<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message from the Director</td>
<td>1</td>
</tr>
<tr>
<td>Welch Center 25th Anniversary</td>
<td>3</td>
</tr>
<tr>
<td>Honoring Drs. Brancati &amp; Kao</td>
<td>5</td>
</tr>
<tr>
<td>Training &amp; Education</td>
<td>9</td>
</tr>
<tr>
<td>Local Outreach</td>
<td>11</td>
</tr>
<tr>
<td>Global Reach</td>
<td>13</td>
</tr>
<tr>
<td>Core Faculty</td>
<td>15</td>
</tr>
<tr>
<td>Associate Faculty</td>
<td>21</td>
</tr>
<tr>
<td>Impactful Science</td>
<td>23</td>
</tr>
<tr>
<td>Recent Kudos</td>
<td>26</td>
</tr>
</tbody>
</table>
Mission

Improve population health by conducting rigorous research that integrates clinical medicine with public health expertise
Train the next generation of interdisciplinary researchers and scholars

Research

Understand the etiology of chronic disease and disability
Develop and evaluate strategies that promote health and prevent disease
Translate discoveries into clinical practice and health policy

Core Values

Integrity       Collaboration
Excellence      Respect
Leadership     Collegiality
Diversity       Innovation
Inclusion       Mentoring
The Welch Center for Prevention, Epidemiology and Clinical Research (aka the Welch Center) remains a vibrant, intellectually stimulating, and highly productive academic unit that bridges the Schools of Medicine and Public Health at Johns Hopkins. In 1989, the Dean of the School of Public Health (DA Henderson), the Dean of the School of Medicine (Richard Ross), the Chair of Epidemiology (Leon Gordis), and Paul Whelton (an emerging institutional leader) established the Welch Center. Since its inception, the Welch Center developed and sustained a well-earned reputation for its academic rigor, collegial environment, and interdisciplinary approach to conducting high quality research and educating a diverse cadre of trainees.

In celebration of our 25th anniversary, we held a symposium attended by numerous luminaries, including current and former trainees and faculty – Leon Gordis, Paul Whelton, Neil Powe, Al Sommer, Mike Klag, Linda Fried, and Dan Ford. Mike Lauer, MD, Director of the Division of Cardiovascular Sciences at the National Heart, Lung and Blood Institute, gave the keynote address. Especially memorable were remarks made by Ron Daniels, President of The Johns Hopkins University.

Over the past few years (2014–2018), Welch Core faculty members have:

- Published nearly 300 papers each year in peer-reviewed journals.
- Directed or co-directed ~30 courses
- Trained over 100 students in the School of Medicine and the Bloomberg School of Public Health
- Made scientific discoveries related to risk prediction, prognosis, prevention, and treatment
- Fostered a highly collegial environment that cultivates future leaders in academic medicine and public health
- Promoted diversity and inclusion across several dimensions, including race-ethnicity, gender, and scientific disciplines
- Led an impressive portfolio of research across the spectrum of epidemiologic, clinical, and translational research.
- Contributed substantively to major institutional initiatives, including the Institute for Clinical and Translational Research (ICTR) and the Patient-Centered Clinical Research Network (PCORnet)
- Collaborated with Johns Hopkins Health Care, Walgreens, and Healthways to support translation of research findings
- Sustained large research programs in the community (ProHealth in West Baltimore and the George W Comstock Center in Hagerstown)
- Initiated major new initiatives, including Johns Hopkins Center for Health Equity, the American Heart Association Strategically Focused Research Network on Obesity, the Resolve to Save Lives initiative to improve hypertension control globally, the Chronic Kidney Disease Prognosis Consortium, and the Alacrity Center for Health and Longevity in Mental Illness.

Notwithstanding our success, we have also experienced great sadness. Three beloved faculty members passed away – Nancy Fink, Fred Brancati, and Linda Kao. We dearly miss them. Subsequently, three of the four Hopkins leaders who founded the Welch Center died – Leon Gordis, Richard Ross, and DA Henderson. We remain indebted to them for their vision and wisdom.

Looking ahead to the next 25 years, I remain optimistic. Despite many challenges, we have flourished. I am confident that our faculty and trainees will remain incredibly successful and that the Welch Center will continue to be a model interdisciplinary unit at Hopkins and elsewhere.

Lawrence J Appel, MD, MPH
C. David Molina Professor of Medicine, Epidemiology and International Health
Director, Welch Center for Prevention, Epidemiology and Clinical Research
FAST FACTS

• Since 2010, research revenue, mostly from NIH and other federal sources, has increased 40% from $25 million to $35 million in 2018.

• Of the 34 Welch Core faculty, 18 have received a major teaching or mentoring award.

• Between 2014 and 2018, Welch core faculty have published over 1,400 articles.

Core Faculty Demographics:

- Gender:
  - Male: 47%
  - Female: 53%

- Race/Ethnicity:
  - Non-Minority: 68%
  - Under-Represented Minority: 32%
A quarter of a century of paradigm-shifting research. National influence. Our East Baltimore schools meeting in critical collaboration, a scientific estuary within Johns Hopkins, just blocks away from the Inner Harbor, part of one of the world’s great natural estuaries.

