the reproductive years

*Faculty Concentration Directors: Donna Strobino, PhD, Professor, Population and Family Health Sciences; Michele Dreyfuss, PhD, MPH, Assistant Research Professor, Population and Family Health Sciences*

**Doctor of Public Health**

The Doctor of Public Health Degree (DrPH) is a school-wide advanced professional degree program designed for the student who has a Masters of Public Health (MPH) or its equivalent degree and who intends to pursue a leadership career in the professional practice of public health. The mission of the DrPH program is to prepare graduates to advance the public’s health through the integration and application of a broad range of knowledge and analytical skills in leadership, practice, policy analysis, program management and professional communication coupled with preparation in a specific disciplinary public health field. The DrPH program prepares graduates to apply these skills and methods in both academic and non-academic settings as well as in either public agency or private sector settings that emphasize improving the health of the public.

The DrPH degree differs from the PhD in that its primary objective is to prepare graduates to address real-world public health problems through the application of analytical skills, knowledge and leadership. DrPH graduates undertake leadership positions in health agencies in both the public sector- at the federal, state and local levels- and in the private sector at health care institutions, managed care organizations...
and systems. PhD graduates, in contrast, are prepared to become independent investigators in academic and non-academic research institutions. Both DrPH and PhD graduates may take on roles as teachers of public health.

**Full-time and part-time** - The DrPH degree may be completed on either a full-time or part-time basis. Candidates in the full-time DrPH Program fulfill the residency requirement and register for a full course load each term (16 credits or more per term). The part-time DrPH is designed to allow working public health professionals to complete a doctoral education as part of a career development plan. Candidates in the part-time DrPH Program are generally off campus because of work responsibilities and must be continuously registered for a minimum of 3 credits per term. Specific deadlines for completion of the full time and part time program requirements are found in the departmental handbooks.

**Admission** - Admissions decisions to the DrPH program are determined by each department offering the degree. Admission is based on evaluation of the applicant’s educational and work experience, past academic performance, and potential to provide leadership in public health. Admission requirements include, at a minimum, those requirements for admission to the MPH program plus the following:

1. A minimum of three years full-time work experience in health or human services.
2. Evidence of quantitative or evaluative skills and ability. This criterion is usually met in the form of scores on recent GRE or other standardized exams (usually taken in the last 5 years). In addition applicants must meet specific departmental requirements.
3. Applicants whose native language is not English will be required to submit the results of the Test of English as Foreign Language (TOEFL).

Questions about specific admissions requirements for the DrPH should be addressed to both the DrPH program office and the department of interest.

**Curriculum** - The DrPH Program is made up of both a School-wide component and a departmental component. Generally stated, the School-wide component emphasizes the advanced, cross-cutting knowledge and skills associated with leadership, integration and application of public health programs. The departmental component emphasizes the disciplinary knowledge and competence in a specific public health field. The departments offering the DrPH include: Epidemiology, Environmental Health Sciences, Health Policy & Management, International Health, and Population & Family Health Sciences (including maternal and child health).

A year-long DrPH seminar emphasizes the history of public health, the development of the nation’s health objectives and goals of the public health field, professional communication, multi-disciplinary team building, and leadership.

The doctoral dissertation for the DrPH demonstrates the student’s capacity for public health analytic work. The DrPH dissertation will meet the following criteria: addresses a practical problem confronting a leader in public health practice; represents original thought and work; uses a rigorous and scientifically defensible analytic component; and is based on a conceptual model that relates the work to existing knowledge and to practice. The specific content of the dissertation is developed by the student in consultation with the faculty of his/her department.

For specific graduation requirements, DrPH candidates should consult their departmental handbook/student manual.

**Master of Science**

This program is designed for students wishing to prepare themselves for professional work in fields covered by the interests of the departments of the School. Candidates work closely with faculty, and the curriculum is arranged through consultation with the faculty advisor and the department.

**Admission**—To be accepted as a candidate, the student must have a degree in arts, science, or medicine and have completed a major in mathematics or in one of the physical, biological, or social sciences. The application must have the approval of the head of the department in which the student wishes to work.

Applicants nearly always are obliged to take and submit the results of the Aptitude Test of the Graduate Record Examination as one of the requirements for admission.

**Curriculum**—The curriculum varies with the department of the student’s major interest and with the individual’s needs. In addition to the work in his or her own department, the student is required to take courses in at least two other departments of the School.

Departments currently offering programs leading to a Master of Science degree include Biostatistics, Environmental Health Sciences (environmental health engineering, physiology, and toxicology), Epidemiology, Health Policy and Management.
Students are expected to conduct laboratory or field research culminating in the preparation of a thesis. The extent of this research is in accordance with the need to satisfy the thesis requirement and must be approved by a committee of the faculty. (In any study involving human subjects, clearance by the Committee on Human Research must be obtained prior to the initiation of the investigation. In any study involving animals, clearance by the Institutional Animal Care and Use Committee must be obtained prior to the initiation of the investigation.)

6. Completion of the Academic Ethics module.

**Master of Health Science**

MHS degrees are specialized masters degrees offered in each of the academic departments of the School. Depending on the department and specific area of study, the MHS degrees provide opportunities for advanced study and research or prepare individuals to begin or advance their careers as public health professionals in their chosen area of study. The professional MHS degree programs offer an alternative to the MPH degree.

Professional MHS degree programs provide students who do not have prior health-related professional experience with specialized in-depth academic training followed by internships that provide opportunities to apply classroom instruction to public health practice. For individuals with prior health-related professional experience, professional MHS programs provide specialized in-depth training to advance these skills followed by internships for more advanced practice experience. Departments that offer professional MHS degrees programs are: Environmental Health Sciences (occupational and environmental hygiene), Health Policy and Management (behavioral sciences and health education; health policy; health finance and management), International Health (social and behavioral interventions; disease prevention and control; health systems and human nutrition) and Population and Family Health Sciences (see departmental section for description).

MHS programs for advanced study and research provide students with in-depth academic training in preparation for graduate or professional schools or participation in research. These advanced study and research MHS programs are offered by the departments of Biochemistry and Molecular Biology (reproductive biology), Biostatistics (Biostatistics and Bioinformatics), Environmental Health Sciences, Epidemiology, Molecular Microbiology and Immunology, Graduate Training Program in Clinical Investigation, Mental Health, and Population and Family Health Sciences (demography). Further information about all degree programs can be found in the appropriate departmental sections.

**Admission**—To be accepted as a candidate, the applicant must hold a baccalaureate with strong academic backgrounds in the natural or social sciences. All applicants must demonstrate ability to master the quantitative and analytical content of the program. Applicants are usually required to complete and submit the results of the Aptitude Test of the Graduate Record Examination.

**Curriculum**—All MHS programs require a minimum of 64 credit units for graduation to be completed over a minimum of four terms. MHS degree candidates in programs for advanced study and research must successfully complete courses on the responsible conduct of research (e.g., Research Ethics 550.860 or Research Ethics and Integrity 306.665 or equivalent) and Public Health Perspectives on Research 550.865. MHS degree candidates in professional programs receive training in the five areas of knowledge considered by the Council on Education for Public Health to be basic to public health and must successfully complete a field placement practicum or equivalent. Time to complete the degree depends upon the specific requirements of the program. Not more than four
calendar years may elapse between matriculation and completion.

**Graduation**—A minimum of 64 credit units is required for the Master of Health Science degree, as is completion of the Academic Ethics Module. Each program has also developed its own specific requirements for this degree, including admission, courses, and residence requirements. Requirements for a culminating essay and/or field placement practicum are also specific to the degree program. For details, please review the appropriate departmental sections.

**Doctor of Science**

This program enables qualified students who have an aptitude for scientific research to obtain advanced training in one of the disciplines that underlie the field of public health. This training emphasizes the mastery of principles and methodology of one of the biological, medical, behavioral, or cognitive sciences as represented in the various departments of the School.

After admission each student must give indications of critical ability and resourcefulness, as well as a good grasp of the elementary principles of the natural sciences, especially biology, before final acceptance as a candidate. The student works closely with a member of the faculty in the department of his or her major interest, who assumes primary responsibility for guiding the course of study. Students devote most of their time to their own specialty but are expected to achieve some breadth of training through study in other departments of the School and of the University. The major work in the student’s field includes research which is intended to lead to an original contribution to existing knowledge. Please review departmental sections for information about departments offering the ScD degree.

**Admission**—For acceptance as a candidate for this degree, the student must have a degree in arts, science, or medicine, and appropriate basic training as required by the department. The approval of the head of the department in which the student wishes to study is required for admission.

Applicants nearly always are obliged to take and submit the Aptitude Test of the Graduate Record Examination as one of the requirements for admission. Either before admission or following acceptance the student must provide evidence of satisfactory completion of adequate courses in physics, chemistry, mathematics, and biology. The type and extent of these required subjects will vary with the student’s field of specialization.

**Curriculum**—The Doctor of Science degree represents outstanding achievement in the scholarship of discovery, signifies a capacity for independent research, and is primarily a degree for those individuals with research and/or teaching as their goal. The curriculum is planned by the department under the concept stated above, namely, that it contain breadth of coverage in addition to intensive work in the field of special study. The progress of each ScD student’s research is followed regularly, at least once per year, by a Thesis Advisory Committee consisting of the thesis advisor and two to four other faculty. The objective of the Thesis Advisory Committee is to provide continuity in the evaluation of progress and development of the student.

**Graduation**—Students must meet the following requirements before being presented for the degree:

1. Satisfactory completion of a departmental comprehensive written examination in the principal subject given by the major department.
2. In general a minimum of four consecutive terms of registration as a doctoral student in full-time residence is required for all doctoral degrees. If a student completes a master’s program at this School and continues into the ScD program within three years, the subsequent four-term, full-time residency requirement may be waived by the department if the residency was satisfied as part of the master’s program. The full-time residency requirement must be fulfilled prior to the preliminary oral examination.
3. Satisfactory completion of a preliminary oral examination administered by a committee of the faculty. The examination should be taken not later than the student’s third year in residence and before significant engagement in thesis research. Not more than seven years may elapse between date of matriculation and fulfillment of all requirements for the degree.
4. Course work as required by the department. In addition, at least 18 credit units must be satisfactorily completed in formal courses outside the student’s primary department. Among these 18 credit units, not less than nine (9) credit units must be satisfactorily completed in the Johns Hopkins Bloomberg School of Public Health. The remaining outside credit units may be earned in any department or division of the University. Candidates who have completed a master’s program at this School may apply 12 credits from this program toward the above requirement.
5. Satisfactory completion of a two-term course, 550.865 Public Health Perspectives in Research (during second or third year), and a course in the responsible conduct of research, e.g., 550.860 Research Ethics, or 306.665 Research Ethics and Integrity. ScD students who have earned a Master of Public Health degree within the last 10 years...
may request a waiver for 550.865.

6. Completion of the Academic Ethics Module

7. Completion of a satisfactory investigation in the principal subject and its presentation in the form of a thesis, approved by a committee of the faculty. The material contained in the thesis should be worthy of publication in a scientific journal in the field involved. (In any study involving human subjects, clearance by the Committee on Human Research must be obtained prior to the initiation of the investigation. In any study involving animal use, clearance by the Institutional Animal Care and Use Committee is required prior to initiation of the investigation.) Where appropriate to their career interests, students will be expected to gain relevant teaching experience, either before arrival at this School or as part of the education program at the School.

8. Oral defense of the thesis by the candidate before a committee of the faculty.

9. Written acceptance of the thesis from Committee chair and student advisor.

10. Submission of the thesis for binding.

**Doctor of Philosophy**

**Curriculum**—The Doctor of Philosophy degree represents outstanding achievement in the scholarship of discovery, signifies a capacity for independent research, and is primarily a degree for those individuals with research and/or teaching as their goal. The curriculum is planned by the department under the concept stated above, namely, that it contain breadth of coverage in addition to intensive work in the field of special study. The progress of each PhD student’s research is followed regularly, at least once per year, by a Thesis Advisory Committee consisting of the thesis advisor and two to four other faculty. The objective of the Thesis Advisory Committee is to provide continuity in the evaluation of progress and development of the student. All PhD Programs are under the academic jurisdiction of the University-wide Graduate Board.

**Admission**—Well-qualified students with evidence of exceptional ability in acquiring the bachelor’s or master’s degree may be accepted following recommendation of the department in which they wish to study. Applicants nearly always are obliged to take and submit the results of the Aptitude Test of the Graduate Record Examination as one of the requirements for admission.

**Graduation**—Students must meet the following requirements before being presented for the degree:

1. Satisfactory completion of a departmental comprehensive written examination in the principal subject given by the major department.

2. A minimum of four consecutive terms of registration as a full-time student is required. If a student completes a master’s program at this School and continues into a PhD program within one year of completing the master’s program, the subsequent four-term residency may be waived by the department if it was satisfied as part of the master’s program. The full-time residency requirement must be fulfilled prior to the preliminary oral examination.

3. Satisfactory completion of a preliminary oral examination administered by a committee of the faculty. This examination also serves as the University Graduate Board’s oral examination and is under the jurisdiction of that board. The examination should be taken not later than the student’s third year in residence and before significant engagement in thesis research. Not more than seven years may elapse between the date of matriculation and fulfillment of all requirements for the degree.

4. Course work as required by the department. In addition, at least 18 credit units must be satisfactorily completed in formal courses outside the student’s primary department. Among these 18 credit units, not less than nine (9) credit units must be satisfactorily completed in the Johns Hopkins Bloomberg School of Public Health. The remaining outside credit units may be earned in any department or division of the University. Candidates who have completed a master’s program at this School may apply 12 credits from this program toward the above requirement.

5. Satisfactory completion of a two-term course, 550.865 Public Health Perspectives in Research (during second or third year), and a course in the responsible conduct of research, e.g., 550.860 Research Ethics, or 306.665 Research Ethics and Integrity. PhD students who have earned a Master of Public Health degree within the last 10 years may request a waiver for 550.865.

6. Completion of the Academic Ethics module.

7. Completion of a satisfactory investigation in the principal subject and its presentation in the form of a thesis, approved by a committee of the faculty. The material contained in the thesis should be worthy of publication in a scientific journal in the field involved. (In any study involving human subjects, clearance by the Committee on Human Research must be obtained prior to the initiation of the investigation. In any study involving animal use, clearance by the Institutional Animal Care and Use Committee is required prior to ini-
tiation of the investigation.) Where appropriate to their career interests, students will be expected to gain relevant teaching experience, either before arrival at this School or as part of the educational program at the School.

8. Oral defense of the thesis by the candidate before a committee of the faculty.

9. Written acceptance of the thesis from Committee chair and student advisor.

10. Submission of the thesis for binding.

**MPH JOINT AND DUAL DEGREE PROGRAMS**

**MPH/JD**

The Johns Hopkins Bloomberg School of Public Health, in cooperation with the Georgetown University Law Center, offers a dual degree program in law and public health. The program trains students in the overlapping fields of law, public health, and ethics. Students must apply to and be accepted by both institutions. Students in the program will earn a Juris Doctor degree from Georgetown and a Master of Public Health degree from Johns Hopkins. The dual degree program takes a total of four years, including one summer. Students will normally complete one year of the JD degree program at Georgetown, and then spend 11 months (starting in July) completing the MPH program requirements, returning to Georgetown to complete the last two years of the JD program. The MPH degree is awarded upon completion of the JD degree. The program is co-directed by Jon S. Vernick, JD, MPH, and Stephen P. Teret, JD, MPH, and includes several other public health lawyers as faculty members. For additional information about the dual MPH/JD degree, contact the co-director of the program, Jon S. Vernick, JD, MPH, The Johns Hopkins Bloomberg School of Public Health, 624 N. Broadway, Baltimore, MD 21205 (email: jvernick@jhsph.edu).

**MPH/MBA**

The Johns Hopkins Bloomberg School of Public Health and the Johns Hopkins School of Professional Studies in Business and Education offer a joint Master of Public Health and Master of Business Administration degree. This unique 18-month program of full-time study enables students to integrate the philosophies, functions, and competencies of the seemingly disparate fields of public health and business. Students in this program acquire knowledge and skills in the principles of population-based health as well as finance and management, which will enable them to be effective managers and leaders in health-related agencies and organizations. Graduates will be able to assess the health needs of a defined population; develop, analyze, and implement targeted health policies and programs; lead the process of change within one’s own organization and community; manage health care organizations to achieve identified goals; and communicate messages to targeted audiences. Applications for the combined program must be obtained from and submitted to the School of Public Health and will be reviewed by the admissions committees of both Schools. Please note the academic policies for the MPH program will be applied to courses taken at the Johns Hopkins Bloomberg School of Public Health, and the academic policies for the MBA program will be applied to courses taken at the Johns Hopkins School of Professional Studies in Business and Education. For more information, contact Mr. Paul Whong at mphprog@jhsph.edu.

**MPH/MSW**

The Johns Hopkins Bloomberg School of Public Health and the University of Maryland School of Social Work (UMSSW) offer a dual MPH/MSW pro-
Program that provides students with the knowledge and skills that will enable them to be effective practitioners and leaders in health-related agencies and settings. Students obtain a population-based perspective and expertise in the quantitative sciences that, when combined with training in social work, prepare them to be effective members of the social work community with the ability to plan, implement, and evaluate programs.

During the program students complete all required MSW course work in a specified area of concentration, as well as the core MPH requirements and a customized public health curriculum in the student’s area of interest. The University of Maryland grants students 6–9 academic credits for their public health work, and the Johns Hopkins Bloomberg School of Public Health allows students up to 20 credits of special studies to pursue expertise in a combined public health and social work practicum.

The MPH/MSW program is designed for pursuit on a full-time basis. Students normally complete one year of the MSW program at UMSSW and then spend eleven months (starting in July) completing the MPH program requirements, returning to UMSSW to complete the MSW program. The MPH degree is awarded upon completion of the MSW degree. The standard MPH admission prerequisite of previous health professional training or two years of health-related experience is waived for students who successfully complete the combined program. All other prerequisites must be met.

Interested applicants must apply to each school separately and simultaneously, taking care to indicate the appropriate beginning year for the MPH program on the Johns Hopkins Bloomberg School of Public Health application form. Official transcripts and GRE scores must be sent separately to each school, and recommendations must be provided separately using the appropriate forms. Further information about the MSW program at the University of Maryland may be obtained by contacting the Office of the Associate Dean for Admissions at 410-706-8044, or visit www.ssw.umaryland.edu.

OTHER GRADUATE DEGREE PROGRAMS

MD/DOCTORAL DEGREE

This program is offered in conjunction with the Johns Hopkins School of Medicine. Admitted students generally complete one or two years of medical school before devoting full-time status to completing the doctoral degree requirements of the department and the Johns Hopkins Bloomberg School of Public Health, then return to the School of Medicine to complete the MD degree. Candidates for a dual MD/doctoral degree must fulfill all of the normal requirements for the doctoral degree. A minimum of one year (four academic terms) in full-time residence in the Johns Hopkins Bloomberg School of Public Health is required. In instances where course work taken as part of the medical school curriculum is equivalent in content to one year of the academic program for the doctoral degree, the residence requirement in the Johns Hopkins Bloomberg School of Public Health will be appropriately revised.

Other opportunities for medical students are available for further training in special programs in the areas of Biostatistics, Biochemistry and Molecular Biology, Environmental Health Sciences, Epidemiology, Health Policy and Management, Molecular Microbiology and Immunology, International Health, and Population and Family Health Sciences.

MHS/MA

This program combines the Master of Arts in International Relations degree at the Paul H. Nitze School of Advanced International Studies (SAIS) in Washington, D.C., and the Master of Health Science in International Health at the Johns Hopkins Bloomberg School of Public Health. By mutual agreement, each two-year program may be completed in a total of three years, mainly through the replacement of a period of MHS field practice with course work at SAIS.

The program is designed to prepare students for careers that require a high level of health care expertise and a sophisticated understanding of international, political, socioeconomic, and cultural issues. Emphasis is given to the synthesis of knowledge and experience essential for planning and managing health services in a variety of settings around the world. Students in the program normally spend one year at the Johns Hopkins Bloomberg School of Public Health during the first two years of the program. The Johns Hopkins Bloomberg School of Public Health component stresses the basic disciplines of epidemiology, biostatistics, and health policy and planning, along with specialized training in public health. The SAIS portion emphasizes public policy, development economics, regional studies, and foreign language instruction.

Separate applications must be submitted to each school and admission offered in both. Students already enrolled in one school will be considered by the other in competition with all other applicants for admission to the incoming class. For a SAIS catalog and application visit http://www.sais-jhu.edu/admissions or call 202-663-5700.
BA/MHS

The Johns Hopkins School of Arts and Sciences, in conjunction with the Johns Hopkins Bloomberg School of Public Health, offers a major in Public Health Studies for undergraduates interested in careers in public health. The major has been tailored to prepare individuals for careers that have a basic science foundation, including medicine, careers that orient students to health policy, management systems (domestic and international), to other social and behavioral sciences, and to the quantitative sciences fundamental to public health.

The Johns Hopkins Bloomberg School of Public Health Department of Environmental Health Sciences will consider JHU undergraduates majoring in Public Health Studies for admission to the BA/MHS program. Students should formally apply for early admission during their junior year. Applications can be obtained from the School’s Admissions Office, Suite E1002; 410-955-3543, from www.jhsph.edu/Admissions/, or from the public health advisor on the Homewood campus.

Admitted students must complete the BA degree before formally enrolling in the School, but up to one-half of the public health credits earned interdivisionally toward the BA may also apply toward the MHS degree.

Johns Hopkins undergraduate Public Health Studies majors are welcome to apply to any MHS program offered by the School during their senior year; however, the credit requirements will be the same as for other students entering MHS the program.

For further information, contact Dr. James D. Goodyear, Public Health Studies advisor, at 3505 N. Charles Street, Homewood campus; 410-516-7812; goodyear@jhu.edu.

INTERDEPARTMENTAL AND INTERDIVISIONAL PROGRAMS

Listed in this section are academic programs and courses of study that involve two or more departments, divisions of the University, or other universities. Some may require formal admission leading to a degree. Others are listed to bring to students’ attention opportunities for study in an interdisciplinary field. Students should also consult individual departments’ listings where other opportunities for joint study are described.

Graduate Training Program in Clinical Investigation

The Doctor of Philosophy, Master of Science, and Master of Health Science degrees in Clinical Investigation are a joint enterprise of the Johns Hopkins University’s School of Medicine and the Johns Hopkins Bloomberg School of Public Health. The Graduate Training Program in Clinical Investigation (GTPCI) is targeted toward internal physician postdoctoral fellows and faculty in clinical departments of the School of Medicine. Students with other backgrounds may also be considered for the MHS track of the GTPCI Program.

Please contact the GTPCI office by phone, 410-502-9734, or email, gtpci@jhsph.edu, with any questions about the program.

N. Franklin Adkinson, MD
Program Director
Charles W. Flexner, MD
Associate Director

Advisory Council and Standing Committee Members

Richard Ambinder, MD
Fredrick L. Brancati, MD
Susan Furth, MD, PhD
Steven Goodman, MD, PhD
Diane E. Griffin, MD, PhD
Craig W. Hendrix, MD
Michael J. Klag, MD
Sharon S. Krag, PhD
Robert S. Lawrence, MD
Paul S. Lietman, MD, PhD
Steven Piantadosi, MD, PhD
Neil R. Powe, MD, MPH, MBA
Peter J. Pronovost, MD, PhD
Andrea Ruff, MD
Jonathan Samet, MD
Christopher D. Saudek, MD
Scott L. Zeger, PhD
James Yager, PhD

GTPCI Academic Program

Following one year of clinical fellowship, a year of full-time coursework is undertaken. Subsequently, two or more years of mentored clinical research is undertaken in conjunction with a faculty mentor from the sponsoring School of Medicine clinical department or division. Upon successful completion of didactic instruction and demonstration of substantial achievement in Clinical Investigation in the form of an acceptable PhD or ScM thesis, the degree of Doctor of Philosophy or Master of Science is awarded by the Johns Hopkins Bloomberg School of Public Health. Candidates are no longer admitted directly to the
Master of Science program; all candidates for a thesis-requiring degree must qualify under the PhD program. There is also a track leading to a Master of Health Science degree in Clinical Investigation. Health professionals with an advanced degree may apply. The MHS is a one-year, full-time program, although there is an option to pursue the degree part-time for an interval not to exceed two years.

GTPCI Curriculum

There are highly specific curricula for the thesis-requiring degree programs and the MHS in clinical investigation. Both curricula were designed to provide competence in Biostatistics, Epidemiology, Biomedical Writing and Clinical Investigation. Detailed curriculum information can be found at http://www.jhsph.edu/gtpci/curriculum.html.

Admissions Requirements

The GTPCI programs seek students from a variety of academic and professional backgrounds. Application instructions specific to the GTPCI degree programs, related forms, deadlines, and transcript and standardized test requirements can be found at http://www.jhsph.edu/gtpci/application.html.

The following requirements apply:

- MD or appropriate advanced degree in a biomedical science
- Personal statement of professional and clinical research goals
- Letters of recommendation that meet the criteria outlined on the GTPCI website
- TOEFL (for applicants for whom English is a second language)

Note: Minimum requirements may differ slightly for each degree program. Please contact the program office with any questions regarding the admission criteria.

PhD—In addition, PhD admissions requirements include:

- Subspecialty physicians who have completed at least one year of clinical training
- Physicians who have at least a three-year fellowship appointment within JHMI
- Other health professionals with an appropriate advanced degree and substantial human subjects research experience

MHS—In addition, MHS admissions requirements include:

- Physicians and other health professionals with advanced degrees with only one year available for full-time training
- Post-doctoral investigators without current academic appointments within JHMI
- JHMI faculty or post-doctoral clinical fellows limited to part-time study
- Post-doctoral clinical investigators interested in coursework without a thesis research requirement
- Medical students desiring intensive clinical research training at the pre-doctoral level

Note: Only students who are accepted and matriculate into the MHS degree program will be eligible to receive a MHS degree. PhD or ScM students who are not able to complete their thesis research do not have the option to receive an MHS degree.

Graduate Interdepartmental Program in Molecular Epidemiology (IPME)

The Interdepartmental Program in Molecular Epidemiology (IPME) offers specialized cross-training in epidemiology (Department of Epidemiology) and the laboratory sciences (Departments of Biochemistry and Molecular Biology, Environmental Health Sciences, and Molecular Microbiology and Immunology). As a result of the complete sequencing of the human genome and rapid advances in high throughput molecular techniques, epidemiology is poised to move beyond measuring associations of exposures with disease occurrence to assessing the underlying biological mechanisms of pathogenesis.

The objective of the Interdepartmental Program Molecular Epidemiology is to provide candidates with solid training in the complementary disciplines of epidemiology and laboratory molecular biology/genetics to encourage interdisciplinary approaches to solving public health problems. Candidates will select an academic training program based on the requirements for the individual departmental PhD and ScM requirements (see department-specific ScM requirements for the IPME) structured around a Core Curriculum in Molecular Epidemiology. The Core Curriculum will ensure a broad theoretical basis in the following subject areas: epidemiology, biostatistics, molecular biology, cellular biology, genetics, physiology/immunology, molecular epidemiology, and laboratory rotations. The integrative aspects of the interdisciplinary model include a system of co-advising (advisors from doctoral and masters departments) and integration of PhD and ScM research into a single dissertation. The IPME
dissertation will include results of both masters and doctoral research (which must be thematically related) and a chapter integrating the laboratory and epidemiologic approaches to the research topic. Successful candidates of the Interdepartmental Program in Molecular Epidemiology will be concurrently awarded a PhD in the core department and a Masters of Science degree in the joint department.

Admission to the IPME will follow standard admission procedures for the PhD and ScM departments, with final approval by the Molecular Epidemiology Advisory Council. Prior laboratory experience/training is required for admission to the IPME.

Health Communication Program
The Interdepartmental Program in Health Communication (HCP) is jointly offered through the departments of Health Policy and Management, and Population and Family Health Sciences for students enrolled in one of these departments. Its purpose is to provide a strong theoretical and research base for the field of health communication and to promote a better understanding of the role of modern technology and mass media in the diffusion of health innovations and the promotion of health behavior change. The educational objectives of the program range from providing a basic orientation to the field of health communication to equipping students with a working knowledge of health communication principles, strategies, and research methodologies. The program offers a series of courses in the area of health communication in addition to the regular degree requirements of each participating department. Areas of expertise in health communication include family planning, reproductive health, child survival, and AIDS.

Students who have completed one year of coursework in the HCP at the School are eligible to enroll in related courses at the University of Pennsylvania’s Annenberg School of Communication. For more information on this option, refer to the section, Other Programs. Students do not have to apply to the HCP but must already be accepted to or enrolled in a degree program in the department of Health Policy and Management, Population and Family Health Sciences, or International Health. Requirements for the Health Communication Program consist of 16 units of HC course work in addition to the regular requirements of their respective degree programs. Once completed, students are awarded certificates of course concentration in health communication at graduation together with the master or doctoral degree from their respective department.

For more information, contact the Health Communication Program, care of Dr. Dina Borzekowski, Johns Hopkins Bloomberg School of Public Health, Department of Population and Family Health Sciences, 615 N. Wolfe Street, Baltimore, MD 21205. Email: dborzeko@jhsph.edu. Phone: 410-502-8977.

Program in Law and Public Health
The Program in Law and Public Health is an interdisciplinary unit in the Johns Hopkins Bloomberg School of Public Health sponsoring research and teaching in the legal dimensions of health policy.

There are several components of the program. The Center for Law and the Public’s Health, a collaborative effort of the Johns Hopkins Bloomberg School of Public Health and the Georgetown University Law Center, is devoted to research, training, and practice in public health law. In addition, a joint MPH/JD degree, also co-sponsored by the School of Public Health and Georgetown University, is affiliated with the program. Postdoctoral fellowships are also available. Students may include masters and doctoral candidates who have already completed some or all of their legal training. Other students wishing a focus in this area are directed to courses, seminars, and independent studies offered by faculty affiliated with the program.

The program is co-directed by Jon S. Vernick, JD, MPH, and Stephen P. Teret, JD, MPH, and includes several other public health lawyers as faculty members. For additional information about the joint MPH/JD degree, contact the co-director of the program, Jon S. Vernick, JD, MPH, The Johns Hopkins Bloomberg School of Public Health, 624 N. Broadway, Baltimore, MD 21205 (email: jvernick@jhsph.edu).

For information about the Center for Law and the Public’s Health, contact the executive director for the center, James Hodge, JD, LLM, The Johns Hopkins Bloomberg School of Public Health, Hampton House, Room 527A, 624 N. Broadway, Baltimore, MD 21205. Email: jhodge@jhsph.edu. Website: www.publichealthlaw.net/.

Tropical Medicine Curriculum
The importance of tropical diseases to physicians and other public health workers interested in working in developing nations has prompted the School to offer two alternatives for prospective students. One is a series of short intensive courses entitled The Summer Institute in Tropical Medicine and Public Health (four two-week courses given over eight weeks in the sum-
mer; see the chapter, Continuing Professional Education). The other is through formal degree programs offered by various academic departments within the School.

Tropical medicine and public health are important fields in developing countries and in the United States, with its large population of immigrants, travelers to tropical countries, and numerous agencies operating health and development activities abroad. The 2004 summer institute is organized by the Department of Molecular Microbiology and Immunology and the Department of International Health.

During the regular academic year, the School offers many courses relevant to the health of people in developing countries. Students interested in the biological basis of infectious diseases and immunology should consult course listings in the Department of Molecular Microbiology and Immunology. Students interested in comprehensive health planning and administration, operations research, community medicine and travel medicine, the epidemiology and control of infectious diseases, or the special area of nutrition should consult courses listed under the Department of International Health; for tropical environmental health problems, the Department of Environmental Health Sciences; for demography, family planning, and administration, the Department of Population and Family Health Sciences; and reproductive biology, the departments of Biochemistry and International Health. Other courses of interest appear under the Department of Epidemiology. Relevant courses and seminars are also sponsored by the University-wide Immunology Council.

A variety of degree programs is available through the various departments of the School.

For further information, contact Dr. Thaddeus Graczyk, Department of Molecular Microbiology and Immunology, 410-614-4984; or Dr. Robert Gilman, Department of International Health, 410-614-3639 or email - tropmed@jhsph.edu.

**CERTIFICATE PROGRAMS**

Certificate programs represent courses of study in specific areas of public health. The Johns Hopkins Bloomberg School of Public Health offers various certificates to degree students only, degree and non-degree students, and non-degree students only. Admissions standards and completion requirements vary with each certificate program. As there are fewer course requirements for certificate programs than for formal degree programs, degree candidates may also pursue certificates as part of their degree program. Courses within certificate programs must be taken for academic credit. A certificate of program completion is issued by the sponsor upon satisfactory completion of course work.

**CERTIFICATE PROGRAMS OPEN TO JOHNS HOPKINS UNIVERSITY OR SCHOOL OF PUBLIC HEALTH STUDENTS ONLY:**

**Gerontology**

**Sponsoring Departments**

Epidemiology and Health Policy and Management

**Educational Objectives**

To provide training in core competencies in gerontology designed to supplement the basic training students receive in their home discipline. Based on a public health approach to gerontology, the objectives of this certificate program are to add depth and breadth to interdisciplinary training in gerontology for students who seek a research- or policy-focused career in the field of gerontology.

**Intended Audience**

Doctoral students and post-doctoral fellows who are pursuing a masters degree (either ScM or MHS) involving a research-oriented thesis. The certificate is intended for students who are committed to a career in the field of gerontology and who wish to be recognized as broadly trained in core competencies as well as their particular area of specialization.

**Admissions Criteria**

Doctoral students in good standing (or masters students with a previous doctoral degree or equivalent) who are enrolled as full-time students (PhD, DrPH, ScM, or some MHS) in the School of Public Health. Applicants must submit a letter of application that explains the nature of the research that they will do as part of the culminating project required by their home department, and how the Certificate Program in Gerontology fits into their research and career goals. The certificate is intended for students who are committed to a career in the field of gerontology and who wish to be recognized as broadly trained in core competencies as well as their particular area of specialization.

For more information on this certificate program at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=1
Health and Human Rights

Educational Objectives
To increase understanding and foster attitudes among health professionals regarding the importance of linkages between guarantees of human rights and protection of public health professionals and the vital role of health professionals in promoting human rights.

To develop familiarity with international human rights standards, instruments, and codes related to human rights, especially those that bear fiercely upon the health of populations and individuals and the roles of health professionals in enforcing and protecting those standards.

To develop skills for investigating, analyzing, and documenting abuses of human rights as they relate to health and public health practice.

Intended Audience
The Certificate Program in Health and Human Rights is open to any enrolled degree candidate within the Johns Hopkins University System.

Admissions Criteria
Prior admission to a Johns Hopkins University degree program; letter to faculty sponsor requesting admission, outlining courses to be taken, and providing estimated timetable for completion; and approval of student’s faculty advisor.

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=2

Health Communication

Sponsoring Departments
Population and Family Health Sciences and Health Policy and Management

Educational Objectives
Students completing the certificate will be exposed to and have a basic understanding of the theoretical and applied aspects of Health Communication. Competencies achieved will include, but are not limited to: awareness of behavior change and communication theories; knowledge of media effects and audiences uses of media/communication modes; and recognition of quantitative and qualitative methods used in the study of Health Communication. Additionally, the Health Communication certificate program will familiarize students with the design and evaluation (formative, process, and summative) of communication messages, campaigns, and programs.

Intended Audience
Current degree students in the School of Public Health with an interest in communication, social marketing, and health behavior change.

Admissions Criteria
To be eligible to receive a Health Communication certificate, students must be admitted to a graduate degree program in the Johns Hopkins Bloomberg School of Public Health. Students from any department are welcome to pursue this certificate. For more information and an application for this certificate program at the School of Public Health, please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=20

Health Disparities and Health Inequality

Educational Objectives
To train future leaders in research on health disparities and health inequality; to train individuals for leadership in health policy and public health practice on the underlying causes of health inequality; and to prepare public health professionals in known solutions for health disparities and health inequality.

Intended Audience
Students enrolled in any graduate degree program (masters and doctoral) in any division of the Johns Hopkins University.

Admissions Criteria
Admission into the program may be granted to any student pursuing a graduate degree at Johns Hopkins. Applicants must submit a letter addressed to the faculty sponsor outlining their career objectives and how the certificate program will enhance those objectives.

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=21
Humanitarian Assistance

*Educational Objectives*

Humanitarian emergencies are becoming an increasingly important aspect of international health. The number of refugees and displaced persons is now estimated to be above 40 million with some 5–8,000 additional persons being displaced somewhere every day. Industrialization, rapid population growth, and political instability have greatly increased the population at risk from natural and man-made disasters in developing countries.

The objective of this program is to equip graduates with the basic skills and capacities needed to plan and manage humanitarian assistance to displaced populations and for disaster preparedness and mitigation in the international context. These include planning, epidemiological assessment, control of communicable diseases, information and surveillance systems, environmental sanitation, and meeting nutritional needs. Additional areas covered include the protection of women and vulnerable populations, the basics of international humanitarian law, documentation and prevention of human rights abuses, psychosocial and mental health issues, and establishing logistical support for refugees and displaced persons.

*Intended Audience*

Health professionals pursuing masters, or doctoral degrees in the School of Public Health who may be responsible for health care to displaced populations.

Note: This certificate parallels the MPH Concentration Area in Humanitarian Assistance: Health and Human Rights of Vulnerable Populations. The MPH concentration area has more depth, and involves a seminar and additional course requirements. MPH students who have a major career interest in humanitarian emergencies and human rights are encouraged to pursue the concentration area.

*Admissions Criteria*

This certificate is open for health professionals pursuing masters or doctoral degrees in the School of Public Health, and is offered in conjunction with course work in these programs. The certificate will be awarded on satisfactory completion of the required courses.

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=9

Injury Control

*Educational Objectives*

On completion of the Certificate in Injury Control, the student will be able to describe the importance of injury as a public health problem; the epidemiology of major injury problems; be familiar with important sources of data for injury research; be able to use problem-solving methodology to identify and develop appropriate intervention strategies; be familiar with evaluation methods appropriate for injury interventions; have acquired in-depth knowledge of at least one injury problem and one type of intervention strategy; and have demonstrated ability to develop, synthesize, and apply this knowledge by compiling an integrated program plan to address an injury problem of interest to them.

*Intended Audience*

Students in graduate degree programs in the School of Public Health who are interested in receiving concentrated training in the practice of injury control and/or in research applied to injury control. The program should be particularly relevant to students in the MPH program and to those in the Departments of Health Policy and Management, Population and Family Health Sciences, and Epidemiology.

*Admissions Criteria*

To be eligible to receive a certificate in Injury Control, students must be admitted to a graduate degree program in the Johns Hopkins Bloomberg School of Public Health.

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=3

International Health Policy and Financing

*Educational Objectives*

To develop skills and knowledge related to analysis and decision-making for health systems’ organizations, financing, and service delivery, particularly in low and middle-income countries and for health policy issues related to disadvantaged populations. The curriculum focuses on policy analysis, economics, financing and oversight of national health systems.

*Intended Audience*

Policy-makers, policy analysts, and senior managers of health systems in low and middle-income countries, as well as program officers, analysts, and policy makers in international organizations. The intended audience includes MHS and PhD students in the Departments of International Health and Health Policy and Management, and MPH students.
Admissions Criteria
The certificate is coursework-based. Students intending to complete the certificate must be enrolled in a degree program in the School of Public Health, and must advise the faculty sponsors of intent to complete the certificate prior to completion of coursework.

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=6

Maternal and Child Health
Educational Objectives
Upon completion of the core courses of the Maternal and Child Health Certificate, individuals will gain a broad understanding of the field which focuses on the health and welfare of women and children. Competencies achieved will include understanding of the biological, social, and behavioral basis for a MCH program; knowledge of the historical development of the field of MCH; knowledge of significant past and current national legislative mandates relative to MCH, including the structure and roles of legislative and administrative bodies at the national, state, and local levels; ability to define and describe the MCH population in a community; ability to prepare and interpret data; an understanding of the normal patterns of human growth and development; knowledge of the organization and financing of health systems in the U.S.; an understanding of the design, implementation, and evaluation of MCH needs assessment domestically and internationally; and an ability to identify essential gaps in existing programs serving mothers and children.

Intended Audience
Degree students in the School of Public Health with an interest in the health of women and children.

Admissions Criteria
Students must be admitted to a degree program in the School of Public Health. The application for this program can be found at:
www.jhsph.edu/Dept/PFHS/Degree_Programs/Special_Prog/Specialized_MCH.html

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=7

Vaccine Science and Policy
Educational Objectives
The objectives of this certificate program are to educate students in research, development and testing of vaccines and in public health vaccination policies.

Intended Audience
This certificate is open to all degree-seeking candidates within the Johns Hopkins Bloomberg School of Public Health.

Admissions Criteria
Prior admission to a JHSPH degree program and written approval of student's faculty advisor.

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=4

Certification Programs Open to Johns Hopkins University or School of Public Health Students and Non-Degree Students:

Environmental Health
Educational Objectives
The objectives of this certificate program are to educate and train students to: identify the major environmental health issues facing public health professionals today; describe the sources of environmental agents, their distribution in the environment, transfer routes to the human, and possible health effects; describe the basic biological mechanisms underlying the association between prior exposure and subsequent development of adverse effects; and discuss control strategies, including primary, secondary, and tertiary interventions.

Intended Audience
Public health professionals currently practicing environmental health without adequate formal training, current degree candidates in the School, and non-degree candidates wishing to begin their formal training in environmental health.

Admissions Criteria
The program is open to any student qualified to register as a special student limited or special student regular, and Bloomberg School of Public Health degree candidates. Information on registration in a special student category be found at:
http://www.jhsph.edu/Admissions/sample_courses.html

For more information on this certificate program at the School of Public Health please go to:
http://commprojects.jhsph.edu/academics/prop.cfm?id=14
Health Education

**Educational Objectives**

Upon completion of this certificate program, students will possess the knowledge and skills necessary to understand and modify the personal and environmental factors that influence health-related behaviors, and by doing so, impact the overall health of individuals and communities. Upon completion of the core courses of the certificate, students will gain a broad understanding of health education principles, theories, and strategies, and will achieve the competencies considered central to effective health education.

**Intended Audience**

This certificate is open to any student in a degree program within the School of Public Health and to any student qualified to register as a special student limited or special student regular. However, when these participants obtain 16 credits, they will be required to apply to the School, either for a degree program or as a special student regular. Special student regular status will allow these individuals to complete the remaining credits for the certificate. Application as a special student regular to the School will also provide a check of appropriate academic credentials prior to the completion of the certificate. Information on registration in the special student category may be found at http://www.jhsph.edu/Admissions/sample_courses.html

**Admissions Criteria**

Students interested in pursuing this certificate should complete an application available at Hampton House, room 492 before the last day of the add/drop period in the term in which they are completing the final course for the certificate.

For more information on this certificate program at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=12

Health Finance and Management

**Educational Objectives**

Educational objectives of this Certificate Program are to provide an overview of current issues in the management and finance of health services delivery organizations to facilitate the development of knowledge and skills in one or more of the following areas: understanding the healthcare organizational environment; understanding organizations and building leadership skills; process management and measurement; human resource development and management; financial management; strategic planning; and the measurement and analysis of performance indicators.

**Intended Audience**

The intended audience includes current students in the Department of Health Policy and Management who are majoring in health policy or behavioral sciences, but who are also interested in a health management concentration; MPH students interested in health management and finance issues; and non-degree students interested in current topics in health services management. Non-degree students must have completed at least an undergraduate degree in an accredited college or university.

**Admissions Criteria**

Non-degree students must have completed at least an undergraduate degree from an accredited college or university, and will enroll as special students limited.

For more information on this certificate program at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=5

Health Policy

**Educational Objectives**

The goal of the Certificate in Health Policy is to provide graduate training in the area of public policy as it applies to health. Participants will develop the knowledge and skills necessary to understand and influence policies that affect the health of individuals and communities.

**Intended Audience**

Students in master’s and doctoral programs at the School of Public Health as well as students in the Master of Arts in Public Policy program at the Johns Hopkins Institute for Policy Studies.

**Admissions Criteria**

The certificate program is open to students who are enrolled in either a graduate program at the Johns Hopkins Bloomberg School of Public Health or in the Master of Arts in Public Policy program in the Institute for Policy Studies. The program is also open to non-degree students interested in current topics in health policy who hold a minimum of a baccalaureate degree from an approved institution.

Non-degree-seeking participants in the program will be designated as Special Students Limited for the first
16 credits of their certificate work. They will then be required to apply for Special Student Regular status or be admitted to a degree program at the School of Public Health in order to complete the remaining 4 credits for the certificate.

Note: This certificate is only open to students available for on-site coursework in East Baltimore.

For more information on this certificate program at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=8

**Occupational Health Certificate**

**Educational Objectives**

The objectives of this certificate program are to enable students to: identify the major occupational health issues (i.e., work-related adverse health effects) facing public health professionals today; describe the application of environmental, biological, medical and public health principles to the recognition, reduction, and prevention of occupationally-related adverse health effects; develop and evaluate control strategies for occupational problems, including primary, secondary, and tertiary interventions; and discuss current topical areas of concern such as employee assistance programs, employee health promotion, drug testing, and impairment and disability policies.

**Intended Audience**

Public health professionals currently practicing occupational health without adequate formal training and current degree candidates in the School who wish to focus on occupational health issues.

**Admissions Criteria**

The program is open to any student qualified to register as a Special Student Limited, Special Student Regular or degree candidate.

For more information on the certificate programs at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=10

**Public Health Preparedness Certificate**

**Educational Objectives**

Through academic coursework, this certificate will provide essential tools for public health practitioners to prepare for natural disasters, terrorism or other emerging threats. Specific objectives are to: Identify the major terrorism threats to public health and to identify public health issues in disasters. 1. Describe the integration of risk sciences, communication, and public health law as it relates to public health preparedness and terrorism response. 2. Describe the key elements of public health practice and public health surveillance. 3. Develop and evaluate control strategies for emerging infections and ionizing radiation.

**Intended Audience**

School of Public Health degree candidates interested in public health preparedness and non-degree special students who meet the admissions criteria.

**Admissions Criteria**

For non-degree students: completion of the JHSPH application to the department as a special student regular, a bachelor's degree from an accredited college or university, two letters of recommendation, and official transcript. For current degree candidates: completion of the certificate application submitted to the HPM Academic Office by the last day of add/drop in the term the last course required for the certificate is being completed.

For more information on the certificate programs at the School of Public Health, please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=23

**Public Mental Health Research**

**Educational Objectives**

Offered through the Department of Mental Health, this program provides graduate training in understanding the causes and consequences of mental disorders in populations including: clinical and behavioral features, the incidence and prevalence of disorders, and identification of factors that promote or influence the occurrence, persistence, or severity of mental and behavioral disorders. The goals are to increase the epidemiologic expertise of psychiatrists and other mental health professionals, and to increase the number of epidemiologists, biostatisticians, and health policy makers, with an interest in psychiatric disorders.

**Intended Audience**

The certificate is intended for students in a degree program in the Johns Hopkins Bloomberg School of Public Health interested in mental health; psychiatrists in residency training; postdoctoral fellows; and non-degree seeking students who have at least an undergraduate degree from an accredited college or university.
Admissions Criteria

Current School of Public Health students; non-degree seeking students must have at least an undergraduate degree from an accredited college or university.

Prior or concurrent course in 340.601 Principles of Epidemiology and two terms of biostatistics required (e.g., 140.611-612; 140.621-624; or 140.651-654.)

Applicants must declare their intent to obtain a certificate, in a letter to the faculty sponsor, before enrolling in their final term of courses for the certificate.

For more information on the certificate programs at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=17

Risk Sciences and Public Policy Certificate

Educational Objectives

This certificate provides instruction in risk assessment methods, policy, and risks communication. Courses are designed to provide the scientific basis of environmental health risk and the ability to evaluate the policy implications of these scientific relationships for reducing risk.

Intended Audience

1. Research scientists interested in bridging science and policy
2. Public and private sector professionals who evaluate scientific data in the context of risk assessment and management
3. Decision makers and risk managers, such as regulators, corporate executives, elected officials, economists, engineers, and lawyers
4. Those responsible for communicating risk, such as lobbyists, journalists, and non-governmental organizations

Admissions Criteria

See http://www.jhsph.edu/RiskSciences/Academics/Admissions.html for admissions criteria and for the application.

For more information on the certificate programs at the School of Public Health please go to: http://commprojects.jhsph.edu/academics/prop.cfm?id=15

Tropical Medicine

Educational Objectives

This eight-week summer program provides participants with multidisciplinary training in tropical medicine and related public health issues. Participants learn to address health problems in developing countries and those of travelers. At the program's conclusion, participants will have acquired a strong scientific basis for preventing, diagnosing, treating, and controlling tropical health problems.

Intended Audience

Johns Hopkins Medical Institution students and staff; health professionals; other individuals with an interest in tropical medicine.

Admissions Criteria

Graduate degree in a health related science; or bachelor's degree with significant experience in a health profession.

For more information on this certificate program at the School of Public Health please go to: http://www.jhsph.edu/summer/tropic or http://commprojects.jhsph.edu/academics/prop.cfm?id=13

Certificates Open to Non-Degree Students Only:

Training Certificate in Public Health Practice

Educational Objectives

The certificate recipient will be able to: identify, analyze and use available disease and behavioral surveillance data; apply leadership in the management of health systems organizations; communicate effectively to constituencies both within and outside of the health system; determine public health information needs; use appropriate basic statistical, demographic, and epidemiologic techniques to evaluate data with attention to quality control issues; support state and local public health agency efforts in assessing health needs, quality of services, and strategies for health services research; and identify and help fill needs for information and responses to new threats to public health.

