THE PHAROS
OF ALPHA OMEGA ALPHA HONOR MEDICAL SOCIETY
SUMMER 2014

“Be Worthy to Serve the Suffering”

Alpha Omega Alpha Honor Medical Society
Founded by William W. Root in 1902

Editor
Richard L. Byyny, MD

Editor Emeritus (in memoriam)
Robert J. Glaser, MD

Associate Editor and Managing Editor (in memoriam)
Helen H. Glaser, MD

Managing Editor
Debbie Lancaster

Art Director and Illustrator
Jim M’Guinness

Designers
Erica Aitken

Editorial Board

Jeremiah A. Barondess, MD
New York, New York

David A. Bennahum, MD
Albuquerque, New Mexico

John A. Benson, Jr., MD
Portland, Oregon

Richard Bronson, MD
Stony Brook, New York

John C.M. Brust, MD
New York, New York

Charles S. Bryan, MD
Columbia, South Carolina

Robert A. Chase, MD
Stanford, California, and Jaffrey, New Hampshire

Henry N. Claman, MD
Denver, Colorado

Fredric L. Cое, MD
Chicago, Illinois

Jack Coulehan, MD
Stony Brook, New York

Ralph Crawshaw, MD
Portland, Oregon

Peter E. Dais, MD
Baltimore, Maryland

Lawrence L. Faltz, MD
Larchmont, New York

Faith T. Fitzgerald, MD
Sacramento, California

Daniel Foster, MD
Dallas, Texas

James G. Gamble, MD, PhD
Stanford, California

Dean G. Gianakos, MD
Lynchburg, Virginia

Jean D. Gray, MD
Halifax, Nova Scotia

David B. Hellmann, MD
Baltimore, Maryland

Pascal James Imperato, MD
Brooklyn, New York

John A. Kastor, MD
Baltimore, Maryland

Henry Langhomme, MD
Pensacola, Florida

Jenna Le, MD
New York, New York

Michael D. Lockshin, MD
New York, New York

Kenneth M. Ludmerer, MD
St. Louis, Missouri

Joseph Marr, MD
Broomfield, Colorado

Stephen J. McPhee, MD
San Francisco, California

Janice Townley Moore
Young Harris, Georgia

Francis A. Nielon, MD
Durham, North Carolina

William M. Roggoway, MD
Stanford, California

Shawn V. Ruddy, MD
Richmond, Virginia

Bonnie Salomon, MD
Deerfield, Illinois

John S. Sergent, MD
Nashville, Tennessee

Marjorie S. Sirridge, MD
Kansas City, Missouri

Clement B. Sledge, MD
Marlboro, Massachusetts

Jan van Eys, Ph.D., MD
Nashville, Tennessee

Abraham Verghese, MD, DSc
(Hon.)
Stanford, California

Steven A. Wattman, MD, PhD
Washington, DC

Gerald Weissmann, MD
New York, New York

David Watts, MD
Mill Valley, California

Manuscripts being prepared for The Pharos should be typed double-spaced, submitted in triplicate, and conform to the format outlined in the manuscript submission guidelines appearing on our website: www.alphaomegaalpha.org. They are also available from The Pharos office. Editorial material should be sent to Richard L. Byyny, MD, Editor, The Pharos, 525 Middlefield Road, Suite 130, Menlo Park, California 94025.

Requests for reprints of individual articles should be forwarded directly to the authors.

The Pharos of Alpha Omega Alpha Honor Medical Society (ISSN 0031-7179) is published quarterly by Alpha Omega Alpha Honor Medical Society, 525 Middlefield Road, Suite 130, Menlo Park, California 94025, and printed by The Ovid Bell Press, Inc., Fulton, Missouri 65251. Periodicals postage paid at the post office at Menlo Park, California, and at additional mailing offices. Copyright © 2014, by Alpha Omega Alpha Honor Medical Society. The contents of The Pharos can only be reproduced with the written permission of the editor. (ISSN 0031-7179)

Circulation information: The Pharos is sent to all dues-paying members of Alpha Omega Alpha at no additional cost. All correspondence relating to circulation should be directed to Ms. Debbie Lancaster, 525 Middlefield Road, Suite 130, Menlo Park, California 94025. E-mail: info@alphaomegaalpha.org