25 years ago, of course, the Welch Center was in its nascent stages, its future uncertain. As today’s discussions have shown, the world was a different place. In 1989, some people were making the first dial-up connections to a mysterious entity called the Internet.

Indeed, I like to think of the Welch Center as just such a natural confluence. An estuary, where saltwater mingles with fresh, at a flexible margin that gathers force from both sides. The ocean changes the river; the river changes the ocean. And their resources and energy combine to create within the estuary another, unique body of water, teeming with life, which also reshapes the surrounding environment.

And as Dr. Whelton has reported, hardcore epidemiologists were highly doubtful that collaboration between clinical and preventive sciences would work.

In fact, Paul put an even finer point on it: Those early skeptics kindly referred to the Welch Center as “the Pet Rock of medicine.”

Our University is fortunate that the Center’s creators, Paul Whelton and Leon Gordis, and our visionary deans DA Henderson and Richard Ross, pursued their decidedly un-faddish enterprise. For indeed, the Welch Center has flourished, fostering a fertile cross-disciplinary ecosystem at the nexus of medicine, nursing and public health, where ideas turn into action and improve health outcomes informed by holistic, comprehensive data.

And like an estuary, the Center has changed the environment that surrounds it. As today’s panels reflect,
examples abound. From the Center’s core role in deepening and expanding our understanding and approach to treating cardiovascular disease, to establishing national policy benchmarks in diet and nutrition, to addressing disparities of race and socioeconomic status in healthcare, the Welch Center has fundamentally shifted society toward long-lasting, life-saving evidence-based behavioral changes.

The collegiality and openness to critical thinking that nourished the Welch Center in its infancy continues to sustain its rich collaborations today. They fuel its ability to adapt in an era of constrained funding, and to forge new partnerships across our University and health system that are driving toward a future where population health is the norm, improving individual lives and the lives of our communities, and reshaping the boundaries of healthcare research and delivery.

To an institution that takes justifiable pride in collective effort, I offer my thanks for all you have done to ensure the success of this critical part of our University, pioneering this visionary effort, and under the direction of Dr. Lawrence Appel and our university leaders, carrying forward that vision into the next quarter century.
Welch Center has lost two beloved colleagues during the several past years.

**Dr. Frederick Brancati**, University Distinguished Service Professor, Director of General Internal Medicine Division, and former Interim Director of the Welch Center, died of ALS at the age of 53 in 2013. Fred was a successful and extraordinary diabetes researcher and a devoted mentor. He received the Kelly West Award from the American Diabetes Association, the highest honor for diabetes epidemiologists. Fred was a gifted teacher who received numerous teaching awards. His wisdom and humor will be forever missed.

**Dr. Wen Hong Linda Kao**, Professor of Epidemiology, passed away in 2014 at the age of 42. A world-class genetic epidemiologist, Linda dedicated her research to understanding the mechanisms of kidney disease, cardiovascular disease, and diabetes. Her research on APOL1 as a major contributor to racial disparities of kidney failure was recognized as one of the top 10 clinical research achievements of 2013 by the Clinical Research Forum. Linda was well-respected by her colleagues and deeply loved by her trainees, who selected her for teaching and mentoring awards. In spite of her success, Linda remained humble. Her legacy is an inspiration to all who knew her.

It’s impossible to forget someone who gave you so much ...
WHAT MAKES THE WELCH CENTER special?
STRONG MENTORSHIP
COLLABORATIVE RESEARCH
COLLEGIATE LEADERSHIP INCUBATOR
RIGOROUS TRAINING
DIVERSE COMMUNITY ENGAGEMENT
INCREdbLely STIMULATING
INNOVATIVE HIGH IMPACT STUDIES
PROFESSIONAL DEVELOPMENT
The Welch Center serves as home to a broad spectrum of trainees, including high school and undergraduate students, masters’ and doctoral degree candidates, medical students, medical residents, post-doctoral fellows, and junior faculty. Our training produces interdisciplinary researchers with a highly specialized and valued set of skills. Our approach to mentorship enables our trainees to become leaders in the field of their choosing. Our graduates hold faculty positions at prestigious institutions, governmental agencies, NGOs, and industries.

No matter their end goal, we instill in our trainees a highly collaborative, interdisciplinary, and intensive work ethic, preparing them for future success.

Welch Center faculty serve as leaders on six training grants funded by the NIH. Through various training grants, Welch Center faculty identify and invest in new talent by providing them with the guidance, mentorship, and resources to succeed:

- Johns Hopkins Clinical Research Scholars Program (KL2)
- Predoctoral Clinical Research (TL1)
- Clinical and Cardiovascular Disease Epidemiology (T32)
- Renal Disease Epidemiology (T32)
- Clinical Research and Epidemiology in Diabetes and Endocrinology (T32)
- Behavioral Aspects of Heart and Vascular Diseases (T32)

In the School of Medicine, our faculty direct several courses for medical students, including: Scholarly Concentration, Clinical Epidemiology, Introduction to Clinical Research, Nutrition TIME course, Renal Pathophysiology, Healthcare Disparities and Cultural Competency, and HealthCare Disparities - Horizontal Strand.

