

PITTMED

PUBLISHER

Arthur S. Levine, MD

EDITOR IN CHIEF

Erica Lloyd

ART DIRECTOR

Elena Gialamas Cerri

SENIOR EDITOR

Elaine Vitone

ASSOCIATE EDITOR

Gavin Jenkins

PRODUCTION MANAGER

Chuck Dinsmore

INTERNS

Maya Best, Maggie Medoff

EDITORIAL ADVISORS

Jeremy Berg, PhD

Michelle Broido, PhD

Paula Davis, MA

Terence Dermody, MD

Joan Harvey, MD

Joshua Levenson, MD '11

David Lewis, MD

Mylynda Massart, MD/PhD

Margaret C. McDonald, PhD, MFA

Kevin Rivera (Class of 2023)

Loren Roth, MD

Steven Shapiro, MD

Peter Strick, PhD

Ann Thompson, MD

Bennett Van Houten, PhD

Simon Watkins, PhD

VICE CHANCELLOR,
UNIVERSITY COMMUNICATIONS
AND MARKETING

Ellen Moran

ASSISTANT VICE CHANCELLOR,
NEWS

David Seldin

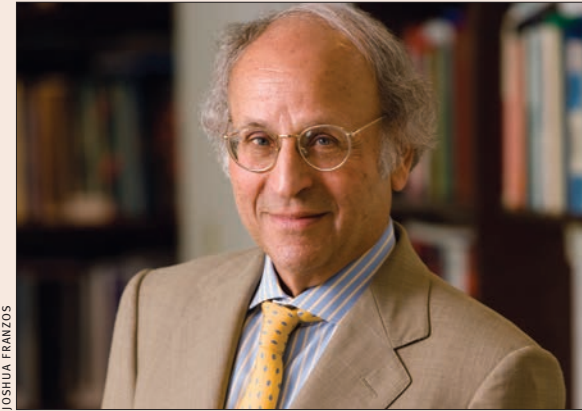


Pitt Med is published by the Office of the Dean and Senior Vice Chancellor for the Health Sciences in cooperation with the Office of University Communications and Marketing. It is produced quarterly for alumni, students, staff, faculty and friends of the School of Medicine. PR 6751

The University of Pittsburgh is an affirmative action, equal opportunity institution. © 2020, University of Pittsburgh

The subway shudders between dark and light.
The ox plods across the page.
Think of everyone you ever loved: the boy who gets off at your stop is a faint ideogram for each.

Offer him your hand.
Help him climb the stair.
—Mary Karr (*Published in 1993, in response to the AIDS crisis*)



JOSHUA FRANZOS

With my leaving my decanal position in June, this will be my last essay for Pitt Med. Permit me to share another story.

When I was an intern, my department chair often spoke of “experiments of nature,” meaning rare mutations that illuminate common—if not ubiquitous—biologic pathways or activities. For example, one out of a million people might fail to produce a metabolic enzyme that would then lead to a disease that can be disastrous, e.g., phenylalanine hydroxylase and PKU, and this would lead us to understand how this enzyme and its pathway, when intact, control biology that is critical for normal brain function. Of course, such insight also leads us to specific treatment or prevention—in this case, a phenylalanine-free diet for those with the mutation. The latter is an “experiment of nurture,” i.e., the diet was established after experimental trials.

We’ve since learned of another experiment of nature, and that is the Christchurch mutation (named for the city where it was identified). There is, in Colombia, a large kindred with the rare, heritable form of Alzheimer’s disease. All of the members of this kindred have a known mutation that leads to early onset Alzheimer’s, occurring in the 30s and 40s—except for one woman (of 1,200 relatives) who had no symptoms until her 70s. She has a second mutation that protects her from the ravages of the first. Once we understand the molecular role played by the Christchurch mutation, we may be able to devise a therapeutic or preventive strategy for the far more common age-dependent Alzheimer’s. Thus my obsession with such experiments!

I am equally obsessed with experiments of nurture. Again in Alzheimer’s, we know that two patients with the same detectable amount of the disease’s apparent trigger, beta-amyloid, may have very different courses—quite slow or quite fast—and this seems to depend on intellectual reserve (learning something new each day) and overall fitness (i.e., nurture as opposed to nature).

Patients don’t live in a vacuum. It’s important to note: Are they well-nourished, physically and also mentally and emotionally? Or do they live alone with little stimulation? Or with poor access to resources? The world around us, and how we respond to it, can have an imprint. We have much to learn about disease, yet it seems that everything from our genetics to the microecology of our gut may influence how we manifest with a condition. Further, let us keep in mind that our DNA plays a critical role in our health and longevity, but so do the social and behavioral determinants of health—perhaps even more so. Likewise, it seems helpful to take a larger view of medicine and science as a whole. I trained as a physician and molecular biologist. I’m also a student of literature, a champion and collector of art, a dog lover and a husband, father and citizen. In these essays, which appeared on this page throughout the past 20-plus years while I served as the John and Gertrude Petersen Dean of the University of Pittsburgh School of Medicine and senior vice chancellor for the health sciences, I have shared my decanal perspective—founded on what I have learned from the arts, history and philosophy as well as from science—and from my fascination with the splendid burning torch that is life.

As I write, these thoughts have a new suddenness. Our colleagues are working night and day to save lives and to find a way out of COVID-19. Their zeal and commitment, whether to the care of our patients or to research, define selflessness and, often, heroism. They are reflecting the best of the sciences and the humanities.

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