POSTMASTER: Change service requested: Alpha Omega Alpha Honor Medical Society, 525 Middlefield Road, Suite 130, Menlo Park, CA 94025.

www.alphaomegaalpha.org

 Officers and Directors at Large
John Tooker, MD, MBA
President
Philadelphia, Pennsylvania

C. Bruce Alexander, MD
Immediate Past President
Birmingham, Alabama

Douglas S. Pauw, MD
President-Elect
Seattle, Washington

Joseph W. Stubble, MD
Secretary-Treasurer
Albany, Georgia

Robert G. Attip, MD
Hershey, Pennsylvania

Eve J. Higginbotham, SM, MD
Philadelphia, Pennsylvania

Richard B. Gunderman, MD, PhD
Indianapolis, Indiana

Sheryl Pfeil, MD
Columbus, Ohio

Alan G. Robinson, MD
Los Angeles, California

Wiley Souba, MD, DSc, MBA
Hanover, New Hampshire

Steven A. Wartman, MD, PhD
Washington, DC

Medical Organization Director
Carol A. Aschenbrenner, MD
Association of American Medical Colleges
Washington, DC

Councilor Directors
Lynn M. Cleary, MD
State University of New York Upstate Medical University

Mark J. Mendelsohn, MD
University of Virginia School of Medicine

Alan G. Wasserman, MD
George Washington University School of Medicine and Health Sciences

Coordinator, Residency Initiatives
Suzann Pershing, MD
Stanford University

Student Directors
Christopher Clark, MD
University of Mississippi Medical School

Tonya Cramer, MD
Chicago Medical School at Rosalind Franklin University

Christopher Clark, MD
University of Virginia School of Medicine

Laura Tisch
Medical College of Wisconsin

Administrative Office
Richard L. Byyny, MD
Executive Director
Menlo Park, California

525 Middlefield Road, Suite 130
Menlo Park, California 94025
Telephone: (650) 329-0291
Fax: (650) 329-1618
E-mail: info@alphaomegaalpha.org
DEPARTMENTS

Editorial
Rethinking leadership development
Wiley W. Souba, Jr., MD, ScD, MBA

The physician at the movies
Peter E. Dans, MD
Jack Ryan: Shadow Recruit
The Grand Budapest Hotel
Grand Hotel

Reviews and reflections
A Condition of Doubt: The Meaning of Hypocondria
Far from the Tree: Parents, Children, and the Search for Identity
What Matters in Medicine: Lessons from a Life in Primary Care
Eugene Braunwald and the Rise of Modern Medicine
Minimally Invasive: poems on a life in surgery
Scissored Moon
Was a Doctor
Common Illness

2014 Helen H. Glaser Student Essay Awards
2014 Pharos Poetry Competition winners
2014 Medical Student Service Leadership Project Awards

Letters to the editor

2014 Carolyn L. Kuckein Student Research Fellowships

Changes to the Pharos editorial board

POETRY

Sonnet for a Last Dance
George Young, MD

A Guest at Communion
Richard Bronson, MD

On the Trail
Myron F. Weiner, MD

ARTICLES

The surgery panel in Diego Rivera’s Detroit Industry Murals
Don K. Nakayama, MD, MBA

Vital amines, purple smoke
A select history of vitamins and minerals
Stanley Gutiontov

An obstetric story
J. Allan Wolf, MD, FACOG

The mysterious illness of Emma Lazarus, Lady Liberty’s poet
Robert S. Pinals, MD

The most memorable patient I never saw
Arthur Lazarus, MD, MBA

The Robert H. Moser Pharos Editor’s Prize

Corrections Spring 2014 issue
We misspelled Dr. Owsei Temkin’s name in the article “Healing, Harming, and Hippocrates” (pp. 20-25) on page 24. We apologize for the poor proofreading. In the introductory material to “Dennett’s Echo” (pp. 5-13) we erroneously indicated that Sharon Spaulding is the granddaughter of Mary Ware Dennett. She married into the family and is working to archive the materials about Dennett.
Editorial

Rethinking leadership development

Wiley W. Souba, Jr., MD, ScD, MBA

Dr. Souba is Vice-President for Health Affairs, Dean of the Geisel School of Medicine at Dartmouth, Professor of Surgery at Dartmouth, and a member of the Board of Directors of Alpha Omega Alpha.