Intended Audience

1. Members of the public health workforce who seek formal education and training in public health principles, problem solving skills, quantitative methods, social and behavioral determinants of disease, organization and management of health programs, and preparation for new and emerging threats to the health of the public.
2. Public health practitioners interested in obtaining the MPH degree in the part-time and internet-
based programs of the School may apply the course credits of the certificate upon subsequent application and admission to the MPH program.

3. Matriculated degree candidates are not eligible for this certificate.

**Admissions Criteria**

Bachelor's degree with at least one college level biology course and one college level math or statistics course; a strong record of successful academic performance.

For more information on the certificate programs at the School of Public Health please go to:

[http://commprojects.jhsph.edu/academics/prop.cfm?id=11](http://commprojects.jhsph.edu/academics/prop.cfm?id=11)

**Training Certificate in Quantitative Methods In Public Health**

**Educational Objectives**

The certificate recipient will be able to – 1) evaluate the methods used to measure health effects in populations, 2) interpret basic, quantitative public health measures, 3) judge policy implications of public health data and research, and 4) be familiar with the difficulties of collecting, interpreting and analyzing data and their implications.

**Intended Audience**

Members of the public health workforce and other professionals who seek training and education in basic quantitative methods for analyzing and using public health data and who seek to develop the additional data analysis skills taught in the Data Analysis Workshops. The certificate is appropriate for those needing basic skills in analyzing data. Matriculated degree candidates are not eligible for this certificate. This program is intended to be taken on a part-time basis. The courses are available at the Montgomery County Campus and/or via the Internet. The Data Analysis Workshops are offered during the winter and summer institutes at the East Baltimore Campus.

**Admissions Criteria**

Bachelor's degree with at least one college level biology course and one college level math or statistics course; a strong record of successful academic performance.

For more information on the certificate programs at the School of Public Health please go to:

[http://commprojects.jhsph.edu/academics/prop.cfm?id=29](http://commprojects.jhsph.edu/academics/prop.cfm?id=29)

**OTHER PROGRAMS**

**Community-based Public Health (CBPR)**

To reinforce the importance and strengthen competencies in CBPR at the Johns Hopkins Bloomberg School of Public Health and University-wide, the School offers multiple education/training opportunities in community-based participatory research. These include a year-long seminar series, an annual CBPR workshop, and a two-year post-doctoral training program funded by the W. K. Kellogg Foundation. Faculty, students, staff, and community leaders are invited to participate in any of these training opportunities. The emphasis is on multidisciplinary partnerships with community-based organizations and institutions to improve health services and health status of vulnerable populations in Baltimore. A network of faculty conducting CBPR are available as resources and CBPR faculty are closely linked to Johns Hopkins Urban Health Institute. For more information, contact Ms. Lee Bone, 410-955-6887 or email lbone@jhsph.edu.

**JHU/Annenberg School for Communication, University of Pennsylvania Educational Collaboration in Health Communication**

To enhance the training available in public health communication at the Johns Hopkins Bloomberg School of Public Health, The Johns Hopkins University and the University of Pennsylvania, Annenberg School for Communication have agreed to collaborate on educational activities by offering an opportunity for students to attend courses given at both universities as a supplement to the normal course of study. This interdisciplinary program for both public health practitioners and researchers will integrate communication theory and practice with contributions from the social, psychological, educational, and behavioral sciences. This agreement allows students in doctoral, and in some cases, Master of Science or Master of Health Science degree programs, to attend courses given at both universities as a supplement to their normal course of study. Students are eligible for the program after they have completed one academic year of study in a graduate program in their home institution. Exchange students register and pay tuition on a full-time basis at their home institution, and register as special students at the exchange institution. Information on courses attended at the institution visited will be recorded on the student’s transcript at the home institution.

For more information, contact Debra Roter,
Public Health Ophthalmology Programs
The Dana Center for Preventive Ophthalmology, in collaboration with the Johns Hopkins Bloomberg School of Public Health, offers a one- to two-year combined Public Health Ophthalmology Fellowship/Master of Public Health Program. The program is offered to a limited number of qualified candidates every three years. The last program was offered in 2004–05. The program provides intensive training in research methods for the prevention, treatment, and control of the major blinding diseases worldwide. Faculty from the Wilmer Institute, the Johns Hopkins Bloomberg School of Public Health, and international guest lecturers cover topics in cataract, trachoma, xerophthalmia, onchocerciasis, glaucoma, and other eye diseases. For more information, contact Dr. John Kempen via email at jkempen@jhsph.edu.

Postdoctoral Programs
The Johns Hopkins Bloomberg School of Public Health encourages applications for postdoctoral fellow training. Opportunities to extend training beyond the years of doctoral education exist in a number of departments. Although postdoctoral training programs have an overall general similarity, the mark of this educational process is its variety and flexibility. Planning for such a program necessarily depends on agreement between the trainee and the supervising faculty member of any particular department.

A fellow may register to take any didactic course for credit as long as the total of accumulated and registered credits is less than 16. There is no limit to the number of courses a fellow may audit. Postdoctoral fellows may not earn a degree and register as special students. Special students must adhere to established registration and course change deadlines and are obligated to follow all the general academic and administrative policies that apply to degree candidates at the School.

Information and applications for these programs can be obtained from the Admissions Office (www.jhsph.edu/Admissions).

Residency Training

General Preventive Medicine Residency

Director: Miriam H. Alexander, MD, MPH
The General Preventive Medicine Residency (GPMR) is a two-year program with the goal of preparing physicians in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health. As preventive medicine specialists, graduates of the program assume leadership positions in government, international health, academia, and clinical medicine. The program consists of an academic year and a practicum year and is accredited by the Accreditation Council for Graduate Medical Education. Completion of the program leads to eligibility for certification by the American Board of Preventive Medicine.

The GPMR training consists of PGY2 and PGY3. Physicians entering the program must have completed at least one year of clinical training in an approved program in the United States or Canada prior to entering the program. This year may either be a transitional internship or part of a residency. Graduating medical students in the United States or Canada have the option of selecting the GPMR through the National Resident Matching Program; such residents do a rotating internship at the Mary Imogene Bassett Hospital in Cooperstown, New York, prior to beginning their academic year at Johns Hopkins.

Applicants for this position must apply simultaneously to GPMR for admission to begin the year following the internship. This combined internship/residency program is limited to one resident each year.

The first (academic) year of residency training begins in July and is a combined residency and Master of Public Health (MPH) degree year. The MPH program is enriched by a two-month summer orientation to the specialty of preventive medicine. Throughout the year, twice-weekly preventive medicine seminars, quarterly Grand Rounds, and a preventive medicine core course enhance the educational program. Residents are expected to participate in preventive medicine research during the academic and/or practicum years of the residency; publication and presentation of research results are encouraged.

The second (practicum) year of the program is designed to train the resident in a variety of preventive medicine skills through practical preventive medicine rotations that last two to three months each. The program offers approximately 20 different established rotations in a wide variety of local, state, federal, and international public health settings. Residents complete a minimum of one rotation in each of the following areas: biostatistics/epidemiology, management and administration/medical management, and either clinical preventive medicine or occupational medicine/environmental health.

410-955-6498, or email, droter@jhsph.edu.
Note: Admission to the School’s Master of Public Health (MPH) degree program is a prerequisite for admission to the residency program. Applicants apply simultaneously for the MPH and residency programs, using one application. Applicants will be notified separately of each decision. Applicants who possess an MPH from Johns Hopkins may apply for the practicum year of the residency.

A one-month elective in preventive medicine is available for third- or fourth-year medical students who have completed some clinical rotations, as well as for residents in other specialties. The purpose of the elective is to provide both a broad overview of the field and a brief, in-depth experience in a specific area of preventive medicine/public health.

To apply for the residency training, applicants should submit complete applications and supporting materials to the Admissions Office by December 1. Interviews are required; applicants selected for interviews are invited to come to campus in January and February. For application information please visit the School’s website, www.jhsph.edu. For further information about the General Preventive Medicine Residency or the elective, visit www.jhsph.edu/gpmr, or contact the administrator, Linda Myers, General Preventive Medicine Residency Program, Johns Hopkins Bloomberg School of Public Health, Room WB602, 615 N. Wolfe Street, Baltimore, MD 21205; phone: 410-955-3362; fax: 410-614-1582; email: gpmr@jhsph.edu.

Occupational and Environmental Medicine Residency

Director: Clifford S. Mitchell, MS, MD, MPH

The overall objective of the Occupational and Environmental Medicine Residency (OMR) is to train specialists for careers in any of the major sectors of the field—academia, industry, government, clinical practice, or labor—and provide expertise in both clinical and preventive medicine. The program is fully accredited by the Accreditation Council for Graduate Medical Education. Completion of the program leads to eligibility for certification by the American Board of Preventive Medicine. In general, all residents receive stipend support, tuition support, and health, life, and disability insurance.

The OMR training consists of PGY2 and PGY3. Physicians entering the program must have completed at least one year of clinical training in an approved program in the United States or Canada prior to entering the program. This year may either be a transitional internship or part of a residency. The most competitive applicant will already have completed residency training in another clinical specialty (e.g., internal medicine, family practice, dermatology). Depending on the prior training of the individual applicant, specialized fellowships involving only the first or second year of the residency program are possible.

The first (academic) year, involves course work leading to the Master of Public Health (MPH) degree, plus certain experiences specific to the residency such as seminars, research projects, and plant visits. The second (practicum) year consists of rotations in a variety of settings, including clinical, government, industry, and union organizations. An optional third year may be spent in a postdoctoral research fellowship for trainees interested in academic careers.

Note: Admission to the School’s Master of Public Health (MPH) degree program is a prerequisite for admission to the residency program. Applicants apply simultaneously for the MPH and residency programs, using one application. Applicants will be notified separately of each decision. Applicants who possess an MPH may apply for the practicum year of the residency.

To apply for the residency training, applicants should submit complete applications and supporting materials to the Admissions Office by October 31. Interviews are required; applicants selected for interviews are invited to come to campus in November and early December. For application information please visit the School’s website, www.jhsph.edu. For further information about the Occupational Medicine Residency, visit www.jhsph.edu/omr, or contact the administrator, Linda Myers, Occupational and Environmental Medicine Residency Program, the Johns Hopkins Bloomberg School of Public Health, Room WB602, 615 N. Wolfe Street, Baltimore, MD 21205; phone: 410-955-3362; fax: 410-614-1582; email: occmed@jhsph.edu.
Continuing Professional Education

The Johns Hopkins Bloomberg School of Public Health is committed to providing opportunities for students to pursue graduate academic degrees and continuing professional education on a part-time, flexible basis. Both full- and part-time University faculty teach in these programs to ensure an education as high in quality as experienced by the full-time students. Courses are offered in different formats and venues including courses via the Internet, condensed courses taken during summer and winter institutes and courses taken at the University’s Montgomery County campus.

By blending a mix of these formats, working professionals can participate in the rich academic environment of the School while continuing their careers. Courses taken through these programs may be used toward degree and certificate programs, as well as for continuing education. Some of the courses are available for continuing medical education and continuing education credit.

INTERNET-BASED COURSES

Many of the School’s courses are now available via the Internet. In addition, the Master of Public Health Program is available via the Internet. (For details, please see the section on the Master of Public Health Program or visit www.jhsph.edu/Academics/MPH/index.html.) The flexibility provided by this format allows students to fit courses into their own schedules. Courses can be accessed anytime, anywhere—as long as students have reliable Internet service and have access to a computer sufficiently equipped to handle the learning materials provided in the courses. Please note that Internet courses may not be taken on an audit basis. For more information and a full listing of online courses, please visit http://distance.jhsph.edu, or call 888-548-6741.

Because the School’s Internet courses use unique online learning tools, successful completion of the Introduction to Online Learning course (offered via the Internet only) is required prior to participating in any of the School’s Internet courses. For registration details and additional course information, please visit http://distance.jhsph.edu/oll.

MONTGOMERY COUNTY CAMPUS COURSES

The School of Public Health offers core courses at the University’s Montgomery County Campus (MCC). These courses form a foundation on which working professionals in the Washington area can build a plan of study that, upon admission, can be applied to various degree or certificate programs. For the most current and detailed information about the School’s opportunities for programs and professional development, please visit the School’s website at http://www.jhsph.edu or call 301-294-7060.

CERTIFICATES

Certificate programs represent courses of study in specific areas of public health. The School offers various certificates designed for degree students only, for degree and non-degree students together, and for non-degree students only. Admissions standards and completion requirements vary with each certificate program. As there are fewer course requirements for certificate programs than for formal degree programs, degree candidates may also pursue most certificates as part of their degree program. Courses within certificate programs must be taken for academic credit. A certificate of program completion is issued by the sponsor upon satisfactory completion of course work. For details, please see the section on Certificates, in the Academic Information chapter, or visit commprojects.jhsph.edu/academics/Certificate.cfm.

CONTINUING LIFELONG EDUCATIONAL OPPORTUNITIES FOR ALUMNI

For information, please visit www.jhsph.edu/alumni.

SPECIAL STUDENTS

Students participating in continuing professional education programs for academic credit, who are not registered as degree candidates, are considered Special Students. For a full description of this category, please see the section on Administrative Regulations.

INSTITUTES

The School offers a winter institute and various departments within the School sponsor summer institutes which provide short-term, intensive educational opportunities for public health practitioners and other professionals whose schedules necessitate a more flexible, non-traditional approach to their studies. Many of the courses offered through these institutes are
continuing professional education

equivalent to regular academic courses. all the listed institute courses may be taken for academic credit.
continuing medical education and continuing education credits are also available for most of these courses.

summer institute in environmental health sciences
the department of environmental health sciences will not offer a summer institute this year. please check our website at www.jhsph.edu/dept/ehs for information regarding courses that are offered by the department during the regular academic terms and for updates about future institutes.

graduate summer institute of epidemiology and biostatistics
the departments of epidemiology and biostatistics at the johns hopkins bloomberg school of public health jointly sponsor the graduate summer institute of epidemiology and biostatistics each june–july. the program has been in existence since 1983, and has trained hundreds of students from both the u.s. and numerous other countries from all continents. the courses are intended to develop an understanding of principles of epidemiologic research, and will present epidemiologic methods and their application to the study of the natural history and etiology of disease. after completion, participants will be able to evaluate the methods used to measure health effects in populations, judge policy questions raised by the epidemiologic literature and become familiar with the principles and difficulties of collecting, interpreting and analyzing data.
the 23rd annual graduate summer institute of epidemiology and biostatistics will be held june 20–july 8, 2005. the program will offer courses with varying durations, with some of the courses offered over a three-week period, some two weeks and many one-week courses. in addition to offering basic and advanced courses on epidemiologic and biostatistical concepts and methods that can stand alone, the curriculum allows students combinations of courses that either expand their breadth of knowledge or enable them to delve more deeply into a specialized topic area of their choice. many of the courses are equivalent in content and number of academic credits to those taught during the regular academic year.
examples of courses offered include principles of epidemiology; intermediate epidemiology; design and conduct of clinical trials; applications of cohort studies; applications of the case-control method; conducting epidemiologic research; infectious disease epidemiology: statistical reasoning in public health i and ii; epidemiologic methods for planning and evaluating health services; introduction to the sas statistical package; gene expression data analysis; family based genetic epidemiology and genetic epidemiology in populations.
for more information, contact ayesha khan at 410-955-7158 or akhan@jhsph.edu, or visit http://www.jhsph.edu/summerepi.

health emergencies in large populations (h.e.l.p.) summer institute
each july, the department of international health, center for international emergency, disaster and refugee studies, holds a summer institute course at the east baltimore campus. the course is designed to develop or improve the skills of persons and organizations providing emergency health services in humanitarian emergencies. during the three-week session, the following topics are covered: definition and response, disaster management, conducting assessments, responding to needs, environmental health, food and nutrition, information surveillance, communicable diseases, reproductive health, humanitarian ethics, international humanitarian law and human rights and human security.
by the end of the course, participants will be able to
• select methods of assessment for specific emergency situations in the field
• carry out a general or a specific assistance health program for a displaced population
• foresee the possible extension/expansion of immediate assistance projects into development programs
• develop a common approach among humanitarian organizations to the provision of services
• monitor adequacy of services provided to affected populations assess the ethical implications of the choices faced by relief workers in a crisis
• apply the principles of international humanitarian law when providing services in conflict situations
for more information, please contact katrina alston-rogers, program coordinator, at 443-287-3853 or kalston@jhsph.edu.

summer institute in mental health research
the summer institute in mental health research focuses on methodological and substantive topics of particular importance in mental health and substance use research. it is intended for working professionals or
students who are interested in conducting or evaluating research in the epidemiology of specific types of disorders, the implementation and evaluation of population mental health services, and/or the measurement and statistical issues that commonly arise when studying mental health.

After completing the program, participants will recognize strengths and weaknesses of different research questions, know the major issues involved in the collection and analysis of mental health data on the population level, and understand the steps involved in the scientific, empirical evaluation of services and interventions targeted for mental health outcomes.

For more information contact Adriane King at 410-955-3908 or visit the website at www.jhsph.edu/Dept/MH/Summer_Institute.html.

Summer Institute in Health Policy and Management

The Health Policy and Management Summer Institute at the Johns Hopkins Bloomberg School of Public Health provides short-term, intensive educational opportunities for public health practitioners. The Institute serves as a convenient venue for health professionals to begin or enhance their education in a variety of public health disciplines, with coursework focusing on key health policy, health management and health education issues. Participants learn about policies and management/leadership approaches that work and study current innovations. The program also teaches strategies for effective policy implementation and management. Some of the course offered by the Institute are equivalent to regular academic year courses and may be taken for academic credit. Institute courses also carry continuing medical education, continuing health education or continuing education credits. The Annual Health Policy and Management Summer Institute is held each June in Baltimore, Maryland. For information on the institute offerings, contact Ms. Pamela Davis at pdavis@jhsph.edu or 410-614-1580. Or visit the institute website, http://www.jhsph.edu/Dept/HPM/institutes/index.html.

Summer Institute in Population and Family Health /Maternal and Child Health

The Summer Institute in Population and Family Health/Maternal and Child Health is designed to provide training in the importance of contemporary issues in population health and maternal and child health. This is an intensive two-week program that includes evening and weekend work. Instruction takes place through a mixture of seminars, short lectures, group work, and individual presentations.

After completion, participants will be able to describe the importance of contemporary issues in population health and maternal and child health; be familiar with (basic) research of major population/maternal and child health problems; translate research into policy and programmatic implications; and be aware of sources of information that they may use to develop further research and programmatic skills. For more information, contact Linda Kelly at 410-955-3804 or jkelly@jhsph.edu. Or visit http://www.jhsph.edu/Dept/PFHS/MCH_SummerInst/index.html.

Summer Institute: Principles and Practice of Injury Prevention

This one-week intensive summer course is sponsored by the Department of Health Policy and Management...
Continuing Professional Education

through the Center for Injury Research and Policy. It is targeted to those new to the field of injury prevention and those who seek to broaden or advance their basic skills and knowledge. Students come from around the world to participate in this unique learning experience promoting valuable interaction and shared learning between participants. Leading experts in injury control from Johns Hopkins, and from other institutions around the nation, conduct the lectures and discussions on behavioral, biomechanical, environmental, epidemiological, legislative, policy, and community partnership approaches to injury prevention and control. Small group exercises are held daily, which enable participants to apply what they’ve learned in lecture and integrate this with previous experience. The week culminates with group reviews of grant proposals using the strategies, skills, and tools learned throughout the week.

This course may be taken for 3 academic units, or for a non-credit certificate of attendance. CHECH credits are also offered. If taken for academic credit, the student will be evaluated on participation in group exercises and a final paper. Credit in this course may be applied toward the JH Certificate in Injury Prevention.

For more information, contact Mary Beth Jackson at 410-955-7980 or mjackson@jhsph.edu or visit the website at www.jhsph.edu/InjuryCenter/index.html.

Summer Institute in Quality Assurance Management Methods for Developing Countries

The Department of International Health offers an intensive two-week Summer Institute in Quality Assurance Management Methods in June of each year. This course gives participants a thorough knowledge of quality assurance management for health systems in developing countries and a mastery of the tools to put such a system in place. The course emphasizes primary community health care, coupled with district hospital support and the management of integrated district-level health care services. Challenges include assuring that:

- all people obtain the high priority evidence-based health care interventions they need
- health workers perform the interventions according to standard
- a team approach is used despite a generally authoritarian tradition
- the entire community is recognized as the “customer” requiring active participation
- measurement-based methods used to identify and solve problems emphasize rapid feedback and corrective action via process indicators
- the development of operational research as part of the management system

This intensive two-week course includes evening and weekend work. Learning takes place through a mixture of seminars, short lectures, group work and individual presentations. Each participant is expected to develop a quality activity relevant to his or her planned future activity.

For more information, contact Katrina Alston-Rodgers, program coordinator, 443-287-3853, or visit the QAMM website at www.jhsph.edu/qamm.

Summer Institute in Tropical Medicine and Public Health

The Department of Molecular Microbiology and Immunology and the Department of International Health sponsor an annual Summer Institute in Tropical Medicine and Public Health during June, July and August. The institute consists of four two-week intensive courses that focus on selected areas of tropical medicine and related public health issues. The institute is designed for health professionals who want a focused exposure to infectious disease problems and control measures relevant to developing countries. Students gain expertise in clinical tropical medicine, travel medicine, parasitology, community health, child and public health, principles and methods of epidemiology, social sciences relevant to operating disease control programs, appropriate technologies for water supply and sanitation, and management of disease control programs. Students interested in other relevant courses offered during the regular academic year as part of the tropical diseases curriculum should refer to Interdepartmental and Interdivisional Programs in the Academic Information chapter.

For more information, contact Ming-Feng Chin at 410-614-3639, email tropmed@jhsph.edu, or visit http://www.jhsph.edu/Tropic.

Johns Hopkins Center for American Indian Health Summer Institute

The Johns Hopkins Center for American Indian Health conducts a one-week Summer Institute in introductory biostatistics and epidemiology. The institute is designed to introduce tribal health leaders and related healthcare professionals and paraprofessionals who have had no formal training in epidemiology, but may be working to determine tribe’s priorities for health care, determining tribe’s approaches to addressing priorities, or working/interested in clinical research
or public health within tribal communities. For more information, contact Felicia Frizzell or Allison Barlow, Johns Hopkins Center for American Indian Health, the Johns Hopkins Bloomberg School of Public Health, 621 North Washington Street, Baltimore, MD 21205. Phone: 410-955-6931, or email: ffrizzell@jhsph.edu or abarlow@jhsph.edu.

Winter Institute in Public Health

In January, the School offers a two-week winter institute. The primary goal is to provide short term intensive courses for part-time degree candidates. The courses are also offered for audit for non-degree seeking students. The institute offers courses in areas including biostatistics, epidemiology, international health, environmental health sciences, molecular microbiology and immunology, population and family health sciences, and health policy and management. For more information on winter institute courses for part-time degree-seeking students, contact the MPH program office at 410-955-1291 or email mphprog@jhsph.edu.

For information on courses for audit, contact Helen Walters at 410-614-5985, email hwalters@jhsph.edu or visit the School's website at www.jhsph.edu/winter.

SPECIAL LECTURESHIPS

**The Anna M. Baetjer Lecture**—When Anna Baetjer died in 1983, her friends, family, and associates established the Anna M. Baetjer Lecture to honor Dr. Baetjer (ScD 1924 and Professor Emerita). The fund supports an annual lecture in environmental health sciences.

**The Leroy E. Burney Lecture**—Leroy E. Burney, MD, MPH, was the eighth Surgeon General of the United States Commissioned Corps (1956–1961). His seminal report linking smoking to lung cancer provided the template for every Surgeon General who followed, and a legacy for all those in health promotion and disease prevention who struggle to control tobacco use. After his death in 1998, Dr. Burney's family, friends, and colleagues established an annual Schoolwide lecture to honor his contributions to public health.

**The J. Douglas Colman Lecture**—In 1974, friends and family of the late Dr. J. Douglas Colman established a memorial fund to support a periodic lecture by an outstanding individual on the subject of medical care evaluation, quality of care, and modes of financing medical care.

**The Edward and Nancy Dodge Lectureship**—Established to honor Dr. Edward Dodge (MPH, 1967) and his late wife Nancy for their generous support of the Center for a Livable Future, this annual lecture given by a distinguished visiting scholar addresses the public health implications of ecosystem change resulting from our personal and policy choices.

**The Dean's Lectures**—Now part of the Preventive Medicine/Public Health Grand Rounds series, these lectures provide an opportunity to introduce faculty members and students to outstanding accomplishments and issues presented by distinguished lecturers who are on the faculty, or, in special cases, from outside the School.

**Delta Omega Lectureship**—The Alpha Chapter of the Delta Omega Honor Society sponsors a guest lectureship at their annual induction dinner.

**The Larry Ewing Lectureship**—When Larry Ewing died in 1990, friends, faculty, colleagues, and former students of Dr. Ewing established a memorial fund to support an annual lecture by an outstanding visiting scientist in the field of reproductive biology.

**The Dr. Lawrence Grossman Lectureship**—Larry Grossman served as chair of the department of Biochemistry and Molecular Biology from 1975 to 1989. In 1991, Dr. Grossman's friends, colleagues, former students and family established this endowed fund to honor Dr. Grossman and support an annual lecture in Biochemistry.

**The John H. Hanks Lectureship in Immunology and Microbiology**—In 1990 family, friends, faculty, colleagues, and former students established an endowed fund to honor Dr. Hanks' memory as an eminent scientist with a periodic lectureship on the topics of immunology and microbiology.

**The Roger M. Herriott Lectureship**—In 1975 friends and associates honored Dr. Roger M. Herriott upon his retirement as the chairman of the Department of Biochemical and Biophysical Sciences by establishing a fund to support a periodic lecture in biochemistry and molecular biology.

**The Harold and Marilyn Menkes Memorial Lectureship**—Established in 1980 to honor Dr. Harold and Marilyn Menkes established this memorial fund in 1987 to support an annual lecture by a leading pulmonary scientist.
Administrative Regulations

CATEGORIES OF STUDENTS

Degree Students

Doctoral, MHS and ScM candidates must remain continuously enrolled at the Johns Hopkins Bloomberg School of Public Health in an officially recognized student category until the program is terminated by either award of degree or official withdrawal. Doctoral students must register for a minimum of three (3) credit units per term; MHS and ScM candidates for a minimum of two (2) credit units per term. The official student categories are as follows:

In Residence—This category designates students who are pursuing graduate degree work under the direction and supervision of the full-time faculty of the School. This may be full-time or part-time and may include periods when students are enrolled in formal courses, doing research work, or writing their dissertation. Students who are in residence register for credit and are assigned grades.

Residence status as applied here has no direct relation to where a student is physically located. In some situations, graduate degree work may be done at locations other than the Johns Hopkins Bloomberg School of Public Health provided that the adequacy of the direction and supervision of the student by full-time faculty of the School has been ensured. Individuals in these circumstances who register appropriately receive full credit toward fulfilling residence requirements for the degree as set forth in the catalog. Students who have been in nonresident status are required to return to resident status during the academic term during which degree requirements are completed. See Tuition and Fees for tuition fee assessment.

Postcertified Student Status—A postcertified student in a doctoral program is a student in good academic standing who has completed the residence requirements, has unconditionally passed the preliminary oral examination and the departmental written comprehensive examination, and has fulfilled the outside course requirements. A postcertified master’s student has satisfactorily completed the residence and outside course requirements as well as the written departmental comprehensive examination (if applicable). A postcertified student who is engaged in full-time dissertation research, field placement, or the equivalent, under the direction and supervision of the faculty of the School, must maintain quarterly registration in a recognized student status.

Nonresident—This category is designed to accommodate students who wish to maintain their degree status during periods when they are not involved in formal work at the Johns Hopkins Bloomberg School of Public Health. Such status is reserved for a candidate for the doctorate who has completed all requirements for the degree except the dissertation and who has permission to continue work on the dissertation away from the School. The nonresident student does not use the School's resources and maintains regular but minimal contact with his/her advisor. It is expected that nonresident students will be working on their dissertation on a full-time basis in geographic areas that do not permit frequent contact with School faculty or use of School resources.

With the approval of the individual’s advisor, department chair, and the Committee on Academic Standards, a graduate student may request to be placed in nonresident status on an annual basis, for a period not to exceed a total of five years. In order to remain in nonresident status, it is the responsibility of the sponsoring academic department to determine whether the student’s dissertation pursuits are equivalent to full-time study and to confirm that the student is continuing to make the equivalent of full-time progress on the dissertation. A student who is physically present at the School, or who is employed by the University, may not be in nonresident status.

To be considered for this category, prior approval must be obtained from the chair of the student’s department, from the student’s advisor, and from the Committee on Academic Standards. Once approved for this status, students must register quarterly to maintain degree candidacy. Students in nonresident status during academic year 2005–2006 will be required to pay a fee equal to fifteen percent of full-time tuition. In order to conform with U.S. government regulations, a foreign student requesting nonresident status must have a clearance from the Office of International Student and Faculty Services.

Students who have been nonresident will be required to return to resident status during the academic term in which degree requirements are completed.

Leave of Absence—Leave of absence refers and is limited to students who, while in good academic standing, are forced to withdraw temporarily from graduate work due to reasons beyond their control, such as illness, military service, financial exigency, or pressing personal reasons justifying an interruption of the degree program. Leaves of absence are typically limited to one year except for military service. Students requiring additional terms of leave beyond the one-year, must reapply. No more than two years of
leave may be granted. The period is regarded as an approved break in study. This does not mean, however, that a student working on a thesis who has completed all other degree requirements is entitled to a leave of absence.

Students planning to request a leave of absence must file a petition, which is signed by the departmental chairman, the student’s advisor, appropriate staff members in the area of Student Services, and the Office of Records and Registration. This form is available from the Office of Records and Registration. An active file fee of $50 per term is assessed for each term within the leave of absence period. Prior to resuming the degree program, students on leave of absence must notify the department chairman and the director of the Office of Records and Registration. Upon return from leave of absence status, students must register for a minimum of two successive terms before completion of their degree programs.

Important—The failure of a student to register without obtaining an approved leave of absence or nonresident status will be considered a withdrawal. The student considered to be withdrawn must be formally readmitted before resuming a program of study. Upon readmission, a student must be registered for a minimum of two consecutive terms prior to graduation.

TIME LIMITATIONS
To maintain degree candidacy:
1. Students enrolled in master’s degree programs must fulfill all requirements within the time limits prescribed for the program.
2. Doctoral students must fulfill all requirements within seven calendar years after matriculation.

The above time limitations are applicable regardless of student status, “in residence” or “nonresident,” during the indicated period. The academic clock is stopped for periods in which the student is approved for leave of absence.

Special Students
All students who are not officially registered in one of the degree programs in the Johns Hopkins Bloomberg School of Public Health are classified as special students. This may be because they have not yet attained degree status or are not seeking a School of Public Health degree and are taking selected courses for their own professional purposes. Tuition charges are applied to such students according to the number of credits for which they are registered. Special students must adhere to established registration and course change deadlines and are obliged to follow all the general academic and administrative policies that apply to degree candidates at the School. Special student categories are as follows:

Regular—Special students may be registered for full-time or part-time course work for which they will receive academic credit although they are not enrolled in a degree program. Such students need to submit complete applications and fees to the Admissions Office and gain acceptance in advance from the chairman of the department to which they are applying.

If admitted to a degree program, the special student’s residence time and accumulated credits may be applied toward the degree, contingent upon approval of the appropriate department or the MPH Program Office and the Committee on Academic Standards. However, the total number of accumulated credits for application may not exceed one-half of the number of credits required for the degree. These credits may be applied to any degree program and may be no older than three years at the time of matriculation. Any credits earned during the term of matriculation will also count toward the degree program.

Limited—This category includes persons who are permitted to enroll for selected courses of special interest, and whose attendance is limited to those courses for which the individual instructor has given explicit consent to enter. No more than 16 credit units of course work may be accumulated by a special student limited.

While special students limited receive no residence credit for the courses they take, those who may be subsequently admitted into a degree program at the School may receive credit for academic residence with the approval of the Academic Standards Committee. Course work successfully completed as a special student limited may be applied to degree programs but does not ensure admission to any program. These credits may be no older than three years at the time of matriculation. The application fee is paid upon making application to a degree program or to special student regular status.

A student who has been terminated, dismissed, or withdrawn may not reenroll in the School as a special student limited. Such students must be formally readmitted to a program or department before registering for a course.

General Preventive Medicine and Occupational and Environmental Medicine Residents—All General Preventive Medicine (GPM) and Occupational and Environmental Medicine (OEM) residents who have completed their MPH programs and are not enrolled in another degree program in the School, but are enrolled in either of these residency programs, are special student residents.
Residents who have completed their MPH programs must register full-time each term until they complete their residency requirements. These credits are usually in special studies and research, but selected course work may also be appropriate. Students in this category must adhere to established registration and course change deadlines, and are obliged to follow all the academic and administrative policies that apply to degree candidates at the School. Full-time tuition is assessed on a per-term basis during the resident's training period. The resident's special studies and research registrations are graded on a pass/fail basis each term during the training period, and an official academic record (transcript) and a file will be maintained and updated. Upon satisfactory completion of the program designed for the resident, the director of the GPM residency program or the director of the OEM residency program will notify the director of the Office of Records and Registration in writing.

University Interdivisional Registrants

Students in other schools of the University are admitted to courses at the Johns Hopkins Bloomberg School of Public Health on a space-available basis without the formalities of application. Registration for courses at the School must be authorized by the director of the Office of Records and Registration of the sponsoring division. An interdivisional registration form must be submitted for the corresponding academic terms. Students registered full-time during the nine-month academic year need not pay additional tuition to the host division that has approved the interdivisional registration. This is not the case in the summer or the winter intersession. Students should not plan to enroll in courses from multiple Johns Hopkins University divisions during the summer. Because not all divisions of the University share the same grading policies, interdivisional registrants should consult their home division Office of Records and Registration to learn the appropriate grade conversion among divisions.

ACADEMIC YEAR

The School year is comprised of five academic terms as well as a summer institute and a winter intersession. Each term includes a minimum of 37 class days and is scheduled approximately as follows:

- **Summer Institutes** ...............May–July
- Summer—Regular Term ....July–August
- First Term ..........................September–October
- Second Term .......................November–December
- Winter Intersession ..........January
- Third Term ..........................January–March
- Fourth Term .........................March–May

At the discretion of the faculty, additional class time may be arranged when weather conditions force the cancellation of classes.

The four numbered terms are considered the regular academic year. The summer term is not obligatory but may be counted as a term of academic residence for degree candidates who satisfactorily complete credit units during this period.

REGISTRATION

Persons who are enrolled in formal courses of study, who do research work under the supervision and direction of the Johns Hopkins Bloomberg School of Public Health faculty, or who otherwise receive academic credit for professional experience or training from the faculty and scientific or educational facilities of the School are required to register during established registration periods. Included among those who must register are those students and trainees who:

1. Are either entering or continuing in a degree program. This includes nonresident students who must register for each academic year.
2. Are students in academic postcertified status: defined as master's or doctoral degree candidates who have successfully passed their qualifying examinations, have fully completed their residence and outside course work requirements for the degree, and are engaged in dissertation research or the equivalent. See the section on Postcertified Status.
3. Are participating in the residency program in general preventive medicine or occupational and environmental medicine, or are classified as post-doctoral fellows in a department of the School.
4. Are not degree candidates but are attending classes either full- or part-time as regular or limited special students. Auditors must register.
5. Are participating for academic credit in regular or special summer programs or sessions sponsored by the School or any of its departments.

Doctoral and ScM students must be registered in residence during their term of completion. To maintain degree candidacy, doctoral students must register for a minimum of three (3) credit units per term; MHS and ScM candidates for a minimum of two (2) credit units per term.

Late registration occurs during the scheduled add/drop periods of each term. A $50 late registration fee is added to the tuition charges. Under no circum-
stances can changes be made to registrations during the last two weeks of a term.

Registration for students is contingent upon tuition accounts being current. No exceptions will be made to this policy unless special arrangements have been made through the Student Accounts Office in advance of registration.

RESIDENCE AND COURSE CREDIT

The School grants academic credit only to students who are officially registered. Credits are referred to as “units.” One unit is equivalent to eight hours of instructional contact per term. Academic credit for a course is granted only if the following conditions have been met:

1. The student has completed all course requirements, including examinations, and has received a passing grade.
2. The student has registered to take the course for academic credit at the time of enrollment during the official registration period.
3. The student has been admitted to the School, either as a special student or a degree candidate or has registered as a special student limited.

Retroactive conversion of continuing education units to academic credit units is not permitted. Likewise, a registration for audit cannot retroactively be converted to credit status. Students registered as special students limited may accumulate up to 16 credits total. After 16 credits have been earned, application to and acceptance in special student regular or degree status is required.

Course work is represented in terms of unit values. For formal courses, the number of credit units normally is equal to the number of hours of formal instruction divided by 8. The maximum allowable load per term is 22 units (credit and audit). A minimum of 12 credit units must be carried for full-time status. However, at least 16 credit units of successfully completed course units is typically required to count as full-time in acquiring academic residence.

Exceptions to the residence requirements on a part-time basis may be made only by direct action of the appropriate Schoolwide academic committee.

Units associated with audited, undergraduate, or informal courses, or courses taken to satisfy entrance conditions, are not credited in the Johns Hopkins Bloomberg School of Public Health programs.

GRADING SYSTEM

Purpose

The grading system at the Johns Hopkins Bloomberg School of Public Health serves to document the academic progress of students. The system is designed to recognize superior work and provide indications of serious problems in academic work. Current students are expected to view their grades periodically by logging onto Student Web Services, https://registration.jhu.edu.

Descriptive Interpretation

Two grading systems are used by all instructors in submitting grades. One is a traditional letter grading system and the other is a pass/fail option.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>Good</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>Fair (satisfactory)</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>Poor</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>Fail</td>
</tr>
</tbody>
</table>

In addition, the letter “I” is used to designate incomplete, “W” to indicate withdrawal, “M” for multiple-term courses (grade assigned in a subsequent term), “N” or “X” in cases where the instructor fails to report grades. (Note: I, M, N, and X grades are not final grades.)

The designation “AU” indicates audit.

Field Placement, Thesis Research, Postdoctoral Research, and Special Studies and Research are graded strictly pass/fail.

No course credit will be acquired for courses in which a grade of F (fail), I (incomplete), or N or X (grade not received from course instructor) is received. No course credit will be acquired for undergraduate-level courses taken at other divisions of the University.

Because not all divisions of the University share the same grading policies, the grades awarded by faculty are based on the procedures of the course’s home division. The grades that appear on students’ academic records reflect any appropriate conversions.

Interdivisional registrants are advised to direct any questions to the Office of Records and Registration of their home division.

Satisfactory Academic Progress

Satisfactory academic progress is measured by the following as they relate to one another:

1. A minimum grade point average of 2.25 for graduation in the MHS and ScM degree programs and 2.75 for graduation in the MPH program.
2. A minimum grade point average of 2.75 for graduation in a doctoral program.

3. Grades of A, B, C, or P (pass) in all courses required by the School or by the student's department.

4. Written documentation of successful completion of all School and departmental degree requirements within the established time limitations. (Refer to the sections on Graduation in each degree program description for specific requirements.)

5. Confirmation of satisfactory performance by the student's department and/or advisor as required. Each term the progress of students is reviewed and those students not making satisfactory progress in terms of the cumulative grade point average and completion of requirements within established deadlines are identified for all academic departments. Whether a D in a particular course is considered an acceptable grade for a particular program will be determined by each department or program office. Whether a D is considered acceptable to serve as a prerequisite will be determined by the course's sponsoring department.

Pass/Fail Option

Students at the Johns Hopkins Bloomberg School of Public Health may elect to take courses on a pass/fail basis only with the consent of their academic advisor. Each department has determined for its own students which courses may be taken on a pass/fail basis. Students should consult their departmental requirements for specific grading requirements when considering the pass/fail option. Students who must submit grades to employers, to funding agencies, or to other academic programs should also consult the appropriate offices before electing the pass/fail option.

Course instructors do not know which registrants are enrolled on a pass/fail basis until final grade rosters are distributed, usually the sixth week of the term. Instructors are expected to evaluate student performance without regard to grading status and to give students appropriate feedback regarding their performance throughout the term. A grade of P will be recorded on the official grade roster for those students who have elected the pass/fail option and whose performance would otherwise be rated as A, B, or C. For students who perform poorly, instructors will assign a grade of D or F.

If an advisor, student, or department needs to know the specific grade a student earns, the student should not be permitted to enroll pass/fail. There will be no retroactive changes from regular grading to pass/fail and vice versa. If a student transfers to a program that requires a standard letter grade for a course that the student completed pass/fail, the student must repeat the course or obtain a waiver from the department. After the add/drop period, a pass/fail change is treated as a registration change with a $50 late payment fee. Under no circumstances can changes be made to registrations during the last two weeks of a term. Current students are expected to view their registration periodically by logging onto Student Web Services, https://registration.jhu.edu.

Deadlines for filing pass/fail requests will be adhered to without exception. Pass/fail forms cannot be accepted after the published deadline for each term. All students should consider carefully before exercising the pass/fail option. Pass/Fail or letter grades, once elected, may not be reversed on the student's official academic record.

Incompletes

The designation "incomplete" (I) will be assigned by an instructor and entered on a student's transcript when the requirements for a course have not been completed on time. An incomplete must be made up and replaced by a final grade within two consecutive terms after the conclusion of the course, or before graduation, whichever occurs first.

In the event an Incomplete is not made up within the above stated time period, a final grade of I/F will be assigned. When a final grade is assigned to replace an incomplete, the final grade will be shown, but the letter I on the transcript will remain as well.

Repeated Courses

If a course is repeated, both grades will be shown on the student's academic record, and the quality points for both will be included in the student's grade point average.

Registration Changes

Changes in course registration may be made without penalty up to the end of the second week in any term. For courses offered during the summer, and winter intersession terms, course-specific add/drop deadlines will apply. Students must obtain the instructor's approval for each course added to their official registration during the course change period. It is the instructor's prerogative to deny a student's request to add a class during the add/drop period. The advisor's permission is the only approval required for a student dropping a course during the prescribed add/drop period. A student may not change a registration after the add/drop period without presenting written endorsement by the course instructor and the student's
advisor. In the event of an approved withdrawal after the course change deadline, the letter W will be entered on the student's transcript. A late fee of $50 will be assessed for each course change after the add/drop period; furthermore, there will be no refund of tuition for any withdrawals from courses after the add/drop period. Under no circumstances can changes be made to registrations during the last two weeks of a term.

Current students are expected to view their registration periodically by logging onto Student Web Services, https://registration.jhu.edu.

Registration Changes—Internet Courses

Internet-based courses at the School adhere to the registration and add/drop dates of the academic calendar. For multi-term courses, part I necessitates enrollment in part II. If a student subsequently drops part II, a grade of W (withdrawn) will be assigned for the first part. Tuition for the first part will not be refunded. Students may not register for part II without having enrolled in part I.

After the two-week add/drop period, students have another four weeks to withdraw. A grade of W will be assigned for the current term (and previous term[s] if it is a multi-term course) and no tuition will be refunded.

Audits

Tuition will be assessed for audit and credit course registrations. All courses taken for audit must have the instructor's approval. Courses may not be changed from credit to audit or vice versa after the designated add/drop period.

Reporting of Grades

Instructors will submit final grades to the Office of Records and Registration within ten days after the conclusion of the term in which their courses are given. Once a final grade is awarded and entered on a student's transcript, the grade may not be altered without the approval of the Committee on Academic Standards. In the event that this committee approves an alteration for reasons other than error, the original grade will be entered along with a comment regarding the circumstances that caused the change to be made.

The School of Public Health reserves the right to amend the above terms and conditions when in its sole judgment such changes are deemed necessary.

Current students are expected to view their grades periodically by logging onto Student Web Services, https://registration.jhu.edu.

TRANSCRIPTS

Beginning with the 2005-06 academic year, students who want transcripts of their Johns Hopkins Bloomberg School of Public Health academic records or who want them forwarded elsewhere may submit online requests at http://www.jhsphs.edu/Student_Affairs/registrar/index.html under Transcripts; or by completing a transcript request form in person in the Office of Records and Registration. Requests should be submitted at least seven days before the transcript is needed. In cases of extreme urgency, a rush order for a transcript may be requested. A fee of $10.00 will be assessed for rush requests for transcripts to be picked up or sent by standard mail. A fee of $15 will be assessed for rush requests to be sent via overnight mail to U.S. addresses and a $22 fee will be charged for overnight delivery to foreign addresses (please note: Rush fees are charged per “mail to” address; an additional $5 fee will be charged per transcript for requests in excess of 5). There is a nominal fee charged for online requests. Rush request transcripts will be available the next business day. Partial transcripts of a student's record will not be issued. Official transcripts that were originally submitted as part of the student’s application file may not be released to either the student or a third party.

Transcripts are normally issued only at the request of the student or with his or her consent. The only exception to this policy is the issuance of transcripts to offices and departments in the School. No charge is made under these circumstances.

GRADUATION

The graduation ceremony is held once annually. Diplomas bear the date of the University’s annual Commencement exercises. The School has its own convocation ceremony, typically conducted the day before Commencement, during which time doctoral students are hooded and masters candidates receive their diplomas.

All financial obligations must be satisfied prior to graduation. Diplomas and transcripts will not be issued to those students who have outstanding account balances from any University office.

ACADEMIC ETHICS CODE

(http://www.jhsphs.edu/schoolpolicies/policy_academic_ethics.html)

The faculty and students of the Johns Hopkins Bloomberg School of Public Health have a joint responsibility for maintaining the academic integrity and high standard of conduct of this institution.
Students enrolled in the Johns Hopkins Bloomberg School of Public Health assume an obligation to conduct themselves in a manner appropriate to the Johns Hopkins University's mission as an institution of higher education. A student is obligated to refrain from acts that he or she knows, or under the circumstances has reason to know, impair the academic integrity of the University. Violations of academic integrity include, but are not limited to: cheating; plagiarism (including plagiarism from websites); knowingly furnishing false information to any agent of the University for inclusion in academic records; violation of the rights and welfare of animal or human subjects in research; or misconduct as a member of either School or University committees or recognized groups or organizations.

1. All members of the academic community are responsible for the academic integrity of the University. Students and faculty alike must work together to minimize the possibility of violations of academic integrity.

2. The faculty is responsible for the conduct of examinations, for announcing the ground rules for all work in a course at the beginning of the term in which the course is offered, and for the security of examination papers and teaching laboratories. Proctoring is at the discretion of the instructor.

3. A student with knowledge of any violation of academic integrity governed by this Constitution has an obligation to report such violation, including the identity of the alleged violator(s), to the appropriate faculty member, one of the deans responsible for student affairs, or to the board. A student may not make a formal charge directly to the Academic Ethics Board. Formal charges to the Academic Ethics Board must be brought by the appropriate faculty member.

All members of the Johns Hopkins community are responsible for immediately informing the Academic Ethics Board of the Johns Hopkins Bloomberg School of Public Health of any suspected violations of its Constitution. The Ethics Board, composed of six students and four faculty members, is responsible for conducting formal hearings of suspected violations.

Students are required to complete an online academic ethics module (http://apps1.jhsphs.edu/academic-ethics) that reviews the Academic Ethics Code and provides case studies of academic ethics violations. All students must complete this online module before graduation.

**STUDENT CONDUCT CODE**

The faculty, staff, and students of the Johns Hopkins Bloomberg School of Public Health and the Johns Hopkins University have the shared responsibility to conduct themselves in a manner that upholds the law and respects the rights of others.

The Student Conduct Code is based upon the support of faculty, staff, and students who must accept the responsibility to live honorably, to hold other members of the community to the same high standard of conduct, and to take action when necessary to safeguard the interests of the University and its community.

Students enrolled in the Johns Hopkins Bloomberg School of Public Health assume an obligation to conduct themselves in a manner that upholds the law and respects the rights of others. They are responsible for maintaining the academic integrity of the institution and for preserving an environment conducive to the safe pursuit of the School’s educational, research, and professional practice missions. This code begins on the day of first registration in the School and is enforceable until a degree has been conferred. It governs behavior by students that occurs on or off University property and is enforceable throughout the entire matriculation period, regardless of whether classes are in session or the student is enrolled in classes. The code also covers students who are not enrolled in a degree program but are enrolled in any educational course or program offered by the Johns Hopkins Bloomberg School of Public Health. The Conduct Code covers students of the Johns Hopkins Bloomberg School of Public Health even while participating in educational and research activities in other divisions of the University or in other institutions.

The Conduct Code is not intended to replace law enforcement or to provide non-Hopkins community members with a mechanism to redress personal grievances. Some acts of misconduct may also constitute violations of law. The University’s policy is to cooperate fully with law enforcement authorities. Any disciplinary proceedings held by the University are independent of any criminal proceedings arising out of the same incident.

All students will be presumed to have knowledge of the provisions of this code as a consequence of enrollment in the Johns Hopkins Bloomberg School of Public Health. Lack of familiarity with the provisions of this code will not serve as a defense to any actions violating student conduct as defined by the code.

