

EDITOR'S CHOICE



Advancing Scientific Inquiry by Blurring Research Boundaries

It has been just more than a decade since the Human Genome Project (HGP) successfully mapped the entire human genome. Investments in this area of research continue to pay dividends in terms of new knowledge, transforming many different scientific fields from chemistry to epidemiology to forensic science. The scale of this project has been enormous, involving the participation of thousands of investigators and large research facilities, in addition to collaborations between the government and the private sector. In fact, some observers have compared the importance and size of the HGP to the Apollo program that enabled human beings to travel to the moon (<http://www.genome.gov/12011238>). We have truly witnessed a transforming scientific initiative at the dawn of the new century.

The mission of the Office of Behavioral and Social Sciences Research (OBSSR) is to stimulate behavioral and social sciences research throughout the National Institutes of Health (NIH) and to integrate these areas of research more fully into others of the NIH health research enterprise, thereby improving our understanding, treatment, and prevention of disease. As such, our goal for this special issue is to highlight the latest research in public health and the behavioral and social sciences that are linked to genetics. Many of the articles in this issue demonstrate new solutions and alternate models showing the current thought.

Clearly what was common knowledge 10 years ago is now quickly becoming outdated and the new information afforded to us by genetics requires both multidisciplinary approaches to research and a new kind of scientific training for the next generation of researchers. Until very recently, textbooks treated genetic and environmental influences as independent; questions about complex human outcomes and genetics were treated simply as a matter of either nature (genes) or nurture (environments). With the ever-increasing new data, of both the genome and

the human condition, scientists of different disciplines are now asking more sophisticated questions. More specifically, researchers are trying to integrate concepts from all levels of inquiry—molecular to societal—and are grappling with questions of how best to measure, analyze, and interpret the growing amount and complexity of these data.

But beyond needing more data, which is a popular call in research, what should not be missed is that this new line of inquiry really represents a massive scientific revolution that challenges existing conceptual models in both the life sciences and the social and behavioral sciences. We are beginning to understand just how integrally linked the environment and experiences are with genetic function. Yet our understanding of these connections is only in its infancy.

As scientists, public health scholars, and practitioners, we hope this special issue will stimulate discussion about the new generations of questions that need to be asked. The ability of science to fully capitalize on the explanatory power of either the biological sciences, or the behavioral and social sciences, will not be fully realized until the scientific boundaries between the disciplines become blurred. ■

Robert M. Kaplan, PhD
Director, Office of Behavioral and Social Sciences

Research (OBSSR), NIH
Michael L. Spittel, PhD

Guest Editor, Health Scientist Administrator
OBSSR, NIH

Erica L. Spotts, PhD
Guest Editor, Health Scientist Administrator
OBSSR, NIH

doi:10.2105/AJPH.2013.301589

AMERICAN JOURNAL OF PUBLIC HEALTH

| | |
|--|---|
| EDITOR-IN-CHIEF | Mary E. Northridge, PhD, MPH |
| DEPUTY EDITOR | Farzana Kapadia, PhD |
| FEATURE EDITOR | Gabriel N. Stover, MPA |
| IMAGE EDITOR | Aleisha Kropf |
| ASSOCIATE EDITORS | Mary T. Bassett, MD, MPH Felipe González Castro, PhD, MSW Michael R. Greenberg, PhD Sofia Gruskin, JD, MIA Said Ibrahim, MD, MPH Robert J. Kim-Farley, MD, MPH Stewart J. Landers, JD, MCP Stella M. Yu, ScD, MPH |
| ASSOCIATE EDITOR FOR STATISTICS AND EVALUATION | Roger Vaughan, DrPH, MS |
| INTERNATIONAL ASSOCIATE EDITORS | Kenneth Rochel de Camargo Jr, MD, PhD (Rio de Janeiro, Brazil) Daniel Tarantola, MD (Sydney, Australia) |
| DEPARTMENT EDITORS | Leslie Beitsch, MD, JD <i>Government, Law, and Public Health Practice</i> <i>Public Health Policy Briefs</i> Elizabeth Fee, PhD, and Theodore M. Brown, PhD <i>Images of Health</i> <i>Public Health Then and Now</i> <i>Voices From the Past</i> Mark A. Rothstein, JD <i>Public Health Ethics</i> Kenneth R. McLeroy, PhD, and Deborah Holtzman, PhD, MSW <i>Framing Health Matters</i> |
| EDITORIAL BOARD | Jeffrey R. Wilson, PhD, MS (2015), Chair Shailesh Advani, MPH (2013), Student Chinua Akukwe, MPH (2015) Jermame Bond, PhD (2013) Linda Chan, PhD (2013) Roy Grant, MA (2013) Thomas Greenfield, PhD (2015) Jeffrey Hallam, PhD (2014) Maureen Lichtveld, MD, MPH (2015) Louise-Anne McNutt, PhD (2013) Samuel L. Posner, PhD (2015) Joan Reede, MD, MPH (2014) Brian Saylor, PhD, MPH (2013) Helena Temkin-Greener, PhD, MPH (2014) David H. Wegman, MD, MSc (2014) |
| STAFF | Georges C. Benjamin, MD <i>Executive Director/Publisher</i> Ashell Alston, <i>Interim Publications Director</i> Brian Selzer, <i>Interim Deputy Publications Director</i> Aisha Jamil, <i>Production Coordinator</i> Michael Henry, <i>Associate Production Editor (Sr)</i> Maya Ribault, <i>Associate Production Editor (Jr)</i> Mazin Abdelgader, <i>Graphic Designer</i> Vivian Tinsley, <i>Subscriptions Coordinator</i> |
| FREELANCE STAFF | Gretchen Becker, Kelly Burch, Greg Edmondson, John Lane, Gary Norton, Michelle Quirk, Alisa Riccardi, Trish Weisman, Eileen Wolfberg, <i>Copyeditors</i> Nestor Ashbery, Alex Cook, Marci McGrath, Chris Smith, <i>Proofreaders</i> Vanessa Sifford, <i>Graphic Designer</i> |

This article has been cited by:

1. Susan Markens. 2017. 'I'm not sure if they speak to everyone about this option': analyzing disparate access to and use of genetic health services in the US from the perspective of genetic counselors. *Critical Public Health* 27:1, 111-124. [[Crossref](#)]
2. Dante Cicchetti. A Multilevel Developmental Psychopathology Systems Perspective on Depression 3-28. [[Crossref](#)]
3. Jere R. Behrman. Twin Studies in Demography 703-709. [[Crossref](#)]