In the Bloomberg School of Public Health, Welch Center faculty direct three academic concentrations: Clinical and Cardiovascular Disease Epidemiology, Environmental Epidemiology, and Epidemiologic and Biostatistical Methods for Public Health and Clinical Research. Moreover, faculty direct or co-direct more than 15 courses.

The Welch Center also hosts seven seminars, journal clubs, and interest groups. Through these interactions, faculty and trainees present and discuss emerging scientific findings and brainstorm new research agendas:

- Clinical Epidemiology Research in Progress
- CVD and Clinical Epidemiology Journal Club
- Welch Center Clinical Research Grand Rounds
- Diabetes and Obesity Interest Group
- Health Equity Research Jam Sessions
- Renal Disease Interest Group
- Methods and Ideas in Cardiovascular Epidemiology Interest Group
“The atmosphere of collaboration, mentorship, and opportunity for professional development is unparalleled. The journal clubs and grand rounds were especially enriching. The Welch Center is truly a wonderful place for trainees. Having accessible mentors that promoted their trainees afforded me a sense of confidence knowing that there was support to address obstacles, and also gave me a chance to experience the many exciting and rewarding aspects of an academic career, which helped form my values in a long-term career.”

- Stephen Juraschek, former trainee

“The Welch Center is a fantastic environment to train because of its people. The faculty are not only world-class researchers, but deeply invested in teaching and mentoring students. My fellow students are not only brilliant, but incredibly supportive of one another. The staff also go above and beyond every day. Sometimes it’s hard to believe I ended up in such an amazing place.”

- Chiadi Ndumule, former trainee

“I wanted to get great training and supportive mentorship in a highly collaborative environment. I also wanted a place where I would interact with talented faculty and trainees with diverse backgrounds and perspectives. The Welch Center perfectly fit that bill.”

- Kathryn Foti, current trainee

“The Welch Center is a wonderful intersection of inspiring individuals, phenomenal research, and dedicated mentorship. Being a student here has been an incredible privilege— I have had the amazing opportunity to work with people who constantly inspire me and who serve as role models for the future career I hope to build. At the Welch Center, the faculty go above and beyond to prioritize and guide our training, our peers are always there for support and encouragement, and the projects are exciting and meaningful.”

- Olive Tang, current trainee

CORE RESEARCH FACILITIES

The Welch Center has two outstanding community-based research facilities that have allowed students the opportunity to examine and work with large datasets.

The Pro-Health Clinical Research Unit is a 15,000 square foot facility that has been the site for several landmark studies including Dietary Approaches to Stop Hypertension (DASH), the Diabetes Prevention Program (DPP), the African-American Study of Hypertension and Kidney Disease (AASK), and so many more. Jeanne Charleston oversees research operations at ProHealth.

The George W. Comstock Center for Public Health Research and Prevention is a facility that houses research staff on the prevention of disease, particularly heart disease, cancer, and stroke, and also serves as a resource for the Washington County Health Department in the areas of public health surveillance and assessment. The Comstock Center is involved in several, multi-site, epidemiologic studies, including Atherosclerosis Research in the Community (ARIC). Melissa Minotti oversees operations at the Comstock Center.
Brancati Center

The mission of the Johns Hopkins Brancati Center for the Advancement of Community Care is to improve the health of communities by developing, evaluating, and disseminating new models of healthcare that leverage the skills of a diverse range of healthcare providers. Established in 2014 by a philanthropic gift from Walgreens, the Center is endowed in the name and vision of Dr. Frederick Brancati, a highly regarded clinician, researcher, and mentor who died at age 53 from amyotrophic lateral sclerosis (ALS). In partnership with community organizations, the Brancati Center has established programs focused on diabetes prevention, diabetes self-management, smoking cessation, health screening, and a youth pipeline program. Welch Center faculty include Jeanne Clark, Executive Director; Nisa Maruthur, Director of Community Partnership; and Raquel Greer, Director of Education.

Johns Hopkins Community Health Partnership

Johns Hopkins Community Health Partnership (J-CHiP) was a Center for Medicare & Medicaid Innovation Healthcare Innovation project designed to improve care coordination across the continuum in East Baltimore. A team of scientists in the Welch Center (Larry Appel and Felicia Hill-Briggs, Co-Directors; Jessica Yeh) led an evaluation of the community-based programs of this initiative which provided services to large numbers of East Baltimore residents. The specific programs were a combined nurse case manager/community health worker program (J-CHiP Classic) and initiatives at two community organizations: The Men and Family Center and Sisters Together and Reaching, Inc.

The Johns Hopkins Center for Health Equity

The Johns Hopkins Center for Health Equity was established in 2010 with a program project grant from the National Heart, Lung and Blood Institute. The center promotes equity in health and healthcare for socially at-risk populations through advancing scientific knowledge, educating and training scholars, engaging and partnering with communities, raising public awareness of health inequities, and advocating for changes in clinical practice and policy. Lisa Cooper leads the Center; which includes approximately 40 Center faculty (16 from the Welch Center) and 25 staff. Our experience spans more than 30 years of innovative research and practice.
The RICH LIFE (Reducing Inequities in Care of Hypertension: Lifestyle Improvement for Everyone) Project, is a cluster randomized trial to lower blood pressure and heart disease risk among ethnic minority, low income, and rural populations. The trial compares standard clinical performance feedback and education for providers and staff to a more comprehensive approach of workshops for health system leaders, a structured team approach to care, and access to subspecialists or community health workers as needed for patients with hypertension. RICH LIFE -- funded by the National Heart, Lung, and Blood Institute (NHLBI) in collaboration with the Patient-Centered Outcomes Research Institute (PCORI), and directed by Co-Principal Investigators Lisa A. Cooper and Jill A. Marsteller -- engages a diverse group of stakeholders.