A complete copy of the student conduct code is available from the office of the one of the deans responsible for student affairs, and may also be found in the Student Handbook.
HUMAN SUBJECTS
The use of research subjects is an important aspect of responsible conduct of research. The Johns Hopkins Bloomberg School of Public Health is committed to protecting the rights and welfare of individuals participating as subjects in such studies. To meet this obligation, the School has two duly constituted standing committees (Institutional Review Boards) comprised of members of the faculty, student body, and the community. The Committees on Human Research 1 and 2 are responsible for reviewing protocols, including research methods, procedures, consent forms, and all other appropriate forms and survey instruments for all projects, regardless of funding or location, which involve the use of human subjects. It is the responsibility of students and faculty to make certain that clearance is obtained from one of the Committees on Human Research before beginning any research involving human subjects. Exempt status for research must be certified by the Committees on Human Research 1 and 2. Participation as a human subject may not be required either explicitly or implicitly as a term or condition of a student’s academic enrollment or progress.

Necessary forms for applications to the Committees on Human Research 1 and 2 (CHR1 and CHR2) may be obtained on the website (http://www.jhsph.edu/chr) or in the Office for Research Subjects, Room E1100, Wolfe Street Building. For additional information, call 410-955-3193.

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE
Many faculty and students in the School do research involving animal subjects. The care and use of these subjects are regulated by the Animal Welfare Act, which is implemented by the U.S. Department of Agriculture. The University has one assurance with the federal government (the Office of Laboratory Animal Welfare [OLAW]) and, therefore, the University has one animal care and use committee (IACUC). Faculty from the School of Public Health, the School of Medicine, and the Homewood campus serve on this committee. All animal users must be registered with the Animal Surveillance Program in Occupational Health Services, located in Phipps 3E. The hours of operation are Monday through Friday, 7:30 a.m. through 3:00 p.m. The registration process takes less than 30 minutes. The ASP can be reached at 410-614-4129. An approved protocol MUST be obtained before animals can be purchased. Questions involving submissions of protocols to the IACUC should be addressed to Mickie Bell-Frazier at 443-287-3738. An online internet training module is available at https://secure.lwserver.neth Hopkins. (Click on Courses, then select Animal Care and Use.) This training module must be completed by all animal users. Visit the Animal Care and Use Committee website at http://www.jhu.edu/animalcare/.

UNIVERSITY POLICY STATEMENTS

Campus Security Act
In keeping with the mandates of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, the University’s annual report contains statistical compilations of reported crimes that occurred on campus, in certain off-campus buildings owned or controlled by the University, and on public property within or immediately adjacent to and accessible from the campus for the three most recent calendar years. Also included are campus security policies, including those related to alcohol and drug use, sexual assault, crime prevention, and reporting of crimes.

A printed copy of the annual crime report may be obtained from any campus director or Security Department or by stopping by the Homewood Campus at 14 Shriver Hall, or call 410-516-4600.

All Johns Hopkins faculty, staff, and students are encouraged to read and print out the report from http://www.jhu.edu/~security and report all criminal incidents promptly to their respective security department or other security authority.

Policy on Accommodation for Persons with Disabilities
Johns Hopkins University does not discriminate on the basis of gender, marital status, pregnancy, race, color, ethnicity, national origin, age, disability, religion, sexual orientation, veteran status or other legally protected characteristic in any student program or activity administered by the University or with regard to admission or employment.

A person with a disability is defined by the Rehabilitation Act of 1973 and by the Americans with Disabilities Act of 1990 as an individual who has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment. For faculty, staff, and students with disabilities it is important to provide to the University a comprehensive evaluation of a specific disability, from an appropriate qualified diagnostician, that identifies the disability, describes the current level of functioning
in an academic or employment setting, and lists recommended accommodations. The University provides appropriate, necessary, and reasonable accommodations in programs and facilities for those individuals who are qualified. This documentation should be submitted to Betty H. Addison, Director of Career Services and Disability Support, School of Public Health, 615 N. Wolfe Street, Suite E1002, Baltimore, Maryland 21205, 410-955-3034. Ms. Addison will submit the documentation to the Associate Director for Disability Services, Peggy Hayeslip, for review and determination of reasonable and appropriate accommodations. Depending on the accommodation, there may be a time delay before accommodations can be in place. It is important to make an appointment, or consult by phone, with the School’s disability services coordinator at least two weeks prior to the start of the term to ensure that accommodations are provided in a timely manner. For questions and concerns regarding physical and programmatic access, specific campus accommodations, resolution of complaints and problems, faculty and staff concerns, and identification of other support services, please contact Peggy Hayeslip, Associate Director for Disability Services in the Office of Equal Opportunity and Affirmative Action Programs, 3400 North Charles Street, 130 Garland Hall, Homewood Campus. Phone: 410-516-8949, TTY: 410-516-6225.

Nondiscriminatory Policy as to Students
The Johns Hopkins University admits students of any race, color, gender, religion, national or ethnic origin, age, disability, marital status or veteran status to all of the rights, privileges, programs, benefits, and activities generally accorded or made available to students at the University. It does not discriminate on the basis of gender, marital status, pregnancy, race, color, ethnicity, national origin, age, disability, religion, sexual orientation, veteran status or other legally protected characteristic in any program or activity, including the administration of its educational policies, admission policies, scholarship and loan programs, and athletic and other University-administered programs or in employment. Accordingly, the University does not take into consideration personal factors that are irrelevant to the program involved.

Questions regarding access to programs following Title VI, Title IX, and Section 504 should be referred to the Office of Equal Opportunity and Affirmative Action Programs, 130 Garland Hall, 410-516-8075.

Policy on the Reserve Officer Training Corps. Present Department of Defense policy governing participation in University-based ROTC programs discriminates on the basis of sexual orientation. Such discrimination is inconsistent with the Johns Hopkins University non-discrimination policy. Because ROTC is a valuable component of the University that provides an opportunity for many students to afford a Hopkins education, to train for a career, and to become positive forces in the military, the University, after careful study, has continued its ROTC program but encourages a change in federal policy that brings it into conformity with the University’s policy.

Photography and Film Rights Policy
The Johns Hopkins University reserves the right from time to time to film or take photographs of faculty, staff, and students engaged in teaching, research, clinical practices, and other activities, as well as casual and portrait photography or film. These photographs and films will be used in publications such as catalogs, posters, advertisements, recruitment and development materials, as well as on the University’s website, for various videos, or for distribution to local, state, or national media for promotional purposes. Classes will be photographed only with the permission of the faculty member.

Such photographs and film—including digital media—which will be kept in the files and archive of The Johns Hopkins University, will remain available for use by the University without time limitations or restrictions. Faculty, students, and staff are made aware by virtue of this policy that the University reserves the right to alter photography and film for creative purposes. Faculty, students, and staff who do not want their photographs used in the manner(s) described in this policy statement should contact the Office of Communications and Public Affairs.

Faculty and students are advised that persons in public places are deemed by law to have no expectation of privacy and are subject to being photographed by third parties. The Johns Hopkins University has no control over the use of photographs or film taken by third parties, including without limitation the news media covering University activities.

Policy on Possession of Firearms on University Premises
The possession, wearing, carrying, transporting, or use of a firearm or pellet weapon is strictly forbidden on University premises. This prohibition also extends to any person who may have acquired a government-issued permit or license. Violation of this regulation will result in disciplinary action and sanctions up to and including expulsion, in the case of students, or termination of employment, in the case of faculty and staff. Disciplinary action for violations of this regula-
tion will be the responsibility of the divisional student affairs officer, dean or director, or the vice president for human resources, as may be appropriate, in accordance with applicable procedures. Any questions regarding this policy, including the granting of exceptions for law enforcement officers and for persons acting under the supervision of authorized University personnel, should be addressed to the appropriate chief campus security officer.

Privacy Rights of Students
The Johns Hopkins University complies with the provisions of the Family Educational Rights and Privacy Act of 1974 (Public Law 93-380) as amended (Public Law 93-568) and regulations promulgated thereunder. Eligible students, as defined in the regulations, have the right to inspect and review their education records, as defined in the regulations; to request the amendment of their education records if they are inaccurate, misleading, or otherwise in violation of the student’s rights; to consent to the disclosures of personally identifiable information in their education records except to the extent permitted by law, regulation, or University policy; to file a complaint with the United States Department of Education if the University has failed to comply with the requirements of law or regulation. The University’s policy on Family Educational Rights and Privacy is published periodically in the University Gazette. Copies of the policy are available from Student Affairs (Room E1002, Wolfe Street Building) and contained in the Student Handbook.

Policy on Alcohol and Drug Abuse and a Drug-Free Environment
The Johns Hopkins University recognizes that alcoholism and other drug addiction are illnesses that are not easily resolved by personal effort and may require professional assistance and treatment. Faculty, staff, and students with alcohol or other drug problems are encouraged to take advantage of the diagnostic, referral, counseling, and preventive services available through the University. Procedures have been developed to assure confidentiality of participation, program files, and medical records generated in the course of these services.

Substance or alcohol abuse does not excuse faculty, staff, or students from their employment or academic responsibilities. Individuals whose work or academic performance is impaired as the result of the use or abuse of alcohol or other drugs may be required to participate in an appropriate diagnostic evaluation and treatment plan. Further, use of alcohol or other drugs in situations off campus or removed from University activities that in any way impairs work performance is treated as misconduct on campus. Students are prohibited from engaging in the unlawful possession, use, or distribution of alcohol or other drugs on University property or as a part of University activities.

It is the policy of the Johns Hopkins University that the unlawful manufacture, distribution, dispensation, possession, or use of controlled substances is prohibited on the University’s property or as a part of University activities. Individuals who possess, use, manufacture, or illegally distribute drugs or controlled dangerous substances are subject to University disciplinary action, as well as possible referral for criminal prosecution. Such disciplinary action of faculty and staff may, in accordance with the University policy on alcohol abuse and maintenance of a drug-free workplace, range from a minimum of a three day suspension without pay to termination of University employment. Disciplinary action against students may include expulsion from School.

As a condition of employment, each faculty and staff member and student employee must agree to abide by the University Drug-Free Workplace Policy, and to notify the divisional human resources director of any criminal conviction related to drug activity in the workplace (which includes any location where one is in the performance of duties) within five (5) days after such conviction. If the individual is supported by a federal grant or contract, the University will notify the supporting government agency within ten (10) days after receiving notice.

University Policy on Award of Degrees
The University does not guarantee the award of a degree or a certificate of satisfactory completion for any course of study or training program to students enrolled in any instructional or training program. The award of degrees and certificates of satisfactory completion is conditional upon satisfaction of all current degree and instructional requirements at the time of such award; compliance with the University and divisional regulations; and satisfaction of faculty’s bona fide expectations for the student’s performance. No member of the faculty is obliged to provide students or graduates with an evaluation or letter of recommendation that does not accurately reflect that faculty member’s true opinion and evaluation of academic performance and conduct.

Policy on Sexual Harassment
Preamble
The Johns Hopkins University is committed to providing its staff, faculty, and students the opportunity to pursue excellence in their academic and professional
endeavors. This can only exist when each member of our community is assured an atmosphere of mutual respect, one in which they are judged solely on criteria related to academic or job performance. The University is committed to providing such an environment, free from all forms of harassment and discrimination. Each member of the community is responsible for fostering mutual respect, for being familiar with this policy, and for refraining from conduct that violates this policy. Sexual harassment, whether between people of different sexes or the same sex, is defined to include, but is not limited to, unwelcome sexual advances, requests for sexual favors, and other behavior of a sexual nature when:

1. Submission to such conduct is made implicitly or explicitly a term or condition of an individual's employment or participation in an educational program
2. Submission to or rejection of such conduct by an individual is used as the basis for personnel decisions or for academic evaluation or advancement
3. Such conduct has the purpose or effect of unreasonably interfering with an individual’s work or academic performance or creates an intimidating, hostile, or offensive working or educational environment

Fundamental to the University's purpose is the free and open exchange of ideas. It is not, therefore, the University's purpose, in promulgating this policy to inhibit free speech or the free communication of ideas by members of the academic community.

Policy

The University will not tolerate sexual harassment—a form of discrimination, a violation of federal and state law, and a serious violation of University policy. In accordance with its educational mission, the University works to educate its community regarding sexual harassment.

The University encourages individuals to report incidents of sexual harassment and provides a network of confidential consultants by which individuals can report complaints of sexual harassment. The means by which complaints are resolved can range from informal to formal. The University encourages reporting of all perceived incidents of sexual harassment, regardless of who the alleged offender may be. Individuals who either believe they have become the victim of sexual harassment or have witnessed sexual harassment should discuss their concerns with any member of the Sexual Harassment Prevention and Resolution system. Complainants are assured that problems of this nature will be treated in a confidential manner, subject to the University's legal obligation to respond appropriately to any and all allegations of sexual harassment.

The University prohibits acts of reprisal against anyone involved in lodging a complaint of sexual harassment. Conversely, the University considers filing intentionally false reports of sexual harassment a violation of this policy.

The University will promptly respond to all complaints of sexual harassment. When necessary, the University will institute disciplinary proceedings against the offending individual, which may result in a range of sanctions, up to and including termination of University affiliation.

Complaints of sexual harassment may be brought to the heads of departments, the dean or director of a division, or to the University's Associate Director for Compliance and Conflict Resolution, Kevin G. McDonald, JD in the Office of Equal Opportunity and Affirmative Action Programs, 130 Garland Hall, Homewood Campus, Telephone: 410-516-8075, TTY: 410-516-6225.

Student Grievance Procedure

On occasion, disputes arise between students and other members of the School of Public Health community. The School encourages individuals involved in such disputes to resolve the matter directly between them. For those disputes that cannot be resolved informally, a Student Grievance Procedure has been created to provide students or student groups with a formal process to seek resolution of a grievance. A grievance covered by these procedures is a complaint by a student or group of students alleging that they have been adversely affected in their capacity as students.

Students may use this process to seek resolution to a situation in which they believe they have been harmed due to an arbitrary or capricious act, or failure to act, or a violation of a Johns Hopkins University or School of Public Health procedure or regulation by an instructor or other member of the faculty or School administrator or body.

Some conduct is governed by other policies in the School or by the University at large. As a result, the Student Grievance Procedure does not handle complaints or disputes that are governed by those policies.

Additionally, disputes that are personal in nature and do not involve the Grievant's academic activities are not covered by this policy. For specific complaints/disputes not covered by the policy, please consult the official Student Grievance Procedure document.

A complete copy of the Student Grievance Procedure is available on the Student Affairs website (www.jhsph.edu/Student_Affairs) or may be obtained from the Associate Dean for Student Affairs in Suite
Policy on Violence
The Johns Hopkins University is committed to providing a learning and working environment that is safe to all members of the University community. The University will not tolerate violent acts on its campuses, at off-campus locations administered by the University, or in its programs. This policy of “zero tolerance” extends not only to actual violent conduct but also to verbal threats and intimidation, whether by students, faculty, staff, or visitors to the University.

The University urges individuals who have experienced or witnessed incidents of violence to report them to Campus Security. Alternatively, students are urged to report concerns about violence to the divisional office responsible for student matters, faculty to the divisional office responsible for faculty matters, and staff to the applicable human resources offices.

Information regarding incidents of violent conduct and threats of violence will be investigated, and, if warranted, disciplinary action will be taken in accordance with applicable procedures. The University will notify law enforcement authorities of criminal conduct. In addition, the University may refer individuals accused of violations of this policy for an assessment of the likelihood that they will carry out violent acts. If the continued presence of an individual on campus threatens or disrupts the conduct of University business, the individual may be suspended from participation in University programs or activities pending the outcome of the assessment.

Individuals accused of engaging in incidents of campus violence may seek legal counsel at their own expense. Individuals and their attorneys are reminded that attorneys do not participate in any internal University hearing.

For additional information, please visit the University’s web site at www.jhu.edu.

Weather Emergency Policy
In the event of snow or other weather emergency, the provost of the University or his designee will decide whether and when to curtail operations of the University. The decision will be reported to the following radio and television stations:

In the Baltimore metropolitan area:
WBAL AM 1090
WPOC FM 93.1
WYPR FM 88.1
TV CHANNELS 2, 11, 13, and 45

In the Washington, D.C., metropolitan area:
WMAL AM 630
WTOP AM 1500 and FM 107.7

TV CHANNELS 4, 7, and 9, and News Channel 8 (cable)
More complete information concerning weather-related cancellations and delays is available by calling 410-516-7781 in the Baltimore area. Beyond the Baltimore area, call 800-548-9004. Information is available on the web at http://webapps.jhu.edu/emergencynotices/. Classes canceled due to inclement weather may be rescheduled at the discretion of the instructor.

NOTICE OF USE OF STUDENT/EMPLOYEE IMAGES
Students and employees who are present in facilities operated by the Johns Hopkins Bloomberg School of Public Health (the School) are subject to having their images captured, such as by photograph, video, or electronic means. In addition to the use for security of personnel and facilities, the School reserves the right to use images of students and employees in their ordinary activities to promote the School. Such images may be used in paper brochures, electronic format on the internet, or other media. By your presence in these facilities you consent to capture of your image and use by the School.
Student Services and Organizations

STUDENT AFFAIRS

Student Affairs is a comprehensive student services unit in the Johns Hopkins Bloomberg School of Public Health that provides advising to students, faculty, and staff on academic policies, financial support, and information management, and helps to create linkages between the academic mission of the School and public health careers. Student Affairs brings together the functions of several offices to serve a student from the time of initial inquiry through graduation and beyond: Admissions, Career Services, Disability Support Services, Student Outreach Resource Center (SOURCE), Records and Registration, Student Diversity, Student Financial Services, and Student Affairs Operations.

LIVING ACCOMMODATIONS

Reed Hall

The Johns Hopkins Medical Institutions provide residence hall living accommodations in the Lowell J. Reed Hall for single students or married students not accompanied by their spouses. This facility is located within easy walking distance of the Johns Hopkins Bloomberg School of Public Health. Reed Hall consists of two air-conditioned wings with a connecting lobby. The West Wing offers single rooms with a large community bath and shower on each floor. Building codes prohibit cooking in the West Wing rooms. The East Wing consists of 4-person and 8-person suites of rooms arranged with common living, kitchen, and bathroom areas with adjacent private bedrooms. In both wings room furnishings include bed, chest of drawers, desk and desk lamp, chair, bookshelves, and closet. Each West Wing room is furnished with carpet, study chair, and venetian blinds. The residents of both wings must provide their own bedding and towels. In addition, residents of the East Wing must provide dishes, silverware, and utensils. Other facilities in Reed Hall include a TV lounge, study lounges, vending concession area, self-service laundry, recreation room, and high-speed internet access. A recreational center is located adjacent to Reed Hall. Membership to the Denton A. Cooley Center is free to all full-time degree students and full-time regular special students. Faculty, staff, fellows, spouses of students, and other students of the medical institutions may join for a yearly membership fee. The recreation complex includes a full-size gymnasium, indoor running track, racquetball courts, three outdoor lighted tennis courts, weight room, exercise areas, and locker rooms with saunas. An outdoor pool is available on a membership basis. Reservations for room rentals must be made in advance of arrival. Single rooms are available from approximately $350 to $425 per month depending on size. Suites in the East Wing range from $385 to $400 per month per person. A one-month security deposit is required. An application for on-campus housing is available on the Admissions Office “Accepted Student Website” in the spring of the year. Information regarding off-campus housing can be obtained by writing to the Off-Campus Housing Office at Reed Hall, 1620 McElderry Street, Baltimore, MD 21205 or calling 410-955-3905. The Off-Campus Housing Office provides students with listings of available housing accommodations throughout the city and county of Baltimore as well as printed information on apartment complexes, city bus routes, landlord tenant laws, Baltimore City schools and nursery schools, and furniture rental options. Maps and guides to Baltimore are also available through this office. Information on both on- and off-campus housing can be obtained at the following: www.hopkinsmedicine.org/housing.

RECREATIONAL AND CULTURAL OPPORTUNITIES

Baltimore is located in a region rich in American history and has historic and scenic attractions within easy reach. There are many cultural and recreational opportunities to enrich student life. It is a city of contrasts, mixing the old and the new. Baltimore ranks among the largest of the industrial and seaport cities. Among the cultural resources are the Baltimore Museum of Art, which houses an outstanding collection of contemporary and classical painting and sculpture and features special exhibits, lectures, and art classes. One of the most important collections of art, tracing civilization from the ancient empires through the nineteenth century, can be found at the Walters Art Gallery.

The Johns Hopkins Medical Institutions and the University in general host a variety of art exhibits, performances, workshops, lectures, and film series. Many of these cultural programs are open to the general public as well as to students, faculty, and staff. The University’s Office of Special Events presents a free Wednesday Noon Series, and special student rates are available for ticketed events. In addition, students of the School are invited to attend film and lecture series.
presented by other local colleges.

For almost forty years, the Shriver Hall Concert Series has been Baltimore’s premier classical music presenter. The series presents 8 to 10 concerts per season in the Shriver Auditorium, located on the Homewood campus, featuring the world’s finest classical chamber ensembles and soloists. Regular and student subscriptions are available for the entire season. A special student rush ticket is offered one hour prior to each concert.

Different from the Shriver Hall Concert Series, but also based on the Homewood campus at Shriver Hall, is one of the area’s leading community orchestras, Hopkins Symphony Orchestra. This talented pool of Hopkins students, faculty, and staff, as well as community members from as far away as Washington, D.C., and Virginia, practice and perform on the Homewood campus. Each year under the direction of internationally acclaimed Music Director Jed Gaylin, Hopkins Symphony presents four exciting symphonic concerts with world renowned guest soloists and three conducted chamber concerts. Discount tickets are available for all JHU affiliates, and Hopkins students are admitted for free with a valid student ID.

In addition, fine music is also available from the Peabody Conservatory of Music, the Baltimore Symphony Orchestra, and the Baltimore Civic Opera Company. Baltimore regularly attracts outstanding jazz, folk, and rock artists as well as the ballet. For those who enjoy the theater, Broadway shows are presented at the Mechanic Theater, and contemporary drama is produced by a resident company at Center Stage. The Harborplace is an exciting atmosphere, blending the National Aquarium, the Baltimore Convention Center, and many restaurants and unusual shops to create a fascinating and attractive environment. Shows, fairs, and ethnic festivals held throughout the year draw large crowds to the inner harbor area.

**PARKING FACILITIES**

The University has off-campus parking available by permit only. This parking is located southwest of campus near Baltimore/Broadway Streets and east of campus near Monument/Dean Streets. Free transportation is provided to and from the parking facilities by the University. For more information, contact the Support Services Office, 410-955-1197, or the Parking Office, 410-955-5333.

**UNIVERSITY HEALTH SERVICES**

Adult internal medicine and routine gynecological primary care is provided through the University Health Services (UHS) for full-time and part-time students and their spouses of the School of Public Health who elect the Student Health Program (SHP insurance). The health center is staffed by Hopkins faculty and junior faculty (clinical fellows) who are Board certified in Internal Medicine. Students are strongly advised to call ahead for an appointment. University Health Services is located on Carnegie 1, Room 136, in the hospital. Hours for appointment scheduling are from 8:00 a.m. to 4:30 p.m., Monday through Friday. There is 24-hour physician coverage from 5:00 p.m. until 8:30 a.m. weekdays, and throughout weekends and holidays. To make an appointment, call 410-955-3250. This number will give information during hours when the UHS is closed as well, but to reach the emergency after-hours answering service directly, call 410-955-4331. School of Public Health students not covered by the Student Health Program will not be seen at UHS for any reason, including emergencies. Emergency cases should use the Johns Hopkins Hospital Emergency Room. Information describing the services provided by the health center may be obtained at the Business Office or by reading the appropriate section in the Student Handbook, which is distributed at orientation. Questions regarding exact coverage may be answered by calling Mr. Darnell Williams at 410-955-3872 in the University Health Service Benefits and Billing Office, located at 144 Blalock Building, in the Johns Hopkins Hospital. Hours of operation: 8:30 a.m.–5:00 p.m.

**JHMI DEPARTMENT OF STUDENT AND HOUSESTAFF SERVICES**

The Department of Student and Housestaff Services, located on the first floor of Reed Hall, was developed to meet the recreational, social, and housing needs of students and housestaff associated with the Johns Hopkins Medical Institutions. The goals of this department are to work with students and housestaff to organize activities, sports events, forums, and other programs that stimulate student-to-student interaction, student-faculty interaction, and interchange among the schools and the hospital.

Tickets to a number of events in the Baltimore/Washington area are available each month at special rates for students. Social events, informal classes, movies, trips and ticket sales are sponsored by the Student Activities Office.

**JHMI INTERNATIONAL SOCIETY**

The JHMI International Society was founded in 1959 to assist the international visitor in establishing social
acquaintances and to provide programs for cultural, social, and educational exchange. Activities include a welcome reception, social gatherings, tours to nearby places of interest, a newsletter of JHMI and Baltimore activities, a hospitality program, and referral to English language instruction.

OFFICE OF INTERNATIONAL SERVICES
The Office of International Services serves noncitizens who come to study and work at JHMI. It is a University office staffed by University employees who perform a variety of functions to assist international visitors in obtaining and maintaining legal status while present in the U.S.

The office sponsors visiting faculty, postdoctoral fellows, house officers, nurses, degree candidates, and other persons with a bona fide University or Hospital affiliation. In addition to assisting the noncitizen in dealing with the Department of Homeland Security, the U.S. State Department, the U.S. Department of Labor, the office houses the Johns Hopkins International Society, which provides services to assist internationals with social and cultural adjustment.

All foreign students, fellows, and visiting scholars of the medical institutions, regardless of sponsorship, and whether immigrant or nonimmigrant, are required upon arrival at Hopkins to visit the JHMI Office of International Services to provide the necessary passport and visa information vital to the records of the university. The office is located directly across from the hospital at 1620 McElderry Street on the first floor of Reed Hall. The Office of International Services, which is comparable to the foreign student advisor offices found on many university campuses, acts as liaison between Hopkins and various embassies and government agencies. Once having seen a student’s credentials, the office can advise a student accordingly on issues such as legal status, extension of legal status, travel, visa revalidation, employment, payroll clearance, and dependent information.

A representative from the Office of International Services will be at the Johns Hopkins Bloomberg School of Public Health during orientation and will be able to review travel documents and answer questions at that time.

Registration in the Johns Hopkins Bloomberg School of Public Health is not considered complete until the Office of International Services has documented a student’s legal status in the United States.

CAREER DEVELOPMENT
The Career Services Office provides career planning and job search assistance to all students of the School. Seminars, forums, video tapes, and individual counseling sessions are provided to aid students in focusing their career objectives, developing résumés, and embarking on job searches. A career resource library, which includes many resource books, is a useful tool for job seekers. eRecruiting, an electronic career management system, is utilized to assist students in their job search. Students are able to logon 24 hours per day to search for jobs using this global system, upload résumés, cover letters, and other job search materials. A career fair is held during the third term to introduce students to public health personnel in the field. Other services include frequent email postings of positions and internships available, several alumni panels during the academic year, information about public health agencies and the services they provide as well as on-site interviewing. In addition, a two-day soup-to-nuts career course is offered during the winter intersession.

STUDENT GOVERNMENT
The Student Assembly is the annually elected student governing body of the Johns Hopkins Bloomberg School of Public Health. It serves as a focus for student concerns and activities at the School and represents student views and interests to the administration and faculty. Students have developed an increasingly important voice in School affairs through their participation in School committees.

Accomplishments of the Student Assembly include publication of a quarterly student newsletter and sponsorship of seminars and community outreach projects. The Student Assembly also hosts several social events throughout the year, including a Harbor Cruise and the annual Winter Gala.

DEANS FOR STUDENTS NETWORK
The Deans for Students Network (DFSN) facilitates clear pathways of communication among the deans and individual students and the student body at large. The purposes of the network are the following:

- to facilitate student access to the services of the deans for student affairs
- to improve communication between/among deans and students
- to promote a positive, supportive, and culturally sensitive atmosphere in dean/students relationships
- to provide a forum for deans to communicate and assess their student-related activities
- to develop, revise, and communicate problem-solving algorithms to meet the changing needs of the student body
- to translate student needs into institution wide...
policies and guidelines for which the DFSN will serve as advocates to the administration, the Student Assembly, and the student body.

The responsibilities and activities of the DFSN are currently shared among Michael Ward, associate dean for student affairs; Robin Fox, associate dean for academic affairs; Sharon Krag, associate dean for graduate education and research; Robert Lawrence, associate dean for professional practice and programs; and James Yager, senior associate dean for academic affairs, with input from and collaboration with student members to the network.

THE MULTICULTURAL STUDENT ALLIANCE

The Multicultural Student Alliance (MISA) is an independent student organization. Its motto is “World Students for Health and Justice.” One of its purposes is to provide a support group for students and faculty at the Johns Hopkins Bloomberg School of Public Health who represent underserved populations in America or abroad. In recent years, MISA has been striving to expose all students to the rich and varied cultures represented by different members of the Johns Hopkins Bloomberg School of Public Health community. MISA also seeks to address issues of concern to health professionals who serve African-American, Asian-American, Hispanic-American, American Indian, and other disadvantaged peoples and communities throughout the world. These issues are addressed through a variety of activities, which include:

1. Academic and administrative assistance to its members
2. Educational programs outside the regular curriculum that promote cultural and political awareness
3. Advocacy for a curriculum that addresses the issues important to communities underserved in regards to health promotion, protection, disease prevention, and medical care
4. Promotion of policies that enhance the recruitment and retention of students and faculty at the School who represent underserved populations
5. Provision of a network for professional advancement through internships, fellowships, special studies, field placement, research, employment, and affiliation opportunities
6. Presentations and other events that increase awareness of the history, music, food, and art experiences as well as other aspects of the many cultures represented in the School community
7. Community activities that put public health principles into practice

The members of MISA include all students, staff, and faculty interested in its purposes and activities. People with different ethnic, cultural, and social experiences are especially encouraged to participate in and help enhance multicultural alliances, and promote mutual understanding, appreciation, respect, health, and justice for all, through activities evolving from the School community.

DELTA OMEGA PUBLIC HEALTH HONOR SOCIETY, ALPHA CHAPTER

Established in 1924 at the School of Public Health, Delta Omega recognizes outstanding achievement in the field of public health. The society encourages scholarship and research among students undertaking graduate study in public health. The annual election of students, faculty, and alumni to membership in the society is based upon outstanding achievements and contributions to the field of public health. For more information, contact the Johns Hopkins Bloomberg School of Public Health, 615 N. Wolfe Street, Room W1600, Baltimore, MD 21205-2179; 410-955-5194; or visit the School’s website at www.jhsph.edu.

SOCIETY OF ALUMNI

The Society of Alumni is a professional organization of graduates of the Johns Hopkins Bloomberg School of Public Health. Dedicated to providing fellowship, networking, continuing education, and strengthening alumni ties to the School, the society is represented worldwide by regional public health chapters. Alumni working worldwide in every facet of the profession are available to network with students and fellow alumni. For more information, contact Ms. Ricky Fine, executive director, Society of Alumni, the Johns Hopkins Bloomberg School of Public Health, 615 N. Wolfe Street, Room W1600, Baltimore, MD 21205-2179; 410-955-5194; email: rFine@jhsph.edu, or visit the School’s website at www.jhsph.edu.
Financial Assistance

The Student Financial Services Office administers all student loan programs plus the Federal Work-Study program at the School. In addition to determining a student's eligibility for loan assistance and work-study, the Student Financial Services Office provides personal and confidential financial counseling to all aid applicants. It is important for prospective students to note that the decision to offer or deny financial aid is totally separate from the decision to offer or deny admission.

Eligibility for financial assistance is based on a combination of factors such as financial need, merit, and availability of funds. For need-based loans and work-study, financial need is determined by using a standardized formula, established by law, which calculates an Expected Family Contribution (EFC) for the student. The EFC amount is used to compute a student's eligibility for Federal Student Aid. To receive Federal Student Aid, an applicant must:

1. Be officially accepted as a regular student
2. Be enrolled for the appropriate credits per term
3. Maintain satisfactory academic progress
4. Be a U.S. citizen or eligible non-citizen and have a valid Social Security Number
5. Not be in default on a federal student loan
6. Register with the Selective Service, if required

Financial aid regulations stipulate that an aid recipient must maintain satisfactory academic progress. Failure to maintain satisfactory academic progress may result in the cancellation of a student's eligibility to receive additional financial aid. Also, a change in the student's enrollment, funding, or financial status may affect his or her eligibility to receive or retain financial aid.

When a student withdraws within an academic term, the student's eligibility to retain financial aid will be recalculated to cover the enrollment period for which the student did maintain eligibility.

Each department at the School administers their own academic scholarship program. Therefore, students should contact the department of their major interest and request specific information about departmental scholarship opportunities.

FELLOWSHIPS, SCHOLARSHIPS, AND TRAINEESHIPS

General Information and Method of Application

A variety of fellowships, scholarships, and traineeships are funded by the federal government, the private sector, and the Johns Hopkins Bloomberg School of Public Health. Fellowship or traineeship support from the Public Health Service and other agencies of the U.S. government is usually limited by law to citizens and permanent residents of the United States. This support may be for specific or general areas of study. Departmental scholarship aid is awarded by the departmental chairperson; requests for scholarship aid should be submitted directly to the appropriate academic department. Master of Public Health (MPH) scholarships are awarded by the MPH program office. Individuals who apply to the MPH program are automatically considered for scholarship assistance by the MPH office.

Public Health Traineeship Grant

Traineeship awards (tuition support) are for students in professional degree programs from the following specialized under-represented topic areas:
- Epidemiology
- Environmental Health
- Biostatistics
- Toxicology
- Nutrition
- Maternal and Child Health
- Health Care Delivery Systems

Students who comply with established criteria are identified and selected by a School Committee based on their academic qualifications. Students do not specifically apply for support from this grant.

Information about the training programs available at the School of Public Health is available on the training programs website:
http://commprojects.jhsph.edu/academics

Departmental Scholarships

Many departments offer financial support, that includes stipends, insurance, tuition, and fees. The amount and type of this assistance varies and specific departments may only offer tuition support to students. For additional information about departmental funding, degree candidates should contact the chairperson of the department to which they intend to apply.
Master’s Tuition Scholarships (MTS) for Master of Science and Master of Health Science Candidates.

Master’s Tuition Scholarships worth up to 75% of the School’s tuition are available to eligible ScM and MHS students following the successful completion of 64 academic credits. A scholarship award of less than 75% of tuition will be made when some other form of tuition support is available to the student. Receipt of an MTS is limited to four (4) academic terms. Candidates for the MTS are recommended by their departments. Students should contact their departments or the Student Financial Services Office for eligibility criteria.

Graduate Fellowship for Nurse-Midwives

The Graduate Fellowship for Nurse-Midwives in Population and Family Health Sciences provides an opportunity for a nurse-midwife to train at the doctoral level in preparation for a professional role in research, education, and service. In establishing this fellowship, the Department of Population and Family Health Sciences continues its historical association with midwifery education at the graduate level and reemphasizes the important role nurse-midwifery has to play in maternal and child health.

Student Funding Resources

The primary responsibility of Student Funding Resources is to assist students, postdoctoral fellows and faculty in the identification of and application for grant opportunities. The time frame for receiving funding will vary from a few months to a year, depending on the specific opportunity. Therefore, it is important to plan ahead and allow ample preparation time for your funding application. Additional information about specific funding opportunities and the application process is available from the School’s website at [www.jhsph.edu/SFR/](http://www.jhsph.edu/SFR/). Inquiries should be directed to the Office of Student Funding Resources, room W1025, Wolfe Street Building.

State Aid—Generally, state aid comes from the student’s state of legal residence. Students should contact their state student aid agency for information about grant and scholarship assistance.

Research Awards

Opportunities for support from various research sources are usually available within most departments. For further information, candidates should contact the chairperson from the department to which they intend to apply.

**FEDERAL STUDENT LOANS AND FEDERAL WORK-STUDY**

General Information and Method of Application

A student must have a complete financial aid application file in order to receive consideration for Federal Student Aid. Financial aid information is available on the School’s website at [www.jhsph.edu/student_affairs/financial](http://www.jhsph.edu/student_affairs/financial). For priority consideration, applications should be submitted by April 15.

Student Loans

Loans, unlike grants or work-study, are borrowed money that must be repaid with interest. Loans are financial obligations, so think about the amount of money you will have to repay before you take out a loan. Federal student loan eligibility is limited to U.S. citizens and eligible non-citizens. Persons who are in this country on a student or visitor visa are not eligible for federal student loans.

1. **Federal Direct Student Loans**—Federal Direct Loans allow students to borrow money from the federal government to pay for educational expenses. If you are a regular student, enrolled in an eligible program on at least a half-time basis, you may receive a Direct Loan. Under the Direct Loan Program, the U.S. Department of Education makes loans, through schools, directly to students. Direct Loans simplify the loan application process and eliminate the need for an outside lender, such as a bank or credit union.

   Direct Loans are either subsidized or unsubsidized.

   A. Federal Direct Subsidized Loans are awarded on the basis of financial need. The federal government will pay the interest on the loan while the student is in school and during specified deferment periods.

   B. Federal Direct Unsubsidized Loans are not awarded on the basis of need. The student will be charged interest from the time the loan is disbursed until it is paid in full.

   The interest rate for Direct Loans is variable, that is, the rate is adjusted each year. The maximum rate for a Direct Loan is 8.25%. All Direct Loan borrowers are charged an origination fee of 3%. Upon entering repayment, the borrower will always make pay-
ments to the same Direct Loan servicer. Direct Loans will not be resold.

2. **Federal Perkins Loan**—A Perkins Loan is a low-interest (5%) loan for students with exceptional financial need. The School is the lender and the loan is made with government funds. You must repay this loan to Johns Hopkins University.

**OTHER LOAN FUNDS**—Several alternative student loan programs are offered by private lending institutions. These loans are credit-based, are not subject to the Federal Need Analysis Methodology, and may be used to supplement other forms of financial assistance.

**Federal Work-Study Program**

The purpose of the Federal Work-Study Program is to stimulate and promote the part-time employment of students who are in need of these earnings to meet the cost of postsecondary education. This program also encourages eligible students to participate in community service activities that will benefit the nation and engender in the students a sense of social responsibility. A student's earnings during an academic year are limited by the student's demonstrated financial need and the availability of program funds. Federal Work-Study positions are assigned on a first-come, first-served basis.

**VETERANS’ BENEFITS**

The University (serving as a liaison to the Veterans Administration) makes provisions for individuals who wish to continue their education under the laws pertaining to veterans’ education benefits. Eligible students should apply to the Veterans Administration for education benefits after being accepted for admission. Students must state the same educational objective in making application both to the School and to the Veterans Administration. Students are required to pay the usual fees to the School at the time of registration. Additional information regarding veterans’ benefits may be obtained from the Student Financial Services Office.

**FOREIGN STUDENTS**

**Financial Certification**

Applicants for admission from other countries should arrange for their funding as soon as they apply for admission. Students typically are informed of scholarship awards from the School prior to enrollment. *If you have not been formally awarded a scholarship before the start of the academic year, it is unlikely that you will receive a scholarship after you arrive at the University. The School has no mechanism for tuition waivers.*

Foreign students using their own source of support should be prepared to show clear documentation as to how they will support themselves for tuition and living expenses during their entire program. The School must receive official certification from the sponsor of the source and amount of financial support (tuition and living expenses) before the Certificate of Eligibility (I-20 form or IAP-66 form) needed to obtain a visa can be issued to an accepted international student. Those candidates intending to support themselves from personal funds must provide a letter from a bank in the United States indicating that sufficient funds are on deposit to cover tuition and living expenses for the first year of the program.

**Financial Assistance**

Financial assistance for international students who are not permanent residents of the United States is limited. Most international students coming to the School are supported by their governments or private health organizations. Students should contact the department to which they intend to apply for information regarding their eligibility for scholarship assistance.

**SCHOOL OF PUBLIC HEALTH SCHOLARSHIPS AND AWARDS**

Students registered full-time in the School are eligible for consideration for various scholarships, research fellowships, and awards. All students are advised to review the bulletin boards and the Student Funding Resources website (located within the School’s website at www.jhsph.edu) for scholarship announcements. Detailed information is available through the Director of Graduate Education or the Committee on Honors and Awards. Awards made available through the School or departments include:

**Helen Abbey Fund**—This fund provides support for a second-year (and later) doctoral candidate in bio-
Aoyama-Kita Scholarship—This scholarship will provide scholarship support to public health physicians from Japan, Korea, and Malaysia who will pursue careers in public health practice in those countries, and/or who demonstrate an avid research interest in public health issues affecting those countries.

Baker, Reinke, Taylor Scholarship in International Health - This scholarship will support graduate students in the Department of International Health.

Frederik B. Bang Fund—This fund recognizes students who are engaged in doctoral research in a topic relevant to pathobiology.

The A. Ralph and Sylvia E. Barr Fellowship in Vector Biology—This fellowship supports a doctoral or post-doctoral student in the W. Harry Feinstone Department of Molecular Microbiology and Immunology working with vectors of infectious diseases in their natural habitats.

Randy E. Bass Award—This award goes to a student focusing on occupational medicine.

J. Howard Beard Fellowship—This fellowship supports beginning masters of public health students who are graduates of the Johns Hopkins School of Medicine or enrolled in the joint MD/MPH program.

Marilyn Berger Endowment in Health Services Research—This award is provided to a doctoral student working in the area of health services research in the Department of Health Policy and Management.

Dr. Henry K. and Lola Beye Scholarship—This scholarship is awarded to advanced level, physician doctoral students in the Department of International Health who have an interest in tropical medicine.

Eleanor A. Bliss Honorary Fellowship—This fellowship provides support for PhD students in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

David and Elinor Bodian Scholarship Fund—This fund provides annual support to a doctoral student in any department at the School whose dissertation research is at a critical juncture.

Miriam E. Brailey Fund—This fund supports graduate training and research in epidemiology.

Trudy Bush Fund—This fund provides tuition support to students pursuing a MHS degree in the Department of Epidemiology with a specialization in women’s health.

Otis and Calista Causey Fellowship in Immunology—This fellowship recognizes outstanding Ph.D. students in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

Bacon Field Chow Memorial Fellowship—This fellowship provides tuition support to outstanding doctoral students working in the area of human nutrition research.

Clements-Mann Fellowship Fund in Vaccine Sciences—This fellowship supports outstanding graduate students in the Department of International Health whose studies are focused in vaccine sciences.

Caroline Cochran Scholarship Fund in Population and Reproductive Health—Income from this fund will provide tuition assistance to incoming and continuing graduate students in the Department of Population and Family Health Sciences who are interested in population and reproductive health.

Ruth B. and J. Douglas Colman Scholarship—This scholarship provides support to an outstanding student in the general preventive medicine residency program whose focus is on health policy.

Jean Coombs Fund—This fund supports doctoral dissertation research by students in the Department of Epidemiology, concerning cancer research or childhood diseases.

Donald A. Cornely Scholarship Fund in Maternal and Child Health—This fund provides support for a doctoral student in the Department of Population and Family Health Sciences whose research has application for the practice of maternal and child health.

Frances A. Coventry Fund—Income from this fund provides support for outstanding School of Public Health students.

June Culley Scholarships in Biostatistics and Health & Policy Management—These scholarships provide support for doctoral students in the Departments of Biostatistics and Health Policy and Management.

Dean’s Alumni Advisory Council Scholarship—This scholarship provides tuition support to deserving incoming or continuing students whose careers in public health will be dedicated to the global defense of human life through the prevention of disease, disability and premature death.

Edward J. Dehne in Population Dynamics—This award supports doctoral students working in the area of reproductive health, family planning, demography, or reproductive biology in the Department of Population and Family Health Sciences.

Louis I. Dublin and Thomas D. Dublin Fund for the Advancement of Epidemiology and Biostatistics—This fund supports graduate student education at the interface of Biostatistics and Epidemiology.

Robert Dyar Award—This award supports a graduate student in the Department of Epidemiology seeking an MD degree.

Jane and Steve Dykacz Endowment Fund in
Medical Statistics—This fund is given every other year to a student in the Department of Biostatistics for the best paper in medical statistics.

Endowed Student Support Fund—This fund will support students undertaking research projects on injury control or population control in low income countries with preference given to China, India, and Indonesia.

Environmental Health Engineering Student Development Fund—This fund supports student development, educational goals and objectives for the Division of Environmental Engineering in the Department of Environmental Health Sciences.

The Eskridge Family Student Support Fund for International Students—This fund provides tuition support to an outstanding international student.

Fellowship in Family Planning and Reproductive Health—This fellowship will support graduate students or post-doctoral fellows in the Department of Population and Family Health Sciences working in the area of family planning and reproductive health.

The Charlotte Ferenz Scholarship in the Department of Epidemiology—This scholarship supports students in the Department of Epidemiology whose research projects focus on birth defects, with preference given to projects related to the etiology of congenital heart disease.

Charles D. Flagle Fund—This fund is awarded to an incoming doctoral student in the Department of Health Policy and Management whose work is in the area of health services research, including technology assessment and medical informatics.

Ruth Freeman Memorial Fund—This annual fund recognizes academic performance and an outstanding thesis of a graduating or continuing nurse doctoral student.

Martin Frobisher Fellowship Fund—This fund provides support for doctoral students in the Department of Molecular Microbiology and Immunology.

General Preventive Medicine Residency Endowment—This endowment provides tuition and stipend support for outstanding first year general preventive medicine residents.

The Pearl & Jeremiah German Scholarship in Gerontology—This scholarship will be used to provide tuition assistance and/or stipend support to an incoming doctoral student in the Department of Health Policy and Management with a declared interest in gerontology.

The Alice J. Gifford Fund for Occupational Health Nursing—This fund supports graduate education for nurses in occupational and environmental health, and related research conducted by nurses at the School.

GlaxoSmithKline Preventive Medicine Residency Scholarship—This scholarship provides support to an outstanding first-year general preventive medicine resident.

Howard C. and Jane R. Goodman Fund—This fund provides tuition support for an MPH student.

William Haddon, Jr. Fellowship in Injury Prevention—This fellowship provides support to a new or continuing doctoral student in the Department of Health Policy and Management, working in the area of injury control and prevention.

Harold and Sylvia Halpert Endowment Fund—This fund provides support to students in the Department of Mental Health in recognition of both past achievement and promise of future contributions in their fields.

Bettylee Hampil Fellowship—This fellowship supports a doctoral student in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

C. Esther and Paul A. Harper Fund—This annual fund is available to graduating doctoral students in the Department of Population and Family Health Sciences whose research focuses on population issues, and students studying maternal and child health whose academic performance has been judged outstanding.

Health Policy and Management Fellowship Support—This fellowship provides tuition support to incoming doctoral students in the Department of Health Policy and Management.

Hegner, Cort, Root Memorial Scholarship Fund in Immunology and Infectious Disease—This scholarship supports a doctoral candidate in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

Diana Hess Memorial Fund—This fund provides support to an M.H.S. student in the Department of International Health preparing to do field work, with preference given to those students working in Africa.

Lillian Hiss/Ethel Crosby Scholarship Fund—This scholarship provides support to students with a nursing degree, based on academic achievement and financial need.

The Sibley and Catherine Hoobler Award for Excellence in Public Health and Medicine—This award is given to students pursuing studies in the Johns Hopkins Schools of Public Health and Medicine.

John C. Hume Doctoral Award—This award provides support to a continuing doctoral student in Health Policy and Management.


**John C. Hume MPH Award**—This award is made to a Master of Public Health student for academic excellence and professional promise.

**Elsa Orent Keiles Fellowship in Biochemistry and Human Nutrition in International Health**—This fellowship provides tuition support for graduate students with demonstrated financial need in the Department of Biochemistry and Molecular Biology and the Division of Human Nutrition in the Department of International Health.

**Josephine Kohn and Family Fund**—This fund provides support to incoming or continuing international doctoral students in the Department of Population and Family Health Sciences whose focus is on family planning and reproductive health, and who intend to return to their home country.

**Morton Kramer Fund for the Application of Biostatistics and Epidemiology in Research on the Prevention and Control of Mental Disorders**—This fund provides an annual award to an outstanding doctoral student in the Department of Mental Health who has demonstrated excellence in application of biostatistical and epidemiological methods to the solution of problems in research dedicated to advancing our knowledge of the epidemiology and prevention of mental disorders.

**Dr. C. W. Kruse Memorial Fund**—This fund is presented to a doctoral student for scholarly achievement and an outstanding dissertation in the division of Environmental Health Engineering in the Department of Environmental Health Sciences.

**Harry D. Kruse Award in Nutrition**—This award is presented annually to a continuing full-time student who has demonstrated outstanding academic performance and professional potential in the field of nutrition and public health.

**The Dr. Harry J. Lawler Award Fund**—This award provides support to an outstanding student in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

**The Cynthia and Robert Lawrence Scholarship**—This scholarship provides support to a student whose public health interests have a direct bearing on the priorities of the Center for a Livable Future.

**Paul V. Lemkau Scholarship Fund**—This fund is given to a Department of Mental Health student who has made a significant difference in the community life of the department.

**Carol Eliasberg Martin Scholarship in Cancer Prevention**—This scholarship provides annual support to an outstanding doctoral student or postdoctoral fellow whose work holds promise for preventing cancers that affect women, with a focus on breast and ovarian cancer.

**Margaret Merrell Fund**—This fund provides support for students in the Department of Biostatistics in recognition of excellence in research.

**Mary B. Meyer Memorial Fund**—This fund supports up to three doctoral or post-doctoral students in the Department of Epidemiology whose research focuses on the epidemiology of reproduction and infant/child health.

**The Harvey M. Meyerhoff Scholarship in Cancer Prevention**—This scholarship will provide fellowship support to students in the Department of Epidemiology whose focus is in cancer prevention.

**Janice Eddy Mickey Endowed Scholarship Fund**—This fund supports students who plan to devote their lives to improving health and human rights worldwide.

**Minority Student Support Fund**—This award is given to students with a demonstrated commitment to minority health issues.

**Dr. and Mrs. Roscoe M. Moore, Jr. Scholarship in the Department of Epidemiology**—This scholarship supports a doctoral student in the Department of Epidemiology, with preference given to graduates of historically black colleges and universities.

