PITTMED

PUBLISHER
Arthur S. Levine, MD

EDITOR IN CHIEF
Erica Lloyd

GUEST MANAGING EDITOR
Sharon Tregaskis

ART DIRECTOR
Elena Gialamas Cerri

SENIOR EDITOR
Chuck Staresinic

ASSOCIATE EDITOR
Joe Miksch

PRODUCTION COORDINATOR
Chuck Dinsmore

STAFF CONTRIBUTORS
Meaghan Dorff, Hayley Grgurich, Missy Raterman

OBITUARIES CONTRIBUTOR
Macy Levine, MD '43

CIRCULATION MANAGER
Crystal Kubic

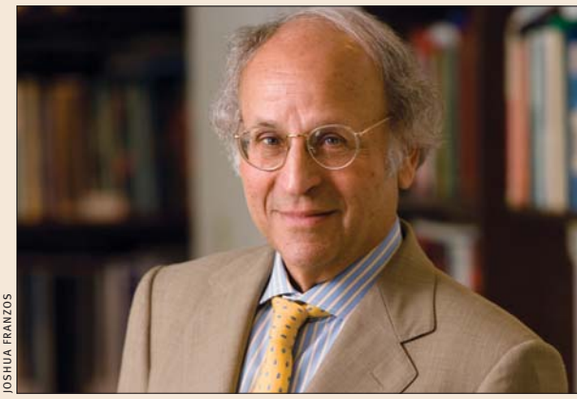
CHIEF EDITORIAL ADVISOR
Kenneth S. McCarty Jr., MD, PhD

EDITORIAL ADVISORS
Paula Davis, MA
Susan Dunmire, MD '85, Res '88
Jonathon Erlen, PhD
Joan Harvey, MD
John Horn, PhD
Steven Kanter, MD
Joan Lakoski, PhD
Margaret Larkins-Pettigrew, MD '94, Res '98
David Lewis, MD
Margaret C. McDonald, PhD
David Perlmutter, MD
Kevin Proctor, Class of '09
Gabriel Silverman, Class of '09
Peter Strick, PhD
Gerard Vockley, MD, PhD
Simon Watkins, PhD
Marshall Webster, MD, Res '70
Julius Youngner, ScD

OFFICE OF PUBLIC AFFAIRS
Robert Hill
John D. Harvith, JD

University of Pittsburgh

Pitt Med is published by the Office of the Dean and Senior Vice Chancellor for the Health Sciences in cooperation with the alumni and public affairs offices. It is produced quarterly for alumni, students, staff, faculty, and friends of the School of Medicine. PR 6703



JOSHUA FRANZOS

Traditional scientific method has always been, at the very best, 20/20 hindsight. It's good for seeing where you've been. It's good for testing the truth of what you think you know, but it can't tell you where you ought to go.

— Robert Pirsig, *Zen and the Art of Motorcycle Maintenance: An Inquiry Into Values*

As I write, presidential politics dominate the nightly news. Reflecting on the rhetoric embedded in the headlines, I've been struck by the contrast between public discourse in the political arena compared with the standards that govern the world of science. In the latter, we cultivate respect for dissent and count on the *scientific method*, robust investigation, and peer review to adjudicate competing claims.

The *scientific method* may not generate easy sound bites or proceed at the pace of the 24-hour news cycle, but it does yield rigorous, intellectually keen, and often profound insights. That understanding is absolutely critical to informing public policy. In fact, Pirsig had it only half right: The *scientific method* is, by necessity, descriptive and thus confined to hindsight. But that doesn't render it irrelevant to the future.

This fall, Dr. Ronald Herberman, director of the University of Pittsburgh Cancer Institute, testified before a subcommittee of the U.S. House of Representatives Committee on Oversight and Government Reform. The subcommittee had invited Dr. Herberman to discuss his concerns about the possible relationship between extensive cell phone use and brain tumors. In particular, he suggests that we don't understand the long-term implications of low-scale electromagnetic radiation on the relatively thin skull and fast-growing architecture of a child's brain. While a few small studies suggest a link between long-term and extensive cell phone use and certain brain tumors, other equally small studies fail to show such a risk. The National Cancer Institute and the American Cancer Society have dismissed Dr. Herberman's concerns as unsupported by currently available data. Moreover, we lack an established biologic theory that would predict such a cause-and-effect link.

Ultimately, more studies are needed—population-based, long-term analyses based on hard data—just what Dr. Herberman recommended: "I cannot tell this committee that cell phones are dangerous, but I certainly can't tell you they are safe. We urgently need to do a study."

On its face, Dr. Herberman's statement applies to any observation in nature, but the scientist's urge to further study, clarify, and interpret doesn't always mesh with the politician's demand for unequivocal, actionable conclusions or the public's desire for easily digested and metabolized certainties. Few of us embrace ambiguity; yet as scientists we often confront the challenge of when and how to communicate uncertainty and how to articulate the questions that often linger when a research project concludes. How then should the scientific and clinical communities balance the public demand for conclusiveness and transparency with our concern for oversimplifying, publicizing, and prematurely resolving the ambiguity often inherent in complex and still inchoate scientific findings? In fact, determining on which side to stand in this balance is the art of science, and, for scientists, there is no "bailout."

Arthur S. Levine, MD
Senior Vice Chancellor for the Health Sciences
Dean, School of Medicine