Five Plus Nuts & Beans for Kidneys Project is a two-arm randomized controlled trial to study how eating meals rich in fruits, vegetables, whole grains, nuts, beans, and lean meats can lower blood pressure and prevent kidney disease from progressing. People with high blood pressure often have low levels of key nutrients found in these foods, and those who live in low-income urban environments frequently have limited access to them. Partners include Klein’s ShopRite stores of Maryland (a local grocer), and Sisters Together and Reaching (S.T.A.R.), a nonprofit, federally recognized, Community-Based/Faith-Based Organization in Baltimore City. Results should help inform, and advocate for changes in, health and social policy. The study is funded by the National Institute for Minority Health and Health Disparities; Deidra C. Crews and Edgar R. Miller III are the Co-Principal Investigators.

Social network influences on lifestyle and obesity among populations at high cardiovascular disease (CVD) risk

In 2013, Kim Gudzune was awarded a grant from NHLBI – “Reducing obesity among public housing residents: an ecological approach” -- to identify modifiable social network factors that promote healthy diet, physical activity, and healthy weight among public housing residents, who are disproportionately impacted by CVD risk factors and have an obesity prevalence of greater than 50%. The results showed a strong association between public housing residents’ and their networks’ daily consumption of high added sugar foods, and between individuals being physically active and networks’ weekly participation in vigorous exercise, plus an inverse relationship between weight status and network exposure to overweight/obesity. These findings led to testing a social network intervention to reduce sugar-sweetened beverage (SSB) intake among adults living in public housing – Sugar Champ – that has demonstrated promising results, leading to the goal of establishing a new paradigm of targeting social networks to promote lifestyle behavior change and prevent CVD.
Global Reach

Chronic Kidney Disease - Prognosis Consortium

The Chronic Kidney Disease Prognosis Consortium (CKD-PC) aims to improve clinical practice and research, mainly for kidney disease, by conducting sophisticated meta-analyses of the best available data from across the globe. Established in October 2009, Welch Center faculty played pivotal roles in establishing the consortium which now includes over 80 cohorts with more than 11 million study participants from over 40 countries. CKD-PC has informed clinical guidelines and regulatory agencies on how to improve kidney disease staging, improve kidney function estimation, refine criteria for kidney disease outcomes in clinical trials, and evaluate optimal donors for kidney transplantation. Participating core faculty include Joe Coresh, Co-PI; Morgan Grams, Co-PI & Director of Nephrology Initiatives; and Kuni Matsushita, Director of the CKD-PC Data Coordinating Center.

Guatemala Liver Disease Study

Guatemala has the highest rate of liver cancer in the Western Hemisphere. In partnership with the Institute of Nutrition of Central America and Panama (INCAP), an established WHO-research center in Guatemala, and the US National Cancer Institute, Welch Center investigators conducted a major survey of Guatemalan men and women from rural and urban areas to identify established and novel risk factors for liver disease and liver cancer, and the presence of intermediate liver outcomes. They documented extremely elevated levels of aflatoxin, a well-known liver toxin and liver carcinogen, among the highest that have been observed globally. Contaminated corn is likely a major source of aflatoxin. In addition, the study found very high levels of metabolic risk factors (obesity, diabetes, metabolic syndrome, and dyslipidemia), and of non-alcoholic fatty liver disease. Participating Welch Center faculty include Eliseo Guallar and Mariana Lazo.

Resolve to Save Lives

Resolve to Save Lives is a major global initiative to prevent cardiovascular disease in low and middle-income countries. This 5-year project (2017-2021), with a goal of saving 100 million lives, is sponsored by Bloomberg Philanthropies, the Bill & Melinda Gates Foundation, and the Chan Zuckerberg Foundation; Tom Frieden is the Chief Executive Officer of this initiative. A team of scientists based in the Welch Center provides guidance on scientific and technical matters, training, program evaluation, and capacity building for two components of this initiative: sodium reduction and hypertension control. Participating Welch Center faculty include Larry Appel, Director; Kuni Matsushita, Co-Director; Raquel Greer, Eliseo Guallar, and Edgar R. Miller III.