**Morgan-James Scholarship Fund**—This fund supports an outstanding student pursuing a graduate degree in the Department of Environmental Health Sciences, whose interest is radiation health sciences.

**Lisa L. Paine Graduate Fellowship in Nurse-Midwifery**—This fellowship honors and supports experienced nurse-midwives seeking a graduate degree in the Department of Population and Family Health Sciences to better fulfill the widening public health role for maternal and child health research, education, and service.

**John and Alice Chenoweth Rate Fellowship**—The fellowship supports a woman doctoral student in the Department of Population and Family Health Sciences.

**The David Paton Scholarship in Preventive Medicine**—This scholarship provides support to a general preventive medicine resident at the Johns Hopkins Bloomberg School of Public Health.

**The Marcia G. Pines Award in Bioethics and Public Health**—This award is given annually for the best student paper in bioethics and public health.

**Harry J. Prebluda Fellowship in Nutritional Biochemistry**—This fund provides fellowship support for outstanding students focusing on nutritional biochemistry and metabolism.

**Procter & Gamble Fellowships**—These fellowships support masters, doctoral and post-doctoral students who are committed to advancing the health and well being of women and children through clean water and
improved nutrition.

**Ruth Rice Puffer Fund for International Student Support**—This fund supports a masters or doctoral student studying at the School who is not a United States citizen.

**Victor P. Raymond Memorial Fund**—This fund provides scholarship support to a continuing doctoral student in the Department of Health Policy and Management whose work has relevance at the national and/or state level.

**Refugee Health Training Fund**—This fund is given to students on leave from relief organizations who wish to strengthen their expertise in providing health care to refugees and other displaced persons.

**The Dr. Lloyd and Mae Rozeboom Scholarship**—This scholarship supports students in the W. Harry Feinstone Department of Molecular Microbiology and Immunology who are studying medical entomology/vector biology.

**The R. Bradley Sack Family Scholarship Award**—This fund supports outstanding doctoral students studying infectious disease programs in the developing world.

**Carl Swan Shultz Endowment Fund**—This fund is presented to an outstanding doctoral student in the Department of Population and Family Health Sciences whose work focuses on reproductive health, family planning, demography, or reproductive biology.

**The Jean and Sidney Silber Fund in Population and Family Health Sciences**—This fund provides support to students working in the area of international bioethics.

**Karn Trowbridge Fund**—This fund provides fellowship support to a U.S. doctoral student in the Department of Population and Family Health Sciences who has demonstrated outstanding academic achievement and is committed to promoting national efforts in family planning and reproductive health.

**Watt/Hansell Endowment**—Established to bring a public health perspective to medical education, this endowment provides tuition support to Hopkins medical students who wish to pursue public health training and vice versa.

**Katharine E. Welsh Fellowship in Immunology & Infectious Disease**—This fellowship supports outstanding students in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

**The Willian Endowment for Excellence in Science**—The fund is awarded to a doctoral student from the Departments of Health Policy and Management or Population and Family Health Sciences for outstanding research in the area of health policy and management for women and children.

**The Ruth G. Wittler Student Scholarship Fund**—This fund provides support to students working in the laboratory sciences in the W. Harry Feinstone Department of Molecular Microbiology and Immunology.

**Robert D. and Helen S. Wright Fund**—This fund is presented to continuing doctoral students in the Department of International Health, who expect to contribute to the improvement of public health in Africa, particularly Nigeria.

**John P. Young Memorial Fund**—This fund provides support to an incoming student in the MHS program in health finance and management in the Department of Health Policy and Management.
Tuition and Fees

TUITION
Tuition for the 2005–2006 academic year for full-time enrollment for a four-term, nine-month academic year is $30,960. Tuition for the 2005–2006 academic year for the eleven-month, full-time MPH program is $38,700. For students granted permission to pursue a degree program for an extended period of time, tuition is charged on a per-credit basis. For the 2005–2006 academic year, the charge is $645 per credit. Information regarding these charges can be obtained from the Records and Registration Office.

Fees for audited courses are based on the number of units as if the course were taken for credit. Tuition for postdoctoral students is $800 for the four-term academic year or $1000 for five-term periods, which include the summer term. For special students, tuition is assessed for courses taken in accordance with the established schedule of fees per credit unit.

Schedule of Payments
Payment due dates for summer term through 4th term are as follows:
- Summer–July 29, 2005
- 1st Term–September 30, 2005
- 2nd Term–November 30, 2005
- 3rd Term–January 31, 2006
- 4th Term–April 28, 2006
Electronic statements are posted on the web each month on the 16th. Payments are due for each statement on the last business day of that month. A document from an organization stating its intention to financially support the student will be accepted as payment at the discretion of the Student Accounts Office. Tuition and related fees may also be paid by cash, check, Discover, MasterCard, or Visa.

Refund Policy
Students receive a 100% tuition refund for any withdrawals made prior to the end of the add/drop period; however, there is no tuition refund after the add/drop period. This policy applies to complete registration withdrawals as well as individual course withdrawal. During weeks three and four of the term, students who receive federal student financial aid must consult with the Student Financial Services Office prior to any withdrawals from the School.

FEES
Matriculation Fee
All new degree candidates entering academic year 2005–2006 either full-time or part-time will be assessed a one-time matriculation fee of $500. The fee is designed to offset costs associated with registration, record keeping, and graduation, including diploma printing.

Activity Fee
All new degree candidates, with the exception of distance education students, will be assessed a one-time activity fee of $40.

Late Registration Fee
A fee of $50 is assessed without exception for registering and changing courses after the specified registration and add/drop periods for each academic term, including summer.

Late Payment Fee
A fee of $50 is assessed without exception for self-payment portions of tuition paid after the payment due date for each term. Fees associated with delinquent accounts sent to collections will be passed on to the student.

Transcript Rush Order Fees
Transcripts should be ordered at least seven working days before they are needed. An online non-rush request can be made under the Transcripts link at http://www.jhsph.edu/Student_Affairs/registrar/index.html. In cases of extreme urgency, a rush order for a transcript may be requested. A fee of $10.00 will be assessed for rush requests for transcripts to be picked up the next business day or sent by standard mail. A $15 fee will be assessed for rush requests to be sent via overnight mail to U.S. addresses and a $22 fee will be charged for overnight delivery to foreign addresses (please note: Rush fees are charged per “mail to” address. An additional $5 fee will be charged per transcript for requests in excess of 5. There is a nominal fee charged for online requests.)

Returned Check Fee
A fee of $25 is assessed without exception for any check returned to the School by a banking institution. The University reserves the right to not accept future payments by personal checks from any student once a fee has been assessed.
Course Materials Fee

Some courses have mandatory fees to cover the cost of reproducing instructional materials for those courses. These fees are listed on the course schedules for each term and will be charged to your student account.

Nonresident Fee

For nonresident students, an assessment of fifteen percent of full tuition is made for registration of each academic term during which a student elects to be on nonresident status, until the term in which all degree requirements are completed or there has been a change in status. Should the student return to resident status in any remaining academic term, any nonresident fee paid for that term will be applied to the full term's tuition charge. Upon return to resident status during the academic term in which the degree will be conferred, the usual tuition schedule will apply.

Leave of Absence Fee

The University will assess a $50 fee per term (excluding summer) for students who are on official leave of absence.

Insurance

The University requires that all full-time and foreign students be covered by the Student Health Plan offered through the University. Individual, two-party, and family coverage are available through the School. However, this requirement will be waived with proof of comparable coverage. Coverage is effective either the first day of July or September depending on your degree program. Your account will be charged health insurance premiums on a term basis.

Summer Term – July & August
1st Term – September & October
2nd Term – November & December
3rd Term – January, February & March
4th Term – April, May & June

Premiums are due by the payment due date for each term. Monthly premiums for 2005–2006 are as follows: $162 for individual, $360 for two-party and $450 for family. These premiums are subject to change. It is the student's responsibility to notify the Student Accounts Office when insurance coverage should be terminated. Students will be responsible for all charges resulting from the failure to provide such cancellation notification without exception. The Student Accounts Office reserves the right to cancel medical coverage without further notice for any student who is no longer enrolled. The Student Accounts Office should be contacted for health insurance brochures and information.

Housing

All rent charges for Reed Hall only will be posted to your student account. These charges will be posted on a term basis and due on the payment due date for each term. (Please see health insurance section above.) For more information on rates and availability, you must contact the Housing Office at 410-955-3905.

Binding of Thesis

Students in degree programs that entail submission of a thesis or dissertation are assessed a charge for binding of the manuscript. Payment is due in the Office of Records and Registration after the student's thesis has been officially approved and at the time that copies are deposited in the Office of Records and Registration for binding. Doctor of Philosophy students must also comply with special regulations of the Graduate Board of the University concerning microfilming of the dissertation and the related fee.

Other Costs

Costs associated with completion of a satisfactory investigation in the principal subject and its presentation in the form of a thesis are the ultimate responsibility of the student. Some departments offer financial assistance to cover these costs. Students should contact their department for estimates of such costs and information on assistance.
Biochemistry and Molecular Biology

GOALS OF THE DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

The goals of the Department of Biochemistry and Molecular Biology are to increase current knowledge of the biochemical and molecular basis of normal and abnormal cellular processes, and to train highly qualified scientists who, through research, teaching, and service will continue to provide new insights into the biochemical, molecular, and biophysical underpinnings of biomedical issues that have an impact on the health of the public. Critical biomedical issues centered in reproduction are addressed by the Department’s Division of Reproductive Biology.

EDUCATIONAL PROGRAMS OF THE DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

The department offers the following degree programs: PhD in Biochemistry and Molecular Biology; Master of Health Science (MHS) in Reproductive Biology or Biochemistry and Molecular Biology; and Master of Science (ScM) in Reproductive Biology.

Please consult our department handbook for more detailed information on our programs - http://www.jhsph.edu/Dept/BMB/Resources_Links/Student%20Guide.8-04.pdf

PhD Program of the Department

The PhD program in the Department of Biochemistry and Molecular Biology is designed for individuals who wish to prepare for a career in academic research/teaching, government research, or industrial research. This program is suitable for individuals with a bachelor’s degree in biology, chemistry, biochemistry or molecular biology. MD-PhD students who wish to conduct their PhD research in the department are given very serious consideration. The PhD in Biochemistry and Molecular Biology emphasizes molecular studies of multiprotein systems, molecular and cellular biology, enzymology, molecular genetics, biophysics, and biochemical nutrition. This research has applications to cancer, aging, neurological diseases, and environmentally based diseases. The PhD specializing in Reproductive Biology emphasizes reproductive physiology, molecular endocrinology, and cellular, molecular and developmental biology, with applications to aging, fertility/infertility regulation, reproductive toxicology and reproductive tract disease.

Applicants to the PhD program must submit the results of the Graduate Record Examination and General Aptitude Test. The Subject Test in chemistry, biochemistry, molecular and cell biology, or biology is strongly recommended. Significant undergraduate research experience is highly desirable.

All PhD students of the Department of Biochemistry and Molecular Biology have a common core curriculum during the first year. In their first year all students are required to take Molecular Biology and Genomics, Macromolecular Structure and Analysis, Biochemical and Biophysical Principles, Genetics, Cell Structure and Dynamics, Organic Mechanisms in Biology, Pathways and Regulation, Computational Biology and Bioinformatics, and Mechanisms for Preservation of Genome Integrity. In addition, students must take two of the following electives: Reproductive Biology for Biomedical Scientists, Structure Determination, Developmental Biology, Mechanisms in Bioorganic Chemistry, Neurobiology, Epigenetics, Transcription Mechanisms, Virology, Post-Transcriptional Events in Gene Regulation, Structure and Chemistry of Lipid Bilayers, The Nucleus, Fundamentals of Membrane Physiology, or Introductory Molecular Immunology. First-year students also participate in a year-long Core Research Literature course (120.852) that is directed by department faculty. In addition, students spend about one-half of their time conducting laboratory research; each student rotates through five different laboratories, spending six to seven weeks in each laboratory. At the end of each period, students present an oral report on their work to their fellow first-year students and the faculty, and receive a formal, written evaluation of their performance during that rotation. At the end of the fifth rotation, students choose their thesis mentor. Students are given their first choice of mentor as far as possible.

In the second year, students who specialize in biochemistry and molecular biology take Molecular Biology of Carcinogenesis (120.615), whereas those who are specializing in reproductive biology take either Molecular Endocrinology (120.621) or Molecular and Cellular Mechanisms of Reproduction (120.622) and Reproductive Biology for Biomedical Scientists (if not taken in first year). Those students with an interest in environmental health take Principles of Toxicology (187.610) and
Environmental Health (180.601). All students are required to take a Research Ethics course (550.860) and Public Health Perspectives in Research (550.865). In addition, prior to their PhD oral qualifying exam, students must complete nine (9) credit units of coursework outside the Department, but within the School of Public Health. Three (3) of the nine (9) credit units must be taken outside the laboratory science departments. These non-laboratory departments include Biostatistics, Epidemiology, Health Policy and Management, International Health, Mental Health, and Population and Family Health Sciences. Students are also required to take, prior to graduation, three seminar courses, which are offered by various members of the Department faculty throughout the academic year. Finally, a rich array of seminar programs and journal clubs are available to all students.

To help prepare students for their research careers, and to evaluate their ability to conduct research, students take two departmental oral exams. The subject of the first exam is the student's thesis topic. During their first summer, students write a five-page research proposal and defend it orally before a departmental committee. The subject of the second exam, which is given in the late spring of the second year, is chosen by the students from a list of topics offered by the faculty. Each student spends a month preparing for this exam. Again, the student writes a five-page research proposal and defends it orally before a departmental faculty committee. In addition to the departmental oral exams, all candidates for the PhD degree at Johns Hopkins University must pass the University Graduate Board oral exam, usually taken at the end of the second year. Upon completion of the program, a dissertation based on results obtained during the student's independent research and prepared in a format suitable for publication, will be presented in a public seminar and defended in a final oral examination. Experience indicates that a minimum of four years is necessary to fulfill all PhD requirements, and that the average student requires about five years.

**Masters Programs of the Department**

The Department and its Division of Reproductive Biology offer the Master of Health Science (MHS) degree. The MHS program requires one year of coursework and the writing of a scholarly, library-based thesis. The program is designed for students seeking graduate-level coursework and/or exploring career options in the health sciences. Many of the students who enroll in this program wish to improve their chances for medical or other professional schools, while others may opt to pursue advanced graduate work or positions in industry.

Students who complete the coursework required for the MHS program may request to transfer to the Division of Reproductive Biology ScM program, a laboratory-based program that requires an additional year of study, including coursework, the completion of original research, and the writing of a research-based thesis. Students who transfer to the ScM program do not receive the MHS degree and may elect not to complete the library-based MHS thesis. Typically, ScM students present their findings at national meetings and publish their results in peer-reviewed journals. Some ScM students continue on to advanced graduate study (MD, PhD), while others obtain research positions in industry or elsewhere. There is substantial flexibility in coursework. The courses that are required for master's candidates in both the MHS and ScM programs in Reproductive Biology are: Fundamentals of Reproductive Biology (120.620), Molecular Endocrinology (120.621), Molecular and Cellular Mechanisms of Reproduction (120.622), Multidisciplinary Research in the Reproductive Sciences (120.623), Public Health Perspectives in Research (550.865), and Research Ethics 550.860 or Research Ethics and Integrity 306.665. Courses that are highly recommended include: Biochemistry—An Introductory Course (120.600, 120.601), Introduction to Molecular Biology (120.602), and Molecular Biology of Disease (120.603). Students are expected to participate in journal clubs and seminar programs of the division and department.

**Graduate Interdepartmental Program in Molecular Epidemiology (IPME)**

The Interdepartmental Program in Molecular Epidemiology (IPME) offers specialized cross-training in epidemiology (Department of Epidemiology) and the laboratory sciences (Departments of Biochemistry and Molecular Biology, Environmental Health Sciences, and Molecular Microbiology and Immunology). As a result of the complete sequencing of the human genome and rapid advances in high-through-put molecular techniques, epidemiology is poised to move beyond measuring associations of exposures with disease occurrence to assessing the underlying biological mechanisms of pathogenesis.

The objective of the Interdepartmental Program Molecular Epidemiology is to provide candidates with solid training in the complementary disciplines of epidemiology and laboratory molecular biology/genetics to encourage interdisciplinary approaches to solving public health problems. Candidates will select an academic training program based on the requirements for
the individual departmental PhD and ScM requirements (see department-specific ScM requirements for the IPME) structured around a Core Curriculum in Molecular Epidemiology. The Core Curriculum will ensure a broad theoretical basis in the following subject areas: epidemiology, biostatistics, molecular biology, cellular biology, genetics, physiology/immunology, molecular epidemiology, and laboratory rotations. The integrative aspects of the interdisciplinary model include a system of co-advising (advisors from doctoral and masters departments) and integration of PhD and ScM research into a single dissertation. The IPME dissertation will include results of both masters and doctoral research (which must be thematically related) and a chapter integrating the laboratory and epidemiologic approaches to the research topic. Successful candidates of the Interdepartmental Program in Molecular Epidemiology will be concurrently awarded a PhD in the core department and a Masters of Science degree in the joint department.

Admission to the IPME will follow standard admission procedures for the PhD and ScM departments, with final approval by the Molecular Epidemiology Advisory Council. Prior laboratory experience/training is required for admission to the IPME.

General Areas of Research

The areas of emphasis in the Department of Biochemistry and Molecular Biology include the following research issues:

**Biochemical Nutrition**—cellular growth control.

**Bioorganic Chemistry**—organic and enzymatic synthesis of nucleic acids; antisense oligonucleotides; nucleic acid analogs.

**Biophysics**—biopolymer structure and interaction; florescence spectrometry of protein conformation and function, and of protein-protein interactions.

**Structural Biology**—x-ray crystallography; protein and nucleic acid structure; RNA splicing.

**Cellular and Molecular Biology**—molecular carcinogenesis; regulation of chromosomal DNA replication; signal transduction mechanisms; DNA repair; biosynthesis, trafficking, and function of glycoproteins; nuclear transport; cell adhesion and interactions; protein turnover during erythroid differentiation; glycobiology; mechanisms of heat shock protein function; control of eukaryotic gene expression during differentiation and alterations in gene expression during neoplastic transformation; control of plant gene expression; mechanisms of DNA rearrangement; eukaryotic genome structure and sequencing; eukaryotic growth control; bacteriophage and bacterial genetics; mechanisms of bacterial transformation, transfection, and recombination.

**Biochemistry and Enzymology**—mechanisms of DNA replication, recombination, and repair; kinetics of enzyme action; peptide chemistry and protein structure; enzyme mechanisms; mechanisms of molecular chaperone action and targeting; structure, function, and synthesis of membrane molecules; specificity and targeting in ubiquitin-mediated proteolysis.

**Reproductive Biology**—human male sex differentiation and development; gene function during development; hormonal and neural regulation of seasonal reproductive behavior; regulation of structure, function and aging of Leydig cells in the mammalian testis; molecular mechanisms of androgen action in target tissues; function and control of prostate growth in relation to normal physiology, benign prostatic hyperplasia, and cancer; hormonal and molecular regulation of mammalian spermatogenesis; interactions between Sertoli and germ cells in the mammalian testis; oocyte maturation; sperm egg interaction during fertilization; development of methods for contraception and prevention of sexually transmitted diseases; effects of environmental toxicants on the reproductive tract.
Biochemistry and Molecular Biology

Faculty data as of April 30, 2005. For current listing, please click here: http://commprojects.jhsph.edu/faculty/bmb.cfm

Roger McMacken, Ph.D.
Chair of the Department.
E.V. McCollum Professor.

Primary Faculty

Judith L. Bender, Ph.D.
Associate Professor. Arabidopsis thaliana, gene expression, tryptophan biosynthesis, signal transduction, epigenetic control, DNA methylation, gene silencing, chromatin.

Terry R. Brown, Ph.D.
Professor, Division of Reproductive Biology. Androgens, androgen receptor, prostate, testis, male reproduction.

Floyd R. Bryant, Ph.D.
Professor. E. coli, Streptococcus, RecA, Strand-exchange, ATP Hydrolysis, Recombination, DNA repair.

Martin Charron, Ph.D.
Assistant Scientist, Division of Reproductive Biology. Cathepsin L, germ cells, Sertoli cells, spermatogenesis, stage-specific gene expression, promoter, transcription factors, transgenic mice.

Haolin Chen, Ph.D.
Associate Scientist, Division of Reproductive Biology. Aging, Leydig cell, Steroidogenesis, Rat.

Janice Evans, Ph.D.
Associate Professor, Division of Reproductive Biology. Fertilization, cell adhesion, cytoskeleton, egg, sperm, oocyte maturation, contraception, infertility.

Lawrence Grossman, Ph.D.
University Distinguished Service Professor. Nucleotide excision repair (NER) pathway, UvrA, UvrB and UvrC proteins.

Eric Grote, Ph.D.
Assistant Professor. Cell-cell fusion, fusion of a sperm with an egg.

Leslyn A. Hanakahi, Ph.D.
Assistant Professor. Non-Homologous End-Joining (NHEJ), DNA double strand break repair, inositol phosphate, Ku, DNA-PK, XRCC4, DNA Ligase IV.

P. C. Huang, Ph.D.
Professor. Stress-inducible genes and their gene products, metalllobionein.

Clara Kielkopf, Ph.D.
Assistant Professor. Gene regulation, RNA, splicing, U2AF, biophysics, structure, genetic disease.

Sharon S. Krag, Ph.D.
Professor. Glycosylation, dolichol, site-occupancy, molecular approaches, research ethics.

Brian A. Learn, Ph.D.
Research Associate.

David E. Levin, Ph.D.
Professor. Stress and growth control signals are transmitted from the cell surface to their ultimate intracellular targets is central to understanding how cells respond to changes in their environment, signal transduction pathways.

Lin-di Luo, Ph.D.
Research Associate, Division of Reproductive Biology.

Michael J. Matunis, Ph.D.
Associate Professor. Cell biology, understanding how the thousands of distinct proteins made by each cell find their correct intracellular and extracellular destinations.

Roger McMacken, Ph.D.
E. V. McCollum Professor of Biochemistry. DNA replication, biochemical mechanisms, macromolecular assemblies, DNA supercoiling, DNA helicases, protein-DNA interactions, replication origins, molecular chaperones, heat shock proteins, protein remodeling.

Paul S. Miller, Ph.D.
Professor. Biophysical and biological properties of nucleic acid analog, properties of nuclease-resistant oligonucleotides, DNA repair, interstrand cross-links.

Scott D. Morrow, B.S.
Research Associate. DNA Synthesis, custom-synthesized oligonucleotides, nucleic acid synthesis.

Cecile M. Pickart, Ph.D.
Professor. Ubiquitin, polyubiquitin, proteasome, DNA repair, Alzheimer’s disease.

Shahri Raasi, Ph.D.
Assistant Scientist.
John J. Scocca, Ph.D.
Professor. Mechanism of site specific recombination promoted by a system derived from a small bacteriophage, HP1 of Haemophilus influenzae.

William W. Wright, Ph.D.
Professor, Division of Reproductive Biology. Cell-cell interactions that underlie the formation and function of the male gamete, specific and precise communication between somatic, Sertoli cells and developing male germ cells.

Barry R. Zirkin, Ph.D.
Professor and Director, Division of Reproductive Biology. Molecular regulation of Leydig cell structure and function during aging. Human male, serum levels of testosterone, sperm.

Joint Appointments

Gregory Ball, Ph.D.
Professor of Psychology, School of Arts and Sciences.

Srinivasan Chandrasegaran, Ph.D.
Professor of Environmental Health Sciences.

Valeria Culotta, Ph.D.
Professor of Environmental Health Sciences.

Nancy E. Davidson, M.D.
Professor of Oncology, School of Medicine.

John Gearhart, Ph.D.
Professor of Gynecology and Obstetrics, School of Medicine.

J. Marie Hardwick, Ph.D.
Associate Professor of Molecular Microbiology and Immunology.

Jonathan Jarow, M.D.
Professor of Urology, School of Medicine.

Thomas W. Kensler, Ph.D.
Professor of Environmental Health Sciences.

Sean T. Prigge, Ph.D.
Assistant Professor of Molecular Microbiology and Immunology.

Alan Scott, Ph.D.
Professor of Molecular Microbiology and Immunology.

Edward Wallach, M.D.
Professor of Gynecology and Obstetrics, School of Medicine.

Howard Zacur, M.D.
Professor of Gynecology and Obstetrics, School of Medicine.

Departmental Affiliates

Vilhelm Bohr, M.D., Ph.D.
Senior Associate.

Paul O. P. Ts’o, Ph.D.
Senior Associate.

Kathryn C. Zoon, Ph.D.
Senior Associate.
Biostatistics

The Department of Biostatistics offers training at the doctoral or master’s degree level. Courses are offered in probability, statistical theory, statistical methodology, foundations of statistics, statistical computing, statistical genetics, and bioinformatics. The department provides exceptional opportunities for students to acquire range and depth in modern aspects of statistics with applications to the biological, medical, environmental, behavioral, and health sciences.

Students are strongly encouraged to refer to the departmental website for more information about our academic programs and offerings - wwww.biostat.jhsph.edu

DEGREE PROGRAMS

Doctor of Philosophy

Applicants to the PhD program in biostatistics should have done undergraduate work in the biological, physical, or social sciences or mathematics and have strong quantitative skills. Knowledge of calculus and linear algebra is highly desired. Applicants must also submit results of the Graduate Record Examination. A typical curriculum for the PhD is described below. Depending upon their individual preparation, entering students may be placed in advanced standing, or they may find it advantageous to select courses initially from both the first year and second year lists.

Year One
140.651-654 Methods in Biostatistics I-IV
140.671-672 Introduction to Probability I-II
140.673-674 Introduction to Statistical Theory I-II
110.405-Analysis I*
140.693-694 Advanced Probability I*-II*
340.601 Principles of Epidemiology
Electives
* PhD students only

Year Two
140.751-754 Advanced Generalized Linear Models I-IV
140.771-772 Advanced Statistical Theory I-II
140.773-774 Foundations of Statistics I-II
140.693-694 Advanced Probability I*-II*
550.860 Research Ethics and Integrity OR 306.665 Research Ethics and Integrity: US and International Issues

Electives
* PhD students only, if not taken in year one

Year Three
550.865 Public Health Perspectives on Research
Electives/Special studies/Thesis research

Years Four–Five
Electives/Special studies/Thesis research

Comprehensive written examinations covering course material are taken at the end of the first year, and there is a departmental oral examination, including the preparation and presentation of a statistical and scientific literature review, at the end of the second year. Research leading to a dissertation may involve development of new theory and methodology, or it may be concerned with applications of statistics and probability to problems in public health, medicine, or biology.

Master of Science

The Master of Science is a two-year program that emphasizes statistical methods, biometry, statistical computing, and epidemiology. Applicants to the ScM program should have a baccalaureate degree or its equivalent at the time they expect to begin their graduate studies. They should have a major in one of the biological, physical, or social sciences, or mathematics, and have strong quantitative interests.

The first year curriculum is the same as that for doctoral candidates, with the exception of analysis and advanced probability. During the second year, students may choose from a wide range of courses to meet their individual needs. Master of Science candidates are required to take 64 units of coursework and pass a comprehensive written exam at the end of the first year. A thesis is required and usually involves applications of statistical methods to health or medical data. ScM students are also required to take the 550.865 Public Health Perspectives on Research as well as a course in research ethics (either 550.860 Research Ethics and Integrity or 306.665 Research Ethics and Integrity: US and International Issues).

Master of Health Science in Biostatistics

The MHS degree is intended for individuals who require more than minimal knowledge of biostatistics in the conduct of their research. It is not intended as a terminal degree for professional biostatisticians. Applicants are expected to be engaged in active research in a health-related field and already have an
advanced degree in one of the health sciences (e.g., MD, PhD).

The MHS program involves one year of coursework (64 units). Students must take the first-year comprehensive written exam and must demonstrate competence in material covered by the courses in 140.651-654, 140.671-674, and 340.601. Additionally, MHS students are also required to take the course 550.865 Public Health Perspectives on Research as well as a course in research ethics (either 550.860 Research Ethics and Integrity or 306.665 research Ethics and Integrity: US and International Issues). A culminating data analysis project, documenting the statistical ideas and skills developed in the coursework, is required.

**Concurrent Schoolwide Doctoral/Master of Health Science Program in Biostatistics**

This program provides doctoral students in other departments the opportunity to pursue an MHS in Biostatistics concurrently with their doctoral program. The administrative requirements and certifications by the faculty as set forth in the existing Policy and Procedure Memoranda for the respective doctoral degrees apply to the doctoral degree requirements of the concurrent Schoolwide Doctoral/Master of Health Science program in Biostatistics.

Students must have been accepted into one of the doctoral programs in the Johns Hopkins Bloomberg School of Public Health. With the primary department’s approval, the student may apply to the Master of Health Science program in Biostatistics. Students already in residence may also apply to the program. Specific details about sequencing of courses, etc., are arranged in conjunction with the doctoral program involved. Sixty-four units in biostatistics and other areas are required. These units must be taken over the course of the student’s first two or three years in residence in the doctoral program. The curriculum is the same as that for MHS candidates in biostatistics. The Biostatistics graduate program works with the student and the student’s advisor in the primary department to suggest course sequencing and discuss any problems that might arise. Students must take a written comprehensive examination and complete a culminating data analysis project. Upon completion of these requirements, the student is then eligible for award of the Master of Health Science in Biostatistics degree.

**Master of Health Science in Bioinformatics**

*Program Co-Directors: Karl Broman, PhD; Fernando Pineda, PhD.*

The Department of Molecular Microbiology and Immunology and the Department of Biostatistics, have developed a Master of Health Science (MHS) program in bioinformatics. The program’s philosophy is to combine strong quantitative foundations with a broad cross-disciplinary experience. The degree is intended as a two-year program, though a one-year degree may be possible for students with more extensive prior training. The program emphasizes biology, statistical methods, computing, and hands-on research participation. Applicants to the MHS program are expected to have a baccalaureate degree or its equivalent at the time they expect to begin their graduate studies. They should have a strong quantitative and computational interest as well as a major in the biological sciences, physical sciences, mathematics, or engineering. A strong background in calculus, biology, and chemistry is assumed. A minor in computer science or equivalent computational experience is also required.

Students are required to take 16 credits each term in their first year, including at least 12 credits outside of biostatistics. A minimum of 64 credits are required to graduate. Required courses include biostatistics (140.651-652), molecular biology (120.602-603), computing (140.636-637 and 140.776) introductory bioinformatics (260.602) and a laboratory course in molecular techniques (260.609). Completion of the degree also requires a culminating bioinformatics project and the development and posting of a web portfolio - a student website including links to one or more software development projects demonstrating proficiency in bioinformatics and typically including the culminating project as well as course work.

**OTHER PROGRAMS**

The department may accept a few students who do not seek degrees (special students and postdoctoral fellows) for periods of at least one academic year. This provision is intended for mature students who wish to undertake specialized study or research.

140.611-612. This two-course sequence covers the major biostatistical methods and concepts used in public health practice and research. Students learn to interpret reports and papers that use common biostatistical concepts and methods, including inferences about a single sample, comparisons of multiple samples, linear and logistic regression, and survival analysis. Emphasizing interpretation and concepts rather than data analysis, this sequence develops understanding of statistical methods rather than developing a student’s own data analysis skills.

140.615-616. This two-course sequence covers the basic concepts and methods of statistics with application
in the experimental biological sciences. Topics include experimental design and cover statistical ideas and methods pertinent to data collected by laboratory scientists. Statistical computing using the freely available statistical software, R, is integrated into this sequence.

140.621-624. This four-course sequence prepares students to conduct their own data analysis or participate in the design and analysis of data from public health practice or research studies. Covering statistical ideas and methods similar to those of 140.611-612, the course provides opportunity to put concepts into practice. This sequence is aimed at masters and doctoral students who intend to analyze data themselves or contribute meaningfully to a group of practitioners/researchers doing so. Statistical computing, using the package STATA, is integrated into this sequence.

140.651-654. Though the learning objectives and content of this four-course sequence are very similar to those of 140.621-624, linear algebra and multivariable calculus are used as tools of instruction. This sequence is designed for masters or PhD-level students in biostatistics or students with strong quantitative skills in other disciplines.
Biostatistics

Faculty data as of April 30, 2005. For current listing, please click here: http://commprojects.jhsph.edu/faculty/Faculty_Biostats.cfm

Scott Zeger, Ph.D.
Chair of the Department. Environmental statistics, epidemiologic statistics, hierarchical models, longitudinal data analysis, neuroimaging, regression analysis, time series analysis.

Primary Faculty

Mary Joy Argo, B.A.
Research Associate.

Karen Bandeen-Roche, Ph.D.
Professor. Latent variable models; longitudinal data analysis; multivariate data analysis; multivariate survival analysis; psychometrics; statistical methods and analysis for psychology, gerontology, and aging.

Karl W. Broman, Ph.D.
Associate Professor. Applied statistics, statistical genetics, statistical computing, biostatistics, bioinformatics, genomics.

Ronald Brookmeyer, Ph.D.
Professor. Clinical trials, epidemic models, epidemiologic statistics, longitudinal data analysis, multivariate survival analysis.

Brian S. Caffo, Ph.D
Assistant Professor. MCMC, Monte Carlo, the EM algorithm, GLMM, exact conditional analysis, nonparametric generalized linear mixed models.

Ciprian M. Crainiceanu, Ph.D.
Assistant Professor. Nonparametric statistics, Bayesian statistics, smoothing, measurement error, environmental statistics.

Frank Curriero, Ph.D.
Associate Scientist. Spatial statistics, environmental statistics, geographic information systems, geostatistics, statistical computing and graphics.

Marie Diener-West, Ph.D.
Professor. Clinical trials, oncology, ophthalmology, ocular melanoma, statistical methods, statistical education.

Francesca Dominici, Ph.D.
Associate Professor. Categorical data, clinical data, computing, dose-response models, environmental pollution, environmental statistics, epidemiologic statistics, hierarchical models, incomplete data analysis, longitudinal data analysis, meta-analysis, missing data, Monte Carlo Markov chain techniques, risk assessment, spatial statistics, statistical computing.

David B. Duncan, Ph.D.
Professor Emeritus.

Constantine Frangakis, Ph.D.
Associate Professor. Bayesian statistics, clinical trials, epidemiologic statistics, foundations of inference, longitudinal data analysis, missing data models.

Rafael A. Irizarry, Ph.D.
Associate Professor. Bioinformatics, microarray data analysis, nonparametric statistics, time series analysis in the biomedical sciences.

Elizabeth Johnson, M.S.
Research Associate. Longitudinal data analysis, statistical consulting.

Allyn W. Kimball, Ph.D.
Professor Emeritus.

Kung-Yee Liang, Ph.D.
Professor. Epidemiological statistics, foundations of inference, hierarchical models, human genetics, longitudinal data analysis, multivariate analysis, statistical genetics.

Thomas A. Louis, Ph.D.
Professor. Bayesian methods, risk assessment, analysis of experimental and observational data.

Aidan McDermott, Ph.D.
Assistant Scientist. Computational algebra, statistical computing, software design, algebraic topology.

John McGready, M.S.
Instructor. Statistical education, statistical consulting, statistical methods, statistical literacy.

Luu Pham, M.S.
Research Associate. Statistical counseling.

Charles A. Rohde, Ph.D.
Professor. Environmental statistics, generalized linear models, linear models, multivariate analysis.

Alan Ross, Ph.D.
Professor. Sampling.

Ingo Ruczinski, Ph.D.
Assistant Professor. Bioinformatics, protein folding, statistical computing, machine learning.
Daniel O. Scharfstein, Sc.D.
  Associate Professor. Causal inference, longitudinal data analysis, survival analysis, missing data, group sequential clinical trials, semiparametric models.

Zhiqiang Tan, Ph.D.
  Assistant Professor. Nonparametric statistics, semiparametric models, causal inference, survey sampling, statistical computing.

Richard E. Thompson, Ph.D.

James Tonascia, Ph.D.
  Professor. Computing, numerical analysis, statistical computing.

Mei-Cheng Wang, Ph.D.
  Professor. Semiparametric models, point processes, survival analysis, epidemiological statistics.

Scott Zeger, Ph.D.
  Professor. Environmental statistics, epidemiologic statistics, hierarchical models, longitudinal data analysis, neuroimaging, regression analysis, time series analysis.

Joint Appointments

Saifuddin Ahmed, M.B.B.S., Ph.D.
  Assistant Professor, Population and Family Health Sciences.

Terri Beaty, Ph.D.
  Professor of Epidemiology.

Aravinda Chakravarti, Ph.D.
  Professor of Genetic Medicine, School of Medicine.

Leslie Cope, Ph.D.
  Instructor of Oncology, School of Medicine.

Josef Coresh, M.D., Ph.D.
  Associate Professor of Epidemiology.

Margaret Daniele Fallin, Ph.D.
  Assistant Professor of Epidemiology.

Elizabeth Garrett-Mayer, Ph.D.
  Assistant Professor of Oncology, School of Medicine.

Steven N. Goodman, M.D., Ph.D.
  Associate Professor of Oncology, School of Medicine.

Joanne Katz, Sc.D.
  Professor of International Health.

Jeanne Kowalski, Ph.D., M.A.
  Assistant Professor in the Department of Oncology of the School of Medicine.

Ellen J. MacKenzie, Ph.D.
  Professor of Health Policy and Management.

Curtis L. Meinert, Ph.D.
  Professor of Epidemiology.

Lucy A. Meoni, Sc.M.
  Research Associate in Internal Medicine, School of Medicine.

Lawrence Moulton, Ph.D.
  Associate Professor of International Health.

Alvaro Muñoz, Ph.D.
  Professor of Epidemiology.

Giovanni Parmigiani, Ph.D.
  Associate Professor of Oncology in the School of Medicine.

Steven Piantadosi, M.D., Ph.D.
  Professor of Oncology, School of Medicine.

Fernando J. Pineda, Ph.D.
  Associate Professor of Molecular Microbiology and Immunology.

William A. Reinke, Ph.D.
  Professor of International Health.

Elizabeth Sugar, Ph.D.
  Instructor of Oncology, School of Medicine.

Qian-Li Xue, Ph.D., M.S.
  Assistant Professor.

Yin Yao, Ph.D., M.P.H.
  Assistant Professor of Epidemiology.

Departmental Affiliates

Natalie J. Blades, Ph.D., M.S.E.
  Associate.

C. Hendricks Brown, Ph.D.
  Adjunct Professor.

Leena Choi, Ph.D.
  Associate.

Peter Diggle, Ph.D.
  Adjunct Professor.

Mary A. Foulkes, Ph.D., M.P.H.
  Associate.

Mitchell Gail, M.D., M.P.H.
  Adjunct Professor.
Michael Griswold, B.S.
    Associate.

Jay Herson, Ph.D.
    Senior Associate.

Philippe Huber, Ph.D.
    Associate.

Peter A. Lachenbruch, Ph.D.
    Adjunct Professor.

Roger D. Peng, Ph.D., M.S.
    Associate.

John Quackenbush, Ph.D.
    Adjunct Professor.

Michelle Shardell, Ph.D.
    Associate.

Patrick M. Tarwater, Ph.D.
    Adjunct Assistant Professor.
Environmental Health Sciences

PURPOSE

The Department of Environmental Health Sciences is concerned with the adverse influence of the environment on human health and with controlling these adverse influences. In this regard, the Department considers “environment” in its broadest sense, including the natural, built, and social environments. Here, the natural environment is that part of our physical environment not created by humans, while the built environment is that part of our physical environment created by our activities. The social environment includes factors that do not arise primarily from physical processes, such as community socioeconomic status, social integration, neighborhood safety, or level of political empowerment.

Traditionally, the field of environmental health sciences has focused on hazardous agents in the environment, including biological, chemical, and physical environmental agents. The Department engages in a number of activities within this traditional approach, including studies of the sources and environmental distribution of such agents; human exposure to such agents; the body’s response at the molecular, cellular, organ system, and whole-body levels; environmental risk assessment; and prevention and intervention strategies (including environmental engineering, law, policy, and communications solutions).

New thinking on the environment and health has encouraged us to consider how the built environment influences human health and health-related behaviors beyond the traditional focus on hazardous agents. For example, urban sprawl, clearly an emergent environmental issue, has been linked to asthma, cardiovascular disease, and obesity risks; it also influences physical activity and other health-related behaviors. The social environment influences how socioeconomic and other social interactions among people can directly affect health and also modify the risks associated with traditional hazardous agent exposures. Our Department is also pursuing research on the health effects of global environmental change, including those due to global warming, persistent organic pollutants, and ecosystems change.

The Department is committed to the performance of the highest quality mechanism-based and population-based research and the application of this research to help define, analyze, prevent, and control adverse influences of the environment on human health. Our faculty is particularly committed to educating and training students and professionals; the Department offers a variety of rigorous, flexible educational programs to meet these needs.

For more detailed information on departmental resources and programs, visit www.jhsph.edu/dept/ehs.

DEGREE PROGRAMS

Paramount to our mission is a commitment to the education and training of public health researchers and professionals to solve environmental health challenges ranging in scale from molecular to global. Students of environmental health sciences pursue a deeper understanding of the effects of various natural and human-made environmental agents on biological structures at every level of organization from the molecule to the organism. Applicants to the Department of Environmental Health Sciences seeking graduate education come from widely differing backgrounds. Many seek advanced education in one of the more specific disciplines through focused master’s or doctoral programs—the Master of Health Science (MHS) in Occupational and Environmental Hygiene and the various Doctor of Philosophy (PhD) or Doctor of Science (ScD) programs. Others seek a more generalized appreciation of the interaction between biological substrates and the environment, as well as the legislation, regulatory actions, and enforcement pertinent to the environment, through broader degree programs—the MHS in Environmental Health and the Doctor of Public Health (DrPH) in Environmental Health.

For more information about programs or courses offered by the Department of Environmental Health Sciences or to locate application information, please visit our website at www.jhsph.edu/Dept/EHS. To speak to a representative of the department or to arrange a campus visit to meet with faculty and students, contact our Office of Educational Programs at 410-955-2212 or ehs@jhsph.edu.

MASTER OF HEALTH SCIENCE (MHS) PROGRAMS

Two master’s programs are offered by the Department of Environmental Health Sciences to meet academic and professional goals of its students. The MHS in Environmental Health is used as a foundation for further academic training such as medical school or doctoral programs. The MHS in Occupational and Environmental Hygiene is designed for students who wish to begin or advance professional careers in occupational and environmental hygiene after graduation. In addition, the department also offers a Bachelor of
Environmental Health

The MHS program in Environmental Health provides a generalized, systematic introduction to environmental health sciences. The program is intended for talented baccalaureate graduates who want a broad introduction to environmental studies to help identify long-term career goals and provide a foundation for further education and training as well as experienced government or industry employees who desire to become more qualified in environmental health issues and physicians seeking training in the environmental factors involved in disease and health. The MHS graduate will have competence in the following areas: basic biological mechanisms; toxicology; statistical evaluation of data; epidemiological studies in environmental health; legal and regulatory issues in environmental health; and occupational or environmental disease from either an engineering or medical perspective. Students work with faculty advisors to design a program that satisfies these requirements in the context of the student’s interest and career goals. Required course topics include environmental health, toxicology, physiology, epidemiology, risk sciences, and biostatistics. Students may enroll for up to two courses in other schools of the University offering graduate level environmental sciences programs.

In addition to successful completion of coursework, MHS students are required to prepare an essay addressing an environmental health problem and make a formal presentation on the topic to an audience of faculty and students. No written or oral comprehensive examination is required for this degree. This MHS program is designed to maximize flexibility in a given student’s curriculum. Accordingly, students develop their own course plan, in consultation with their advisor, who must ultimately approve the plan. The program also offers a part-time option, taking advantage of courses offered on-line, at Montgomery County, and during Summer and Winter Institutes. The part-time program has the same requirements as the full-time option.

Note: The MHS in Environmental Health Sciences is one of three master’s level programs in the broad area of environmental sciences offered by the University. The others are in the Johns Hopkins University Krieger School of Arts and Sciences, http://www.jhu.edu/ppp-as, and the Whiting School of Engineering, http://www.jhu.edu/pte. The three programs have a collaborative arrangement in which a student in one of the programs may take up to two elective courses from an approved list in the other two programs.

Occupational and Environmental Hygiene

The MHS program in Occupational and Environmental Hygiene is designed for students who are developing or advancing professional careers in occupational and environmental hygiene within consulting, private industry, or government sectors. Training includes traditional industrial hygiene and environmental health practice, air pollution, exposure assessment, environmental monitoring, and risk assessment. This program is appropriate for individuals pursuing broad-based professional careers in occupational and environmental health as well as individuals seeking to pursue careers in occupational and environmental hygiene. The curriculum includes physiology, toxicology, occupational health, biostatistics, epidemiology, principles of occupational and environmental hygiene, safety, health and safety program management, occupational health law, noise and physical agents in the environment, air sampling, exposure assessment and control technology.

This program, supported by a National Institute for Occupational Safety and Health (NIOSH) training grant, is accredited by the Accreditation Board for Engineering Technology (ABET). The program requires one-and-a-half academic years to complete and entails a three month internship. The purpose of the internship is to provide an appropriate professional experience tailored to the needs of each student. During the internship, the student is expected to assume independent responsibility for a project and submit a written report of the project as a master’s essay in partial fulfillment of the requirements of the MHS degree. Applicants should have a strong background in the physical, chemical, and biological sciences, including college level physics and calculus. Admission is based on academic records, Graduate Record Examination scores, references, and a résumé of professional experience. The program also offers a part-time option, taking advantage of courses offered on-line, at Montgomery County, and during Summer and Winter Institutes. The part-time program has the same requirements as the full-time option.

BA/MHS Program

Undergraduate students currently enrolled in the Johns Hopkins University Krieger School of Arts and Sciences program in Public Health have a unique opportunity to receive both bachelor’s and master’s degrees. The Johns Hopkins Bloomberg School of Public Health, Department of Environmental Health
Scientists offers early graduate school admission to students enrolled in this undergraduate program. One-half of the School of Public Health course credits earned toward the BA also apply toward the MHS. In addition, students in this program will receive co-advising from both schools to optimize their academic experience. Applications for the BA/MHS degree are due by February 1 of the junior year. Applicants may apply during their senior year but credit requirements for the MHS will be the same as for other students entering the MHS program. Please note that admitted students must complete the BA degree before formally enrolling in the Bloomberg School. Additional information about this program may be found in The Johns Hopkins University Krieger School of Arts and Sciences catalog.

DOCTORAL PROGRAMS

The Department of Environmental Health Sciences awards the Doctor of Philosophy (PhD), the Doctor of Public Health (DrPH), and the Doctor of Science (ScD). Students in the PhD and ScD programs select from one of five areas to focus their academic studies and research: Environmental Health Engineering, Molecular Imaging, Occupational & Environmental Health, Physiology, or Toxicological Sciences. Since the DrPH program provides a broader, more comprehensive course of study, the DrPH student establishes a personalized curriculum based on the student’s academic and professional experience and goals.

Candidates for doctoral degrees offered by the Department of Environmental Health Sciences are expected to develop the ability to express research ideas verbally and in writing, and to develop skills in critical reading, discussion, and evaluation of scientific literature. The subject matter of this research should reflect the interest of departmental faculty in the area of concentration and serve to expand the knowledgebase relevant to the department’s mission.

Doctor of Philosophy (PhD) and Doctor of Science (ScD) Programs

Concentration in Environmental Health Engineering – Research undertaken by candidates for doctoral degrees in environmental health engineering focuses on exposure assessment methods and models for recognizing, evaluating, and controlling hazards in the workplace and community environment. Research training employs principles and methods in chemistry, biology, physics, and mathematical modeling and includes development and evaluation of biomarkers of exposure. Candidates for research training should have a strong background in the physical, chemical, and biological sciences, including college-level physics and calculus.

Concentration in Molecular Imaging - The doctoral program in molecular imaging seeks to prepare students in the use of in vivo imaging techniques in the broad research areas of cancer, toxicology, neurotoxicology/neuroscience and lung physiology as they relate to human disease. The program prepares students to use molecular imaging and understand its importance in biomedical and environmental health science research; describe the tracer principle and categories of imaging tracers; understand and operate the major types of instrumentation used in molecular imaging, including SPECT, PET, MRI and MRS; and to use molecular biology, pharmacological and biochemical approaches to validate and apply molecular imaging techniques to help elucidate the molecular basis of environmental disease.

Concentration in Occupational & Environmental Health - Doctoral research in occupational and environmental health leads to competency in one of the several domains of occupational or environmental health, including epidemiology, exposure assessment, clinical or laboratory toxicology, health promotion, and disease prevention. Areas of importance for study include the identification of causal factors; the precise delineation of dose-effect relationships; the development of techniques for early identification of adverse effects; contributions to scientific basis of monitoring including biologic and health effects monitoring; the evaluation of the effectiveness of preventive measures including health promotion; and an understanding of important pathophysiologic mechanisms involved in the development of occupational and environmental disease. Newer initiatives include assessment of the health risks associated with global environmental change, the built environment, urban sprawl and the social environment. Candidates should have a strong background in the physical, chemical and biological sciences, including college level physics and calculus.