Introduction
Richard L. Byyny, MD
Executive Director, Alpha Omega Alpha

Leadership has long been a core value of Alpha Omega Alpha Honor Medical Society (ΑΩΑ). New and effective leaders in medicine, health care, and medical education are vital to our profession to serve patients and society. We asked the question: How can ΑΩΑ as an interdisciplinary honor medical society best support and contribute to leadership promotion and development as part of our mission and as one of our core values—to improve care for all by encouraging the development of leaders in medicine, academia, community, and society?

We recognize that leadership in medicine, medical education, and health care is more complex in the twenty-first century than ever before. We also believe that physicians’ unique knowledge and expertise in medicine and our understanding of medicine’s core professional values provide us with a solid foundation for leadership. The result is implementation of our new ΑΩΑ Fellow in Leadership award and program that provides an important opportunity for rethinking leadership development and what it means to be a leader. ΑΩΑ’s Fellow in Leadership Award is based on the premise that the principles of leadership from within can be taught, experienced, and learned by those who aspire to become great leaders.

I asked Dr. Wiley Souba, an experienced leader and teacher in medicine, medical education, and health care—and a member of the ΑΩΑ board of directors—to write the editorial for this issue of The Pharos. His editorial, “Rethinking leadership development” is informative and provocative.

Rethinking Leadership Development
Wiley W. Souba, MD, DSc, MBA

Management consultant and author Peter Drucker once said that “the greatest danger in times of turbulence is not the turbulence; it is to act with yesterday’s logic.”¹ Yet, the past is what we know and it is what we draw on when making judgments and choices. Most people, however, would argue that using yesterday’s logic to solve today’s health care challenges is not an option. We need more effective ways of being, thinking, and collaborating in order to deal successfully with those challenges for which traditional strategies are not enough. But exactly how we broaden our leadership bandwidth is often unclear. We’ve all experienced how difficult it is to let go of and transcend our deep-rooted, familiar ways of leading.

Recently, the ΑΩΑ Board of Directors introduced the ΑΩΑ Fellow in Leadership Award as a testament to their continued commitment to developing leaders in medicine. Because health care transformation efforts are often unsuccessful because they overlook the importance of personal transformation, the fellowship emphasizes the inner work of leading oneself. Fellows learn what it is to be a leader and what it means to exercise leadership effectively by making use of a model that distinguishes being a leader as the foundation for the leader’s actions. Why is the being of leadership foundationally primary? An illustration is helpful.

Suppose I were to ask you, “What is an Accountable Care Organization (ACO)?” You answer, “An ACO is a health care organization with a payment and care delivery model that aligns provider reimbursements with quality metrics and cost savings for a given
population of patients.” Your answer provides me with characteristics that describe and identify the entity. Suppose I then ask, “What does it mean to be a patient in a (high-performing) ACO?” In response, you say, “To be a patient in an ACO means to be provided with reliable access to care, support for activities and behavior changes to improve health, trustworthy information to help make treatment decisions, and better health outcomes.” The first question, “What is an ACO?” is answered with reference to other entities such as providers, payment models, quality metrics, cost reductions, and populations. The second question is answered with regards to what it means to “be” (exist) in an ACO in various ways, such as being engaged, secure, informed, and healthier. In contrast to the first question, the question of the meaning of anything is always answered in reference to other meanings.

If we now ask which question comes first, it should be clear that what it means to be a patient in an ACO is the basis for the ACO being designed the way it is (or at least it should be). In other words, what it means to be a patient in an ACO is prior to what kind of “thing” an ACO is. If I understand what it means to be a patient in an ACO, I will know what is required to make an ACO. The inquiry into what it means to be a patient in an ACO is not only different from the question about what kind of thing is an ACO, it is also prior to it, for the meaning ultimately explains the entity.2

Suppose I now ask, “What is a leader?” You answer, “A leader is a person who has a title and authority, knows strategy, allocates resources, and gets results.” Your answer to my question provides me with attributes and roles that describe or identify a leader. Suppose I then ask, “What does it mean to be a leader?” In response, you say, “To be a leader is to be self-aware, honest, authentic, fair, and committed.” The first question, “What is a leader?” is answered in reference to other entities such as followers, a strategic plan, and a position. The second question is answered in reference to what it means to exist in various ways as a leader, such as being dedicated or focused. Again, meaning always precedes entity.