Kangbuk Samsung Cohort Study

The Kangbuk Samsung Cohort Study (KSCS) is a unique observational study of ~600,000 adult men and women who have participated since 2002 in regular health screening exams at the Total Healthcare Centers of the Kangbuk Samsung Hospital in Seoul and Suwon, South Korea. The study has detailed follow-up information on multiple phenotypes based on questionnaire data, physical exams, laboratory analyses, and specialized imaging and ancillary studies. KSCS, which also has detailed data on the trajectories of multiple chronic disease risk factors in young and middle-age adults, has produced numerous high impact publications and has contributed major novel insights in the areas of metabolically healthy obesity, non-alcoholic fatty liver disease, subclinical hypothyroidism, and the progression of coronary artery calcium. Eliseo Guallar leads the data analysis unit at Johns Hopkins.
Trinidad and Tobago Health Sciences Initiative

The Diabetes Research Program (DRP) was a 4-year initiative under the Trinidad and Tobago Health Sciences Initiative, a partnership between Johns Hopkins International, the Johns Hopkins School of Medicine, and the Government of the Republic of Trinidad and Tobago. Its mission was to provide data-driven evidence to guide the Ministry of Health in allocating resources for preventing and treating diabetes. Some of DRP’s accomplishments include: an updated practice guideline, Managing Diabetes in Primary Care in the Caribbean, in partnership with the Pan American Health Organization and the Caribbean Health Research Council; a surveillance study of overweight and obesity in primary school children; and a Diabetes Clinical Research Visiting Fellowship program for physician leaders. Using study databases, three young Trinidadian researchers obtained master’s degrees. Participating Welch Center faculty included Felicia Hill-Briggs, Director; Mariana Lazo; and Jessica Yeh.
MEET OUR
CORE FACULTY
Lawrence J. Appel, MD, MPH
Director, Welch Center
C. David Molina Professor of Medicine with Joint Appointments in Epidemiology, International Health, and Nursing
Director, ProHealth Clinical Research Unit
Research Interests: prevention and control of elevated blood pressure and its clinical consequences-cardiovascular disease and kidney disease; lifestyle modification and behavior change

Hsin-Chieh “Jessica” Yeh, PhD
Associate Director, Welch Center
Associate Professor of Medicine with Joint Appointments in Epidemiology and Oncology
Research Interests: epidemiology of obesity and diabetes, and their relationship with cancer

Mary Catherine Beach, MD, MPH
Professor of Medicine with Joint Appointment in Health, Behavior & Society
Course Director, Scholarly Concentrations
Program Director, Predoctoral Clinical Research Training Program
Research Interests: health care quality for underserved populations; patient-clinician communication; sickle-cell disease; HIV and substance abuse; bioethics; respect

Wendy Bennett, MD, MPH
Associate Professor of Medicine with Joint Appointments in Epidemiology and Population, Family & Reproductive Health
Co-Director, The Johns Hopkins Center for Women’s Health, Sex & Gender Research
Research Interests: lifestyle and health behavior changes in pregnancy to promote healthy weight gain, and prevent adverse pregnancy outcomes and future chronic disease.

Kathryn A. Carson, ScM
Sr. Research Associate, Department of Epidemiology with Joint Appointment in Medicine
Associate Director, Methods & Shared Resources, Center for Health Equity
Research Interests: design and analysis of clinical trials; disparities research; cardiovascular disease and hypertension

Jeanne M. Clark, MD, MPH, FACP, FTOS
‘Frederick L. Brancati, MD’ Professor of Medicine with Joint Appointment in Epidemiology
Director, Division of General Internal Medicine
Executive Director, Brancati Center for the Advancement of Community Care
Research Interests: obesity; diabetes mellitus; nonalcoholic fatty liver disease
Lisa A. Cooper, MD, MPH
Professor of Medicine with Joint Appointments in Nursing, Epidemiology, and Health Policy & Management
James F. Fries Professor of Medicine
Bloomberg Distinguished Professor, Equity in Health & Healthcare
Director, Johns Hopkins Center for Health Equity

Research Interests: patient-centered, community-engaged interventions to reduce health disparities and improve health outcomes among socially disadvantaged populations; patient-physician communication and relationships; primary care of patients with chronic conditions

Josef Coresh, MD, PhD
Professor of Epidemiology with Joint Appointments in Biostatistics and Medicine
George W. Comstock Professor
Director, George W. Comstock Center for Public Health Research & Prevention

Research Interests: vascular disease in the heart, brain and kidney using cohort studies to understand risk factors and biomarkers that can guide prevention of cardiovascular disease and kidney disease

Deidra C. Crews, MD, ScM
Associate Professor of Medicine with Joint Appointment in Nursing
Associate Vice Chair, Diversity & Inclusion, Department of Medicine

Research Interests: hypertension; kidney disease; health equity; social determinants of health; nutrition; older adults

Rosa M. Crum, MD
Professor of Epidemiology and Medicine with Joint Appointment in Psychiatry & Behavioral Sciences
Associate Director, Johns Hopkins Clinical Research Scholars Program

Research Interests: psychiatric disorders; mental illness; alcohol and substance use disorders

Gail L. Daumit, MD, MHS, FACP
Samsung Professor of Medicine with Joint Appointments in Psychiatry & Behavioral Sciences, Epidemiology, Health Policy & Management, and Mental Health
Research Director, Division of General Internal Medicine
Director, Johns Hopkins ALACRITY Center for Health & Longevity in Mental Illness