Concentration in Physiology - Research toward a doctoral degree in physiology leads to competency in at least one of several domains focused on cardiopulmonary pathophysiology, including lung epithelial function, airway smooth muscle function, vascular regulation and homeostasis, animal models of asthma and emphysema, effects of inhaled pollutant gases and particles, and immunologic responses. Students develop their knowledge and expertise in general subject areas relevant to: structure/function relations in human and animal models; genetic and environmental
Departments of Instruction

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Departments of Instruction

biochemistry, molecular biology, biology or medicine. Students should have prior coursework in chemistry, problems in comprehensive and innovative ways. that will ultimately permit them to address toxicologic presented by the faculty provide predoctoral trainees with in vitro toxicology. The diverse research interests represented by the faculty include predoctoral trainees with a unique interdisciplinary background in toxicology that will ultimately permit them to address toxicologic problems in comprehensive and innovative ways. Students should have prior coursework in chemistry, biochemistry, molecular biology, biology or medicine.

Concentration in Toxicological Sciences - Predoctoral trainees in toxicological sciences receive basic training in toxicology as well as cell biology, biochemistry, molecular biology, physiology, and biostatistics. Experience is also gained through laboratory research rotations. Following completion of basic course work and laboratory rotations, trainees proceed to advanced training in a selected area of concentration, including biochemical/molecular toxicology, neurotoxicology, immunotoxicology, toxicogenomics, molecular biomarkers, and in vitro toxicology. The diverse research interests represented by the faculty include predoctoral trainees with a unique interdisciplinary background in toxicology that will ultimately permit them to address toxicologic problems in comprehensive and innovative ways. Students should have prior coursework in chemistry, biochemistry, molecular biology, biology or medicine.

Doctor of Public Health (DrPH) Program in Environmental Health

The goal of the Doctor of Public Health in Environmental Health Program is the development of senior-level professionals with sufficient understanding of the biomedical sciences, behavioral sciences, epidemiology and biostatistics, legal, economic and social issues, engineering technologies, management technologies, management concepts and communication skills to be able to analyze and assess complex environmental risks and problems and to be able to offer sound guidance and advice for the reduction of these risks and the resolution of environmental problems. The graduate is a practitioner who can comprehend and integrate the many dimensions of environmental health sciences, define the disciplines that can best be applied to a problem, make sound and critical judgment and interpret his or her recommendations clearly in the decision-making processes of policy formulation in industry, government, or academia. Graduates are expected to communicate and convey information effectively to the public as well.

In order to be accepted into the DrPH program in Environmental Health Sciences, an individual must meet the basic admission requirements of the School and the department. The School also sets minimum academic requirements for the program, on which the department imposes additional requirements. These requirements include formal coursework, a written comprehensive examination, a preliminary oral examination, an acceptable dissertation, and a final oral examination. In general, a minimum of four consecutive terms of registration as a doctoral student in full-time residence is required for all doctoral degrees. The requirement may be waived on an individual basis, but this is not common. Please see the School’s DrPH section of this catalog for more information.

ADDITIONAL EDUCATIONAL OPPORTUNITIES

Occupational and Environmental Medicine Residency

This program is designed to train occupational and environmental medicine specialists for careers in any of the major sectors of the field—academia, industry, government, clinical practice, or labor—and provide expertise in both clinical and preventive occupational and environmental medicine. The program is fully accredited for the academic and practicum years by the Accreditation Council for Graduate Medical Education. The residency is a two-year program. The academic year involves course work leading to an MPH degree, plus certain experiences specific to the residency such as seminars, research projects, and plant visits. The second, or practicum, year consists of rotations in a variety of settings, including clinical rotations at the Center for Occupational and Environmental Health, and rotations in government, industry, and union settings. The program offers particular clinical depth in clinical toxicology, pulmonary medicine, and neuro-behavioral toxicology. An optional third year may be spent in a postdoctoral research fellowship for trainees interested in academic careers.

Admissions requirements include graduation from an approved medical school and one year of acceptable clinical internship. ECFMG certification is required for all foreign medical graduates. The most competitive candidate will already have completed residency training in another clinical specialty (e.g., internal medicine, family practice, dermatology). Depending on prior training of the individual applicant, specialized fellowships involving only the first or second year of the residency program are possible. Programs leading to dual board-eligibility in occupational and environmental medicine and internal medicine, pulmonary medicine, and other clinical specialties may be possible by special arrangement. Applicants for admission are considered separately by the residency and the MPH Admissions Committee. Completed applications should be received by October 31. Personal interviews are generally required and conducted in late November and early December. Candidates are noti-
fied of the residency’s decisions on December 15. In general, all residents receive stipend support, tuition support, and health, life, and disability insurance. For further information, contact the administrator, Occupational and Environmental Medicine Residency program at 410-955-4157 or fax 410-955-1811.

Training in Occupational and Environmental Health Nursing
The Occupational and Environmental Health Nursing (OEHN) program prepares nurses at the doctoral and master's levels. The program builds on other existing departmental and School degree programs, including the following degrees: Doctor of Philosophy (PhD) in the Division of Occupational and Environmental Health, Doctor of Public Health (DrPH) in the Department of Environmental Health Sciences, and the School-wide Master of Public Health (MPH). Students may combine the MPH with the MSN degree from the School of Nursing in a dual MSN/MPH option, but OEHN program requirements apply only to the MPH degree component of that alternative. Admission requirements for the master’s program are based on academic performance at the bachelor's level, acceptable work experience, and satisfactory references. Doctoral candidates follow the course of study in the occupational and environmental health doctoral program. For additional information, contact Dr. Jacqueline Agnew at jagnew@jhsph.edu or 410-955-4037.

Program on the Health Effects of Global Environmental Change
The Program on Health Effects of Global Environmental Change is dedicated to the scientific discovery and application of new knowledge pertaining to the human health risks posed by global environmental degradation. Such problems include global climate change, ecosystem decay, depletion of marine fisheries, deforestation, stratospheric ozone depletion, urban sprawl, the built environment and biodiversity loss. Drawing upon the strengths of a number of public health and environmental disciplines, the program strives to further the understanding of complex and dynamic environmental systems as they affect human health. Through substantive interdisciplinary efforts, the program seeks to gain valuable insights into many of the new global environmental health issues confronting the world today and communicating these research findings to public health professionals in training, decision makers, and the general public. Students in the MPH, MHS, and DrPH programs are encouraged to participate in the activities of the program.

Interdepartmental Program in Molecular Epidemiology
The Graduate Interdepartmental Program in Molecular Epidemiology (IPME) offers specialized cross-training in epidemiology (Department of Epidemiology) and the laboratory sciences (Departments of Biochemistry and Molecular Biology, Environmental Health Sciences, and Molecular Microbiology and Immunology). As a result of the complete sequencing of the human genome and rapid advances in high throughput molecular techniques, epidemiology is poised to move beyond measuring associations of exposures with disease occurrence to assessing the underlying biological mechanisms of pathogenesis.

The objective of the Interdepartmental Program Molecular Epidemiology is to provide candidates with solid training in the complementary disciplines of epidemiology and laboratory molecular biology/genetics to encourage interdisciplinary approaches to solving public health problems. Candidates will select an academic training program based on the requirements for the individual departmental PhD and ScM requirements (see department-specific ScM requirements for the IPME) structured around a Core Curriculum in Molecular Epidemiology. The Core Curriculum will ensure a broad theoretical basis in the following subject areas: epidemiology, biostatistics, molecular biology, cellular biology, genetics, physiology/immunology, molecular epidemiology, and laboratory rotations. The integrative aspects of the interdisciplinary model include a system of co-advising (advisors from doctoral and masters departments) and integration of PhD and ScM research into a single dissertation. The IPME dissertation will include results of both masters and doctoral research (which must be thematically related) and a chapter integrating the laboratory and epidemiologic approaches to the research topic. Successful candidates of the Interdepartmental Program in Molecular Epidemiology will be concurrently awarded a PhD in the core department and a Masters of Science degree in the joint department.

Admission to the IPME will follow standard admission procedures for the PhD and ScM departments, with final approval by the Molecular Epidemiology Advisory Council. Prior laboratory experience/training is required for admission to the IPME. For more information, contact Dr. Paul Strickland at 410-955-4456 or pstrickl@jhsph.edu.

Certificate Programs
Two certificates are offered by the Department of Environmental Health Sciences: The Certificate in Environmental Health Sciences and the Certificate in
Occupational Health

Certificate Program in Environmental Health Sciences educates and trains students to identify major environmental health issues facing public health professionals today. Courses explore the sources of environmental agents, their distribution in the environment, transfer routes to the human, and possible health effects; the basic biological mechanisms underlying the association between prior exposure and subsequent development of adverse health effects; and control strategies, including primary, secondary, and tertiary interventions. The program is intended for public health professionals currently practicing environmental health without adequate formal training, current degree candidates in the School, and non-degree candidates wishing to begin their formal training in environmental health. For more information contact Dr. Jonathan Links at 410-955-9622 or jlinks@jhsph.edu.

Certificate Program in Occupational Health educates and trains students to identify the major occupational health issues (i.e., the impacts of work on health and health on work productivity) facing public health professionals today. Courses explore the application of environmental, biological, medical, and public health principles to the recognition, reduction, and prevention of occupational disease and adverse health effects; control strategies for occupational problems including primary, secondary, and tertiary interventions; and current areas of concern, such as employee assistance programs, employee health promotion, drug testing, and impairment and disability policies and health and productivity issues. The program is intended for public health professionals currently practicing occupational health without adequate formal training and current degree candidates in the School wishing to focus on occupational health issues. For more information, contact Dr. Brian Schwartz at 410-955-4130; bschwartz@jhsph.edu or Dr. Jacqueline Agnew at 410-955-4037 or jagnew@jhsph.edu.

Postdoctoral Fellowship
The postdoctoral fellowship program provides concentrated training with individual faculty from the department. Postdoctoral programs are open to qualified individuals with a health sciences/biology background. Most applicants contact a faculty member and determine the details of their research program before applying. Interested applicants should follow application procedures as specified by the Office of Admissions, which is available at http://www.jhsph.edu/GER/postdocs.html.

Summer and Winter Institutes
The Department of Environmental Health Sciences occasionally offers courses during the School of Public Health Winter Institute. These courses are offered for academic credit and may be used toward the completion of a degree. An updated list of courses offered each year may be found at www.jhsph.edu/Academics/Continuing_ed. Please note that the Summer Institute in Environmental Health Sciences will not be offered during the 2005 Summer Session.

ADMISSIONS INFORMATION
Candidates are considered eligible for admission into the master’s or doctoral programs offered by the Department of Environmental Health Sciences after demonstrating outstanding potential for achievement as determined from Graduate Record Examination (GRE) scores and their academic record. GREs are generally required of all applicants. Although no specific minimum score is specified, it should be noted that students successful in the graduate program generally have combined scores of at least 1200 or greater in the verbal and quantitative sections. For those who have a D.V.M., M.D. or other acceptable post-graduate degree or relevant experience in the field, the requirement for the GRE may be waived. References, work history, and career objectives are also important factors in the evaluation of candidates. A strong academic record, including achievements in mathematics and science, is required. Candidates who have not achieved at least a B average (or equivalent) in science and mathematics are required to demonstrate outstanding ability in other criteria to be considered eligible for doctoral study. Specific programs may require additional requirements, which are outlined in the program descriptions available on-line at www.jhsph.edu/dept/ehs.

Foreign applicants for whom English is not the native language must demonstrate their proficiency in English by scoring 600 or better on the paper-based Test of English as a Foreign Language (TOEFL) examination (or 250 on the computer-based test).

Personal interviews are not generally required. However, students are strongly encouraged to visit the School and department. Such visits can be arranged and can include meetings with key faculty if desired. Visits can be coordinated independently or as part of a formal Recruitment Weekend that is arranged for selected applicants on one or two weekends every year by the Department (usually in January or February).

Prospective students who are interested in scheduling a campus visit should contact the Office of Educational Programs at 410-955-2212 or
Academic Program does not imply that funding in support of tuition or stipend is available. The availability of financial support must be pursued separately with the division, program or department.

ACADEMIC DIVISIONS

Toxicological Sciences
Division Director: Thomas Kensler, PhD
tkensler@jhsph.edu
Divisional Office: 410-955-4712

Toxicology is a discipline in which the basic principles of chemistry, cell and molecular biology, and physiology are brought to bear upon investigations of the adverse effects of chemical agents on living systems. The major theme of research and training within the division is mechanisms of toxicity in cells, tissues, and organisms at the chemical, biochemical, cellular, and molecular levels. Faculty research programs involve investigation of the mechanisms of toxicity of environmental agents, the mechanisms controlling host responses to environmental toxicants, the potential hazards of exposure to such agents, and methods for protecting the exposed host from environmentally induced disease. Emphasis is on cellular macromolecules and biochemical/molecular processes as targets for environmental toxicants.

Physiology
Division Director: Wayne Mitzner, PhD
wmitzner@jhsph.edu
Divisional Office: 410-055-3612

Physiology is the branch of biology dealing with the processes, activities, and dynamics of life and living organisms. Physiology thus differs from other basic biologic sciences in that its end point is on function, rather than on the individual processes that contribute to that function. Traditional physiologic approaches have emphasized studies in intact animals and organs. Modern physiologic studies extend the living system to the cellular and molecular levels, to the extent that technology allows probing and experimentation. As such, the research spectrum of the division is broadly based with investigators working at the system, organ, cellular, and molecular levels. The division has a primary focus on the physiology of the lung, which is a major target organ for environmental air pollutants. Faculty members investigate the basic mechanisms involved in lung disease and the interactions with toxic gases and airborne particles. Strong collaborations with the Respiratory Division of the Department of Medicine and the Department of Anesthesiology help maintain a practical relevance to the basic research.

Environmental Health Engineering
Division Director: Patrick Breysse, PhD
pbreysse@jhsph.edu
Divisional Office: 410-614-5752

The mission of the Division of Environmental Health Engineering (DEHE) is to improve public health through interdisciplinary research, professional training, and practice. Divisional researchers seek to prevent or minimize the adverse effects of physical, chemical, and biological agents by identifying and studying their sources, fate, and transport in both occupational and non-occupational environments, and by developing and evaluating engineering control strategies that effectively protect human health. Exposure assessment is an integrating theme for the division because of its critical linkage to risk assessment. Divisional research and training in exposure assessment employs principles and methods in chemistry, biology, physics, and mathematical modeling and includes development and evaluation of biomarkers of exposure. Researchers study all potential routes of human exposure with particular emphasis on air and water.

Occupational and Environmental Health
Division Director: Brian Schwartz, MD, MS
bschwart@jhsph.edu
Divisional Office: 410-955-4130

The mission of the Division of Occupational and Environmental Health is to prevent disease and injury related to occupational and environmental stressors, and to promote health among individuals and in populations through research, professional practice, and teaching. Divisional faculty members are involved in a wide range of research projects, commonly characterized by studies of disease etiology, prevention, or control in human populations. Research activities include a prominent focus on biomarkers and their development, validation, and demonstration of utility for prevention; development, validation, and effectiveness of medical surveillance activities; occupational and environmental health policy; evaluation of the health effects of global environmental change, urban sprawl, and the built environment; interaction between genetic factors and occupational and environmental exposures in causing disease; the impact of health conditions on
ability to work; and causes, risk factors, diagnosis, and treatment of occupational and environmental diseases and injuries.
Environmental Health Sciences

Faculty data as of April 30, 2005. For current listing, please click here: http://faculty.jhsphs.edu/ehs.cfm

John D. Groopman, Ph.D.
Chair of the Department.

Primary Faculty

Jacqueline Agnew, M.P.H., Ph.D.
Professor of Occupational and Environmental Health. Aging workers, occupational health, environmental health, occupational stress, musculoskeletal disorders.

Kwamena Baidoo, Ph.D.
Associate Professor. Cancer, growth factor peptides, biomarkers, receptors, molecular imaging, Fluorescence imaging, near-IR tracers, technetium-99m.

Daniel J. Barnett, M.D., M.P.H.
Instructor. Public health practice, preparedness, emergency response, training, exercises, evaluation, terrorism preparedness, all-hazards readiness, mental health, organizational change, public health workforce.

Shyam S. Biswal, Ph.D., M.S.
Assistant Professor of Toxicological Sciences. Cigarette smoke, lung diseases, inflammation, cancer, genomics, proteomics, COPD, emphysema, asthma, sepsis, environmental genomics, stress response.

Joseph Bressler, Ph.D.
Associate Professor of Toxicological Sciences. Blood brain barrier, lead, iron, transporters, insecticide.

Patrick N. Breysse, Ph.D., M.H.S.
Professor of Environmental Health Engineering. Industrial hygiene, exposure assessment, magnetic fields, asbestos, fiberglass, environmental epidemiology.

Timothy J. Buckley, Ph.D., M.H.S.
Associate Professor of Environmental Health Engineering. Biomarkers, exposure assessment, total exposure, community-based participatory research body-burden, aggregate exposure, risk assessment pesticides, metals, volatile organic compound (VOCs), polycyclic aromatic hydrocarbons (PAH), dietary exposure, inhalation, ingestion, dermal exposure, alveolar breath, blood, urine, blood/breath partition coefficient, exposure misclassification, asthma, cancer, community.

Maureen Cadorette, R.N., M.P.H.
Research Associate of Occupational and Environmental Health.

Srinivasan Chandrasegaran, Ph.D., M.S.
Professor of Physiology. Restriction enzymes, chimeric nucleases, targeted recombination.

Valeria Culotta, Ph.D.
Professor of Toxicological Sciences. Copper, metallochaperones, CCS, ATX1, superoxide, SOD, manganese, yeast, ALS.

Arthur M. Dannenberg Jr., M.D., Ph.D.
Professor of Environmental Health Sciences. Tuberculosis; BCG; sulfur mustard; cytokines, adhesion molecules; allergic dermatitis; macrophages and lymphocytes; cell mediated immunity (CMI); delayed-type hypersensitivity DTH).

B. Rey de Castro, Sc.D.
Research Associate.

Pamela W. Derrick, M.A.
Research Associate.

Patrick M. Dolan, B.A.
Research Associate of Toxicological Sciences.

Mary L. Doyle, M.P.H., R.N.
Research Associate of Occupational and Environmental Health. ERC, hearing conservation, spirometry, CE, COHN-S, CME.

Patricia A.G. Egner, M.A.S.
Assistant Scientist of Toxicological Sciences.

Walter Ehrlich, M.D.
Associate Professor Emeritus of Physiology. Regulations of the cardiovascular system, autoregulations.

Brian A. Fitzek, B.A.
Research Associate. E.H.S. Communications Coordinator.

Robert S. Fitzgerald, Ph.D.
Professor of Physiology. Carotid body, chemotransduction, cardiopulmonary control, acetylcholine, catecholamines, gene-based differences.

Sheila T. Fitzgerald, Ph.D.
Associate Professor of Occupational and Environmental Health. Adolescents, young workers, occupational stress, cardiovascular disease, return to work.

Tekum Fonong, Ph.D.
Assistant Scientist of Toxicological Sciences. Oxidative stress, free radical metabolism, oxidative DNA damage, DNA repair, antioxidant defense and cancer.

Robert Frank, M.D.
Professor Emeritus of Physiology.

Alison S. Geyh, Ph.D.
Assistant Professor of Environmental Health Engineering. Airborne contaminants, health effects, source identification, chemical composition, metal content, particulate matter, ozone.
Alan M. Goldberg, Ph.D.
Professor of Toxicological Sciences; Director, Center for Alternatives to Animal Testing. *Toxicology, humane science, in vitro.*

Lynn R. Goldman, M.D., M.P.H.
Professor of Occupational and Environmental Health. *Environmental health policy, pediatric environmental health, children, infants, lead, methylmercury, pesticides, chemicals, environmental epidemiology.*

John D. Groopman, Ph.D.
Anna M. Baetjer Professor of Environmental Health Sciences. *Chemical carcinogenesis, environmental carcinogenesis, chemoprevention, cancer prevention and control.*

Tomás R. Guilarte, Ph.D.
Professor of Toxicological Sciences. *Neurotoxicology, lead neurotoxicity/NMDA receptor/learning and memory, manganese neurotoxicity, biomarkers of brain injury/Parkinson’s disease, brain imaging/positron emission tomography/magnetic resonance imaging and spectroscopy.*

Rolf U. Halden, Ph.D.
Assistant Professor of Environmental Health Engineering. *Drinking water, wastewater, groundwater, water quality, water treatment, bioremediation, biodegradation, biotransformation, bioaccumulation, bioisolids, exposure assessment, biomarker, proteomics, mass spectrometry, LC/MS, LC/MS/MS, GC/MS, MALDI-TOF MS, pharmaceuticals, personal care products, pollutants, dioxin, microbial ecology.*

John Howell, B.S.
Instructor of Physiology.

George J. Jakab, Ph.D.
Professor of Occupational and Environmental Health. *Cellular biology of the lung with emphasis on the phagocytic and regulatory role of the alveolar macrophages and the immune mechanisms of the lung parenchyma.*

Laran T. Jensen, Ph.D.
Assistant Scientist.

Norma Kanarek, Ph.D., M.P.H.
Associate Professor of Environmental Health Sciences. *Public health practice, public health performance, surveillance, tracking, community health, community health assessment, applied epidemiology.*

Thomas W. Kensler, Ph.D.
Professor and Director of Toxicological Sciences. *Chemical carcinogenesis, chemoprevention, hepatocarcinogenesis, reactive oxygen, antioxidants, enzyme induction, aflatoxin, oltipraz, chlorophyllin.*

Shuang-yuan Kuang, B.S.
Research Associate.

Mi-Kyoung Kwak, Ph.D., M.S.
Assistant Scientist.

Peter S. J. Lees, Ph.D.
Professor of Environmental Health Engineering. *Industrial Hygiene, occupational and environmental hygiene, exposure assessment, retrospective exposure assessment, surface contamination, dermal exposure, synthetic vitreous fibers, chromium.*

Jonathan M. Links, Ph.D.
Professor. *Imaging, dosimetry, radiation, dirty bombs, nuclear medicine, radiological terror.*

Clifford Mitchell, M.D., M.P.H.
Associate Professor of Occupational and Environmental Health and Director, Occupational Medicine Residency. *Occupational health, outcomes research, evaluation research, work-related musculoskeletal disorders, indoor air.*

Wayne Mitzner, Ph.D.
Professor and Director of Physiology. *Asthma, lung, airways, air pollution, PM, angiogenesis, pathology.*

Cindy Parker, M.D.
Instructor. *Global environmental change, sustainable development, community based participatory research, risk communication, climate change, air quality, water quality and quantity, deforestation.*

Jonathan A. Patz, M.D., M.P.H.
Associate Professor of Occupational and Environmental Health. *Air pollution, deforestation, dengue fever, ecosystem, el nino, GIS, global climate change, greenhouse warming, heat mortality, integrated assessment, land use, malaria, modeling, remote sensing, vector-borne diseases, water-borne diseases.*

Lance B. Price, M.Sc.
Research Associate of Environmental Sciences.

Donald F. Proctor, M.D.
Professor Emeritus of Physiology.

Richard T. Rabold, B.A.
Research Associate in Physiology.

Sekhar P. M. Reddy, Ph.D.
Associate Professor of Physiology. *Lung injury and repair, bronchial carcinogenesis, cigarette smoke, oxidants and antioxidants, hyperoxia, mechanical ventilation, cyclic stretch, gene regulation, transcription factors, AP-1, Nrf2, signal transduction.*

Carol E. Resnick, B.A.
Research Associate of Environmental Health Engineering.
Robert J. Rubin, Ph.D.
Professor Emeritus of Environmental Health Sciences.

Brian Schofield, J.D.
Research Associate of Physiology.

Peter Scholl, Ph.D.
Senior Research Associate.

Kellogg J. Schwab, Ph.D.
Assistant Professor of Environmental Health Engineering. Environmental microbiology, microbial fate and transport, water quality, drinking water treatment, disinfection, groundwater, wastewater, sewage, water and wastewater distribution systems, gastroenteritis, diarrhea, enteric pathogens, parasites (cryptosporidium, toxoplasma, giardia), viruses (norovirus, norwalk-like viruses, hepatitis A virus, rotavirus), bacterial indicators of water quality, bacteriophage, antibiotic resistant bacteria, molecular detection of microorganisms (PCR, RT-PCR, microarrays, hybridization), infectious diseases, microbial risk assessment, food borne and waterborne outbreak investigations, urban environmental pollution, airborne microorganisms, concentrated animal feeding operations (CAFO), Chesapeake Bay research.

Brian Schwartz, M.D., M.S.
Professor and Director of Occupational and Environmental Health. Biologic markers, cognitive functioning, gene-environment interaction, genetic susceptibility, headache, lead intoxication, Lyme disease, molecular epidemiology, neurobehavioral testing, occupational epidemiology, occupational safety and health, olfactory dysfunction, retrospective assessment of exposure, solvents, tetra ethyl lead, vector-borne disease.

Machiko Shirahata, M.D., D.M.Sc.
Professor. Acetylcholine, carotid body, hypoxia, oxygen, nicotinic receptor, patch clamp, sleep apnea.

Ellen Silbergeld, Ph.D.
Professor of Environmental Health Engineering. Antibiotic-resistant bacteria, lead, mercury, immunotoxicology, neurotoxicology, environment.

Ernst Wm. Spannhake, Ph.D.
Professor of Physiology. Respiratory system, airways, epithelium, inflammation, mucosal immunity, mediators, gene expression, oxidant pollutants, ozone, respiratory viruses, rhinovirus, asthma, air pollution, nasal/bronchial epithelium, T cell activation, influenza A, respiratory syncytial virus.

Paul T. Strickland, Ph.D.
Professor of Occupational and Environmental Health. Molecular biomonitoring of genotoxic agents and genetic polymorphisms associated with their metabolism, carcinogen metabolites and genetic damage in human populations.

Clarke G. Tankersley, Ph.D.
Associate Professor of Physiology. Environmental stress physiology, mouse genetics, pulmonary physiology, linkage analysis, control of ventilation, genetic susceptibility, air pollutant toxicology, respiratory effects of ALS, genetic obesity.

Michael A. Trush, Ph.D.
Professor of Toxicological Sciences. Environmental chemicals, reactive oxygen, mitochondria, benzene, benzo(a)pyrene, leukocytes, polymorphonuclear leukocytes, mononuclear cells, bone marrow progenitors, aplastic anemia, agranulocytosis, leukemia.

Henry N. Wagner Jr., M.D.
Professor and Director of Radiation Health Sciences; Director, Center for the Advancement of Radiation Education and Research. Nuclear medicine.

Nobunao Wakabayashi, D.Ag.
Research Associate.

Pamela (Polly) Walker, M.D.
Research Associate of Occupational and Environmental Health. Sustainability, greening the campus.

Walter Watson, Ph.D.
Assistant Professor. Redox, thioredoxin, toxicology, oxidative stress, nucleocytoplasmic transport.

Virginia Weaver, M.D., M.P.H.
Assistant Professor of Occupational and Environmental Health. Molecular epidemiology, medical surveillance, occupational and environmental chemical exposures, biomarkers, t-muconic acid, benzene biomonitoring, lead nephrotoxicity, retinol-binding protein, N-acetyl-α-D-glucosaminidase (NAG), cadmium nephrotoxicity.

James D. Yager, Ph.D.
Professor of Toxicological Sciences and Senior Associate Dean for Academic Affairs. Estrogens, estrogen metabolism, catechol-O-methyltransferase (COMT), catechols, estrogen receptor, carcinogenesis, liver cancer, breast cancer, genetic polymorphisms, mitochondria.
Joint Appointments

Martin D. Abeloff, M.D.
Professor of Oncology, School of Medicine.

Susan P. Baker, M.P.H.
Professor of Health Policy and Management.

Timothy D. Baker, M.D., M.P.H.
Professor in International Health.

Edward J. Bernacki, M.D., M.P.H.
Associate Professor of Medicine, School of Medicine.

Karen Bolla, Ph.D.
Associate Professor of Neurology, School of Medicine.

Robert Brown, M.D., M.P.H.
Professor of Anesthesiology and Critical Care Medicine, School of Medicine.

Thomas Burke, Ph.D., M.P.H.
Professor of Health Policy and Management.

Robert A. Casero Jr., Ph.D.
Professor of Oncology, School of Medicine.

David Celentano, M.H.S., Sc.D.
Professor of Epidemiology.

Barbara Curbow, Ph.D.
Associate Professor of Health Policy and Management.

Robert Dannals, Ph.D.
Professor of Radiology and Radiological Sciences, School of Medicine.

Cecilia T. Davoli, M.D.
Assistant Professor of Pediatrics, School of Medicine.

Sinha Debasish, Ph.D.
Assistant Professor in the Wilmer Eye Institute at the School of Medicine.

Theodore L. DeWeese, M.D.
Professor of Oncology and Urology, School of Medicine.

Larry Edward Dillehay, Ph.D., M.S.
Research Associate of Oncology, School of Medicine.

Peyton A. Eggleston, M.D.
Professor of Pediatrics, School of Medicine.

Hugh Ellis, Ph.D.
Professor of Geography and Environmental Engineering, School of Engineering.

Mark R. Farfel, Sc.D.
Associate Professor of Health Policy and Management.

Eric C. Frey, Ph.D.
Associate Professor, School of Medicine.

Edward W. Gabrielson, M.D.
Associate Professor of Pathology and Oncology in the School of Medicine.

Kathleen L. Gabrielson, Ph.D., D.V.M.
Assistant Professor in the Department of Comparative Medicine of the School of Medicine.

Joe G.N. Garcia, M.D.
Professor of Pulmonary Medicine in the School of Medicine.

Steve N. Georas, M.D.
Associate Professor in the Department of Pulmonary and Critical Care Medicine in the School of Medicine.

Gary W. Goldstein, M.D.
Professor of Neurology, School of Medicine; President, Kennedy-Krieger Institute.

Thaddeus K. Graczyk, Ph.D., M.S.
Associate Professor in Molecular Microbiology and Immunology.

Lawrence Grossman, Ph.D.
Professor of Biochemistry and Molecular Biology.

Maureen Horton, M.D.
Assistant Professor, School of Medicine.

Raymond C. Koehler, Ph.D.
Professor of Anesthesiology and Critical Care Medicine, School of Medicine.

Alan Langlieb, M.D., M.P.H.
Assistant Professor, School of Medicine.

Robert S. Lawrence, M.D.
Professor or Health Policy and Management and the Edyth H. Schoenrich Professor of Preventive Medicine and Associate Dean for Professional Education and Programs.

Joseph B. Margolick, M.D., Ph.D.
Professor of Molecular Microbiology and Immunology.

Alvaro Muñoz, Ph.D.
Professor of Epidemiology.

Allen C. Myers, Ph.D.
Associate Professor, School of Medicine.
Viswanathan Natarajan, Ph.D.
Professor of Pulmonary and Critical Care Medicine in the School of Medicine.

William G. Nelson V, M.D., Ph.D.
Professor of Oncology, School of Medicine.

Solbert Permutt, M.D.
Professor of Medicine, School of Medicine.

Gary H. Posner, Ph.D.
Professor of Chemistry, School of Arts and Sciences.

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John A. Schaefer, CIH, M.F.S.
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Alan Scott, Ph.D.
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Departmental Affiliates

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John B. Parkerson Jr., M.D., M.S.
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Randolph Harold Rowell, Ph.D.
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Anita L. Schill, Ph.D., M.P.H.
Associate in Occupational and Environmental Health.

Ronald C. Scripsick, Ph.D., M.P.H.
Associate in Environmental Health Engineering.

David H. Sliney, M.S.
Associate in Environmental Health Engineering.

Thomas R. Sutter, Ph.D.
Adjunct Associate Professor of Toxicological Sciences.
Jocelyn Swanson-Appolon, M.D., M.P.H.
   Associate in Occupational and Environmental Health.

Ronald W. Taylor, J.D.
   Associate in Environmental Health Engineering.

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   Adjunct Assistant Professor of Occupational and Environmental Health.

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   Senior Associate in Environmental Health Engineering.

Alice Koegel Weber, M.H.S.
   Associate in Environmental Health Engineering.

Marsha Wills-Karp, Ph.D.
   Adjunct Associate Professor in Physiology.

Masayuki Yamamoto, M.D., Ph.D.
   Adjunct Professor.

Ralph Yodaiken, M.D.
   Senior Associate.
Epidemiology

Epidemiology may be defined as the study of the distribution and dynamics of disease in human populations. Its purpose is to identify factors relative to humans and their environment that determine the occurrence of disease. Epidemiologic methods are also used to assess the variation, severity, and magnitude of disease and related risks, and resources, and to evaluate the efficacy of new preventive and therapeutic treatments and the impact of new organizational patterns of health care delivery. The Department's mission is to provide education and training of the highest quality in epidemiology, to conduct epidemiologic research of the highest caliber to promote health and prevent disease; and to provide service to the School and to local, national, and international communities on issues that involve the discipline.

The Department of Epidemiology offers a broad selection of educational and research programs. These include infectious diseases and chronic diseases encompassing cardiovascular and cerebrovascular diseases, respiratory diseases, digestive diseases, congenital malformations, cancer, and occupational diseases. Human genetics, statistical epidemiology, social and behavioral studies, health disparities and health outcomes, are of major interest. The faculty are involved in planning and evaluating community health programs for various diseases, and these activities provide excellent training opportunities for students.

The mission of the Department of Epidemiology is to improve the public's health by training epidemiologists and by advancing knowledge concerning the causes and prevention of disease and the promotion of health. As the oldest autonomous academic department of epidemiology in the world, the Department of Epidemiology of Johns Hopkins University has maintained leadership in fulfilling this mission. The specific goals of the Department are to

- Provide the highest quality education in epidemiology and thus prepare the next generation of epidemiologists
- Advance the science of epidemiology by developing new methods and applications
- Use epidemiologic methods to investigate the etiology of disease in human populations
- Use epidemiologic methods to evaluate health care delivery
- Develop methodology for translating epidemiologic research findings into clinical medicine
- Develop approaches for applying the findings of epidemiologic research in the formulation of public policy and to participate in formulating and evaluating the effects of such policy

Generally, students specialize in a selected area of interest, but every effort is made to provide as broad a background in epidemiology as possible. All departmental students are required to take the four-course primary sequence of epidemiology, comprised of Principles of Epidemiology, Intermediate Epidemiology, Case Control Studies & Cohort Studies, as well as a four-course sequence in either Statistical Methods in Biostatistics or Methods in Biostatistics. Students also complete courses within the area that they selected as their focus of interest. In addition to the courses listed, the Department conducts seminars in which speakers from other institutions or agencies deal with applied epidemiological problems, and faculty members and students discuss their current or planned research.

Programs of study are offered leading to six degree programs: Master of Public Health, Master of Health Science, Master of Science, Doctor of Public Health, Doctor of Science, and Doctor of Philosophy degrees. Completion of the requirements for a master's degree in the Department of Epidemiology generally takes two years; a doctoral degree requires at least three or four years, with an average of 4.5 years. Additional time may be required for those who have a limited background in the biological sciences at the time of admission. Postdoctoral training without a degree goal is also available.

A combined MD/PhD program in Epidemiology is available to students enrolled in the medical sciences doctorate at the Johns Hopkins University School of Medicine.

Additionally, the approved residency program in general preventive medicine is affiliated with the Department. A total of three years of training is specified, of which one or more may be academic, and the balance devoted to supervised field experience. Applications may be accepted for the entire period of training.

Admission—In addition to meeting the general admission requirements of the School, individuals applying to the department should have at least a university-level bachelor's degree, with course work in biology and mathematics. While no specific undergraduate major is specified, candidates should have coursework in biochemistry, anatomy, physiology, mathematics and calculus. A statistics course is also preferable. Those whose area of interest is infectious disease epidemiology must have a solid background in microbiology. Human genetics applicants should have
courses in genetics and molecular or cellular biology. It is strongly recommended that applicants to the Clinical Epidemiology program have a background in biomedical/clinical sciences or experience in clinical research. Generally, admission to the doctoral program is limited to those individuals with significant prior training or experience in epidemiology or related fields, including medicine and other health areas, and a masters’ degree in a health-related field. All applicants are required to submit the results of a recent Graduate Record Examination (GRE) or its equivalent.

Admission to the master’s program does not guarantee subsequent admission to the doctoral program. All applicants for doctoral programs are evaluated based on prior professional experience, academic excellence, and their potential as public health/epidemiologic researchers.

In the Statement of Objectives and Plans of the application form, applicants should clearly indicate the degree program desired and the area of concentration, if known; briefly describe their background and accomplishments; and discuss the relevance of these accomplishments to epidemiology and to their area of interest. It is critical that applicants discuss their goals in epidemiology, and in public health.

**Major Educational Areas and Programs**

The Department provides a broad set of training opportunities in general epidemiology and in specific focused areas, including:

- Cancer Etiology and Prevention
- Cardiovascular Diseases
- Clinical Epidemiology
- Clinical Trials
- Epidemiology of Aging
- Methodology
- Human Genetics/Genetic Epidemiology
- Infectious Diseases
- Occupational and Environmental Epidemiology
- Risk Sciences (as a certificate program)

Training is offered through a core methodologic sequence with the addition of more focused courses in the specific areas. Most training areas of concentration require specific courses. Students are expected to tailor their curricula, working with their advisors to create a comprehensive plan of study and research.

Faculty interests cover many very specific and general topics. Incoming students may want to link with faculty who have shared interests although this is not required. Examples of some of areas of faculty research are given below:

- Epidemiologic Methodology
- Gene-environment Interaction
- Environmental Induced Illness
- Industrial and Occupational Exposures
- Risk Assessment
- Prevention of Infectious Diseases
- HIV Infection and AIDS
- Evaluation of Health Behaviors
- Outcomes Research
- Sleep Disorders
- Evaluation of Access to Health Care
- Molecular Epidemiology of Cancer
- Vision Research
- Social Epidemiology
- Tuberculosis

The Department offers selected opportunities such as The Fogarty AIDS International Training and Research Program is funded through Fogarty International for students who are active in HIV/AIDS collaborative research. Interested applicants should contact Denise Carolan (dcarolan@jhsph.edu or 410-955-1514). Also, The Johns Hopkins Tuberculosis Training and Research Program is a training program for students from Peru, India, South Africa, Brazil, and USA interested in tuberculosis prevention and control in developing countries.

The Department’s broad research portfolio is the foundation for research training. In addition, the Department houses a number of special resources and facilities that enhance learning.

**Graduate Interdepartmental Program in Molecular Epidemiology (IPME)**

The Interdepartmental Program in Molecular Epidemiology (IPME) offers specialized cross-training in epidemiology (Department of Epidemiology) and the laboratory sciences (Departments of Biochemistry and Molecular Biology, Environmental Health Sciences, and Molecular Microbiology and Immunology). As a result of the complete sequencing of the human genome and rapid advances in high through-put molecular techniques, epidemiology is poised to move beyond measuring associations of exposures with disease occurrence to assessing the underlying biological mechanisms of pathogenesis.

The objective of the Interdepartmental Program Molecular Epidemiology is to provide candidates with
solid training in the complementary disciplines of epidemiology and laboratory molecular biology/genetics to encourage interdisciplinary approaches to solving public health problems. Candidates will select an academic training program based on the requirements for the individual departmental PhD and ScM requirements (see department-specific ScM requirements for the IPME) structured around a Core Curriculum in Molecular Epidemiology. The Core Curriculum will ensure a broad theoretical basis in the following subject areas: epidemiology, biostatistics, molecular biology, cellular biology, genetics, physiology/immunology, molecular epidemiology, and laboratory rotations. The integrative aspects of the interdisciplinary model include a system of co-advising (advisors from doctoral and masters departments) and integration of PhD and ScM research into a single dissertation. The IPME dissertation will include results of both masters and doctoral research (which must be thematically related) and a chapter integrating the laboratory and epidemiologic approaches to the research topic. Successful candidates of the Interdepartmental Program in Molecular Epidemiology will be concurrently awarded a PhD in the core department and a Masters of Science degree in the joint department.

Admission to the IPME will follow standard admis-sion procedures for the PhD and ScM departments, with final approval by the Molecular Epidemiology Advisory Council. Prior laboratory experience/training is required for admission to the IPME.

Special Resources and Facilities

The working relationships that the Department enjoys with other departments within the University and with a number of institutions both in the United States and abroad concerned with health and disease offer students opportunities to broaden their experience. These resources include the Johns Hopkins School of Medicine and the Johns Hopkins Hospital and Comprehensive Cancer Center, metropolitan Baltimore hospitals, the Social Security Administration, the Maryland State Department of Health and Mental Hygiene, Baltimore City Health Department, and a number of institutions in other cities. In the past, arrangements have been made for students and faculty to work at the National Center for Health Statistics, the Frederick Cancer Research Center of the National Cancer Institute, the National Institutes of Health, Walter Reed Army Institute of Research, U.S. Veterans Administration, Armed Forces Institute of Pathology, Centers for Disease Control, and the World Health Organization. Our students also enjoy rotations with our collaborative centers at Chiang Mai University in Thailand and in Blantyre, Malawi. Additional learning opportunities for students and fellows are listed below and are described in the School-affiliated Centers and Institutes section of this catalog.

Within the Johns Hopkins Bloomberg School of Public Health, joint programs with other departments are also possible. A number of joint programs are affiliated with interdepartmental centers: Center for Clinical Trials, the Johns Hopkins Comprehensive Cancer Center, the Risk Sciences and Public Policy Institute, and the Welch Center for Prevention, Epidemiology and Clinical Research, and are fully described in the School-affiliated Centers and Institutes chapter.

The Certificate in Risk Sciences and Public Policy is an interdepartmental program offering research and training opportunities designed to bridge science and public policy. The institute serves as an academic focus for addressing the critical science and policy issues inherent in managing disease risks from environmental and occupational exposures. Research by the faculty at the institute focuses on strengthening the application of science-based risk analysis and encouraging innovative public health solutions to complex risk problems. The institute’s flagship educational programs provide professionals and decision makers with the tools necessary to bridge health research, environmental science, and policy. A formal certificate, comprised of designated course work, is offered. For more information, contact Mr. Ronald White at 410-614-4961. Email rwhite@jhsph.edu.

The Certificate in Gerontology is designed for doctoral students and post-doctoral fellows who are pursuing an “academic” masters degree (either ScM or MHS) involving a research-oriented thesis and is intended for students at the School who are committed to a career in the field of gerontology and who wish to be recognized as broadly trained in core competencies as well as their particular area of specialization. The co-directors are Dr. Pearl German and Dr. Chad Boul. For more information, contact Ms. Carol Han at chan@jhmi.edu or 410-614-3755.

The Epidemiology Students’ Organization, (ESO), is comprised of all masters’, doctoral, and post-doctoral students in the Department of Epidemiology. As a faculty and administration-independent organization, our mission is to promote the professional development of students in the department and to act as an advocate for student needs. This is accomplished by working with faculty, administration, and other student organizations in the School. Our goal is to create an environment that facilitates discussion, student-student interaction, and networking.
Epidemiology

Faculty data as of April 30, 2005. For current listing, please click here: http://faculty.jhsph.edu/Faculty_EPI.cfm

Jonathan M. Samet, M.D., M.S.
Chair of the Department.

Primary Faculty

Joseph H. Abraham, Sc.D., M.S.
Assistant Scientist. Environmental epidemiology, air pollution, asthma.

Anthony Alberg, Ph.D., M.P.H.
Assistant Professor. Cancer epidemiology, cancer prevention and control, tobacco health effects, tobacco prevention and control, cigarette smoking.

Cheryl Anderson, Ph.D., M.P.H.
Assistant Scientist.

Haroutune K. Armenian, M.D., M.P.H., Dr.P.H.
Professor. Disasters, health services research, psychopathology and physical illnesses.

Allyn Arnold, M.P.H.
Instructor.

Brad C. Astor, Ph.D., M.P.H., M.S.
Assistant Professor. Cardiovascular, kidney, anemia, dialysis, vascular access.

Terri H. Beaty, Ph.D.
Deputy Chair and Professor. Genetic epidemiology, gene-environmental interaction, oral clefts.

Chris Beyrer, M.D., M.P.H.
Associate Professor. HIV/AIDS, molecular epidemiology, human rights, Burma, Thailand, China.

David D. Celentano, Sc.D., M.H.S.
Deputy Chair and Professor. HIV/AIDS, STDs, behavior, Asia, AIDS prevention, Thailand, India, Vietnam.

Jeanne B. Charleston, B.Sc., R.N.
Research Associate.

Haitao Chu
Assistant Professor.

Bernice H. Cohen, Ph.D., M.P.H.
Professor Emerita.

Stephen R. Cole, Ph.D., M.P.H.
Assistant Professor. Quantitative epidemiologic methods, HAART, AIDS.

George W. Comstock, M.D., Dr.P.H., M.P.H.
Professor Emeritus. Community-based epidemiologic studies, tuberculosis control, controlled trials.

Josef Coresh, M.D., Ph.D., M.H.S.
Professor. Cardiovascular epidemiology, kidney disease, genetic epidemiology, research methods, heart.

Christopher Cox, Ph.D.
Professor.

Rosa M. Crum, M.D., M.H.S.
Associate Professor. Addictions, aging, alcoholism, depression, drugs/drug abuse, psychiatric epidemiology, gerontology, mental disorders and emotional health, psychopathology, risk factor/analysis.

M. Daniele Fallin, Ph.D.
Assistant Professor. SNP, genetic epidemiology, haplotypes.

Homayoon Farzadegan, Ph.D.
Professor. Infectious diseases, viral diseases transmitted by blood and other body fluids, natural history studies.

Manning Feinleib, M.D., M.P.H., Dr.P.H.
Professor. Cardiovascular diseases, vital and health statistics, and disparities.

Nancy Fink, M.P.H.
Associate Scientist. Clinical epidemiologic methods, cohort studies, randomized trials, kidney disease, cochlear implants.

Jean G. Ford, M.D.
Associate Professor. Lung cancer, asthma, health disparities, clinical trials.

Robin Fox, M.S.
Research Associate. HIV/AIDS, epidemiologic methods, academic ethics.

Noya Galai, Ph.D.
Associate Professor. Applied epidemiology, public health, policy.

Stephen J. Gange, Ph.D.
Associate Professor. HIV/AIDS, biomarkers, biostatistics, data management or analysis (medical), observational studies, infectious diseases or agents.

Tiffany L. Gary, Ph.D., M.H.S.
Assistant Professor. Minority health, diabetes, social determinants of disease, community-based interventions, obesity, health disparities.

Thomas A. Glass, Ph.D.
Associate Professor. Social epidemiology, chronic disease epidemiology, aging, behavior and health, neighborhoods, cerebrovascular disease, disaster epidemiology, bioterrorism.
Vivian Fei-Ling Go, M.P.H.
Assistant Professor. HIV, STDs, behavior, Asia, prevention, vulnerable populations.

Elizabeth T. Golub, Ph.D., M.D.
Assistant Scientist. HIV, injection drug users, HCV

Leon Gordis, M.D., M.P.H., Dr.P.H.
Professor. Epidemiology of childhood and chronic diseases, health services evaluation, privacy and confidentiality in research, public policy, use of epidemiologic data in the courts.

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Assistant Professor. Human papillomavirus, cervical cancer, molecular epidemiology, misclassification, viral etiology of cancer, PCR.

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Sandra C. Hoffman, M.A., M.P.H.
Assistant Scientist. Research methods, community-based studies, health surveys.

Janet T. Holbrook, Ph.D., M.P.H.
Assistant Professor. Clinical trials, surrogate outcomes, prospective observational studies.

Han-Yao Huang, Ph.D., M.P.H.
Assistant Professor. Etiology and chemoprevention of cancer and cardiovascular disease, oxidative stress, gene-environment interaction, cancer early detection, nutrition, micronutrients, randomized controlled trial, epidemiologic methods.

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Health, Behavior and Society

MISSION

The Department's research and training are directed toward understanding health behavior and population health. The Department focus is in two primary areas: theory and methods needed to understand multilevel determinants of behaviors and the role of behaviors in population health; and using these theories and methods to develop, refine, implement and evaluate multi-level interventions. The Department will help to further integrate social and behavioral sciences with emerging developments in population genetics, biostatistics, biology and advances in both medical and information technologies.

Health, Behavior & Society Programs

The Department of Health, Behavior & Society offers masters level training in three areas of Behavioral Sciences and Health Education. A Master of Health Science, a Master of Science (ScM) in the area of genetic counseling and a Master of Public Health in Social and Behavioral Sciences.

MASTER OF HEALTH SCIENCE

The Master of Health Science (MHS) in Behavioral Sciences and Health Education provides students with specialized training in this specific topic area as well as general training in the field of public health. Students are prepared for careers as health education and health promotion practitioners in professional firms, units of government at all levels, and private corporations dealing with health affairs.

MHS IN BEHAVIORAL SCIENCES AND HEALTH EDUCATION

Program Director(s): Dr. Andrea Gielen, Ms. Lee Bone and Ms. Eileen McDonald

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General Program Information

The M.H.S. program in Behavioral Sciences and Health Education is designed for individuals seeking specialized formal academic training in health education and health promotion. The program equips students with the fundamental skills and knowledge necessary for a career in health education and health promotion practice. The curriculum emphasizes health promotion, education and communication strategies for working with individuals, organizations and communities. A solid foundation in behavioral sciences principles and theories is provided along with advanced skills in program planning, implementation and evaluation. While the curriculum consists of a number of required courses, students are also provided with adequate flexibility to select among numerous electives and/or to complete specialized certificate programs.

The program, which can be completed in a minimum of eighteen months, consists of one academic year of course work and a six-month field placement experience. The field placement is designed to provide students with an opportunity, under supervision, to apply the knowledge and skills from the classroom to real health education, promotion and communication practice. Many of the field placement sites offer paid placements and students receive a Masters Tuition Scholarship to help with tuition costs during the field placement. Students conclude the program by producing a final paper that critically evaluates an activity or activities performed during their placement.