Much as understanding what it means to be a patient will tell us what is essential in building a health care system, what it means to be a leader should be the basis for the way in which we educate and train leaders. If I understand what it means to be a leader, I will know what is required to develop leaders. In other words, what it means to be a leader is prior to what kind of entity a leader is.

What we discover with a bit more scrutiny is that we are not preparing leaders in keeping with what it is to be a leader. Most leadership development programs focus on knowing (expertise), having (power, resources), and doing (competing), not “being” a leader. Yet, if you’re not being a leader, it is impossible to act like a leader.3 An emerging approach to leadership development starts with four pillars of being a leader—awareness, commitment, integrity, and authenticity—as the ontological foundation for what leaders know and do.4 This way of understanding leadership is core to the basic tenets of professionalism.4,5

Our understanding of what it means to be—a physician, a medical student, a researcher, a leader—is changing. Accordingly, the institutions that are responsible for preparing these individuals to be effective in an everchanging health care environment must change. Medical schools are revising their curricula to include population health, new payment models, and value-based care in order to prepare physicians to practice in the twenty-first century. And they are starting to take a stronger stand on developing leaders.

Imagine

Each of us has had the unnerving experience of being confronted with a leadership challenge and not knowing how to deal with it. Imagine for a moment what it would be like if, regardless of the problems you were faced with, you could handle them effectively? In other words, the “you” that showed up was you in your “A” game. Suppose you weren’t limited to those automatic, ineffective ways of being that tend to hijack your amygdala? What would it be like to be at the top of your game, leading from your natural self-expression rather than from some anthology of theories in the latest bestseller on leadership? What if that “inner critic” that was always there judging you wasn’t there? What if you had access to a much wider range of possible ways of being rather than being confined to those default ways of being that have become so entrenched yet are so unproductive?

Our effectiveness as leaders is first and foremost a product of our way of being, which is a function of the way in which the circumstances we are dealing with occur for us.3,5 From a neuroscience perspective, what we mean by occur corresponds to that which is generated by the particular activated neural networks in the brain that produce the experiential perceptions—via our senses—that are projected into the external world. Unless and until we shift the way in which our leadership challenges occur (“show up”) for us—from a problem that is someone else’s to one that we’re all responsible for—our predictable ways of being and acting will prevail and the future will largely be a continuation of the past. Health care costs will continue to escalate, unwarranted variations in care will persist, and tens of millions of our fellow human beings will have little recourse. The response, “If the uninsured would just pull themselves up by their bootstraps like I did,” is both ignorant and arrogant. Yet, this perspective continues to be pervasive. Oddly, the panoply of pompous solutions to our health care predicament—change this, change that, get rid of this, get rid of that—tend to exclude a fundamental imperative: “I need to change too.”

Accessing leadership

The word “access” refers to making something available so as to use it, apply
it, or take advantage of it (e.g., a database, the internet, the medical record). The idea that leadership is something we access may seem counterintuitive as we generally think of leadership as something that people just have (or don’t have). However, when we recognize that leadership is about expanding our range of ways of being, thinking and behaving so we can be more effective in dealing with those challenges for which conventional strategies are inadequate, the notion of access makes more sense.

Without the ability to access new ways of being, reasoning, and working together, we will default to what is comfortable when we are called to take on a major leadership challenge and our results will be mediocre at best.

Access to leadership can occur through first-person, second-person, and third-person inquiries, each of which provides a different, but complementary perspective. Observing leaders and describing their behaviors and attributes is about objectivity (third-person data). This third-person approach to studying leadership, which focuses on what leaders know, have, and do is, by far and away, the most common leadership pedagogy. Leadership education that is based largely on concepts and explanations—where the subject has indirect, inferential access—provides limited access to the being and actions of an effective leadership. Theories and textbooks provide us with third-person access to leadership, but they alone do not impart what is required to be a leader, much as textbooks do not teach what it is to be a physician.