Research Interests: cardiovascular disease risk and premature mortality in persons with mental illness; lifestyle and health behavior interventions, health services research, implementation science, patient safety
Daniel E. Ford, MD, MPH
David M. Levine Professor of Medicine with Joint Appointments in Epidemiology, Health Policy & Management, and Psychiatry & Behavioral Sciences
Director, Johns Hopkins Institute for Clinical & Translational Research
Vice Dean, Clinical Investigation
Research Interests: pragmatic clinical trials; clinical research informatics; smoking cessation; improving efficiency and quality of clinical trials

Sherita H. Golden, MD, MHS
Professor of Medicine with Joint Appointment in Epidemiology
Hugh P. McCormick Family Professor of Endocrinology & Metabolism
Executive Vice-Chair, Department of Medicine
Research Interests: diabetes mellitus; cardiovascular disease and endocrine epidemiology; inpatient diabetes health service research; mental health complications of diabetes; diabetes health disparities

Rebecca F. Gottesman, MD, PhD
Professor of Neurology with Joint Appointment in Epidemiology
Research Interests: vascular contributions to cognitive impairment and dementia; cognitive consequences of stroke; cognitive deficits in congestive heart failure and other cardiac diseases

Morgan E. Grams, MD, MHS, PhD
Associate Professor of Medicine with Joint Appointment in Epidemiology
Research Interests: kidney disease; metabolomics and genetics; pharmacoepidemiology; risk estimation

Raquel C. Greer, MD, MHS
Assistant Professor of Medicine
Co-Director, Clinical Epidemiology Curriculum
Education Director, Johns Hopkins Brancati Center for the Advancement of Community Care
Research Interests: health care quality and health equity among persons with chronic kidney disease and chronic kidney disease risk factors, including hypertension and diabetes; patient-physician communication; care coordination
Eliseo Guallar, MD, DrPH
Professor of Epidemiology with Joint Appointment in Medicine
Director, Environmental Epidemiology Track
Co-Director, Center for Clinical Epidemiology, Samsung Medical Center

Research Interests: cardiovascular disease and chronic disease epidemiology; environmental risk factors for chronic diseases; nutritional epidemiology

Kimberly Gudzune, MD, MPH, FTOS
Assistant Professor of Medicine
Clinical Director, Preventive Medicine Residency Program

Research Interests: influence of obesity on the healthcare experience; lifestyle modification and health behavior among populations at risk for cardiovascular disease and obesity; translation of behavioral interventions into clinical practice and community settings

Felicia Hill-Briggs, PhD, ABPP
Professor of Medicine with Joint Appointments in Physical Medicine & Rehabilitation, Health, Behavior, & Society, and Nursing
Sr. Director, Population Health Research & Development, Johns Hopkins HealthCare
Co-Lead, Behavioral, Social & Systems Science, Johns Hopkins Institute for Clinical & Translational Research

Research Interests: prevention and self-management of diabetes, cardiovascular disease, chronic kidney disease; health equity; population health improvement and management; global health

Mariana Lazo, MD, PhD, ScM
Assistant Professor of Medicine with Joint Appointment in Epidemiology

Research Interests: Hispanic/Latino race health disparities; epidemiology of liver diseases, cardiovascular disease, hypertension, diabetes mellitus and obesity; epidemiology of alcohol consumption

Nisa Maruthur, MD, MHS
Associate Professor of Medicine with Joint Appointments in Epidemiology and Nursing
Director, General Internal Medicine Fellowship Program
Director of Community Partnership, The Brancati Center for the Advancement of Community Care

Research Interests: diabetes prevention; type 2 diabetes; obesity; clinical trials
Kunihiro Matsushita, MD, PhD
Associate Professor of Epidemiology with Joint Appointment in Medicine

Research Interests: peripheral vascular disease, cardiovascular disease, kidney disease, and hypertension; obesity and diabetes

Edgar R. Miller III, MD, PhD
Professor of Medicine with Joint Appointments in Epidemiology and Nursing
Deputy Director, Johns Hopkins Institute for Clinical & Translational Science
Director, Clinical Research Scholars Program (KL-2)

Research Interests: hypertension; kidney disease; nutrition

Noel T. Mueller, PhD, MPH, FAHA
Assistant Professor of Epidemiology

Research Interests: microbiome, nutrition, life-course and environmental epidemiology; prevention of obesity, diabetes mellitus, hypertension and cardiovascular disease

Craig E. Pollack, MD, MHS
Associate Professor of Health Policy & Management with Joint Appointment in Medicine
Co-Director, General Internal Medicine Fellowship Program

Research Interests: cancer health services research with an emphasis on the role of provider and patient social networks to improve the quality of care; social determinants of health with a focus on housing policy and neighborhood environments

Tanjala S. Purnell, PhD, MPH
Assistant Professor of Medicine with Joint Appointments in Epidemiology and Health Behavior & Society
Director, Community & Stakeholder Engagement for the Epidemiology Research Group in Organ Transplantation
Associate Director, Education & Training at the Johns Hopkins Center for Health Equity

Research Interests: epidemiology and health services research related to kidney disease transplantation; health equity; cardiovascular disease, hypertension, obesity and diabetes
Casey M. Rebholz, PhD, MS, MNSP, MPH
Assistant Professor of Epidemiology
Research Interests: cardiovascular disease and hypertension; kidney disease; biomarkers; omics; nutrition

Elizabeth Selvin, PhD, MPH
Professor of Epidemiology with Joint Appointment in Medicine
Director, Cardiovascular & Clinical Epidemiology Track
Research Interests: diabetes and cardiovascular disease; diagnostics and biomarkers for screening and diagnosis of diabetes and cardiovascular disease; optimizing approaches to screening and management of prediabetes and diabetes; interface of epidemiology and clinical and public health policy.