Course Requirements

The first year curriculum consists of a minimum of 64 credits, which includes both required (45-47 units) and elective (17 units minimum) courses. The curriculum includes basic course work in public health and solid academic preparation in behavioral science principles, theories and research that form the multidisciplinary basis of health education practice. The curriculum emphasizes: assessment of educational needs; development and implementation of health behavior change strategies targeting the individual, group, and community; and evaluation of program effects.

Students can pursue the Biostatistics requirement through one of two options. The first option (Track A) emphasizes interpretation and concepts rather than data analysis. This sequence develops an understanding of statistical methods rather than developing a student's own data analysis skills. The second option (Track B) is aimed at students who intend to analyze data them-
selves or contribute meaningfully to a group of practitioners or researchers doing so. Students may not switch between tracks after they have begun one. Both courses in the track must be completed to fulfill the Biostatistics requirement.

Students may use electives to broaden their understanding of major public health issues by taking courses in any of the departments of the School. Electives may also be used to pursue specialized training such as that offered by the Certificate in Health Communication, Certificate in Injury Control, Certificate in Health Finance and Management, or Certificate in Health Policy.

Field Placement

Having successfully completed a minimum of 64 credits in the first academic year, including all required courses, students begin the field placement in year two. The primary purpose of the field placement, an integral component of the MHS program, is skill building: helping the student learn how to apply theories and principles and develop skills essential for functioning as an effective health educator. The field placement provides the student with the opportunity to apply the knowledge gained through the academic course work to "real world" problems and health education programs.

The field placement is an activity in which the student, the placement agency, and the faculty share responsibility. All three parties must be involved in developing work objectives at the beginning of the placement to guide the student's field placement experience; providing monitoring, supervision, and feedback during the placement; and completing an evaluation towards the end of the placement.

An appropriate field placement is one that consists of a full-time work experience as a health education trainee in an agency or organization in which the student participates in some aspect of program/project planning, implementation, and/or evaluation. The placement must last at least six months and provide the student with appropriate supervision and guidance from agency personnel. The placement should be in the Maryland, Washington D.C., or Virginia area. This geographic proximity is needed so students can participate in the monthly seminar series required during year two of the program. The purpose of the seminar series is to allow students to learn about each other's placements and to discuss current health education relevant issues. In addition, the seminar also addresses the final requirement of the program, the final report. Additional field placement information and requirements will be provided to the students by the program directors.

Ph.D. Program

The Department provides programs of study leading to the Doctor of Philosophy (Ph.D.) and the Doctor of Science (Sc.D.) degrees.

Doctoral students are required to take the doctoral core course in their concentration as well as coursework that will meet the departmental breadth requirement. It is strongly recommended that if possible, all students complete the core course in each concentration. In addition, there are required or recommended courses within each specialization. At the end of the first year, students sit for the written qualifying exams which cover materials from the first year courses.

In the second year, students take courses in preparation for beginning research in their chosen specialization. They are also required to engage in, or be exposed to, at least two faculty research projects in order to understand various research approaches. Seminar courses are offered to bring students to the state-of-the-science in research and to assist them in preparing a research thesis proposal.

Generally by September of the third year, students take the departmental and school-wide preliminary oral examinations, in which faculty examine the student's readiness to conduct independent research. Upon passing, students pursue a research topic under the guidance of an academic advisor and faculty committee. The student's written dissertation is defended at a final school-wide oral examination, and then presented in a formal public seminar. It should be possible to complete the doctoral degree in four years of full-time study.

The department expects students to complete the requirements as described in each area of specialization. Students are also expected to take methods courses relevant to the field of their dissertation research. Students who wish to take advanced biostatistics courses (140.651-654 Methods in Biostatistics I-IV) in place of the basic requirements are encouraged to do so. To register for the advanced series, a working knowledge of calculus and linear algebra is required.
MASTER OF SCIENCE IN GENETIC COUNSELING
Program Director: Barbara Biesecker, MS, CGC;
Academic Director: Debra Roter, Dr.Ph.
Program Coordinator: Mary Ann Dunevant, 756 Hampton House, 410-955-2315,
mdunevan@jhsph.edu

General Degree Information

The Genetic Counseling Graduate Program is a joint effort between the Department of Health, Behavior & Society and the National Human Genome Research Institute (NHGRI) at the National Institutes of Health (NIH). This collaboration draws on resources from the two research institutions to address needs in the genetic counseling profession. This program was initiated in 1996 and its goals are to prepare graduates to:
1. Provide genetic counseling, with an emphasis on clients' psychological and educational needs.
2. Conduct social and behavioral research related to genetic counseling; and educate health care providers, policy makers and the public about genetics and related health and social issues.

Course Requirements

The program requires two and one-half years of full-time study. The curriculum consists of at least 80 credit hours of didactic course work in the areas of human genetics, genetic counseling, public policy, research methodology, ethics, and health education. The course work is taken on the NIH campus in Bethesda, Maryland, and at Johns Hopkins Medical Campus in Baltimore. Clinical rotations extend in location from northern Baltimore to Washington DC.

Per School regulations, at least 12 credits of formal course work must be completed outside the Department of Health, Behavior & Society, of which at least eight (8) must be earned in another department of the School of Public Health.

HBS FACULTY

The faculty of Social and Behavioral Sciences are dedicated to research and training that advances scientific understanding of behaviors related to health and how to influence them and improve health outcomes. We seek to understand how behaviors and environmental context interact to affect health, including factors that operate at the individual, organizational, community, and societal levels. We work to develop, implement, evaluate, and disseminate interventions that facilitate healthy behaviors and improve health outcomes.

Many public health problems are integrally related to behavior, cultural norms, and societal factors such as inequities. Interventions to prevent and ameliorate diseases and injuries often depend on change at individual, organizational, community and societal levels. Some of the greatest public health accomplishments – e.g., tobacco control, motor vehicle safety, vaccination – have involved such multi-level interventions to successfully change personal health and safety behaviors. Social and behavioral sciences theories and methods are essential to improve understanding of the determinants of health problems, the behavior change process and effective public health interventions.

The department is also fortunate to have a distinguished part-time faculty including leaders in behavioral and social sciences & public health. These faculty have appointments as adjunct professors, senior associates and associates. They teach courses, serve as preceptors and are available to guide students seeking career counseling.
Health, Behavior and Society

Faculty data as of September 1, 2005. For current listing, please click here: http://faculty.jhsph.edu/hbs.cfm

David Holtgrave, Ph.D.
Chair of the Department.

Primary Faculty

Lee Bone, M.P.H.
Associate Professor. Community-based health promotion programs; evaluation sustainability; health education; outreach programs (community health workers).

Janice Bowie, Ph.D., M.P.H.
Assistant Professor. Urban health; community health education.

Barbara Curbow, Ph.D.
Associate Professor. Social psychology of health and illness; quality of life; job stress; persuasive communications.

Margaret E. Ensminger, Ph.D.
Professor. Life span development and health; childhood and adolescence; social structure and health; substance use; aggressive and violent behavior.

Kate Fothergill, Ph.D.
Assistant Scientist. Research on lifecourse development of health and behavioral problems. Focus on individual, family, and environmental risk factors in child and adolescence.

Michael C. Gibbons, Sc.D., M.H.S.
Assistant Professor. Research on elucidating the biologic mechanism underpinning associations between social factors and health/health disparities, especially cancer disparities.

Hee-Soon Juon, Ph.D.
Associate Professor. Minority mental health; suicide behavior; substance use; criminal behavior; and cancer control behavior in Korean women.

D. Lawrence Kincaid, Ph.D.
Associate Scientist. Communications research; family planning; evaluation research.

Ann C. Klassen, Ph.D.
Associate Professor. Cultural influences on access to health services and treatment decisions; disadvantaged populations; minority health issues; women’s health; cancer; organ donation and transplantation.

Amy R. Knowlton, Sc.D.
Assistant Scientist. HIV/AIDS among vulnerable populations, social networks, informal caregiving, adherence intervention and evaluation for optimizing HARRT use.

Carl Latkin, Ph.D.
Professor. Risk behaviors for HIV acquisition and transmission, particularly among injection drug users.

Eileen McDonald, M.S.
Assistant Scientist. Alcohol and other drugs; injury prevention; experimental teaching techniques; interviewing and communication skills.

Rajiv Ramal, Ph.D.
Assistant Professor. Mass media/health communication.

Debra Roter, Dr.PH.
Professor. Analysis of patient-provider communication; health education and health promotion; CME training.

Katherine Smith, Ph.D.
Assistant Professor. Mass media/health communication.

Karen E. Tobin, Ph.D.
Assistant Scientist. C HIV prevention intervention research (development and evaluation); injection drug user health issues.

Lawrence Wissow, M.D., M.P.H.
Professor. Patient-provider communication, especially as relates to disclosure of sensitive psychosocial issues and family violence; emphasis on cultural and developmental differences in disclosure; special focus on American Indians and children.
Health Policy and Management

The Department of Health Policy and Management is responsible for training public health professionals and researchers in diverse disciplines and promoting the translation of public health science into practice and policy. Our mission is to train public health leaders to protect and improve the public’s health through effective, efficient and equitable policies, programs and services. The department seeks to identify policies and interventions that promote and protect the health status of populations; strategies that improve access to health and preventive services, particularly among the most vulnerable; methods that enhance the effectiveness and efficiency of health care for medical and mental illness; and models for improving the financing, organization, and delivery of preventive and curative health services.

The department has a multidisciplinary faculty from many fields and disciplines, including biostatistics; economics; environmental policy; epidemiology; ethics; gerontology; health finance; health law; health services research; medicine; nursing; operations research; organizational behavior and management sciences; political science; policy analysis; psychology; public policy; public health practice; and sociology. Many hold joint appointments in the Johns Hopkins Schools of Medicine, Nursing, Arts and Sciences, and Engineering. The faculty also contribute to Schoolwide programs, including the Master of Public Health program, the Doctor of Public Health program, the Preventive Medicine Residency Program, and the Interdepartmental Program in Gerontology.

The department is fortunate to have distinguished part-time faculty, including leaders in policy, management, and public health. These faculty have appointments as adjunct professors, senior associates, and associates. They teach courses, serve as preceptors, and are available to guide students seeking career counseling. In addition, faculty from other Johns Hopkins schools have joint appointments in the department, reflecting their interest in teaching and serving as mentors to our students.

DEGREE PROGRAMS

Masters Programs

Master of Health Science in Health Policy—

The MHS Program in Health Policy is a professionally-oriented degree program designed for individuals seeking specialized academic training in health policy in order to establish or expand their careers as health policy analysts. The program requires one year of academic coursework, followed by a 9-month field placement consisting of full-time employment in a professional health policy setting. Through their coursework, students acquire a solid foundation in fundamental policy analysis, along with substantive knowledge of the US health care system and key health policy issues. The required curriculum and field placement experience provide students with a rich understanding of U.S. health policy; knowledge of the processes by which public policy decisions are made; training in basic quantitative and analytic methods; and the skills needed to critically assess and apply research findings to the development and analysis of health policy. In addition to the core requirements, the curriculum offers adequate flexibility to allow students to pursue their individual interests in the health policy arena: elective courses may be selected from those offered by the Department of Health Policy and Management or any other department in the School of Public Health, subject to consent of the student’s advisor.

The interdisciplinary faculty is recognized nationally and internationally for its excellence in policy analysis, health services research and teaching, and is actively involved in formulating and implementing health policy at federal, state, and municipal levels.

Students should consult the departmental student handbook for specific course requirements - http://www.jhsph.edu/admissions/Brochures/HPM.pdf

Director: Dr. Thomas Oliver; Associate Director: Ms. Dana Sleicher

Master of Health Science in Health Finance and Management—

The Master of Health Science Program in Health Finance and Management is a graduate professional degree that prepares students for management, leadership and consultant/advisor positions in the health care delivery system. In today’s rapidly changing environment, health care managers have a unique opportunity to improve the health care of the public through designing and managing high quality, cost-effective services. The program emphasizes the conceptual and analytical skills required to understand and manage today’s health care organization and to
prepare for tomorrow’s challenges. Since it began in 1972, the program has graduated over 400 students, many of whom hold leadership positions in both the public and private health sectors. The program is accredited by the Commission on Accreditation of Healthcare Management Education (CAHME).

The program requires one academic year of coursework and an 11-month paid, supervised field placement in a health care organization. A part-time program is available for those who hold management positions in healthcare organizations; these students conduct a project in lieu of a field placement. Because the program is located in a school of public health, students develop skills in working with physicians, nurses, and other health professionals, with whom they share classes.

Required courses address theories and practice of management, financial accounting and budgeting, financial management, policy analysis, legal and ethical issues, strategic planning, payment mechanisms, human resources, quantitative tools, health management information systems, marketing, epidemiology, and biostatistics. Elective courses are available on topics such as quality, organizational behavior, health economics, health policy and health law. The faculty have broad national and international experience and include practitioners who bring the “real world” into the classroom. Students should consult the departmental student handbook for course requirements.

http://www.jhsph.edu/admissions/Brochures/HPM.pdf

Director: Mr. William Ward; Associate Director: Ms. Donna Shiloh

Doctoral Programs

Doctor of Public Health

The professional DrPH program offered in HPM is principally designed for part-time students working full-time during their enrollment in the program. It is expected that students will complete the elective and required coursework over a three-year period while participating in collaborative activities. These activities include a program of seminars, research opportunities, journal clubs and other opportunities to promote interaction among program students and faculty. After the completion of all coursework, students will sit for the written comprehensive exam. Students then present themselves for the preliminary oral examination, after which they may begin substantive work on their dissertation.

The dissertation requirements for the DrPH program include the completion of two special projects that will address a specific aspect of organizational (or departmental) performance. It should be possible to complete the DrPH within a seven year period.

DrPH Concentration in Healthcare Management and Leadership

The objective of the DrPH concentration in health care management and leadership is to prepare individuals for leadership positions in health care organizations. The focus of the program is on measuring, monitoring and improving the clinical and financial performance of health services organizations, as well as training leaders for organizational change. The program curriculum is based on the Malcolm Baldridge health care criteria for performance excellence framework and targets those who have master’s level training related to health care management. The program is designed for completion on a part-time basis by individuals employed in partnering organizations.

Faculty associated with this concentration include: Drs. Davis, Morlock and Pronovost; Ms. Gundlach, Ms. Shiloh and Mr. Ward

Doctor of Philosophy Program

The Department offers a research-oriented, Doctor of Philosophy program. Students enrolled in the PhD program are expected to take both required and elective courses during their first academic year in preparation for the written qualifying exams taken at the conclusion of that year. In the second year, students take courses in preparation for research within the area of concentration. Seminar courses are offered to inform students of the state of the art in research and to assist them in preparing a research thesis proposal. By the third year, students present themselves for the preliminary oral exams, in which the faculty examine student’s readiness to begin research. Upon passing, students pursue a research topic leading to a written dissertation acceptable to their advisor and a committee of faculty. It is possible to complete the PhD program in four years of full-time study.

The department organizes its PhD program into two broad areas of focus; health services research, and health and public policy. There are several specialized areas of study, know as concentrations, within the two broad focus areas. Students are admitted into either health services research or health and public policy at the time of admission, and then must select an area of concentration in which to focus their studies. Each of the areas of concentration has their own curriculum and learning objectives.

Ph.D. Concentration in Bioethics and Health Policy

Falling within the health and public policy area, the concentration in Bioethics and Health Policy is designed for students who want bioethics to be the
Departments of Instruction

Departments of Instruction

of Epidemiology, Environmental Health Sciences and Vernick Faden, Kass, Taylor; Professors Gostin and Teret; and Mr. environmental policy.

tion for the application of science to occupational and Health Policy and Management to provide a founda-
tion. The required coursework prepares students for aspects of health and health care for the aging popula-
tion. The Johns Hopkins PhD program in Bioethics and Health Policy is distinguished from other bioethics training programs in two ways: it focuses on bioethics as it relates to questions in public health and health policy (rather than, for example, medical ethics). Thus, students consider ethical issues in population health practice, research, and policy such as domestic and international research ethics, genetic screening policy, HIV screening, and social justice/resource allocation.

The concentration provides rigorous training in empirical research methods. By the end of their training, students are prepared to provide not only normative recommendations regarding ethics and public health policy but they are also equipped to function as independent researchers conducting empirical bioethics research related to public health and health policy.

Faculty associated with this concentration include: Drs. Faden, Kass, Taylor; Professors Gostin and Teret; and Mr. Vernick

Ph.D. Concentration in Environmental and Occupational Health Policy

Also falling within the health and public policy area, the program in environmental and occupational health policy examines factors in the human environment which affect health. The concentration emphasizes evaluation, development and refinement of policies at the local, state, federal and international levels. The concentration uses a multidisciplinary approach to evaluation, integrating courses from the departments of Epidemiology, Environmental Health Sciences and Health Policy and Management to provide a foundation for the application of science to occupational and environmental policy.

Faculty associated with this concentration include:
Professor Baker; Drs. Burke, Fox, Sorock, and Silbergeld; Ms. Resnick

Ph.D. Concentration in Gerontology and Long-term Care

Using the tools of health services research, this concentration integrates the field of gerontology into health policy. Students learn the principles of health services research and apply them to the study of all aspects of health and health care for the aging population. The required coursework prepares students for leadership positions in agencies and institutions charged with administering services as well as conducting research into the health and well being of the older population.

Faculty associated with this concentration include: Drs. Burton, Boul, German, Kasper and Wolff

Ph.D. Concentration in Health Economics

The curriculum in health economics prepares doctoral students to understand the application of economic analysis to the health field and to carry out original studies in health economics. The curriculum stresses a solid grounding in modern economic theory, quantitative methods, and econometrics, and offers a broad exposure to economic studies in the health field. It provides students with a working knowledge of basic public health statistics and methods, and familiarity with health policy, management, and research issues. This base of public health knowledge enables the student to appreciate the variety of disciplinary perspectives and institutional concerns that are relevant to the analysis of resource allocation questions within the health field. Many electives are available and are selected with the guidance of the student’s advisor.

Faculty associated with this concentration include: Drs. Frick and Gaskin

Ph.D. Concentration in Health and Public Policy/Medical Care Policy

This area of concentration focuses on the analysis and comprehension of the patterns of organization, funding, and delivery of health care in the United States and other developed countries. The impact that social policies have on the level of health and well-being of populations is a focus of the concentration, as is the relationship between health care and social care, patterns of productivity, consumption, utilization of health services, and satisfaction with health services.

Faculty associated with this concentration include: Drs. Navarro, Oliver, Shi and Starfield

Ph.D. Concentration in Health Services and Outcomes Research

In a changing health care delivery system, health services researchers increasingly are concerned with the effects of different health care financing and organization models on the care outcomes for individuals and populations. Outcomes may include such factors as client satisfaction, functional status, health-related quality of life, excess morbidity, and mortality. Outcomes may also be used to construct performance indicators for hospitals, health plans, and other organizations, information which can be used by consumers, managers, payers, and policy makers.

In this doctoral concentration, students acquire the conceptual and methodological tools needed to conduct research and program evaluation to advance the state of knowledge of these issues. The curriculum emphasizes the following areas: understanding varia-
tions in the organization and financing of health care delivery; methodologies for measuring and predicting quality of care and health outcomes; assessing the impact of technology and treatments on patient outcomes; and assessing the impact of health care policy on individuals and populations. Approaches employing primary data, secondary data, and integrated data sources are included to expand students’ skills. The concentration prepares students for careers as health services researchers and as leaders of health care delivery organizations or programs in which the evaluation of quality of care and health outcomes is of central interest.

Faculty associated with this concentration include: Drs. Anderson, Dy, Forrest, Kasper, LaVeist, MacKenzie, Morlock, Riley, Steinwachs, Weiner, and Wu

Ph.D. Concentration in Injury Prevention

The Injury Prevention concentration focuses on the science and policy of preventing injuries, reducing disability and providing emergency services and rehabilitation. In conjunction with the Center for Injury Research and Policy, the faculty and students focus on injuries of all types, including highway injuries, falls, burns, drowning and violence. The epidemiology of these injuries is determined, and strategies to prevent the injuries are formulated and evaluated.

Faculty associated with this concentration include:
Professors Baker and Teret; Drs. Frattaroli, Sorak, Webster and Mr. Vernick

Ph.D. Concentration in the Practice of Prevention

This area of concentration examines specific public health problems such as AIDS, injuries, tobacco, and violence, and studies the social, economic, political, and legal forces that constitute obstacles for their resolution. Strategies for addressing these problems through traditional and innovative policies are developed and evaluated.

Faculty associated with this concentration include:
Professors Baker and Teret; Drs. Kasi, Li, Taylor and Webster
Health Policy and Management

Faculty data as of April 30, 2005. For current listing, please click here: http://faculty.jhsph.edu/hpm.cfm

Donald M. Steinwachs, Ph.D.
Chair of the Department.

Thomas Burke, Ph.D.
Associate Chair.

Margaret E. Ensminger, Ph.D.
Associate Chair.

Judith Kasper, Ph.D.
Associate Chair.

Primary Faculty

Gerard F. Anderson, Ph.D.
Professor. International comparisons, chronic disease, health spending, medicare.

Susan P. Baker, M.P.H.
Professor. Injury, teen drivers, alcohol, aviation safety, injury severity, occupational safety.

Assistant Scientist.

Lee R. Bone, R.N., M.P.H.
Associate Professor. Community-based health promotion programs, evaluation sustainability, health education, health policy and management.

Charles E. Boult, M.D., M.P.H., M.B.A.
Professor. Health services research, geriatrics, post-acute care, outcomes research, interdisciplinary care.

Janice V. Bowie, Ph.D., M.P.H.
Assistant Professor. Minority health, health disparities, cancer prevention, cancer control, spirituality, women's health, community health, urban health.

Dwayne T. Brandon, Ph.D., M.A.
Assistant Scientist. Minority health, health disparities, African American health and well-being, genetic and environmental influences, African American adults and aging, blood pressure, hypertension, stress and coping.

M. Harvey Brenner, Ph.D.
Professor.

Margaret Bright, Ph.D.
Professor Emerita.

Thomas A. Burke, Ph.D., M.P.H.
Professor. Environmental health policy, risk assessment and communication, environmental epidemiology.

Lynda C. Burton, Sc.D.
Associate Professor. Aged, managed care, cost of care for nursing home residents, electronic health records.

Arthur Bushel, D.D.S., M.P.H.
Professor Emeritus.

Richard L. Cain, M.S.
Research Associate.

Renan C. Castillo, M.S.
Assistant Scientist. Trauma, outcomes, pain, structural equation modeling, disparities, cognitive behavioral therapy, self management interventions.

Kitty S. Chan, Ph.D.
Assistant Professor. Measurement, psychometrics, item response theory, health status, health-related quality of life, health services research, child health, mental health.

Li-Hui Chen, Ph.D., M.S.
Assistant Scientist. Motor vehicles, teenage drivers, graduated licensing, alcohol, injury.

Sharon L. Cullinane, R.N., B.S.N., M.H.S.
Research Associate. Injury prevention, injury research and policy.

Barbara Curbow, Ph.D.
Associate Professor. Psychosocial oncology, quality-of-life, decision making, breast cancer, psychological stress, occupational stress, child care, child care workers, risk communication, health behavior, attitudes and behavior, attitude change.

Liza Dawson, Ph.D.
Research Associate.

Sydney Morss Dy, M.D, M.Sc.
Assistant Professor. Palliative care, quality of care, end-of-life care, hospital care and safety, technology assessment, terminally ill, cancer, patient-physician communication, medical decision-making, quality improvement, internal medicine, access to care, oncology, hypertension, adherence, medications.

Margaret E. Ensminger, Ph.D.
Professor. Life span development and health, childhood and adolescence, social structure and health, substance use, aggressive and violent behavior.

Patti L. Ephraim, M.P.H.
Research Associate. Amputation, congenital limb deficiency, outcomes.

Ruth Faden, Ph.D., M.P.H.
Professor. Bioethics and public policy, ethics and cellular engineering, bioterrorism, neuroscience, genetics and public policy, research ethics, justice.
T. Maureen Fahey, M.L.A.
Research Associate.

Mark Farfel, Sc.D.
Associate Professor. Community health, environmental health, urban health, community-based participatory research, lead poisoning, prevention, children.

Charles D. Flagle, Dr.Eng.
Professor Emeritus.

Christopher Forrest, Ph.D., M.D.
Associate Professor. Child and adolescent health, child health policy, workforce, primary care, population-based healthcare, health services research, outcomes research.

Kate E. Fothergill, Ph.D., M.P.H.
Assistant Scientist.

Carolyn Fowler, Ph.D., M.P.H.
Assistant Professor. Injury prevention, public health training, workforce development, community programs, capacity, evaluation, child death review, child passenger safety, local health departments.

Mary A. Fox, Ph.D., M.P.H.
Assistant Professor.

Shannon Frattaroli, Ph.D., M.P.H.
Assistant Scientist. Gun policy, domestic violence, violence prevention, injury prevention, qualitative research methods, public health advocacy, community-based public health research, prevention policy.

Katherine Parris Frey, M.P.H.
Research Associate. Trauma Care, EMS.

Kevin D. Frick, Ph.D., M.A.
Associate Professor. Cost benefit and effectiveness, economic evaluation, community interventions, prevention, ophthalmology, nursing, quality of life.

Darrell J. Gaskin, Ph.D.
Associate Professor. Health disparities, minority health, safety net hospitals, access to care, mental health economics, managed care.

Pearl German, Sc.D.
Professor Emerita. Aging and health, gerontological.

Michael Christopher Gibbons, M.D., M.P.H.
Assistant Professor. Minorities, cancer, disparities, interventions, community health workers, underserved, strategic management.

Andrea C. Gielen, Sc.D., Sc.M.

Alice Gifford
Associate Professor Emerita.

Lawrence Gostin, J.D.
Professor.

Herbert Hansen Jr., M.B.A.
Assistant Professor.

Donald A. Henderson, M.D., M.P.H.
University Distinguished Service Professor. Surveillance, smallpox, eradication, biodefense, biological weapons, bioterrorism, anthrax, polio, influenza.

Robert J. Herbert, B.S.
Research Associate. Chronic conditions and illness, data analysis, claims data.

James G. Hodge, Jr., J.D., L.L.M.
Associate Professor. Law, public health, bioethics, health information privacy, genetics, bioterrorism, federalism, vaccination, tobacco, model laws.

Judith L. Holzer, M.B.A.
Instructor.

Wenke Hwang, PH.D.
Associate Scientist. Payment system, risk adjustment, medicare, medicaid, claims data, cost, access to care, outcomes, performance measures.

Hee-Soon Juon, Ph.D.
Associate Professor. Cancer control behavior, substance use, criminal behavior, minority mental health, cigarette smoking, suicidal behavior, Korean Americans.

Judith Kasper, Ph.D.
Professor. Disability, long-term care, aging, dementia, access to care, survey research.

Nancy Kass, Sc.D.
Professor. HIV, ethics, bioethics, research ethics, international, women, genetics, AIDS, public health ethics.

D. Lawrence Kincaid, Ph.D.
Associate Scientist.

Ann C. Klassen, Ph.D.
Associate Professor. Cancer prevention and control, preventive screening, women's health, diet and health, HIV/AIDS, transplantation, organ procurement, minority health, access to care, GIS, spatial statistics, multilevel influences, geodemographics.

Amy R. Knowlton, Sc.D.
Assistant Scientist. HIV/AIDS, social networks, prevention, urban health, social support, informal caregiving, drug users.
Susan M. Larson, M.S.
Senior Research Associate. Roter Interaction Analysis System (RIAS), patient-provider communication, interaction analysis.

Carl Latkin, Ph.D., M.S.
Associate Professor. HIV, social networks, AIDS, prevention, drug users, urban health, needle exchange, overdose, social context.

Thomas LaVeist, Ph.D.
Professor. Health disparities and inequality, race, ethnicity, socioeconomic status, social factors, culture, community health, minority health, medical sociology, social epidemiology, population, demography.

Robert S. Lawrence, M.D.
Professor. Health and human rights, environmental impacts of industrial agriculture, food security.

Ellen J. MacKenzie, Ph.D.
Professor. Cost of illness, injury, trauma, trauma systems, casemix measurement, injury severity measures, disability, clinical effectiveness, outcomes research.

Julie S. Mair, J.D., M.P.H.
Assistant Scientist. Violence prevention, environmental modifications, built environment, bioterrorism, firearms, guns, public health law, prisons.

Jill A. Marsteller, Ph.D.
Assistant Professor.

Elizabeth Ann Skinner, M.S.W.
Associate Scientist. Mental health services research, survey research methods, patient-reported outcomes.

Dana Sleicher, M.P.H., M.A.
Instructor.

Beth A. Resnick, M.P.H.
Research Associate. Environmental public health practice and tracking.

William Richardson, Ph.D.
Professor Emeritus.

Anne W. Riley, Ph.D.
Associate Professor. Children, adolescents, mental health, health services research, health status, measurement, methods.

Rajiv N. Rimal, Ph.D.
Assistant Professor. Risk communication, health communication, health promotion, doctor-patient communication, normative influences, health message design, new technology in health promotion.

Judith A. Robertson, B.S.
Research Associate.

Debra Roter, Dr.P.H.
Professor. Doctor-patient communication, Roter Interaction Analysis System (RIAS), physician training, patient activation and compliance.

David S. Salkever, Ph.D.
Professor. Economic impacts, econometric models, mental health disability benefits and insurance.

Jason W. Sapsin, J.D., B.A.
Assistant Scientist. Infectious disease, law, policy, preparedness, bioterrorism, trade, international, environmental, regulation, administrative, vaccine, practice.

Edyth H. Schoenrich, M.D., M.P.H.
Professor. Public health administration, program planning, services to the chronically ill and aging.

Anna Scholl, M.S.
Assistant Professor Emerita.

Leiyu Shi, Dr.P.H., M.B.A., M.P.A.
Associate Professor. Primary care, vulnerable populations, community health centers.

Dana Sleicher, M.P.H., M.A.
Instructor.

Andrew D. Shore, Ph.D.
Research Associate.

Elizabeth Ann Skinner, M.S.W.
Associate Scientist. Mental health services research, survey research methods, patient-reported outcomes.
Katherine Clegg Smith, Ph.D.
Assistant Professor. Tobacco, media, media advocacy, textual analysis qualitative methods, youth health behavior, agenda setting.

Gary S. Sorock, Ph.D.
Associate Professor. Occupational injury, geriatric injury, injury methods.

Jason M.M. Spangler, M.D.
Instructor.

Barbara Starfield, M.D., M.P.H.
University Distinguished Service Professor. Primary care, specialty care, coordination of care, equity in health, effectiveness of health services, health status assessment, co-morbidity, case-mix, child health services research, health professional policy, primary care policy, international health services.

Donald M. Steinwachs, Ph.D.
Professor. Medical effectiveness, patient outcomes, dictators of outcome, integration of outcomes management systems, managed care, access to care, ambulatory care groups, effectiveness of systems of care, quality profiling, routine management information systems (MIS).

Holly A. Taylor, Ph.D., M.P.H.
Assistant Professor. Bioethics, research ethics, HIV/AIDS policy, civilian biodefense policy, local implementation of national policy, qualitative research methods.

Sandra D. Teitelbaum, M.L.S., M.A.T.
Research Associate. Trauma centers, trauma systems, injury, information management, disaster preparedness.

Stephen P. Teret, J.D., M.P.H.
Professor. Law, violence, bioterrorism, injury, firearms.

Michael E. Thompson, Dr.P.H., M.S.
Instructor. Health services evaluation, health survey research, health professions accreditation, competency-based education, quality assurance systems.

Karin E. Tobin, Ph.D., M.H.S.
Assistant Scientist.

Lara B. Trifiletti, Ph.D., M.A.

Jon S. Vernick, J.D., M.P.H.
Associate Professor. Firearm policy, violence prevention, injury control, public health law, motor vehicles.

William J. Ward Jr., M.B.A.
Associate Professor. Financial management, management, leadership, cost accounting, financial accounting, hospital operations.

Daniel Webster, Sc.D., M.P.H.
Associate Professor. Violence, violence prevention, firearm injuries, gun policy, evaluation, domestic violence, youth violence.

Jonathan P. Weiner, Dr.P.H.
Professor. Health services research and evaluation, primary/ambulatory care, quality of care, managed care and health insurance, workforce planning, case-mix/risk adjustment, cross-national comparisons.

Sharada Weir, Ph.D.
Assistant Scientist. Health economics, burden of injury, occupational safety and health, human development.

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Gert Brieger, M.D., Ph.D.
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John R. Burton, M.D.
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Yuchi Young, Dr.P.H., M.P.H.
   Associate.
International Health

The Department of International Health was established in 1961, reflecting the long-standing interests of the School and in response to the needs of international agencies and national governments for teaching and research in international health. The department prepares professionals from other countries to assume major positions of leadership and responsibility upon their return home. It also prepares health professionals from the U.S. and other developed countries for roles in international agencies and in collaborative overseas projects. Graduates typically pursue careers in international agencies such as UNICEF and the World Bank, national assistance organizations such as the Agency for International Development, private foundations, and volunteer organizations.

Doctoral level training for research (PhD) is available in defined fields of specialization in international health. In addition, doctoral level training in public health practice (DrPH) is offered with an emphasis on international health issues. Master's level training programs (MHS) are available in selected areas of professional practice. Departmental courses may be elected by MPH students with career interests in international health. In addition to formal courses, seminars, institutes and special lectures are offered throughout the year on topics of current and specialized interest.

ORGANIZATION OF THE DEPARTMENT

The department is organized into four program areas: Health Systems, Disease Prevention and Control, Human Nutrition, and Social and Behavioral Interventions. Faculty and staff have a primary appointment in one of the four program areas, but collaborations on research, service, and teaching programs routinely cross these boundaries. The department's academic programs coincide with the major program areas. All students, with the exception of DrPH students, must specify their desired program area (i.e., division) when applying for admission to a degree program.

The department offers two types of doctoral training: the Doctor of Philosophy (PhD) for students interested in research training, and the Doctor of Public Health (DrPH), and for those interested in public health practice. The PhD is program area specific, whereas the DrPH is designed to develop senior-level professionals in the broad area of international health. Unlike the PhD, which focuses on building skills in a specific program area, the DrPH program provides a comprehensive approach that draws on a variety of academic disciplines as applied to health problems. Students entering the DrPH program should already have substantial public health experience, and ideally should have graduate-level training in the field (such as an MPH degree). The department also offers master's level training through the Master of Health Science degree. Students would select one of the four program area for their concentration when applying for admission to the MHS program.

Graduates of the Disease Prevention and Control program are expected to have acquired technical competence for entry-level positions coordinating disease prevention and control programs or as coordinator of research projects in this area. The Health Systems program prepares graduates to participate in planning, management, and evaluation of developing countries' health programs or projects. Students in the Human Nutrition program focus on public health problems related to nutritional status and dietary intake and gain competence in the design, implementation, and evaluation of nutrition interventions. The Social and Behavioral Interventions program provides students with an understanding of social and cultural issues in the provision of health care in developing countries. Applicants for the MHS degree in International Health are encouraged to have a prior degree in the biological or health sciences, or a degree in management or the social sciences. Some international health experience is highly desirable, but not required.

The training program consists of a minimum of four academic terms (64 units) of course work and a two-term practicum (32 units). The practicum can be a full-time activity of four months’ duration or a part-time effort extending over a period of up to 12 months. A written comprehensive exam is taken after completion of course work, and a master’s essay is produced in connection with the practicum. The practicum builds on knowledge gained during the academic portion of the training. This practical experience provides the student with the opportunity to concentrate in an area of interest, or to try out several different applications to determine more precisely the suitability of different career paths.

Internship possibilities range from field projects conducted in developing countries to responsibilities with U.S.-based agencies concerned with international health. Additional academic work or investigations based at the School may be acceptable as an alternative to field work. The student has the principal responsibility for securing the field placement, with the support of the department. These arrangements must be approved by the faculty advisor prior to start-
ing the field work. In the course of the internship, an essay representing a significant contribution to knowledge in the particular area of the student’s interest is prepared and submitted.

With the approval of this School and the School of Advanced International Studies (SAIS), students may enroll in a dual MA/MHS degree program. Both two-year degrees may be earned in a total of three years by fulfilling certain requirements of SAIS in lieu of the internship year. For more information, see Dual Graduate Degree Programs.

**Concurrent Schoolwide Doctoral/Master of Health Science Program in International Health**

This program offered by the Department of International Health affords students who are doctoral candidates in other departments who have specific interests in international health the opportunity to obtain a Master of Health Science degree during the course of doctoral studies. A student currently enrolled in a doctoral program in departments other than International Health at the Johns Hopkins Bloomberg School of Public Health may apply to one of the four programs in the Master of Health Science degree program in International Health by submitting application materials to the departmental Admissions Committee. A separate application essay on why the MHS program in International Health is relevant and appropriate to the doctoral candidate’s future plans must be submitted. Approval of the primary department chair and the student’s doctoral advisor must be documented in the application.

Program requirements are the same as those for MHS students in International Health. Students are assigned an International Health advisor in addition to the advisor in the student’s primary department. After completion of coursework, students are required to take the departmental comprehensive written examination. The student’s doctoral thesis must have some relevance to International Health and will be accepted in lieu of the MHS internship and essay requirements. The MHS degree will be awarded only after completion of all doctoral degree requirements.

**Program in Disease Prevention and Control**

Director: Donald Burke, MD
Deputy Director for Academic Programs: Lawrence Moulton, PhD
Assistant Director for Academic Programs: Karen Charron, MHS

The goals of the Program in Disease Prevention and Control are to understand the epidemiology and etiology of diseases of public health importance in developing countries and vulnerable populations in the U.S., develop new approaches to the detection, prevention, and control of morbidity and mortality in these settings, and to contribute to policy development related to disease control strategies at the national and international level. The diverse faculty includes physicians, epidemiologists, vaccinologists, and biostatisticians who participate in the full spectrum of research related to prevention and control of disease including laboratory studies in vaccine development and testing; phase I, II, and III clinical trials; community-based prevention trials; observational epidemiologic studies; and clinical outcomes research. Faculty have extensive field experience in developing country settings and have worked in collaboration with international agencies and developing country institutions and colleagues.

Collaborative research is ongoing in Bangladesh, Brazil, the Cameroon, Ecuador, Egypt, Ethiopia, the Gambia, Ghana, Guatemala, Haiti, India, Indonesia, Iran, Jamaica, Kenya, Mexico, Myanmar, Nepal, Pakistan, Peru, South Africa, Tanzania, Uganda, Vietnam, Zimbabwe, and in disadvantaged populations in the United States. Faculty members are in full-time residence in Bangladesh, the Cameroon, Ethiopia, Guatemala, Nepal, Peru, and South Africa. The program serves as the home for the Center for Immunization Research and the Institute for Vaccine Safety.

**Academic Training in Disease Prevention and Control**

For information, contact Ms. Jennifer Shaffer, 410-955-3734, email: jsfafer@jhsphs.edu

This program provides training for public health practitioners (MHS) and researchers (PhD) who will use epidemiologic, immunologic, and/or laboratory and statistical methods to design, implement, and/or evaluate disease control interventions for diseases of public health importance to under-served populations. Graduates will have a fundamental understanding of the pathogenesis, epidemiology, and control measures applicable to diseases of public health importance in disadvantaged populations. Interventions to be studied will be primarily biomedical (e.g., therapeutic or prophylactic drugs, vaccines, or environmental modifications), although there may be a behavioral component to effective implementation of such interventions.

Special strengths of the program are infectious disease epidemiology (including emerging infections), and vaccinology. Students can acquire a broad understanding of the methods needed to design studies and gain
hands-on experience in the design, conduct, and analysis of community and clinical trials and/or laboratory based investigations, including the immunologic and biologic basis of responses to immunizations and other prophylactic or therapeutic interventions. Master of Health Science candidates should have a strong undergraduate background in biology and/or the quantitative sciences. Doctoral candidates should have a degree in biological sciences, medicine, veterinary medicine, or dentistry; and are required to have a master's level degree or equivalent graduate training in epidemiology, statistics, international health, tropical medicine, microbiology, parasitology, immunology, mycology, or virology. Prior work experience is preferable.


Program in Health Systems
Director: Mathuram Santosham, MD, MPH
Deputy Director for Academic Programs: David Peters, MD, DrPH

The Program in Health Systems is dedicated to providing excellence in graduate education, professional development, research, and partnerships between health professionals, institutions, governments, and the communities they serve to build and utilize capacity in (a) health policy; (b) health planning, management, and evaluation; (c) public health education; (d) institution building; (e) community development; and (f) research in organization, financing and management of health systems, to improve the performance of health systems around the world.

The program serves to bring together people and ideas to create and use knowledge, build leadership and management skills, and foster innovation in health systems. The Health Systems Program fulfills its particular mission through teaching, research and service at the Bloomberg School of Public Health and with partners around the world, particularly in low- and middle-income countries and among vulnerable populations. Areas of concentration for the Health Systems Program include: (1) measurement of performance of health systems; (2) national health policy and planning; (3) health financing systems; (4) Management of health programs; (5) district health management; (6) quality assurance; (7) populations stressed by economic, social, and political crisis, including conflict and natural disaster; (8) poverty and health relationships; (9) demand for health services; (10) public-private partnerships in health; (11) injury prevention and control; and (12) neonatal and child health.

The program is organized around the belief that health systems should improve people’s health status, reduce financial risks of illness, and satisfy people’s expectations of their health services. Our vision is that health systems should achieve these goals by:

- Promoting equity in health services and health outcomes
- Protecting vulnerable and under-served populations
- Contributing to poverty reduction
- Enabling communities to help themselves
- Responding to needs of populations
- Respecting the rights of individuals and communities, and diversity in beliefs and practices
- Building partnerships between local institutions, governments, and international agencies
- Engaging with other sectors of civil society and government
- Being accountable to beneficiaries and other stakeholders
- Using cost-effective and sustainable health service strategies and institutions
- Creating and using new knowledge
- Continuously innovating and learning

The program serves as the home for the Center for International Emergencies, Disaster, and Refugee Studies and the Center for American Indian Health.

Academic Training in Health Systems
For information, contact Ms. Jennifer Shaffer, 410-955-3734, e-mail: jshaffer@jhsph.edu

Academic training is offered at both the master’s and doctoral levels. Graduates of the program will have the competencies to play leadership roles in (a) health policy; (b) health planning, management, and evaluation; (c) public health education; (d) institution building; and (e) community development in a variety of settings, from community to national and international levels. Students seeking admission are encouraged to have a prior degree in biological or health sciences or alternatively in management or social sciences. Doctoral students may also elect to undertake a specialization in Health economics.

The Health Systems curriculum focuses on planning, implementation, monitoring and evaluation of
projects, health facilities, and community and district approaches, as well as, policy analysis and oversight of national health systems, planning and managing national and international programs, as well as institution building and teaching, and research in these above areas. Research focuses on the performance of health systems, including understanding and intervening in their organization, financing and management.

Opportunities for thesis work include the study of health systems performance, health and poverty, demand for health, health financing alternatives, economic analysis of health programs, private sector analysis, injury prevention and control, and neonatal health programs.


Program in Human Nutrition

Director: Benjamin Caballero, MD, PhD
Deputy Director for Academic Programs: Laura Caulfield, PhD

The goals of the Program in Human Nutrition are to develop new practical approaches for the assessment of nutritional status, to improve understanding of the biochemical and metabolic processes associated with nutritional diseases, and to propose effective strategies for the prevention of those diseases. As part of the Department of International Health, faculty in the program focus on issues of under-nutrition in developing countries, and through the Center for Human Nutrition, faculty focus on domestic nutrition issues as well as emerging chronic disease problems in developing countries. The interdisciplinary nature of nutrition is reflected by the diverse faculty, which include physicians, biochemists, epidemiologists, physiologists, anthropologists, and biostatisticians. Beyond their primary specialty, all program faculty have expertise in public health nutrition and in field work in a variety of diverse settings.

Current research of program faculty include the determination of protein and energy requirements under varying physiological conditions; studies on the regulation of body weight and energy balance in health and disease; assessment of the biological and sociocultural determinants of nutritional status in the community; effects of micronutrient deficiencies (vitamin A, iron, iodine, zinc) on morbidity, mortality, and reproductive health; design and evaluation of nutritional interventions; feeding of infants and children, and nutrition of women during child-bearing years.

International collaborative research is currently taking place in Bangladesh, China, India, Nepal, Peru, Tanzania, Thailand, and Zimbabwe. Faculty are in residence in Bangladesh, Nepal and Zimbabwe.

Academic Training in Human Nutrition

For information, contact Dr. Laura Caulfield, 410-955-2786, email: lcaulfie@jhsph.edu.

The program provides training leading to both the Master in Health Science (MHS) and doctoral (PhD) degrees in Human Nutrition. The objective of the program is to provide students with the scientific foundations and the practical skills to address major nutrition-related public health problems. Through required and elective course work and with the guidance of their academic advisor, doctoral students are able to concentrate in the areas of international nutrition, nutritional biochemistry, nutritional epidemiology, nutritional anthropology, or clinical nutrition.

Opportunities for thesis research include the study of maternal and child nutrition, obesity, relationships between diet and chronic diseases, micronutrient deficiencies (with emphasis on vitamin A, iron, calcium, zinc, selenium, and iodine) and nutrition interventions in developing countries, protein-energy metabolism in health and disease, and use of stable isotopes for metabolic research.

In the MHS program, students concentrate during the first year on coursework in the core area of public health nutrition, and choose electives in accordance with their intended career path in public health nutrition. During the second year (2 quarters), students complete an internship/field placement designed to provide practical experience in their intended work area. Students in the program plan to pursue careers in management of nutrition and health programs, in the technical content of health promotion disease prevention programs, or go on to doctoral degrees in nutrition (PhD), medicine (MD) or related fields.

Advising Faculty: Drs. Black, Caballero, Caulfield, Cheskin, Christian, Gittelsohn, Humphrey, O'Brien, Treuth, Watkins, and West.

JHU/Cornell University Educational Collaboration in Public Health Nutrition

To enhance the training available in public health nutrition, The Johns Hopkins Bloomberg School of Public Health and Cornell University’s Division of Nutritional Sciences are offering students an opportunity to attend courses given at both universities.

Graduate students enrolled in a doctoral or master’s program at Cornell or at The Johns Hopkins
Bloomberg School of Public Health are able to study at the other school for up to one academic year. Students are eligible for the program after they have completed one academic year of study at their home institution. Tuition is charged by the student’s home institution, and information on courses attended at the institution visited are recorded on the student’s transcript at the home institution.

Program in Social and Behavioral Interventions

Director: Michael Sweat, PhD
Deputy Director for Academic Programs: Deanna Kerrigan, PhD

The Social and Behavioral Interventions Program conducts research, training, and service on the development, implementation and evaluation of behavioral and community-based public health interventions. Our primary goal is to examine interventions which reflect the social, cultural, and policy context of health problems using a public health perspective, and a sound understanding of the epidemiology of health issues in developing countries. We strive to conduct our work through equitable partnerships with local partners, including affected communities, scientific experts, community and national leaders, and groups conducting intervention work in affected communities.

Academic Training in Social and Behavioral Interventions

The Social and Behavioral Interventions Program offers both Master of Health Science and PhD degrees. This program is designed to provide students a broad exposure to the development and implementation of social and behavioral interventions in developing countries. The curriculum includes exposure to theories of medical anthropology and sociology, and qualitative and quantitative methods for developing and evaluating interventions. Students gain specialized expertise in the development, implementation, and evaluation of disease prevention and control in such areas as HIV prevention, nutritional interventions, malaria control, and a host of other topic areas relevant to the enhancement of health in developing countries.

The combined use of qualitative and quantitative methods is a defining characteristic of the program, and students are trained in survey research methods, key-informant interviews, focus group discussions, direct observation, participant observation, social and environmental mapping, and computer-aided management and analysis of qualitative data. Theories covered include psychological, anthropological, and sociological perspectives on the determinants of health and illness, and associated intervention approaches appropriate for developing country settings. Students are also given insight into factors related to gender and health, community-participation in health programs, and cultural and environmental factors that affect health. For information, contact Ms. Jennifer Shaffer, (410) 955-3734, email: jshaffer@jhsph.edu

Advising Faculty: Drs. Brieger, Gittelsohn, Kerrigan, Leonard, Leontsini, Maman, Sweat, and Winch.

Preventive Medicine Residency Program

Residents in the General Preventive Medicine Residency Program may gain expertise in international health by entering the international health track. Residents selected for this track will take a series of courses offered by the Department of International Health during the academic phase of their training, in addition to the courses they take for the Master of Public Health core and for the residency. During the academic year, the resident will be assigned an adviser and will receive guidance and be mentored by the track director designated by the chair of the department.

Residents will also be encouraged to be involved in a research project in their area of interest. During the practicum year, residents in the International Health track may be considered for a six-month rotation with PAHO or another appropriately accredited field or research experience. Applicants to the residency program must complete at least one year of clinical training in a program approved by the Accreditation Council for Graduate Medical Education before matriculating in the residency. For more information, contact the residency program at (410) 955-3630 or lmeyers@jhsph.edu, or visit http://www.med.jhu.edu/prevention.
International Health

Faculty data as of April 30, 2005. For current listing, please click here: http://faculty.jhsph.edu/IH.cfm

Robert E. Black, M.D., M.P.H.
Chair of the Department; Professor. Diarrhea, pneumonia, malaria, measles, malnutrition, infectious diseases, zinc.

James M. Tielsch, Ph.D.
Associate Chair Academic Programs; Professor. Blindness prevention, micronutrient malnutrition, developing countries, outcomes research.

Primary Faculty

Disease Prevention and Control Program

Donald S. Burke, M.D.
Associate Chair and Program Director; Professor. Vaccines, viruses, infectious diseases, epidemiology, HIV, AIDS, measles, dengue, smallpox, influenza, emerging infectious diseases, bioterrorism, computational models.

Joanne Katz, Sc.D.
Deputy Director for Academic Programs; Professor. Community trials, blindness, visual impairment, glaucoma, cataract, trachoma, refractive error, ocular trauma, vitamin A, iron, zinc, micronutrients.

Karen R. Charron, R.N., M.P.H.
Assistant Director for Academic Programs; Instructor. Vaccine clinical trials, informed consent, GCP.

Aida Abashawl, M.D., M.P.H.
Research Associate. HIV, tropical diseases and refugee health.

Rahel Adamu, M.P.H.
Research Associate.

Edwin Jose Asturias, M.D.
Research Associate. Guatemala, vaccines, pneumococcus, polio, surveillance, infections.

Grace Link Barnes, B.S.N., M.P.H
Research Associate.

August Louis Bourgeois, Ph.D., M.P.H.
Associate Professor. Host-parasite relationships and epidemiological factors important in the prevention and control of diarrheal diseases, clinical and field evaluation of vaccines against enteric pathogens.

Jay H. Bream, Ph.D.
Assistant Professor.

Robert K. Casey, CRNP-Ped, M.S.N.
Research Associate. Immunization Research.

Mohammad Ashraf Chaudhary, Ph.D.
Associate Scientist.

Jacqueline Coberly, M.H.S., Ph.D.
Assistant Scientist. Hepatitis and hepatitis B vaccine; AIDS epidemiology and control; tuberculosis control.

Christian L. Coles, Ph.D., M.P.H.
Assistant Professor. Pediatric infectious diseases, micronutrients, nutrition, pneumonia, pneumococci, antimicrobial resistance.

Derek Cummings, Ph.D., M.P.H.
Research Associate.

Lidia de Moura Propper, M.S.
Research Associate. Design and implementation of data systems in clinical studies, data error and quality control systems – large database design/control of web-based systems, image data entry systems, simulation and modeling, adverse events systems – data management design/implementation of maternal infant vertical transmission of HIV.

Erica L. Dueger, D.V.M., Ph.D.
Assistant Scientist. Arbovirus, West Nile Virus, Dengue, Pneumococcus, S. pneumoniae, Guatemala, Salmonella.

Anna P. Durbin, M.D.
Assistant Professor. Dengue, Malaria, Parainfluenza, Vaccine.

Robert H. Gilman, M.D., M.P.H.
Professor. Diarrheal and other enteric diseases; multidrug-resistant tuberculosis, parasitic infections; management and training for tropical disease prevention and interventions, community-based clinical trial for drugs; climate factors associated with infectious disease in developing countries.

Neal A. Halsey, M.D.
Clayton D. Harro, M.D., M.Sc.
Assistant Scientist. Preventive HIV vaccines, HPV human papillomavirus vaccines, hepatitis B vaccines.

Elizabeth Holt, Dr.P.H., M.S.P.H.
Assistant Scientist. Childhood immunizations, data management.

Hamidah Farid Hussain, M.B.B.S., M.Sc.
Research Associate.

Ruth Karron, M.D.
Associate Professor. CIR, Vaccine development; respiratory viruses; influenza, RSV, parainfluenza, immunity.

Marjorie Koblinski, Ph.D.
Senior Scientist.

Margaret Kosek, M.D.
Assistant Scientist.

Julie H. McArthur, M.S., B.S.N., R.N.
Research Associate. Phase I Studies - vaccines for malaria, dengue, west nile, TBE, HIV, Acute HIV infection, IL-2, Interleukin 2, Hepatitis C, HIV/HCV co-infection.

Lawrence H. Moulton, Ph.D.
Professor. Statistical epidemiology; longitudinal data; bioassay; group-randomized trials; vaccine safety; vaccine effectiveness; vitamin A; HIV/AIDS; landmines.

Luke Mullany, Ph.D., M.H.S.
Assistant Scientist.

Jean B. Nachega, M.D., M.P.H., D.T.M.&H.

M. Uma Nayak, Ph.D.
Research Associate. Community nutrition; data management of clinical studies; project management; data analysis; nutrition surveillance studies; social marketing techniques.

SangKon Oh, Ph.D., M.S.
Research Associate.

Saad bin Omer, M.B.B.S.
Research Associate. Cluster detection, vaccine safety, surveillance of vaccine preventable diseases.

Nathaniel F. Pierce, M.D.
Professor. Child health in developing countries, especially diarrheal and respiratory diseases, clinical trials of improved and simplified treatments for acute diarrhea, and of vaccines for diarrheal diseases and respiratory infections.

Malathi Ram, Ph.D.
Assistant Scientist. Data management, data quality control, public health, HIV studies, vaccine studies, cancer studies.

Andrea J. Ruff, M.D.
Associate Professor. AIDS and other retroviral infections; immunoparasitology.

Philip K. Russell, M.D.
Professor Emeritus.

David Sack, M.D.
Professor. Cholera, rotavirus, diarrhea, Bangladesh, Gates Award, enterotoxigenic Escherichia coli, shigella, International Center, population, epidemiology, oral rehydration solution.

R. Bradley Sack, M.D., Sc.D.
Professor. Infectious diarrheal diseases, enterotoxigenic Bacteroides fragilis, cholera, enterotoxigenic E. coli, epidemiology and ecology.

Daniel A. Salmon, M.P.H.
Assistant Scientist. Vaccine, immunization; vaccine safety; mandatory immunization.

Sunil Sazawal, M.B.B.S., Ph.D., M.P.H.
Associate Professor. Community-based field trials, child health and development, meta-analysis, diarrhea, pneumonia, malaria, infectious diseases, zinc, iron, and micronutrients.

Mark Steinhoff, M.D.
Professor. Vaccine, immunization, pneumonia, surveillance, pneumococcus, pharyngitis, infectious respiratory disease.

David Taylor, M.D., M.Sc.
Professor. Diarrheal disease, vaccines, ETEC, shigella, salmonella, campylobacter, typhoid, cholera, traveler’s medicine, traveler’s diarrhea, biodefense, vaccinia, anthrax vaccine.

Bhagvanji G. Thumar, M.S., M.T.
Research Associate. Human vaccine trials involving a variety of respiratory, gastrointestinal and dengue hemorrhagic fever virus candidate vaccines, enzyme immunoassay for anti-parainfluenza fusion protein.

James M. Tielsch, Ph.D.
Professor. Blindness prevention, micronutrient malnutrition, developing countries, outcomes research.
Health Systems Program

Mathuram Santosham, M.D., M.P.H.
Associate Chair and Program Director; Professor.
Tobacco, epidemiologic studies of enteric infections; improved oral rehydration therapy, field testing of vaccines, H. influenzae tybe b, pneumococcal, neonatal health.

David Peters, M.D., M.P.H., Dr.P.H.
Deputy Director for Academic Programs; Associate Professor. Health management, poverty and health, health sector performance, sector wide approaches, case methods, Africa, India, Afghanistan, South Asia.

Ayan Hussein Ahmed, M.D., M.P.H.
Research Associate.

Timothy D. Baker, M.D., M.P.H.
Professor. Health planning, health sector workforce, disease burden to society, injury control, rehabilitation, India, Brazil, Indonesia, and Taiwan, Armenia, Ukraine, Thailand, Sri Lanka, Burma (Myanmar), Peru, Kuwait, Saudi Arabia, China, Pakistan, El Salvador, Nigeria, Ethiopia.

Abdullah H. Baqui, M.B.B.S., Dr.P.H., M.P.H.
Associate Professor. Newborn health, child health, maternal health, diarrhea, pneumonia, malnutrition, infectious diseases, micronutrient, zinc, urban health.

Allison Barlow, M.A.
Research Associate. American Indian/Alaskan Native Health.

William Brieger, M.P.H., C.H.E.S., Dr.P.H.
Associate Professor. Tropical diseases, health education, community participation, primary health care, training, program evaluation, qualitative methods.

W. Abdullah Brooks, M.D., M.P.H.
Assistant Scientist.

Gilbert M. Burnham, M.D., Ph.D.
Professor. Management and evaluation of primary health care, particularly through epidemiological methods.

Aruna Chandran, M.D., M.P.H.
Research Associate.

Gary L. Darmstadt, M.D., M.S.
Associate Professor.

Maria Deloria-Knoll, Ph.D.
Assistant Scientist. S. Pneumococcus, H. influenzae, clinical trials.

Shannon Doocy, Ph.D.
Research Associate.

Anbarasi Edward, Ph.D., M.P.H.

Derek Ehrhardt, M.P.H., M.S.
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Angela Eick, Sc.M.
Research Associate. Native American health, pneumococcal disease, influenza, RSV.

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Assistant Professor. Injury/injuries, violence, burden of disease, ethics, South Asia, East Africa, Pakistan.

Walter Jones, R.N., M.P.H.
Research Associate.

Amnesty LeFevre, M.H.S.
Research Associate.

Orin S. Levine, M.D., M.P.H.
Associate Professor. Vaccines; international health; respiratory infections; epidemiology.

Richard Morrow, M.D.
Professor. Application of epidemiological methods to health systems and quality assurance management methods.

Farzana Muhib, M.P.H., M.A.
Research Associate.

Kathleen A. Norton, B.A.
Research Associate.

Katherine L. O'Brien, M.D., M.P.H., F.R.C.P.C.
Associate Professor. Pneumococcus, American Indian, vaccines, group B Streptococcus, group A Streptococcus, Haemophilus influenzae, acute respiratory infections, respiratory syncytial virus.

Heather Parsons, M.P.H.
Research Associate. PneumADIP.

Raymond Reid, M.D.
Research Associate. Epidemiologic studies of enteric infections and Haemophilus influenzae; improved oral rehydration therapy; field testing of vaccines.

William A. Reinke, Ph.D.
Professor. Health services research, program evaluation, decision analysis, quality assurance, survey methods, personnel management, functional analysis.

Paul Seaton, B.A.
Research Associate.

Thomas W. Simpson, M.D.
Associate Professor Emeritus.
Kristen Speakman, M.S.  
Research Associate. Domestic and international health promotion/communication projects; examining the intercultural aspects of health research; interaction among researchers and American Indian communities.

Laura C. Steinhardt, M.P.H.  
Research Associate.

Carl E. Taylor, M.D., Dr.P.H.  
Professor Emeritus. Tobacco, organization of primary health care, community initiatives.

Elena Varipatis, M.P.H., M.S.W.  
Research Associate.

Earl Wall, M.S.  
Research Associate.

Hugh R. Waters, Ph.D.  
Assistant Professor. Health economics, access, equity, costing, health financing, health insurance.

James Watt, M.D., M.P.H.  
Assistant Scientist. Pneumonia, pneumococcal disease, streptococcus pneumoniae, haemophilus influenzae, Native American health.

William Weiss, M.A.  
Research Associate. Child survival, maternal and child health, community health, community development, health and management information systems, planning, monitoring, evaluation.

Human Nutrition Program

Benjamin Caballero, M.D., Ph.D.  
Associate Chair and Program Director; Professor. Obesity, pediatrics, malnutrition, international nutrition, amino acid metabolism, energy metabolism.

Laura Caulfield, Ph.D.  
Deputy Director for Academic Programs; Associate Professor. Pregnancy, perinatal and neonatal disorders, nutritional epidemiology.

Lawrence J. Cheskin, M.D.  
Associate Professor; Director, Johns Hopkins Weight Management Center. Obesity treatment, weight management, gastroenterology, lifestyle and health.

Parul Christian, Dr.P.H., M.P.H., M.S.  
Associate Professor. Vitamin A deficiency, night blindness, nutrient interactions, maternal mortality, infant mortality, anemia, reproductive health, low birth weight, micronutrients, clinical trials.

Alexandrine During-Doubovik, Ph.D.  
Research Associate.

Joel Gittelsohn, M.S., Ph.D.  
Associate Professor. Tobacco, nutritional anthropology, culture, behavior, dietary patterns, nutrition intervention, obesity prevention, diabetes prevention.

George G. Graham, M.D.  
Professor Emeritus. Malnutrition treatment and prevention.

Phillip Harvey, Ph.D.  
Research Associate. Micronutrients, vitamin A, iron, anemia, zinc, fortification, supplementation, nutrition policy.

Jean H. Humphrey, Sc.D., M.S.P.H.  
Associate Professor. Micronutrient deficiencies and infection; HIV in women and children.

Rolf Klemm, M.P.H., Dr.P.H.  
Assistant Scientist. Vitamin A, child growth, maternal nutrition, micronutrient deficiencies, fortification, program evaluation.

Alain Bernard Labrique, M.H.S., M.S.  
Research Associate. Community trials, field research methods, infectious diseases, hepatitis, HEV.

Steven LeClerq, B.A.  
Research Associate. Vitamin A deficiency, micronutrient deficiency, nutritional epidemiology, clinical and community trials, intervention program evaluation.

Amy Mitchell, M.S.  
Research Associate. Obesity, weight management.

Kimberly O. O’Brien, Ph.D.  
Associate Professor. Pregnancy, osteoporosis, calcium, iron, zinc, mass spectrometry, vitamin D, cystic fibrosis, minority health.

Jonathan Sugimoto, M.H.S.  
Research Associate.

Margarita S. Treuth, Ph.D.  
Associate Professor. Obesity, energy metabolism, exercise physiology, body composition, physical activity, interventions in children, accelerometry.

Youfa Wang, Ph.D., M.D.  
Assistant Professor. Nutrition epidemiology, childhood obesity (assessment, global trends, causes, health consequences, prevention), growth, lifestyles, sexual maturation, chronic disease, health disparities, analysis of national survey and longitudinal data.

Keith West, M.P.H., Dr.P.H.  
Professor. Micronutrients, vitamin A, maternal and child nutrition, international nutrition, nutritional epidemiology.
Lee Shu Fune Wu, M.H.S.
Research Associate. Survival analysis, analysis of longitudinal studies, vitamin A deficiency.

Social and Behavioral Interventions Program

Michael D. Sweat, Ph.D.
Associate Chair and Program Director; Associate Professor. HIV/AIDS intervention research, emphasis on HIV counseling and testing, epidemiologic modeling of AIDS epidemics, economic impact assessment, cost-effectiveness analysis of interventions.

Deanna Kerrigan, Ph.D., M.P.H.
Assistant Professor. HIV/STI prevention and care, behavior change, environmental-structural factors, gender, Latin America.

Lori Leonard, Sc.D.
Assistant Professor. Chad, ethnography, large-scale infrastructure projects, longitudinal studies, oil, qualitative research, reproductive health, visual methods, women’s health.

Anita Vernekar Shankar, Ph.D., M.S.
Assistant Scientist.

Peter J. Winch, M.D., M.P.H.
Associate Professor. Behavior change interventions, community participation, qualitative research methods, vector-borne diseases, malaria, neonatal health, treatment-seeking behavior, compliance with antimicrobial treatment, community health workers, operational research.

Joint Appointments

Gerard F. Anderson, Ph.D.
Professor of Health Policy and Management.

Lawrence Appel, M.D.
Professor of Medicine, School of Medicine.

Chris Beyrer, M.D., M.P.H.
Associate Professor of Epidemiology.

David M. Bishai, Ph.D., M.D., M.P.H.
Associate Professor in the Department of Population and Family Health Sciences.

William Bishai, M.D., Ph.D.
Associate Professor of Medicine, School of Medicine.

Robert Bollinger, M.D., M.P.H.
Professor of Medicine, School of Medicine.

David Bradt, M.D., M.P.H.
Instructor of Emergency Medicine, School of Medicine.

David D. Celentano, Sc.D., M.H.S.
Professor of Epidemiology.

Richard E. Chaisson, M.D.
Professor of Medicine, School of Medicine.

Rashid Ahmed Chotani, M.D., M.P.H.
Assistant Professor in the Department of Emergency Medicine at the School of Medicine.

Nathan G. Congdon, M.D., M.P.H.
Associate Professor of Ophthalmology at the School of Medicine.

David S. Cooper, M.D.
Professor of Medicine, School of Medicine.

Catherine DeAngelis, M.D., M.P.H.
Professor of Pediatrics, School of Medicine.

Susan E. Dorman, M.D.
Assistant Professor, School of Medicine.

Michele L. Dreyfuss, Ph.D., M.P.H.
Assistant Professor in the Department of Population and Family Health Sciences.

Charles Flexner, M.D.
Associate Professor of Clinical Pharmacology, School of Medicine.

David S. Friedman, M.D., M.P.H.
Associate Professor in the Department of Ophthalmology at the School of Medicine.

Kevin D. Frick, Ph.D., M.A.
Associate Professor, Health Policy and Management.

Professor of Population and Family Health Sciences.

Paul Gregg Greenough, M.D., M.P.H.
Assistant Professor, School of Medicine.

William B. Greenough III, M.D.
Professor of Medicine, School of Medicine.

Tomás Guilarte, Ph.D.
Professor of Environmental Health Sciences.

Bernard Guyer, M.D., M.P.H.
Professor of Population and Family Health Sciences.

Jane L. Halpern, M.D., Dr.P.H., M.P.H.
Research Associate in the Department of Medicine, School of Medicine and Director of Health Services at Towson University.
Z. Leah Harris, M.D.
Assistant Professor of Anesthesiology and Critical Care Medicine, School of Medicine.

Jennifer A. Haythornthwaite, Ph.D.
Associate Professor in the Department of Psychiatry and Behavioral Sciences, School of Medicine.

Noreen A. Hynes, M.D., M.P.H.
Assistant Professor in the Division of Infectious Diseases, School of Medicine.

Jay Brooks Jackson, M.B.A.
Professor in the School of Medicine.

Gilbert M. Khadiagala, Ph.D.
Associate Professor of Comparative Politics and African Studies, School of Advanced International Studies.

Paul Ladenson, M.D.
Professor of Medicine and Pathology, School of Medicine.

Yukari Carol Manabe, M.D.
Assistant Professor in the Division of Infectious Diseases in the Department of Medicine, School of Medicine.

Robin McKenzie, M.D.
Assistant Professor in the Department of Medicine, School of Medicine.

W. Henry Mosley, M.D., M.P.H.
Professor of Population and Family Health Sciences.

William J. Moss, M.D., M.P.H.
Assistant Research Professor.

Vicente Navarro, M.D., D.M.S.A., Dr.P.H.
Professor of Health Policy and Management.

Kenrad Nelson, M.D.
Professor of Epidemiology.

Eric L. Nuermberger, M.D.
Assistant Professor in the School of Medicine.

Randall M. Packard, Ph.D.
William H. Welch Professor of the History of Science, Medicine and Technology at the Krieger School of Arts and Sciences.

David M. Paige, M.D., M.P.H.
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Deborah Persaud, M.D.
Research Associate.

Fernando P. Polack, M.D.
Assistant Professor of Pediatrics, School of Medicine.

Thomas C. Quinn, M.D., M.S.
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Alan L. Robin, M.D.
Associate Professor of Ophthalmology, School of Medicine.

David H. Schwartz, M.D., Ph.D.
Associate Professor of Molecular Microbiology and Immunology.

Alan L. Scott, Ph.D.
Professor of Molecular Microbiology and Immunology.

Richard Semba, M.D., M.P.H.
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Jeffrey M. Smith, M.D., M.P.H.
Assistant Professor in the Department of Gynecology and Obstetrics in the School of Medicine.

Alfred Sommer, M.D., M.H.S.
Professor of Epidemiology.

Steffanie A. Stratridge, Ph.D., M.S.
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Paul Talalay, M.D.
John Jacob Abel Professor of Pharmacology in the School of Medicine.

John T. Walkup, M.D.
Associate Professor in the Division of Child and Adolescent Psychiatry, School of Medicine.

Paul Watkins, M.D., Ph.D.
Professor of Neurology, School of Medicine.

Lawrence S. Wissow, M.D., M.P.H.
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Frank R. Witter, M.D.
Associate Professor Obstetrics and Gynecology, School of Medicine.

Nathan D. Wolfe, Sc.D.
Assistant Professor.

Albert W. Wu, M.D., M.P.H.
Associate Professor in the Department of Health Policy and Management.

Jonathan M. Zenilman, M.D.
Professor of Medicine, School of Medicine.
Departmental Affiliates

Saade A. Abdallah, M.B.Ch.B., M.P.H.
Associate.

Karabi Acharya, Sc.D., M.H.S.
Adjunct Assistant Professor.

Olusoji Adeyi, M.B.B.S., Dr.P.H.
Adjunct Assistant Professor.

Halida Hanum Akhter, M.B.B.S., Dr.P.H., M.P.H.,
M.C.P.S.
Senior Associate.

Marco Albonico, M.D., Ph.D.
Adjunct Associate Professor.

C. Alex Alexander, M.D., M.P.H., Dr. P.H.,
FACHE, FACPM
Associate.

Penny S. Altman, M.L.S.
Associate.

Fabiana Piovesan Alves, M.D.
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Lori Arviso Alvord, M.D.
Associate.

Karen Angelica, M.P.P.
Associate.

Shams El Arifeen, M.B.B.S., Dr.P.H., M.P.H.
Associate.

Vinohar Balraj, M.B.B.S, M.D.
Senior Associate.

Lewellys Barker, M.D., M.P.H.
Senior Associate.

Caryn Bern, M.D., M.P.H.
Associate.

Maureen Black, Ph.D., M.A.
Adjunct Professor.

Martin W. Bloem, M.D., Ph.D.
Adjunct Associate Professor.

Paul A. Bolton, M.B.B.S., D.T.M.H., M.P.H., M.S.
Associate.

Sekhar Bonu, Ph.D., M.B.B.S.
Senior Associate.

Thomas Bornemann, Ed.D.
Senior Associate.

Antonio Bos, Ph.D., M.S.
Research Associate.

Anuradha Bose, M.D., M.B.B.S.
Associate.

George Brenneman, M.D.
Associate.

John H. Bryant, M.D.
Senior Associate.

Alfred A. Buck, M.D., M.P.H., Dr.P.H.
Adjunct Professor.

Claude G. Cadoux, M.D.
Associate.

Vitaliano A. Cama, Ph.D., D.V.M.
Associate.

Lawrence J. Casazza, M.D., M.P.H.
Associate.

Jaime E. Castillo, M.D.
Associate.

Linda Chamberlain, M.P.H.
Associate.

Adeline Chan, Ph.D., M.P.H.
Associate.

William Checkley, Ph.D., M.S.
Associate.

Thomas Cherian, M.B.B.S., M.D.
Senior Associate.

James C. Cobey, M.D., M.P.H., F.A.C.S.
Senior Associate.

Janne M. Croll, M.P.A.S.
Associate.

John R. Cutler, M.D., M.P.H.
Associate.

Vittorio Daniore, M.D.
Associate.

Ciro de Quadros, M.D.
Adjunct Associate Professor.

Isabelle de Zoysa, M.D., M.Sc.
Lecturer.

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Associate.

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Associate.

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Associate.

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Associate.

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Associate.

Henry B. Perry III, M.D., Ph.D., M.P.H.
Associate.

Ellen G. Piwoz, Sc.D., M.H.S.
Adjunct Assistant Professor.

Stanley A. Plotkin, M.D.
Adjunct Professor.

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Senior Associate.

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Associate.

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Associate.
Robert G. Rosenberg, M.D.  
Senior Associate.

Samir K. Saha, Ph.D.  
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Lubna Samad, M.D.  
Associate.

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Mauro Schechter, M.D., Ph.D.  
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Kerry Jean Schulze, M.Sc.  
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Victor Tsang, Ph.D.  
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Mental Health

The mission of the Department of Mental Health is to advance understanding of the occurrence, causes, and consequences of mental health and mental and behavioral disorders, in order to improve health in the general population. The central focus of the mission is the prevention and control of these mental disorders and their associated impairments, disabilities, and handicaps.

A focus upon the target outcomes of mental health and mental disorders is the distinguishing feature of the Department. Mental disorders are disturbances of thinking, emotions and feeling, and acting, which have presumed or known proximate causes in the brain and nervous system. Disturbances of thinking include mental disorders such as schizophrenia and dementia, as well as cognition-impairing conditions such as mental retardation. Disturbances of emotions and feeling include the mood and anxiety disorders. Disturbances of behavior include conduct disorders, anti-social personality disorders, and drug and alcohol dependence. The expression of mental and behavioral problems in humans is diverse, and most disorders involve problems of varying intensity in all three areas of thinking, feeling, and acting. Mental disorders typically involve disruption of the social relations of the individual, and are associated with neuroadaptive changes. Mental disorders occur at all ages and in all social groups.

Understanding the causes and consequences of mental health and mental disorders from the perspective of public health often involves population-based studies conducted within a developmental framework. Prevention and control of mental disorders involves design and execution of intervention trials to prevent disorders in individuals who are currently healthy, as well as to minimize future consequences for those with a current disorder or a history of disorder. Interventions for promotion of mental health are part of the mission because good mental health can help protect against onset of a variety of mental disorders, as well as being a valued outcome itself.

The department provides a focus for research in the distribution, occurrence, prevention, and control of mental disorders, alcohol, and other drug-related disorders, approaching these concerns with a life course epidemiologic perspective. The department trains leaders in research and administration at the master’s, doctoral, and postdoctoral levels in order to continually broaden and deepen the investigation of these issues.

Training Programs

The Department emphasizes ongoing research that enriches and stimulates the teaching programs. Students and fellows are encouraged to participate in research work groups which are open to all. Research workgroups typically are oriented around the subject areas of the four training programs of the department, described immediately below, with cross-cutting interests and collaborations from the major research programs of the department, also described below.

Program in Drug Dependence Epidemiology

This interdisciplinary program provides preparation for leadership in the drug and alcohol dependence field as it relates to epidemiology and prevention. The doctoral program prepares individuals for careers in academic and applied research in epidemiology, prevention, or treatment program evaluation. Students admitted to the program master the methods of epidemiology and biostatistics, and have substantive knowledge about drug- and alcohol-specific issues, epidemiology of drug use, and health consequences, including dependence and mental disorders. Students must successfully complete a doctoral research project contributing to knowledge about suspected causal influence of drug dependence, the effects of primary or secondary prevention programs, or some other important aspect of public health that pertains to psychoactive drugs. Doctoral and postdoctoral studies in the program are funded, in part, by a Training Grant from the National Institute on Drug Abuse.

Hubert H. Humphrey International Fellowship

Program in substance abuse prevention, treatment, and policy

The Hubert H. Humphrey fellowship program is designed for mid-career leaders from developing countries. It focuses on national policy formulation and research on prevention treatment activities. Professional affiliation with national and state governmental research and policy agencies affords the opportunity for immediate involvement in ongoing activities leading to research paper productivity. Applicants to the fellowship program must have completed training in a relevant field and have experience in the drug or alcohol field. Participants in this program develop an academic plan in consultation with their advisor. This fellowship program leads to a certificate but not a degree. The program is jointly funded by a grant by the United States Department of State and the National Institute on Drug Abuse (NIDA) in cooperation with the Institute of International Education.
Program in Psychiatric Epidemiology
This interdisciplinary doctoral and postdoctoral program is affiliated with the Departments of Epidemiology and Biostatistics and with the Department of Psychiatry and Behavioral Sciences at the School of Medicine. The goal of the program is to increase the epidemiologic expertise of psychiatrists and other mental health professionals, and to increase the number of epidemiologists with the interest and capacity to study psychiatric disorders. Graduates are expected to undertake careers in research on the etiology, classification, distributions, course, and outcome of specific mental disorders and maladaptive behaviors. Postdoctoral fellows take some courses, depending on background and experience, and engage in original research under the supervision of a faculty member. Doctoral and postdoctoral studies in the program are funded, in part, by a training grant from the National Institute of Mental Health.

Program in Children's Mental Health Services Research
The Department focuses on research related to the need for and the delivery, organization, and financing of mental health services, especially as these relate to children. This doctoral and postdoctoral training program prepares individuals for research, planning, or evaluation careers in both public and academic settings. Doctoral and postdoctoral studies in the program are funded, in part, by a grant from the National Institute of Mental Health.

Program in Prevention Research Training
This program is designed to increase the number of university faculty and research staff in mental health agencies who can develop, implement, and teach prevention research. Training emphasizes opportunities for independent research and participation in the ongoing research in a prevention research center. Coursework is available which is specifically designed to develop knowledge and skills in preventive intervention strategies, methods of measuring psychopathology in populations, epidemiologic methods for identifying risk factors, prevention research design, and eliciting community and institutional cooperation in preventive intervention research. Postdoctoral studies in the program are funded, in part, by a grant from the National Institute of Mental Health.

Areas of Research Interests and Programs
Department of Mental Health has active research programs in many areas related to public mental health.

The Johns Hopkins Center for the Prevention of Youth Violence—The center provides a formal infra-structure that facilitates academic community collaborations by integrating research findings with education and training, professional development, and practice efforts, translating research into improved professional practice. The result is an increase in the capacity of local providers, policy makers, and academic researchers to choose among potential interventions, monitor fidelity to specified standards, and increase knowledge concerning effective and ineffective practices and policies. Core funding for the Center is provided by the Centers for Disease Control (CDC).

Baltimore Epidemiologic Catchment Area (ECA) Followup—The Baltimore ECA Follow-up continues study of the natural history of mental disorders with follow-up interviews on the original 3,481 respondents from the 1981 survey in 1993-1996, and in 2004-2005. Research includes epidemiology of mental disorders and health-related behaviors in the early, middle, and later adult stages, as well as research on use of services, and other aspects of public mental health.

Alcohol and Drug Dependence and Related Hazards—Use of psychoactive substances is a suspected casual determinant for many mental disorders and health problems. Cognitive characteristics, behavioral characteristics, and social settings are studied as potential cause influences for drug use and dependence from a developmental perspective. Prevention trials are carried out to test approaches to reducing drug use and related health risks.

Child Mental Health Services and Service System Research—Department faculty conduct research on the delivery, organization, financing and effectiveness of children’s mental health services. The department also administers the Johns Hopkins Center for the Prevention of Youth Violence, Child Development Community Policing, Project Target-MSDE; and maintains several databases of use for research projects. The Department is also collaborating with the Governor’s Office and a number of state and city agencies in the design, implementation, and evaluation of more effective systems of care for children and their families.
Mental Health Center for Prevention and Early Intervention — The Center for Prevention and Early Intervention is a collaborative effort between the Bloomberg School of Public Health, our local community partners in prevention and early intervention, and researchers at universities around the country. The mission of the Center is to improve school-based preventive and early treatment interventions for children and adolescents by bridging epidemiologic, intervention, services, and dissemination and training research through the development of a range of research structure and research strategies. The Center builds on the foundation laid by the Johns Hopkins Prevention Intervention Research Center (1985-2001), which provided the basis for two generations of school-based, preventive intervention field trials in Baltimore and their ongoing follow-ups.

Cognitive Health and Aging — The Department offers advanced training in epidemiologic study of the determinants of cognitive health and cognitive disorders in the elderly. The doctoral requirements include courses offered in the departments of Mental Health, Health Policy and Management, Epidemiology, and Biostatistics. The doctoral program prepares individuals for research, planning, or evaluation careers related to the prevention or mitigation of cognitive disorders and their consequences in both public and academic settings.

Other Resources — The Department faculty work in close association with city, state, federal mental health agencies, and enjoy working relationships with the Maryland State Department of Health and Mental Health and the Baltimore City Health Department. Students have access to faculty and a wide range of courses in other departments at the School of Medicine, and at the School of Arts and Sciences. Department faculty conduct collaborative research in many countries around the globe.

DEGREE PROGRAMS

Curriculum — There is only one academic unit focused on psychopathology and drug use disorders in a school of public health. This means that our curriculum is unique, and this unique aspect attracts students of the very highest caliber. Mental Health has been a focal area of the Bloomberg School of Public Health since its origins, when William Henry Welch became acquainted with Clifford Beers, and was president of the National Committee on Mental Hygiene for several years. The special approach to mental health and mental disorders taken by Adolph Meyer, chair of the Department of Psychiatry and Behavioral Sciences in the Johns Hopkins School of Medicine from 1910 to 1941, was carried into the public health arena most explicitly by his student Paul Lemkau, the founding chair of the Department. The curricular approach of the department has its historical origins in the application of Meyer’s eclectic, life-course, and person-oriented philosophy into the field of Public Health. The Curriculum in Public Mental Health approaches psychopathology and problems of drug and alcohol use from a variety of overlapping but complementary perspectives, including:

The nature of the target outcome, with an emphasis on epistemologic approaches to classification and measurement, since mental health problems are so complex and vary from individual to individual;

Epidemiology, with an emphasis on the life course approach in the general population, since mental health problems develop slowly and are often not seen in treatment;

Etiology, with an eclectic approach spanning disciplines from cell biology and genetics to sociology, since the target outcomes have so many causes;

Biostatistics, since the public health approach requires the quantitative orientation;

Interventions, including both population and preventive programs and studies of the mental health service system.

Studying the target outcomes with these diverse approaches yields in the student an increasingly focused and yet flexible understanding of the complexity of mental health and mental disorders. We expect graduates of the department to enter the world stage of research and practice in public mental health. We expect them to carry with them after graduation the perspective of the department, as stated in our mission: an eclectic, biopsychosocial, life course approach embedded in populations, with the goal of prevention. Our doctoral graduates are expected to be both gener-
alists and specialists. As specialists, they should have produced new knowledge in the field of public mental health in a specific area, and be capable of generating further new knowledge in this field through innovative research with cutting edge methodologies. This aspect should make graduates attractive recruits for academic settings such as schools of public health and medicine, and government research units. As generalists, they should be familiar with the range of methods, theories, and technologies in the field of public mental health, and be able to critically evaluate new knowledge and claims to knowledge. They should be attractive recruits for government agencies, research contract firms, pharmaceutical companies, and non-profit mental health organizations.

Master’s and doctoral degrees and postdoctoral certificates are offered. Financial support, including tuition, fees, and stipend, is available for well-qualified applicants. The department is able to fund selected doctoral- and postdoctoral-level individuals through the NIMH Psychiatric Epidemiology Training Program, the NIMH Child Mental Health Services and Service System Research Training Program, the NIMH Prevention Research Training Program, the NIDA Drug Dependence Epidemiology Training Program, and the Sommer Scholars Program of the School. All programs are subject to change and may be modified as appropriate to the applicant’s career goals with the advisor’s consent.

**Application**

Students applying to the department should display evidence of interest in psychopathology and commitment to the public health approach. Applicants should submit recent results of the Graduate Record Examination. The department is small and applications are accepted at any time, but the applications will be maximally competitive for funding and awards if received by January 1.

**Master of Public Health**

The Master of Public Health degree is a school-wide rather than a departmental degree program. For general MPH candidates and specialists in fields other than mental health, introductory and advanced courses are available in the department, with the goal of increasing the understanding and knowledge base of health personnel in other disciplines and providing a public health approach to the prevention and control of mental disorders and the promotion of mental health. Students interested in Mental Health are encouraged to enroll as MPH candidates with special emphasis in Mental Health and are encouraged to obtain the Certificate in Public Mental Health Research. MPH candidates with a special emphasis in Mental Health must be qualified in one of the core mental health professions (i.e., psychiatry, psychology, social work, nursing, or other mental health fields). The student may select courses from multidisciplinary areas, with the assistance of his or her advisor. The purpose of the program is to acquaint the student with the concept of total health systems, of which mental health is an integral part; to apply these concepts to the operation of mental health services in various settings; and to review preventive methods of mental health agencies and other professionals. This program may be combined with psychiatric residency training.

**Master of Health Science**

The Master of Health Science (MHS) program in mental health is intended for interested students who have demonstrated competency through prior work or volunteer experience, and who have had at least some undergraduate work in biology, psychology, and mathematics. All students must take introductory courses in biostatistics, epidemiology, and mental health, as described below and in the Student Handbook. Other courses, within and outside the department, are required but are selected from several offerings based upon a student’s individualized study plan.

The MHS degree is organized around a core set of four terms of graduate courses, and a final research paper that demonstrates mastery of what has been learned in the course work experience. All MHS students must complete a final research paper in his/her area of interest. The paper may either be a critical and comprehensive review of the literature pertaining to a specific area of interest or an original analysis of existing data. The final paper must be approved by two members of the Department’s faculty in addition to the advisor. Special studies credits with a faculty member may be taken to allocate time and mentoring to working on this research.

**Requirements for the Master of Health Science Degree in the Department of Mental Health**

**First Term**

- 330.601 The Perspectives of Psychiatry: The Nature of Mental Disorder and its Detection, Measurement, and Classification.
- 140.621 Statistical Methods in Public Health I or 140.611 Statistical Reasoning in Public Health I
- 340.601 Principles of Epidemiology
- 550.865 Public Health Perspectives on Research
Second Term
330.602 Epidemiology of Drug and Alcohol Problems
or
330.603 Psychiatric Epidemiology
140.622 Statistical Methods in Public Health II or
140.612 Statistical Reasoning in Public Health II
340.602 Intermediate Epidemiology or
340.608 Observational Epidemiology
550.860 Research Ethics
550.865 Public Health Perspectives on Research

Third Term
330.612 Introduction to Psychiatric and Behavioral Genetics or
330.661 Social and Psychological Processes in the Development of Mental and Behavioral Disorders

Fourth Term
330.607 Prevention and Control of Mental Disorders: Public Health Interventions

Biostatistics 140.651-654 may be substituted for the 140.611-612.

Students in the MHS must choose six additional units of electives in the departments of Mental Health. Students are encouraged to combine the MHS in Mental Health with one of the 17 certificate programs offered in other departments of the school.

Requirements for the Doctoral Degree in the Department of Mental Health

First Term
330.601 The Perspectives of Psychiatry: The Nature of Mental Disorder and its Detection, Measurement, and Classification.
330.657 Statistics for Psychosocial Research: Measurement **
340.717 Health Survey Research Methods **
140.621 Statistical Methods in Public Health I *
340.601 Principles of Epidemiology

Second Term
330.602 Epidemiology of Drug and Alcohol Problems
330.603 Psychiatric Epidemiology
330.840 Special Studies in Mental Health ***
140.622 Statistical Methods in Public Health II
340.602 Intermediate Epidemiology

Third Term
330.612 Introduction to Psychiatric and Behavioral Genetics

330.661 Social, Psychological, and Developmental Processes in the Etiology of Mental and Behavioral Disorders
140.623 Statistical Methods in Public Health III
340.603 Cohort Studies: Design, Analysis, and Applications
330.840 Special Studies Ground Rounds in Psychiatry **

Fourth Term
330.607 Prevention and Control of Mental Disorders: Public Health Interventions
140.624 Statistical Methods in Public Health IV
340.604 Design and Applications of the Case-control Method
330.623 Neuropsychology of Mental Disorders
330.840 Special Studies Ground Rounds in Psychiatry **

* Biostatistics 140.651-654 may be substituted for the 140.611-612.
** Typically taken in the second year of study.
*** Doctoral students in the Department of Mental Health will take a one credit of special studies during Psychiatric Epidemiology, and Epidemiology of Drug and Alcohol Dependence, during which they will have an extra assignment from the instructor.
Doctoral students must take at least one more course in epidemiology, one more course in quantitative methods, and one more course in the Department of Mental Health.

During the course of their doctoral studies, after the comprehensive examination, doctoral students are required to assist in teaching one or more courses. The assistance will include preparing and delivering one lecture to students in the course. Doctoral students are required to give at least one public presentation of research, over and above the requirements of the doctoral examinations. Doctoral students are required to prepare one or more research papers in publishable form, in addition to, and with a separate topic from, their dissertation.
Mental Health

Faculty data as of April 30, 2005. For current listing, please click here:
http://faculty.jhsph.edu/mh.cfm

William W. Eaton, Ph.D.
Chair.

Primary Faculty

Pierre K. Alexandre, Ph.D., M.S.
Assistant Professor. Addiction economics, economics of drug and alcohol abuse, evaluation of substance abuse treatment programs.

James C. Anthony, Ph.D., Sc.M.
Professor. Tobacco, NIDA, NIMH, NIAAA, drug dependence, psychiatric envirome & enviroomics generally.

Catherine Bradshaw, Ph.D.
Assistant Professor. Aggression and antisocial behavior prevention and intervention, child mental health, social cognition, community violence exposure, child development and evaluation.

Michelle C. Carlson, Ph.D.
Assistant Professor. Dementia, cognitive aging, memory, cognitive activity, physical activity, physical function, IADLs, prevention, hormone replacement therapy, cognitive frailty.

Howard D. Chilcoat, Jr., Sc.D., M.H.S.
Associate Professor. Drug dependence, drug abuse, epidemiology.

Michele Cooley, Ph.D., M.Ed.
Assistant Professor. Anxiety disorders, community violence prevention, child psychopathology, ethnic minorities.

William W. Eaton, Ph.D.
Professor. Psychiatric epidemiology, sociology, depression, schizophrenia, natural history.

Nicholas Ialongo, Ph.D.
Associate Professor.

Sheppard G. Kellam, M.D.
Professor Emeritus. Psychiatry, randomized field trials, schools, classrooms, aggression, depression, achievement, life course, social fields, epidemiology, prevention research, public education.

Sharon F. Lambert, Ph.D.
Assistant Scientist.

William Latimer, Ph.D., M.P.H.
Associate Professor. HIV/AIDS, HIV prevention, neuropsychology, neurobehavioral models of HIV and addiction, adolescence, drug abuse prevention and treatment, addictive behaviors.

John Lawlor, M.A.
Research Associate.

Philip J. Leaf, Ph.D.
Professor.

Wallace Mandell, Ph.D., M.P.H.
Professor Emeritus. Epidemiology of substance abuse with particular focus on implications for national drug services programming.

Richard A. Miech, Ph.D.
Assistant Professor. Socioeconomic status, life course, structural equation models.

Hanno Petras, Ph.D.
Assistant Scientist.

George W. Rebok, Ph.D.
Professor. Life-span developmental psychology, gerontology, prevention research, cognitive neuropsychology, cognitive aging and health, dementia.

Carla Storr, Sc.D.
Associate Scientist.

Peter P. Zandi, Ph.D., M.P.H., M.H.S.
Assistant Professor. Genetic epidemiology, pharmacoepidemiology, Alzheimer’s disease, bipolar disorder, autism.

Joint Appointments

David M. Altschuler, Ph.D.
Principal Research Scientist at the Institute for Policy Studies and an Associate Professor in the Department of Sociology in the Krieger School of Arts and Sciences.

Harolyn Mellicent Edith Belcher, M.D., M.H.S., F.A.A.P.
Associate professor of Pediatrics in the School of Medicine.

O. Joseph Bienvenu, M.D., Ph.D.
Assistant Professor in the Department of Psychiatry in the School of Medicine.

William R. Breakey, M.D.
Professor of Psychiatry and Behavioral Sciences, School of Medicine.

Michael R. Clark, M.D., M.P.H.
Associate Professor in the Department of Psychiatry and Behavioral Sciences.
Paul T. Costa, Jr., Ph.D.
Professor in the Department of Psychiatry and Behavioral Sciences in the School of Medicine.

Rosa Marie Crum, M.D., M.H.S.
Associate Professor of Epidemiology.

J. Raymond DePaulo, Jr., M.D.
Professor of Psychiatry and Behavioral Sciences, School of Medicine.

Gerard Gallucci, M.D., M.H.S.
Assistant Professor of Psychiatry, School of Medicine.

James C. Harris Jr., M.D.
Professor of Psychiatry and Pediatrics, School of Medicine.

Susan G. Keys, Ph.D.
Associate Professor in the School of Medicine.

Constantine Lyketsos, M.D.
Professor of Psychiatry, School of Medicine.

Paul R. McHugh, M.D.
Professor of Psychiatry and Behavioral Sciences, School of Medicine.

Gerald Nestadt, M.B., B.Ch.
Professor of Psychiatry and Behavioral Sciences, School of Medicine.

Craig J. Newschaffer, Ph.D., S.M.
Associate Professor in Epidemiology.

Thomas P. O'Toole, M.D.
Assistant Professor in the Division of Internal Medicine of the School of Medicine and the Welch Center.

Peter V. Rabins, M.D., M.P.H.
Professor of Psychiatry, School of Medicine.

Anne W. Riley, Ph.D.
Associate Professor of Health Policy and Management.

Alan Romanoski, M.D., M.P.H.
Associate Professor of Psychiatry, School of Medicine.

David S. Salkever, Ph.D.
Professor of Health Policy and Management.

Jack Samuels, Ph.D.
Assistant Professor of Psychiatry, School of Medicine.

Donald M. Steinwachs, Ph.D.
Professor of Health Policy and Management.

Holly C. Wilcox, Ph.D.,
Instructor, Department of Psychiatry and Behavioral Sciences, School of Medicine.

Departmental Affiliates

Deborah Agus, J.D
Lecturer.

Amelia M. Arria, Ph.D.
Associate.

Emmalee Setzer Bandstra, M.D.
Adjunct Professor.

Judith K. Bass, Ph.D., M.P.H.
Adjunct Assistant Professor.

John C.S. Breitner, M.D., M.P.H.
Adjunct Professor.

C. Hendricks Brown, Ph.D.
Adjunct Professor.

Eric J. Bruns, Ph.D.
Associate.

Ya-Fen Chan, Ph.D., M.H.S.
Research Associate.

Diana H. Fishbein, Ph.D.
Adjunct Associate Professor.

Joseph Gallo, M.D., M.P.H.
Adjunct Assistant Professor.

Jerome H. Jaffe, M.D., M.A.
Adjunct Professor.

Raymond Lorion, Ph.D.
Adjunct Professor.

Lawrence Mayer, Ph.D., M.B., M.S.
Adjunct Professor.

Kathleen Ries Merikangas, Ph.D.
Adjunct Professor.

Preben Bo Mortensen, M.D.
Adjunct Professor.

Carles Muntaner, M.D.
Adjunct Assistant Professor.

Kim Nickerson, Ph.D.
Adjunct Assistant Professor.

Pamela L. Owens, Ph.D.
Adjunct Assistant Professor.

Jane L. Pearson, Ph.D.
Adjunct Associate Professor.
Jeanne M. Poduska, Sc.D., M.S.
Associate.

Stephen J. Suomi, Ph.D.
Adjunct Professor.

Neil M. Thakur, Ph.D.
Adjunct Assistant Professor.

Fernando A. Wagner-Echeagaray, Sc.D., M.P.H.
Adjunct Assistant Professor.

Christine Walrath, Ph.D., M.H.S.
Adjunct Assistant Professor.

Nollie Wood, Ph.D., M.P.H.
Associate.
The W. Harry Feinstone
Department of Molecular
Microbiology and
Immunology

The commitment of the Department of Molecular Microbiology and Immunology is to provide students of the School with educational opportunities, graduate training, and research experience in the study of infectious diseases and host response to disease. The department’s main goal is to advance the understanding of the basic biological mechanisms involved in disease processes and to apply this knowledge to the solution of public health problems. This goal is accomplished by using a broad, multidisciplinary approach made possible by the varied interests of its faculty. The approach involves studies that range from the population to the molecular level and encompasses the disciplines of ecology, vector biology, immunology, parasitology, virology, bacteriology, structural biology, cell biology, molecular biology, and bioinformatics. The major focus of the department is on laboratory-based research, but coordinated research may be carried out in the clinic or in the field.

The department offers three programs leading to either doctoral or master's degrees. The doctoral program (PhD) is intended to prepare students to become independent investigators in the biomedical sciences. The Master of Science degree (ScM) is a two-year program offered to students wishing to gain experience in laboratory or field research. The Master of Health Science degree (MHS) is a one-year program offered to students wishing to gain an understanding of microbial diseases. For detailed information on the three degree programs and other department information, please see the department's webpage - http://www.jhsph.edu/Dept/MMI/index.html

Applicants for any degree program should meet the general requirements of the School and have taken college-level courses in mathematics, biology, chemistry, and physics. Prospective students are also required to submit the results of the Graduate Record Examination (verbal, quantitative, and analytical) taken within two years of their application. Applications for September 2006 admission must be submitted by January 15.

For successful completion of the graduate program, students are required to meet Schoolwide requirements as described in the Academic Information chapter. In addition, all candidates for the doctoral and Master of Science degrees are required to take basic courses in virology, parasitology, immunology, ecology, and bacteriology and to become acquainted with the research interests of the department by means of short-term laboratory rotations. After acquiring a core of common knowledge relevant to the study of infectious disease and host responses, students specialize in their selected area. Students may take additional courses within the School and the university to prepare themselves for their area of specialization and their thesis research.

The interests of the departmental faculty are broad and overlapping, offering an excellent opportunity for multidisciplinary interaction and for a multifaceted approach to research and training. There are opportunities for research in the United States and abroad.

AREAS OF ACTIVE RESEARCH

Immunology—autoimmune diseases, genetics and immunogenetics of susceptibility to infectious disease, immunological basis of acquired immunodeficiency syndrome (AIDS), virus-induced immunosuppression, vaccine development, immune-mediated protection and recovery from infection.

Viral and Bacterial Infections—epidemiology and biology of human polyomaviruses and papillomaviruses, hemorrhagic fever viruses, viral infections of the central nervous system, human immunodeficiency virus, measles virus, molecular biology of adenoviruses, mycobacterial and enterobacterial infections, and opportunistic infections.

Parasitic Diseases—malaria, toxoplasmosis, schistosomiasis, filariasis, characterization of parasite enzymes and surface membranes; cell biology of parasitic infection; immune response to parasites and its avoidance; immunopathogenesis and genetics of disease susceptibility; and population dynamics in parasitic infections.

Vector-borne Diseases—insect vector competence; population genetics; innate immunity; vector control and insecticide resistance; dynamics of transmission of vector-borne diseases, particularly malaria, Lyme disease and arbovirus encephalitis; ecology of zoonotic diseases and their vertebrate reservoirs; and development of genetically altered vectors.