Adrienne Tin, PhD, MS
Assistant Scientist, Department of Epidemiology
Research Interests: genetic and non-genetic susceptibility for chronic kidney disease and related traits (e.g. uric acid and gout); novel targets for prevention and treatment of chronic kidney disease

Nae-Yuh Wang, PhD, MS
Associate Professor of Medicine with Joint Appointments in Epidemiology and Biostatistics
Director, Childhood Development After Cochlear Implantation Study Data Coordinating Center
Director, Biostatistics Sub-Core & Clinical Trial Sub-Core, Health Care & Population Science Core
Director, Biostatistics, Bayview General Clinical Research Unit
Research Interests: statistical and epidemiologic methods; pediatric cochlear implantation; epidemiology; kidney transplants; biostatics; weight loss; type 2 diabetes; multicenter studies; randomized controlled trials; longitudinal data analysis

J. Hunter Young, MD, MHS
Associate Professor of Medicine with Joint Appointments in Epidemiology and Obstetrics & Gynecology
Medical Director, Patient Services, Johns Hopkins International
Clinical Director, Johns Hopkins International Clinic
Research Interests: epidemiology and management of the components of the cardiometabolic syndrome including insulin resistance, hypertension, and dyslipidemia
MEET OUR ASSOCIATE FACULTY

Hanan Aboumatar, MD, MPH
Shoshana Ballew, PhD
Romsai Tony Boonyasai, MD, MPH
Tammy Brady, MD, PhD
Jeannne Charleston, PhD
Teresa Chen, MD, MHS
Janelle W. Coughlin, PhD
Arlene Taylor Dalcin, RD, MS
Jennifer A. Deal, MHS, PhD
Jennifer Dodson, MD
Patti L. Ephraim, MPH
Jeffery Fadrowski, MD
Joseph Gallo, MD
Allan Gelber, MD, MPH, PhD
John Groopman, PhD
Alden L. Gross, PhD
Marc K. Halushka, MD, PhD
Junichi Ishigami, MD
Bernard G. Jaar, MD
Rita R. Kalyani, MD, MHS
Frank R. Lin, PhD
Seth S. Martin, MD, MHS
Mara McAdadams-DeMarco, MS, PhD
Emma B. McGinty, PhD
Erin D. Michos, MD, MHS
Christine Mitchell, ScM
Scott Pilla, MD, MHS
Elizabeth A. Platz, MPH, ScD
Wendy Post, MD, MS
James Potter, BS
Jennifer Schrack, PhD
Jodi Segal, MD, MPH
Dorry Segev, MD, PhD
A. Richey Sharrett, MD
Jung-Im Shin, MD, PhD
Alfred Sommer, MD, MHS
Stephen Sozio, MD, MHS
Moyses Szklo, MD, MPH
Frank R. Lin, PhD
Rachel J. Thornton, MD, PhD
Eva Tseng, MD, MPH
Maya Venkataramani, MD, MPH
Mark Woodward, PhD
Scott L. Zeger, PhD

“The Welch Center is an academic home. We grow academically and personally in an environment that is rigorous, challenging us to be the best we can be, while being supportive and nurturing so we can take risks and make progress.”

- Josef Coresh, Welch Center faculty member
Welch Center faculty are extraordinarily productive, with publications that span epidemiologic, clinical and translational science and that implement the full spectrum of study designs, including but not limited to surveys, cohort studies, clinical trials, systematic reviews, and qualitative studies. Below is a subset of our most impactful publications, drawn from over 1,400 publications between 2014 and 2018, and selected to illustrate the breadth of our research.

**Serum untargeted metabolomic profile of the Dietary Approaches to Stop Hypertension (DASH) dietary pattern**

This study addressed a pressing issue in nutritional epidemiology, specifically, the need for, and role of, objective biomarkers to assess dietary adherence.


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**Efficacy of commercial weight-loss programs: an updated systematic review**

This systemic review synthesized evidence on the long-term results of commercial weight loss programs. Dr. Gudzune and her mentee, Dr. Doshi, received special awards for this work from the Annals of Internal Medicine.


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**Serum 6-Bromotryptophan Levels Identified as a Risk Factor for CKD Progression**

This study documented an intriguing discovery, namely, an association of serum 6-bromotryptophan levels with chronic kidney disease progression in 2 large, long-term studies.


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**Prognostic Implications of Single-Sample Confirmatory Testing for Undiagnosed Diabetes: A Prospective Cohort Study**

This study established a new diagnostic approach for diabetes, which formed the basis of a change in the 2019 Standards of Care for the diagnosis of diabetes. In a tweet, Francis Collins, NIH Director, commented on the potential impact of this paper.


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**A View from the Front Line - Physicians’ Perspectives on ACA Repeal**

This paper is among the first to document physician perspectives related to the potential repeal of the Affordable Care Act.