The department also participates in special programs for individuals with appropriate backgrounds and career goals. For graduate veterinarians, a curricular option has been developed in collaboration with the Department of Comparative Medicine. This program will enable selected individuals in residency training in that department to concurrently enroll in
the PhD graduate program of the Department of Molecular Microbiology and Immunology. There are doctoral-level interdepartmental programs in collaboration with the Departments of Environmental Health Sciences, Biostatistics and Epidemiology. For further information, see Academic Information. The educational experience is enhanced by interdepartmental, collaborative, and cooperative arrangements and programs within the university. Such opportunities exist through the Johns Hopkins Immunology Council and with the Department of Pathology Division of Laboratory Medicine, which offers training in diagnostic microbiology.

The department also offers a Master of Health Science degree. This program provides educational opportunities to students who do not wish to pursue an extensive research program but wish to gain greater knowledge within specific areas of the department and to participate in the departmental academic activities. The program has a defined curriculum and requires 9 months in residence. A written essay, which is usually based on a literature search, and a presentation at a departmental seminar are required for graduation. Applicants interested in the MHS degree should request additional information for this program from the department.

Graduate Interdepartmental Program in Molecular Epidemiology (IPME)

The Interdepartmental Program in Molecular Epidemiology (IPME) offers specialized cross-training in epidemiology (Department of Epidemiology) and the laboratory sciences (Departments of Biochemistry and Molecular Biology, Environmental Health Sciences, and Molecular Microbiology and Immunology). As a result of the complete sequencing of the human genome and rapid advances in high through-put molecular techniques, epidemiology is poised to move beyond measuring associations of exposures with disease occurrence to assessing the underlying biological mechanisms of pathogenesis.

The objective of the Interdepartmental Program Molecular Epidemiology is to provide candidates with solid training in the complementary disciplines of epidemiology and laboratory molecular biology/genetics to encourage interdisciplinary approaches to solving public health problems. Candidates will select an academic training program based on the requirements for the individual departmental PhD and ScM requirements (see department-specific ScM requirements for the IPME) structured around a Core Curriculum in Molecular Epidemiology. The Core Curriculum will ensure a broad theoretical basis in the following sub-
The W. Harry Feinstone
Department of Molecular Microbiology and Immunology

Faculty data as of April 30, 2005. For current listing, please click here: http://faculty.jhsph.edu/mmi.cfm

Diane E. Griffin, M.D., Ph.D.
Chair of the Department.

Primary Faculty

Vernon B. Carruthers, Ph.D.
Associate Professor. Toxoplasma gondii, toxoplasmosis, invasion, secretion, proteomics, adhesion, intracellular, protease, natural protease inhibitor, microneme.

Isabelle Coppens, Ph.D.
Assistant Professor. Toxoplasma, Plasmodium liver stage, host cell-parasite interactions, nutrient uptake, lipids, cholesterol, cytoskeleton, coat protein, cell biology, drug targeting.

Richard Daniel, B.S.
Research Associate. Human papillomavirus, cervical cancer, SV40.

Martin P. Devenport, Ph.D.
Research Associate. Mosquito, Anopheles gambiae, peritrophic matrix, malaria.

George Dimopoulos, Ph.D.
Assistant Professor. Malaria, Anopheles, Plasmodium, innate immunity, transcriptomics.

Denise L. Doolan, Ph.D.
Research Associate. Malaria, vaccines, immunology, genome, parasitic diseases.

Abraham G. Eappen, Ph.D., M. Sc.
Research Associate. Malaria, mosquitoes, Plasmodium-mosquito interactions, transgenesis.

Patricia J. Gearhart, Ph.D., M.S.
Associate Professor.

Anil Kr. Ghosh, Ph.D., M.Phil., M.S.
Research Associate.

Gregory E. Glass, Ph.D.
Professor. GIS, remote sensing, hantavirus, Lyme disease, malaria, zoonoses, rodent-borne diseases.

Thaddeus K. Graczyk, Ph.D., M.Sc.
Associate Professor. Enteric, diseases, waterborne parasites, cryptosporidium, parasite transmission, giardia, medical parasitology, avian malaria, human-infectious microsporidia.

Diane E. Griffin, M.D., Ph.D.
Professor. HIV, measles, viral encephalitis, vaccines, arboviruses.

J. Marie Hardwick, Ph.D.
Professor. Mechanisms of programmed cell death (apoptosis) and its role in neuronal disease and viral pathogenesis.

Egbert Hoiczyk, Ph.D.
Assistant Professor. Bacterial pathogenesis, infectious disease, yersinia, type III secretion, host-pathogen interactions, signal transduction, structural biology.

Yu-Chih Hsu, M.D.
Professor Emeritus.

Sujatha Iyengar, Ph.D., M.S.
Research Associate. HIV, immunity, vaccine, positron emission tomography, SIV, evolution, chemokine receptors, EBV.

Marcelo Jacobs-Lorena, Ph.D.
Professor. Malaria, mosquitoes, transgenesis, Plasmodium-mosquito, interactions, peritrophic matrix.

Anne E. Jedlicka, M.S.
Research Associate. Microarray, genomics, malaria.

Gary W. Ketner, Ph.D.
Professor. Adenoviruses, eukaryotic molecular biology, gene expression, DNA repair, viral genetics, vaccines.

Sabra L. Klein, Ph.D., M.S., M.A.

Nirbhay Kumar, Ph.D., M.Sc.
Professor. Malaria transmission-blocking vaccine, recombination, targeted gene disruption, coinfections involving malaria parasites and other pathogens (helminths, HIV, TB).

Bingdong Liu, Ph.D.
Research Associate.

Joseph B. Margolick, M.D., Ph.D.
Professor. Human immunodeficiency virus, immune assessment, immune deficiency, T-cells, flow cytometry, cell sorting, pathogenesis of HIV.

Richard B. Markham, M.D.
Professor. HIV, pathogenesis evolution, SCID, mouse microbicide vaccine.
Sungano Mharakurwa, Ph.D., M.Sc.

Douglas E. Norris, Ph.D., M.S.
Assistant Professor. Vector biology, entomology, population genetics, arthropod genetics, Lyme Disease, malaria, West Nile Virus, biodiversity, tick, mosquito, Rickettsia.

Yukari Okamato, D.V.M., Ph.D.
Research Associate.

Martin Matthew Ota, M.D., Ph.D.
Research Associate.

Chien-Hsiung Pan, Ph.D., M.S.
Research Associate.

Fernando J. Pineda, Ph.D.
Associate Professor. Bioinformatics, mass spectrometry, protein identification, proteomics, neural networks, machine learning, signal processing, statistical physics.

Sean T. Prigge, Ph.D.
Assistant Professor. *Malaria*, fatty acid biosynthesis, apicoplast, x-ray crystallography, enzymology.

Jason L. Rasgon, Ph.D.
Assistant Professor. *Malaria*, West Nile virus, culex pipiens, aedes aegypti, aedes albopictus, anopheles gambiæ, wolbachia, transgenic, mosquito, vector-borne disease, population.

Magdalena Reissig, M.D.
Associate Professor Emeritus.

Noel R. Rose, M.D., Ph.D.
Professor. Autoimmune disease, autoimmunity, cytokines; thyroiditis; myocarditis; coxsackievirus; myositis; thyroglobulin.

David H. Schwartz, M.D., Ph.D.
Associate Professor. Immune response and viral evolution in seroconverters and long-term non-progressors, HAART-treated patients, HIV experimental vaccine evaluation.

Alan L. Scott, Ph.D.
Professor. Parasitic nematodes, biology, infections, parasites, filarial nematodes, asthma, allergy, gene expression analysis, genomics, gene array, micro array.

Keerti V. Shah, M.D., Dr.P.H.
Professor. Human papillomaviruses, cervical cancer, epidemiology, polyomaviruses.

Clive J. Shiff, Ph.D., M.Sc.
Associate Professor. African schistosomiasis

William J. L. Sladen, M.D., Ph.D.
Professor Emeritus.

David J. Sullivan Jr., M.D.
Assistant Professor. *Plasmodium*, malaria, iron, copper, zinc transport, hemozoin, metal heme crystal, chemotherapy, drug discovery, diagnosis, placental malaria.

Milan Trpis, Ph.D.
Professor. Aedes aegypti, Africa, vector biology, vector ecology, vector behavior, vector competence, vector-borne diseases, epidemiology, filariasis, onchocerciasis.

Xiao-Fang Yu, M.D., D.Sc.
Professor. Molecular mechanisms of HIV-1 pathogenesis.

Fidel P. Zavala, M.D.
Professor. *Malaria*, transgenic mice, T-cells, memory, vaccines.

Guang Wen Zhang, Ph.D.
Research Associate.

Ying Zhang, Ph.D.
Associate Professor. Tuberculosis, mycobacteria, drug resistance, isoniazid, pyrazinamide, dormancy, persistence, drug dependency.

Joint Appointments

William Bishai, M.D., Ph.D.
Associate Professor of Medicine, School of Medicine.

Jay Bream, Ph.D.
Assistant Professor of International Health.

C. Lynne Burek, Ph.D.
Associate Professor of Pathology, School of Medicine.

Patrizio Caturegli, M.D., M.P.H.
Associate Professor of Pathology, School of Medicine.

Patricia Charache, M.D.
Professor of Pathology, School of Medicine.

Douglas P. Clark, M.D.
Associate Professor of Pathology, School of Medicine.

Katherine Conant, M.D.
Assistant Professor, School of Medicine.

Arthur M. Dannenberg Jr., M.D., Ph.D.
Professor of Environmental Health Sciences.

Barbara Detrick, Ph.D.
Associate Professor of Pathology, School of Medicine.
James D. Dick, Ph.D.
Associate Professor of Pathology, School of Medicine.

J. Stephen Dumler, M.D.
Associate Professor of Pathology, School of Medicine.

Homayoon Farzadegan, Ph.D.
Professor of Epidemiology.

Carmelita G. Frondoza, Ph.D.
Associate Professor of Orthopedic Surgery, School of Medicine.

Robert H. Gilman, M.D.
Professor of International Health.

Patti E. Gravitt, Ph.D., M.S.
Assistant Professor in the Department of Epidemiology.

David N. Irani, M.D.
Assistant Professor of Neurology, School of Medicine.

Richard T. Johnson, M.D.
Eisenhower Professor of Neurology, School of Medicine.

Douglas A. Kerr, M.D., Ph.D.
Assistant Professor of Neurology, School of Medicine.

Kwang Sik Kim, M.D.
Professor of Pediatrics and Chief of Pediatric Infectious Diseases, School of Medicine.

M. Susan Leffell, Ph.D.
Professor of Medicine, School of Medicine.

Yukari Carol Manabe, M.D.
Assistant Professor, School of Medicine.

William G. Merz, Ph.D.
Professor of Pathology, School of Medicine.

William J. Moss, M.D.
Assistant Professor of International Health.

John Nicholas, Ph.D.
Associate Professor of Oncology, School of Medicine.

Akhilesh Pandey, M.D., Ph.D.
Assistant Professor in the School of Medicine.

Jonathan Pevsner, Ph.D.
Associate Professor in the School of Medicine.

Fernando P. Polack, M.D.
Assistant Professor of Pediatrics, School of Medicine.

Thomas C. Quinn, M.D.
Professor of Medicine, School of Medicine.

Philip K. Russell, M.D.
Professor Emeritus of International Health.

R. Bradley Sack, M.D., Sc.D.
Professor of International Health.

Kellog J. Schwab, Ph.D.
Assistant Professor of Environmental Health Sciences.

Richard E. Semba, M.D., M.P.H.
Associate Professor of Ophthalmology School of Medicine.

Mark J. Soloski, Ph.D.
Professor of Medicine, School of Medicine.

Alexandra Valsamakis, M.D., Ph.D.
Assistant Professor of Pathology, School of Medicine.

Raphael P. Viscidi, M.D.
Associate Professor of Pediatrics, School of Medicine.

Peter Winch, M.D., M.P.H.
Associate Professor of International Health.

Nathan D. Wolfe, D.Sc.
Assistant Professor of Epidemiology.

Tzuy-Choo Wu, M.D., Ph.D., M.P.H.
Professor of Pathology, School of Medicine.

Jonathan M. Zenilman, M.D.
Professor of Medicine, School of Medicine.

M. Christine Zink, D.V.M., Ph.D.
Professor of Comparative Medicine, School of Medicine.

Departmental Affiliates

Ray R. Arthur, Ph.D.
Senior Associate.

Abdu F. Azad, Ph.D.
Associate.

Alfred Buck, M.D., Dr.P.H.
Adjunct Professor.

Jane M. Carlton, Ph.D.
Associate.

James E. Childs, Sc.D.
Associate.

Paul Converse, Ph.D., M.H.S., M.Sc.
Associate.
Gina A. Dallabetta, M.D.
Associate.

I. Lawrence Graves
Associate.

M. Theresa Hogan, M.P.H.
Associate.

Judith Ryon, M.D., M.S.
Associate.

Eyal Talor, Ph.D.
Associate.

Philip E. Thuma, M.D.
Senior Associate.
MISSION STATEMENT
The Population and Family Health Sciences (PFHS) is an interdisciplinary department whose research, teaching and practice address population change, sexual and reproductive health and maternal and child health and promote health, growth and development across the lifespan. The department's efforts focus on the health and behavior of populations in the United States and worldwide, including mothers and infants, families, adolescents, women, the elderly and populations with special health care needs.

Research, evaluation and practice are integral to the department's academic programs and faculty efforts. The faculty apply and develop a broad range of methods (drawn from demography, developmental psychology, epidemiology, sociology, health service research, nutrition, economics, communication sciences, policy analysis, behavioral sciences and related disciplines) to research and professional practice.

DEPARTMENT VISION AND FOCUS
The department's vision is to shape population and family health through research and education and to bring science to policy and practice. The department's focus is on those who are underserved and disadvantaged at home and abroad. Likewise, the department focuses on women's health, sexual and reproductive health, maternal and child health, adolescent health and intergenerational family health issues. Our conception of health encompasses a positive sense of well-being and the capacity of each individual to attain his or her maximum potential.

Graduates are trained as scientists, administrators, and health professionals for careers related to a broad range of population and family health problems. Teaching and research activities focus on human development across the lifespan, the basic reproductive processes, and on biological and social determinants of population change and its social and economic consequences. The department serves as the primary academic base within the University for the core discipline of demography. Faculty and students apply scientific and technical expertise toward addressing issues of family planning and population policy and solving population problems nationally and internationally.

In addition, teaching and research activities of the department advance the understanding of factors that influence the growth and development of children toward optimum functioning as adults. The health of children is further grounded in the context of families and communities. Major attention is given to the assessment of health status and the planning, organization, and administration of community health programs at the local, state, and national level that promote the health of populations across the lifespan.

Finally, the department applies the theory and skills of health communication and advocacy to promote health programs and practices on a global basis with emphasis on reproductive health. The faculty of the department are multidisciplinary, drawn from demography and related social sciences, communication, sociology, epidemiology, public health, economics, family planning administration, medicine, nursing, social work, nutrition, policy analysis, developmental psychology, and related behavioral sciences. The scope of the research and training of the department is global. The research programs address population issues in dozens of countries in Africa, Asia and Latin America, while there is also a large portfolio of research on child, adolescent, and adult health focused on populations in the United States, including the population of children with special health care needs and their families, and families living in underserved urban settings. International students can expect the department's instructional program to provide the basic considerations of maternal and child health as requisite underpinning for application in various settings. The department is home to important centers for research, teaching and practice. These include the Center for Communication Programs, the Hopkins Population Center, Hopkins Center on the Demography of Aging, the Center for Adolescent Health Promotion and Disease Prevention, and the Women's and Children's Health Policy Center among others.

DEPARTMENT'S ACADEMIC MISSION
The department educates a diverse set of students at both the masters and doctoral levels, some of whom enter academia while others join organizations (both governmental and non-governmental) as researchers and still others enter the public and private health sectors as program specialists, interventionists, policy makers, and administrators. Our educational mission, focusing on public health leadership training, is to educate students who are theoretically grounded, methodologically rigorous and professionally skilled to assume positions of leadership in academia, government or the non-governmental (NGO) research or health delivery sector.
To meet the divergent professional aspirations of students, the department has broad offerings and an equally broad set of expectations. About 40 percent of recent Population and Family Health Sciences graduates, MHS, PhD and DrPH alike, are currently employed in academic institutions, while the remaining are working in descending order of frequency in positions at NGOs, government, consulting, and health care organizations.

DEPARTMENTAL STRENGTHS

Without a doubt, the central strength of the department is its faculty. Most faculty have diverse interests and skills, both methodologically and in terms of population of focus.

A second strength of the department is its commitment to both domestic and international research and education/training. Many individuals indicate that their work crosses domestic and international boundaries; and for others the opportunity exists to apply their international expertise domestically and vice versa. The department is committed to both a strong domestic and international agenda of research and training.

A third strength of the department is its seven centers that are either administratively located within or linked with the department. Five of these are physically co-located within the department on the fourth floor of the Wolfe Street building and two are off-site. Those administratively under the department include: the Center for Communication Programs; the Bill and Melinda Gates Institute for Population and Reproductive Health; the Center for Adolescent Health Promotion and Disease Prevention; and the Women's and Children's Health Policy Center.

University centers linked to the department include the Hopkins Population Center and the Urban Health Institute. In addition, there is the Rakai Health Sciences Program that performs many functions comparable to the department's centers. Separately and together, these seven centers greatly enrich the department's capacity for research, training, technical assistance, internships, program development and evaluation, translation of research for policy, practice and to influence health behavior.

Fourth, the diversity of backgrounds, knowledge, skills, and prior experiences of our masters and doctoral students across each of the four current tracks represent a major strength of the department.

Fifth, the department brings both methodologic and content strength to the School. Strengths include: demographic methods; program evaluation; developmental psychology; health communication; translation of research for policy and programs; and social and reproductive epidemiology. These skills crosscut the four tracks of the department: Child Health and Development; Health Communication; Population and Health; and Reproductive, Perinatal, and Women's Health.

ACADEMIC PROGRAMS

Master of Public Health

Students enrolled in the Schoolwide Master of Public Health (MPH) program may concentrate their elective time in courses offered by the Department of Population and Family Health Sciences (PFHS). The department is integrally involved in two of the MPH concentrations:

- Child Health
- Women's and Reproductive Health

MPH students should see the MPH program for specific required and elective courses. The courses cover a broad range of population, family health, and public health topics offering a global perspective on the health of populations in both developing countries and the United States. Opportunities are also available for elective experiences working with Maternal and Child Health (MCH) as well as other agencies serving children and youth at the local, state, and federal levels.

In addition, MPH students can focus the Capstone Project in PFHS through established course sequences and/or special studies work with individual faculty.

Master of Health Science

The MHS degree is offered as either a one-year or two-year program, depending on the student's background and career goals. The MHS in Demography program is one year. The MHS is intended for individuals with baccalaureate preparation who wish to focus their public health training in population studies, child and adolescent health, women's health reproductive health/family planning and health communication. The MHS degree can be either a stepping stone toward doctoral studies or as a professional practice degree.

Graduates of the program are prepared for career positions with such organizations as the Census Bureau, government ministries, non-governmental health organizations in developing countries, state and local MCH agencies in the U.S., managed care organizations, research institutes, health care delivery organizations, advocacy groups, academic institutions and others. Through their coursework and experiences with faculty, students acquire a sound orientation to general public health principles and to specific areas of population and family health sciences. Program
requirements allow flexibility so that students may tailor their academic program to concentrate in one of four tracks:

- Child Health and Development
- Health Communication
- Population and Health
- Reproductive, Perinatal, and Women’s Health

The one-year MHS program is designed for students who are currently working in their intended field of concentration, have a minimum of two years’ full-time health-related or public health-related experience, and wish to strengthen their skills and knowledgebase through improving their potential for advancement. Given the public health practice prerequisite for the one-year masters program, additional field experience is not included. Applicants with doctoral degrees in related fields who do not meet the minimum experience requirement will be considered for admission on a case-by-case basis. The two-year program is recommended for individuals without prior health-related or public health-related experience or whose practice experience is less than two years.

Applicants should indicate in their statement of goals and objectives how the MHS degree would benefit their professional goals and objectives.

The one-year MHS in Demography program is designed for specialized training with a minimum of 32 units in demography courses of the 64 units required to complete the program. A research paper is also required.

During the first year, the two-year program is similar to the one-year program in course requirements, but the second year includes a four- to six-month supervised internship. The internship provides the opportunity to integrate formal classroom teaching with practical experience in the student's chosen field. Students are required to successfully complete a MHS essay and departmental presentation in both the one and two year programs.

Internship —The department assists students for placement in a setting of their interest where training and competence will be enhanced. Internships are coordinated between the program director, student, and faculty advisor. Because the School is uniquely positioned in the Baltimore/Washington area, there are numerous domestic and international agencies and organizations from which students can choose to conduct their internship. Internships can be found in other geographic areas, including overseas as well. In addition, Centers affiliated with PFHS such as the Center for Communication Programs and the Bill and Melinda Gates Institute for Population and Reproductive Health offer internship opportunities.

Doctoral Studies

The department offers both a Doctor of Philosophy (PhD) and Doctor of Public Health (DrPH) degree. While each enables qualified students to obtain advanced training in one of the disciplines that underlie Public Health, each also is designed with a specific set of criteria for the student seeking entrance into the program. The DrPH is designed for individuals with a minimum of three years full-time work experience in the health and/or human services and an MPH or equivalent masters degree. It is intended for individuals who plan to assume a leadership position in the practice of public health. The PhD degree, is intended for students who are more oriented toward a research career.

The department’s doctoral programs are organized by the four academic program areas: Child Health and Development; Health Communication; Population and Health; Reproductive, Perinatal, and Women’s Health. Doctoral candidates must select one of these areas for academic concentration at the beginning of their program.

The overall structure of the department doctoral programs: All entering students will begin the first year with a set of core departmental courses intended to provide common theoretical foundations for the work of the entire department, encompassing biological/developmental foundations, demographic/social science foundations, and statistical/epidemiological foundations. Doctoral students are then required to complete a core set of courses established by the focal area of study. All academic program areas require doctoral students to do a research practicum. The updated specific doctoral requirements are detailed in the Student Handbook, published each year in August, and on the website - http://www.jhsph.edu/dept/PFHS/index.html

Academic Tracks

The department’s academic programs at the doctoral level are organized in four major tracks:

Child Health and Development

The Child Health and Development track provides multidisciplinary training in the growth, development, health, and well-being of the infant, child, and adolescent. Developmental considerations are emphasized from conception through adolescence. The biological, behavioral, social, and psychological processes contributing to child health are studied, and the social, environmental, nutritional, physiologic, and economic factors that may enhance or impede well-being are considered. The determinants of child health and well-being and systems of care are examined within an ecological framework that considers individual, family,
Departments of Instruction

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Departments of Instruction and student involvement in and collaboration with needs. The research program is enriched by faculty adolescents, including children with special health care at improving child health and development. international organizations whose efforts are directed federal, state, and local health agencies, as well as

Institute for Population and Reproductive Health, and

Communication Programs, the Bill and Melinda Gates

iated Centers, including the Center for

mobilization.  The Health Communication track also

mass media effects, health campaigns, and community

result, course offerings present current examples on

health and development of infants, children, and

advancing the understanding of factors that influence the health and development of infants, children, and adolescents, including children with special health care needs. The research program is enriched by faculty and student involvement in and collaboration with federal, state, and local health agencies, as well as international organizations whose efforts are directed at improving child health and development.

Principal Faculty Coordinator: Dr. Bernard Guyer, bguyer@jhsphs.edu

Health Communication

The Health Communication track encompasses theories, activities, and programs, occurring at many different ecological levels. The track helps train public health students already interested in Population and Family Health Sciences (PFHS) in research, practice, and policy dimensions related to Health Communication. Faculty are very involved in research and projects concerning domestic and international Health Communication programs and research; as a result, course offerings present current examples on mass media effects, health campaigns, and community mobilization. The Health Communication track also offers opportunities to learn from those at PFHS-affiliated Centers, including the Center for Communication Programs, the Bill and Melinda Gates Institute for Population and Reproductive Health, and the Center for Adolescent Health Promotion and Disease Prevention.

The Masters program in Health Communication includes training in (1) communication, behavior change, and educational theories; (2) design, implementation, and management of Health Communication research and interventions; (3) evaluation of Health Communication programs; and (4) lessons learned from research and interventions. The doctoral program builds on the masters training, emphasizing the importance of conducting top-quality, independent, and original research advancing the field of Health Communication. The Health Communication track encourages students to take courses in other PFHS tracks as well as courses in the departments of Health Policy and Management, Division of Health and Behavior, and International Health.

Principal Faculty Coordinator: Dr. Dina L.G. Borzekowski. Email: dborzeko@jhsphs.edu

Population and Health

The Population and Health track focuses on the study of interrelations between population and health. Components of this study include factors affecting population size, structure and change, the implications of population change for public health policy and programs, and the application of demographic methods to public health problems. Our curriculum provides training on the nature, determinants and consequences of (1) population birth, death and growth rates; (2) population composition, including such characteristics as sex, age, and marital/union status; (3) population distribution, including migration patterns and urbanization; (4) the mathematical and statistical patterns underlying population change; and (5) the measurement of population parameters in developing countries.

Student and faculty research interests include measuring and explaining levels and trends of fertility, mortality, migration, and population growth; the causes and consequences of population aging; gender and population; adolescent sexuality and fertility; economic development and population growth; quantifying the health and demographic impacts of family planning and child survival programs; the demography of marriage, the family, and child health and well-being; impact of and intervention in the HIV epidemic, measurement and interpretation of disease burdens; mathematical models of population dynamics; and techniques of demographic analysis – and in each case, the programmatic and policy implications of their findings. Faculty research and dissertation projects are active in both developed and developing countries.
Both pre- and post-doctoral programs incorporate perspectives from social science, epidemiology, and statistics, with training in demography, the primary discipline underlying population studies. The objective of the doctoral level degree is to train researchers for careers in academic, government, and non-governmental settings. Such careers include directing the collection, maintenance, and analysis of population data and vital statistics; directing or participating in research divisions of government agencies or non-governmental organizations; developing, implementing, and evaluating intervention programs in the health or population sectors; and research and teaching positions in schools of public health or other academic institutions.

Principal Faculty Coordinator: Professor Stan Becker, sbecker@jhsph.edu

Reproductive, Perinatal and Women’s Health

The Reproductive, Perinatal and Women’s Health track provides integrated training at the doctoral and masters level in research, practice, and policy relevant to human reproduction and its control, maternal and newborn health problems and care of the newborn, as well as health problems and services for women. This training focuses on both domestic and international public health problems and their solutions. The program prepares candidates for careers in research, academics, or health services programs and evaluation.

The objectives of doctoral studies are to educate students who plan a research career in reproductive, perinatal, or women’s health or who plan programmatic or practice careers in evaluation, administration, or policy. Students wishing to pursue a research career may choose to work in the areas of epidemiology, health services research, the social sciences, or demography, as applied to public health. Faculty in this track have diverse backgrounds ranging from medical, social and behavioral sciences, economics, epidemiology, and demography.

Faculty research and service interests encompass national and international studies of health problems and primary or secondary prevention of reproductive, perinatal, and women’s health problems, and research approaches incorporate basic biological sciences or laboratory diagnostics, collection of data from field research, programmatic studies, and secondary data analyses. The substantive areas of interest are (1) reproductive health, including sexually transmitted diseases, HIV/AIDS, determinants and prevention of unwanted pregnancy, abortion or reproductive health related problems, provision of family planning, and contraceptive evaluation; (2) perinatal problems, including determinants and prevention of adverse maternal and pregnancy outcomes, provision and evaluation of perinatal care; and (3) health of women, including health problems related to social needs and support, and service provision and assessment.

Principal Faculty Coordinator: Dr. Donna Strobino. Email: dstrobino@jhsph.edu

SPECIALIZED PROGRAMS

Post Doctoral Fellowships

This program is designed to meet the special needs of physicians and others holding a doctoral degree who desire a concentrated period of study in the field of population and family health sciences, but who do not wish to pursue another academic degree. Programs of study are tailored to the special interests of the individual student and may involve one or more years of study. Post Doctoral Fellows generally begin their program the first term of the academic year and must complete an application that can be found at: http://www.jhsph.edu/Admissions/Audiences/PostDoc_Instructions.html.
Population and Family Health Sciences

Faculty data as of April 30, 2005. For current listing, please click here: http://faculty.jhsph.edu/pfhs.cfm

Robert W. Blum, M.D.
Chair of the Department and Professor.

Primary Faculty

Emily M. Agree, Ph.D.
Associate Professor. Aging, demography, long-term care, disability, family and household, intergenerational relations.

Saifuddin Ahmed, M.B.B.S., Ph.D.
Assistant Professor. Reproductive health, reproductive epidemiology, family planning and MCH care, complex population surveys.

Cheryl S. Alexander, R.N., M.P.H., Ph.D.
Professor. Adolescence, adolescent health, tobacco, behavioral sciences, survey research methods.

Miriam H. Alexander, M.D., M.P.H.
Assistant Professor. Preventive medicine, Public health professional education and programs.

Nan Marie Astone, Ph.D.
Associate Professor. Social demography, sociology, adolescence, life course.

Marycatherine Augustyn, Ph.D.
Research Associate.

Stan Becker, Ph.D.
Professor. Reproductive health, data collection, developing countries, geographical information.

Jane Trowbridge Bertrand, Ph.D.
Professor. Health communication, evaluation, reproductive health, family planning, policy.

David M. Bishai, M.D., M.P.H., Ph.D.
Associate Professor. Health economics, population economics, family economics, marriage, gender, paternity, infidelity, divorce, polygyny, orphans, adolescent health, vaccines, HIV, AIDS vaccine, tuberculosis, meningococcal disease, human papilloma virus, cervical cancer, health equity, Nepal, Uganda, injuries, road traffic accidents.

Robert W. Blum, M.D.
Professor. Adolescent sexuality, chronic illness, international adolescent health care issues, Native American youth health.

Assistant Professor. Media, communication, health, television, children, adolescents, internet, computers, video, advertising.

Heena Brahmibhatt, Ph.D., M.P.H.
Assistant Scienist. Reproductive health, HIV, mother-to-child transmission of HIV, placental malaria, malaria, child survival, child mortality, breastfeeding, harm reduction for IDUs.

Jessica G. Burke, Ph.D.
Research Associate. Women's health, health behavior, intimate partner violence, pregnancy outcomes, qualitative research, multi-level modeling, health disparities.

Lien-Ping Chow, M.D., Dr.M.Sc., Dr.P.H.
Professor.

Janet A. DiPietro, Ph.D.
Professor. Child development, infant development, fetal development, pregnancy, women, prenatal, perinatal, fetus, fetal heart rate, fetal movement, infant, infancy, stress, maternal stress, maternal physiology, temperament, developmental psychology, psychophysiology.

Michele L. Dreyfuss, Ph.D., M.P.H.
Assistant Professor. Iron deficiency, anemia, pregnancy, pregnancy and perinatal outcomes, micronutrient deficiencies, HIV infection, vertical HIV transmission.

Mark R. Emerson, B.S.
Research Associate. Family planning, program evaluation, contraceptive choice, adolescent sexual behavior.

Fannie Fonesca-Becker, Dr.P.H., M.P.H.
Senior Research Associate. Community mobilization, community health programs, evaluation, social networks, maternal health, child health, HIV/AIDS.

Claude Earl Fox, M.D., M.P.H.
Professor; Director, Urban Health Institute.

Holly A. Grason, M.A.
Associate Professor. Child health policy, women's health policy, CSHCN, implementation of MCH programs.

William G. Robertson, Jr., Professor in Population and Family Planning. Epidemiology, STDs, HIV, pregnancy outcome, contraception, lactation, low birthweight, infant mortality, occupational and reproductive health.
Bernard Guyer, M.D., M.P.H.
Zanvyl Krieger Professor of Children’s Health.
Maternal and child health, children’s health, children’s development, infant mortality, immunization, community pediatrics, childhood injury, preventive health, Title V, state health agencies, disparities in children’s health.

Paul A. Harper, M.D., M.P.H.
Professor Emeritus.

Kenneth H. Hill, Ph.D.
Professor. Child mortality, fertility, maternal mortality, population dynamics.

Michelle J. Hindin, Ph.D., M.H.S.
Assistant Professor. Women’s health, adolescents, gender, international, household decision-making autonomy and power.

Robert Kambic, M.S.H.
Associate Scientist. Public health informatics, distance education, health evaluation, computers in public health, health information systems, natural family planning, Roman Catholics.

John F. Kantner, Ph.D.
Professor Emeritus.

Michael A. Koenig, Ph.D., M.A.
Associate Professor. Determinants and reproductive health consequences of domestic violence.

Xianbin Li, Ph.D., M.H.S., M.S.
Research Associate. Demography, STD, HIV/AIDS, epidemiological study, statistical analysis, biostatistics.

Clea McNeely, Dr.PH., M.A.
Assistant Professor. Adolescent health, youth development, school connectedness, social network analysis, community-based participatory research, program evaluation.

Michael J. McQuestion, Ph.D., M.P.H.
Assistant Professor. Demography, maternal and child health, mortality, health behaviors, social effects, program evaluation, multilevel modelling.

Cynthia Minkovitz, M.D., M.P.P.
Associate Professor. Child development, community pediatrics, maternal depression, children’s health care utilization, preventive services, women’s multiple roles, provider behavior, health systems reform.

Kristin Mmari, Dr.PH., M.A.
Assistant Scientist. Adolescent health, risk and protective factors, youth-friendly health services, developing countries.

W. Henry Mosley, M.D., M.P.H.
Professor. Population change, health policy, demographic and epidemiological change, developing countries, health transition, disease control priorities, strategic leadership, child survival, family planning, international health, distance education.

Patricia O’Campo, Ph.D.
Professor. Women’s health, intimate partner violence, multi-level modeling, infant mortality, social epidemiology, pregnancy, public health, smoking behavior, statistics, violence, AIDS.

Gbolahan Afolabi Oni, Ph.D.
Senior Research Associate. Social determinants of fertility, unmet need, demands for contraceptives, males reproductive health, evaluation, leadership.

David M. Paige, M.D., M.P.H.
Professor.

Phyllis Tilson Piotrow, Ph.D.
Professor.

Rowland V. Rider, Sc.D.
Professor Emeritus.

Kathleen M. Roche, M.S.W., Ph.D.
Assistant Scientist. Low-income families, adolescent pro-social and health-compromising behaviors, neighborhood effects, parenting, independent and adult-like roles among adolescents.

Ismail A. Sirageldin, Ph.D.
Professor Emeritus.

Amy Ong Tsui, Ph.D., M.A.
Professor. Population, fertility, family planning, reproductive health.

Sayeedha Uddin, M.D., M.P.H.
Associate.

Donna M. Strobino, Ph.D.
Professor and Deputy Chair. Social demography; mortality and morbidity in the perinatal period, effect of health programs on perinatal health status, adolescent pregnancy.

Donna M. Strobino, Ph.D.
Professor and Deputy Chair. Social demography; mortality and morbidity in the perinatal period, effect of health programs on perinatal health status, adolescent pregnancy.

Shigui Weng, M.D.
Research Associate.

Laurie Schwab Zabin, Ph.D.
Professor. Social science and policy implications of contraception, abortion, sterilization and adolescent sexual behavior and pregnancy, adolescent pregnancy prevention programs; family planning policy and programs.
Joint Appointments

Jean R. Anderson, M.D.
Associate Professor of Gynecology and Obstetrics, School of Medicine.

Karin J. Blakemore, M.D.
Associate Professor of Gynecology and Obstetrics, School of Medicine.

Benjamin Caballero, M.D., Ph.D.
Professor of International Health.

Tina Lee Cheng, M.D., M.P.H.
Associate Professor in the School of Medicine.

Andrew J. Cherlin, Ph.D.
Professor of Sociology, School of Arts and Sciences.

Robin Chernoff, M.D.
Assistant Professor of Pediatrics, School of Medicine.

Pamela Donohoe, Sc.D.
Assistant Professor in the Department of Pediatrics, School of Medicine.

George J. Dover, M.D.
Professor of Pediatrics, Medicine, and Oncology, School of Medicine.

Jonathan Ellen, M.D.
Associate Professor of Pediatrics, School of Medicine.

Harold E. Fox, M.D.
Professor of Gynecology and Obstetrics, School of Medicine.

Andrea C. Gielen, Sc.D.
Professor of Health Policy and Management.

Alain Joffe, M.D., M.P.H.
Associate Professor of Pediatrics, School of Medicine.

D. Lawrence Kincaid, Ph.D.
Associate Scientist of Health Policy and Management.

Kristen H. Kjerluff, Ph.D.
Associate Professor of Gynecology and Obstetrics, School of Medicine.

Tama Leventhal, Ph.D.
Assistant Research Professor in the School of Medicine.

Ronald Magarick, Ph.D.
Assistant Professor of Gynecology and Obstetrics, School of Medicine.

Michéle M.M. Mazzocco, Ph.D., M.Ed.
Associate Professor in the Department of Psychiatry and Behavioral Sciences in the School of Medicine.

Robert A. Moffitt, Ph.D.
Professor of Economics, School of Arts and Sciences.

Wanda Nicholson, M.D., M.P.H.
Assistant Professor, jointly appointed in the Department of Gynecology and Obstetrics in the School of Medicine.

Mathuram Santosham, M.D., M.P.H.
Professor of International Health.

Janet R. Serwint, M.D.
Associate professor of Pediatrics, School of Medicine.

Phyllis Sharps, R.N., Ph.D.
Associate Professor of Community Health, School of Nursing.

Jeffrey M. Smith, M.D., M.P.H.
Assistant Professor in the Department of Gynecology and Obstetrics in the School of Medicine.

Barbara H. Starfield, M.D., M.P.H.
Professor of Health Policy and Management.

Taha El Tahir Taha, Ph.D., M.B.B.S., M.P.H., M.C.M.
Associate Professor of Epidemiology.

Frank Witter, M.D.
Associate Professor of Gynecology and Obstetrics, School of Medicine.

Departmental Affiliates

Adrienne Allison, M.A., M.P.A.
Associate.

Souleymane Martial Leonard Barry, M.D.
Senior Associate.

Peter Beilenson, M.D., M.P.H.
Associate.

Marc G. Boulay, Ph.D., M.Sc.
Associate.

Yvonne L. C. Bronner, Sc.D., R.D., L.D.
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Senior Associate.

C. Patrick Chaulk, M.D., M.P.H.
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Associate.
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Adjunct Professor.

Maria-Elena Figueroa, Ph.D.  
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Eric M. Fine, M.D., M.P.H.  
Lecturer.

Judith Gallagher, R.N., Ed.M., M.P.A.  
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Juliana S. Gonen, Ph.D.  
Associate.

Susan J.G. Griffey, Dr.PH., M.P.H.  
Associate.

Melissa Hawkins, Ph.D., M.H.S.  
Lecturer.

Catherine A. Hess, M.S.W.  
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Associate.

Baofeng Huang, M.A.  
Associate.

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Lecturer.

Henry T. Ireys, IV, Ph.D.  
Adjunct Associate Professor.

Karin Johnson, Dr.P.H.  
Senior Associate.

Thomas Kane, Ph.D.  
Adjunct Assistant Professor.

Onur Karabacak, M.D.  
Associate.

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Mark A. Klebanoff, M.D., Ph.D.  
Associate.

James A. Litch, M.D., D.T.M.&H.  
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Associate.

Arik V. Marcell, M.D., M.P.H.  
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Noel McIntosh, M.D., Sc.D.  
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Madlyn C. Morreale, M.P.H.  
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Constance Nathanson, M.D., M.P.H.  
Adjunct Professor.

Nandini Maria Oomman, Ph.D.  
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Geri L. Peak, Dr.P.H., M.P.H.  
Associate.

Deborah F. Perry, Ph.D., M.A.  
Lecturer.

Manju Rani, Ph.D., M.B.B.S.  
Associate.

Steven J. Reynolds, M.D., M.P.H., F.R.C.P.C.  
Associate.

José G. Rimón II, M.A.  
Senior Associate.

David L. Rowland, Ph.D.  
Senior Associate.

Gary B. Saffitz, B.A.  
Associate.

Albert P. Sarno, M.D., M.P.H., F.A.C.O.G.  
Adjunct Associate Professor.

Willibrord V. Shasha, M.D., M.P.H.  
Associate.

Triono Soendoro, M.D., Ph.D.  
Senior Associate.

Alan L. Sorkin, Ph.D.  
Senior Associate.

Kai Spratt, Ph.D., M.P.H., B.S.N.  
Associate.

J. Douglas Storey, Ph.D., M.A.  
Senior Associate.

Barbara W. Sugland, Sc.D., M.P.H.  
Senior Associate.

Daniel Taylor-Ide, Ed.D.  
Senior Associate.
Linda Thompson, Dr.P.H.
   Associate.

Carol R. Underwood, Ph.D., M.A.
   Senior Associate.

Karen VanLandeghem, M.P.H.
   Senior Associate.

Susan Russell Walters, R.N., Dr.P.H., M.P.H.
   Lecturer.

Maria Wawer, M.D., M.H.S.
   Adjunct Professor.

Robin Weinick, Ph.D.
   Associate.

James Williams, B.A.
   Associate.
School-affiliated Centers and Institutes

Since the School was founded, its graduate programs have been based on a cardinal principle of the inseparability of research, practice, service and education. Faculty are engaged in investigations that cover a wide variety of disciplines and interests. In addition, there are many education, practice and research centers that operate as departmental and interdepartmental bases for a wide range of activities related to public health. A partial list of these centers and institutes may be found below. Further information may be found in the “Research and Centers” area of the School’s website: www.jhsph.edu/researchcenters/index.html, where all centers are identified and a link to each center’s website is provided.

Adolescent Health Promotion & Disease Prevention
Aging and Health
Alternative to Animal Testing
American Indian Health
Autism and Developmental Disabilities Epidemiology
Autoimmune Disease Research
Bill and Melinda Gates Institute for Population & Reproductive Health
Biostatistics
Clinical Trials
Communication Programs
Evidence-Based Practice
Excellence in Community Environmental Health Practice
Excellence in Environmental Health Tracking
George W. Comstock Center for Public Health Research and Prevention
Global Tobacco Control
Gun Policy and Research
Health Disparities Solutions
Health Effects of Global Environmental Change
Health Services Research and Development
Human Nutrition
Immunization Research
Injury Research & Policy

Institute for International Programs
International Emergency, Disaster and Refugee Studies
Law and the Public’s Health
Livable Future
Malaria Research Institute
Mid-Atlantic Health Leadership Institute
Mid-Atlantic Public Health Training
Occupational Safety & Health
Phoebe R. Berman Bioethics Institute
Prevention of Youth Violence
Population Center
Primary Care Policy Center for Underserved Populations
Public Health Preparedness
Reproductive Research
Research on Services for Severe Mental Illness
Risk Sciences & Public Policy Institute
Roger E. Lipitz Center for Integrated Health Care
Tuberculosis Research
Urban Environmental Health
Urban Health
Vaccine Safety
Water and Health
Welch Center for Prevention, Epidemiology and Clinical Research
Women’s and Children’s Health Policy
Trustees of the University

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Jeremiah A. Barondess*
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Kenneth I. Berns
David H. Bernstein
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Aurelia G. Bolton*
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Andre W. Brewster*
William R. Brody
Randolph W. Bromery*
Constance R. Caplan
William P. Carey*
Roderich M. Carr
A. James Clark*
Charles I. Clarvit
John F. Cooke
Victor J. Dankis*
Anthony W. Deering
Loren R. Douglass
Ina R. Drew
Edward K. Dunn Jr.
Manuel Dupkin II*
Lisa C. Eghbuonu-Davis
Marjorie M. Fisher
Pamela P. Flaherty
James A. Flick Jr.*
Richard S. Frary
Gottlieb C. Friesinger II*
Mario Garraffo
Stephen Goutman
Sanford D. Greenberg
Benjamin H. Griswold III*
Benjamin H. Griswold IV
Willard Hackerman*
Robert D. H. Harvey*
Rafael Hernandez-Colon*
Christopher Hoehn-Saric
Alice S. Huang
Stuart S. Janney III
Robert L. Johnson
G. Donald Johnston Jr.*
Edward J. Kelly III

Jeong H. Kim
J. Barclay Knapp
David H. Koch
W. Wallace Lanahan Jr.*
Joanne Leedom-Ackerman
Alexander H. Levi
Marjorie G. Lewisohn*
Kwok-leung Li
F. Pierce Linaweaver
Sol M. Linowitz*
Roger C. Lipitz
Edward J. Ludwig
Christina Mattin
Gail J. McGovern
Harvey M. Meyerhoff*
Kweisi Mfume
Charles D. Miller*
Milton H. Miller*
Diana G. Morz
Nanee H. Neubohn
Paul H. Nitze*
Ronald M. Nordmann
Ralph S. O’Connor*
Morris W. Offit
Elizabeth Owens
Samuel J. Palmisano
Anne M. Pinkard*
Walter D. Pinkard Jr.
Christian H. Poinexter
George G. Radcliffe*
Joseph R. Reynolds Jr.
Steven H. Reynolds
Bert C. Roberts Jr.
David M. Rubenstein
Mark E. Rubenstein
John F. Ruffle
LaTonya D. Russell
Arthur Sarnoff*
Frank Savage
Wayne N. Schelle
Vadim M. Schick
Herschel L. Seder*
Robert A. Seder
Huntington Sheldon*
Donald J. Shepard
R. Champlin Sheridan Jr.*
Rajendra Singh
Wendell A. Smith*
Helmut Sonnenfeldt*
Shale D. Stillier
Morris Tanenbaum*
Adena W. Testa
Edward G. Uhl*
William F. Ward Jr.
Calman J. Zamoiski Jr.*

*Trustee emeritus
Principal Administrative
Officers and Deans

President of the University
William R. Brody

Provost and Senior Vice President for Academic Affairs
Steven Knapp

Senior Vice President for Finance and Administration
James T. McGill

Vice President and General Counsel
Kumiki Gibson

Vice President for Development and Alumni Relations
Robert R. Lindgren

Vice President for Government, Community, and Public Affairs
Linda L. Robertson

Chief Executive Officer of Johns Hopkins Medicine, Vice President for Medicine, and Dean of the Faculty of Medicine
Edward D. Miller

Vice President for Human Resources
Charlene Moore Hayes

Vice Provost for Academic Affairs, Vice Dean for Undergraduate Education
Paula P. Burger

Vice Provost and Director of the JHU European Office
Stephen M. McClain

Vice Provost for Academic Services
Edgar E. Roulhac

Vice Provost for Research
Theodore O. Poehler

Chief Information Officer and Vice Provost for Information Technology
Stephanie L. Reel

Associate Provost for Academic Affairs
Pamela Cranston

Associate Provost for Research and Chair of the Graduate Board
Gary Ostrander

Associate Provost for Budgets and Planning
James J. Zeller Jr.

Associate Provost and Director of the Office of Equal Opportunity and Affirmative Action
Ray Gillian

Executive Assistant to the President and Secretary of the Board of Trustees
Jerome D. Schnydtman

Treasurer
William E. Snow Jr.

Dean of the Krieger School of Arts and Sciences
Daniel H. Weiss

Interim Dean of the Whiting School of Engineering
Andrew S. Douglas

Dean of the Johns Hopkins Bloomberg School of Public Health
Michael J. Klag

Dean of the School of Nursing
Martha Hill

Dean of the Nitze School of Advanced International Studies
Jessica P. Einhorn

Dean of the School of Professional Studies in Business and Education
Ralph Fessler

Director of the Peabody Institute
Robert Sirota

Director of the Applied Physics Laboratory
Richard T. Roca

Dean of University Libraries
Winston Tabb
Advisory Board of the Faculty
(As of June 1, 2005)

William R. Brody, President
Steven Knapp, Provost
Robert Black
Robert Blum
Ron Brookmeyer
Marie Diener-West
William Eaton
Diane Griffin
John Groopman
Martha Hill
Robert Lawrence

Roger McMacken
Edward Miller
Jonathan Samet
Alfred Sommer
E. William Spannhake
Donald Steinwachs
Jonathan Weiner
James Yager
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Robin Fox, Staff

Administration

Dean
Alfred Sommer
Senior Associate Dean, Academic Affairs
James Yager
Senior Associate Dean, Finance and Administration
Herbert R. Hansen Jr.
Associate Dean, External Affairs
Sylvia J. Eggleston Wehr
Associate Dean, Graduate Education and Research
Sharon Krag
Associate Dean, Professional Practice and Programs
Robert S. Lawrence
Associate Dean, Academic Affairs
Robin Fox
Associate Dean, Research Administration
Donna Helm
Associate Dean, Student Affairs
Michael L. Ward
Assistant Dean, Finance
Jane Schlegel
Director of Admissions
Joan Anson
Director of Alumni Relations and Governmental Affairs
Ricky Fine
Director of Architectural Services
Michael J. Linehan

Director of Development
Linda Smeke
Director of Facilities Management,
Michael Schoeffield
Director of Graduate Education
Catherine Klein
Director of Human Resources
Cherita Hobbs
Director of Information Systems
Ross McKenzie
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Patricia German
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Thea Glidden
Director of Records and Registration
Teresa Schwartz
Director of Student Career Services
Betty H. Addison
Director of Student Diversity
Lenora Davis
Director of Student Financial Services
Gregory Winkler
Director of Support Services
Scott McVicker
Chair of MPH Program
Ron Brookmeyer
Standing Committees of the Faculty

As of June 2005

The composition of all Committees is subject to change for the 2005–06 academic year.

Committee on Academic Standards
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