**Effect of DECIDE (Decision-making Education for Choices In Diabetes Everyday) Program Delivery Modalities on Clinical and Behavioral Outcomes in Urban African Americans With Type 2 Diabetes: A Randomized Trial**

This seminal trial documented the impressive benefits of an intervention to improve outcomes in African-American with diabetes. Importantly, this intervention is now being translated and adopted for use in a variety of settings.


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**Kidney-Failure Risk Projection for the Living Kidney-Donor Candidate**

Results of this landmark study, which documented long-term outcomes in live kidney donors, has important policy and clinical implications related to kidney transplantation.


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**Association of Race and Ethnicity With Live Donor Kidney Transplantation in the United States From 1995 to 2014**

This study documented that disparities in the receipt of kidneys from live donors has actually increased, highlighting the need for changes in national strategies to increase donation of kidneys overall and especially for African-Americans.


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**Association Between Midlife Vascular Risk Factors and Estimated Brain Amyloid Deposition**

What is bad for your heart is also bad for your mind! This long-term observational study provides some of the most persuasive evidence that midlife occurrence of heart disease risk factors, such as hypertension and diabetes, are also related to pathological features of Alzheimer’s disease.


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**Nonalcoholic fatty liver disease is associated with cognitive function in adults**

This paper is the first to document an association of lower cognitive function with nonalcoholic fatty liver disease, a common condition that is rapidly increasing in prevalence worldwide.

Methods for Evaluating Natural Experiments in Obesity: A Systematic Review

This systematic review documented the critical importance of, and need for, improved methods to document the effects of weight loss programs implemented in 'realworld' settings.


Minding the gap and overlap: a literature review of fragmentation of primary care for chronic dialysis patients

Who is responsible? This paper documented available evidence on a critical issue facing the delivery of primary care services, namely that the fragmentation of care experienced by patients cared for by specialists and primary care providers.


Association of Age With Blood Pressure Across the Lifespan in Isolated Yanomami and Yekwana Villages

The age-associated rise in blood pressure observed in Western countries is not inevitable. In this study, conducted in isolated regions of Venezuela, there was little or no rise in blood pressure with age across the lifespan, from young children to older adults.


Transitions through stages of alcohol involvement: The potential role of mood disorders

In this large national survey, there was a well-documented relationship of mood disorders with stages of alcohol use problems, with consistent evidence that among women, mood disorders impeded remission of moderate to severe alcohol problems.


A Dietary Intervention in Urban African Americans: Results of the “Five Plus Nuts and Beans” Randomized Trial

This trial documented the potential benefits of a novel, community-based approach to deliver a nutritional intervention to African-Americans at high risk of elevated blood pressure and its complications.

RECENT KUDOS

Tanjala Purnell received the National Minority Quality Forum’s Top 40 Under 40 Leader in Minority Health Award from the U.S. Congressional Black Caucus Health Braintrust

Elizabeth Selvin received school-wide recognition for teaching excellence consecutively from 2013-2018

Lisa Cooper received the JHU Department of Medicine’s Task Force for the Advancement of Women’s Careers in Medicine Sponsorship Award

Gail Daumit was a graduate of the inaugural cohort of the Mary Elizabeth Garrett Executive Leadership for Women Faculty Program

Sherita Golden received the 17th Annual Women Worth Watching Award from the Profiles in Diversity Journal

Lawrence Appel, Josef Coresh and Eliseo Guallar were selected for the Clarivate Analytics’ list of Highly Cited Researchers

Wendy Bennett was elected to faculty senate of School of Medicine

Rebecca Gottesman received the Outstanding Stroke Research Mentor Award from the American Stroke Association

Deidra Crews received the JHU President’s Frontier Award and the W. Lester Henry Award for Diversity & Access to Care from the American College of Physicians

Jeanne Clark, Deidra Crews, Sherita Golden and Kimberly Gudzune were selected as Johns Hopkins Living the Hopkins Mission Honorees

Morgan Grams received the Donald W. Seldin Young Investigator Award from the American Society of Nephrology

Raquel Greer received the Doris Duke Early Clinician Investigator Award

Felicia Hill-Briggs became the President of Healthcare & Education of the American Diabetes Association and was elected into the National Academy of Medicine

Mary Catherine Beach received the George L. Engel Award for Outstanding Research Contributing to the Theory, Practice & Teaching of Effective Healthcare Communication & Related Skills

Noel Mueller, Nae-Yuh Wang and Casey Rebholz became fellows of the American Heart Association

Jeanne Clark received the Institute for Excellence in Education Mentorship Award

Nisa Maruthur received the Society of General Internal Medicine Advocacy & Community Service Award

Edgar R. Miller III received the Outstanding Teaching Faculty Award from the Bloomberg School of Public Health

Casey Rebholz received the Mark Bieber Award from the American Heart Association and the Advising, Mentoring, & Teaching Recognition Award from the Bloomberg School of Public Health

Jessica Yeh was appointed Chair of the American Diabetes Association Public Health & Epidemiology Interest Group, and member of the National Disparity Committee

Adrienne Tin received the Cohorts for Heart & Aging Research in Genomic Epidemiology (CHARGE) Consortium Meeting Travel Award
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