Rather than teaching leadership from a theoretical (third-person) vantage point, the ontological (first-person) perspective teaches leadership as it is lived and experienced. Such subjective experiences (first-person data) cannot be described entirely by objective reality. When one exercises leadership “as lived,” concurrently informed by theories, one performs at one’s best. A science of leadership will eventually generate a framework that systematically integrates third-person observations about leadership behaviors and their neural processes, second-person experiences and their social correlates, and first-person subjective conscious experiences. In the meantime the only direct access we have to what it is to be a leader is by way of the first person “as lived” experience.

Consider this somewhat ludicrous example. You and I have no direct access to what it means to be a gallbladder. We can only measure (third-person) what a gallbladder does and then describe its properties and functions (stores, concentrates, and secretes bile). But these properties give us no direct (first-person) access to what it means to be a gallbladder. Moreover, when someone explains to you how to remove a gallbladder, their third-person account gives you no direct access to performing the surgical procedure. You may memorize the atlas on gallbladder surgery and even watch a video on cholecystectomy, but until you experience for yourself what it is to be in the operating room with a laparoscope in your hands, what it’s like to dissect the gallbladder off the liver, and what it is to perform an intraoperative cholangiogram, you will never master laparoscopic cholecystectomy.

Similarly, you may keep a list of the characteristics and attributes of leaders in your pocket, but this gives you no direct access to what it means to be a leader. You do, however, have direct access to what it is to be human. It’s the only entity to which you have direct access. And through accessing what it is to be human—who you really are—you can access what it is to be a leader. Likewise, when someone describes leadership to you, their explanation gives you no direct access to leadership. You may be able to recite all the leadership books, but until you experience for yourself firsthand what it is to deal with a complex leadership challenge and what it is to confront your fears and inadequacies in dealing with it, you will never be a master leader. You can’t lead effectively from the stands as a third-person spectator. You must be on the ice where the game of leadership is played.

I have been belaboring the point about accessing being a leader and leadership for three reasons. First, direct access is not as simple as it might seem. A rigorous examination of the structure of our conscious leadership experiences entails a careful phenomenological observation. This takes practice because our taken-for-granted beliefs and assumptions invariably get in the way. In order to gain access to more effective ways of leading, we must first expose our engrained beliefs and worldviews about leadership (e.g., I have to have the answers) that are holding us back. This will allow us to relax those limiting (and often hidden) ways of being and acting that have become our automatic go-to winning formulas (e.g., avoiding tough conversations, blaming others) that actually constrain our freedom to lead.

Second, in accessing leadership it is important to recognize that you and I do not lead from a theoretical standpoint; we live moment-to-moment, situation-to-situation in the way we experience leadership “as lived,” that is, from a first-person point of view. Third, the primary tool we use to gain access to leadership is language. In other words, language (discourse) is the vehicle in and through which we access the world. It functions as a kind of lens that brings our leadership challenges into sharper focus, allowing us to see details and “make sense” more perceptively. Language does not merely reflect reality; as a constitutive element it has the power to shape, even create, how we represent reality. Thus, the transformative power of language resides in its ability to create new futures.

A new language of leadership

We all know people who excel, almost without effort, in their particular disciplines. They take on difficult problems with grace and ease. We often believe that these individuals are born with a special gift or a distinctive temperament that allows them to deal with complex issues more effectively than the rest of us. Actually, what allows such people to
be so effective is that they have mastered the conversational domain necessary to perform exceptionally in their particular field of interest. This mastery allows them to interpret and tackle problems in a unique manner.

By conversational domain, we mean—for example, in the case of medicine—the network of discipline-related terms that form the special linguistic domain through which a physician perceives, comprehends, and interacts with her patient’s body, history, illness, and suffering. This specific conversational domain is required to be a master physician and to practice medicine expertly. Mastery of the conversational domain particular to any discipline—biomedical informatics, astrophysics, population health, etc.—is essential if one is to effectively perform, communicate, and innovate in that domain. To participate successfully in a conversational domain (discourse community), the interlocutors must be familiar with both the implicit and explicit “rules” about how its terms are communicated. A key goal of higher education should be to help students master the spoken and written language of their disciplines.

A bioinformaticist, for example, becomes a master by mastering the conversational domain of bioinformatics. Mastery allows her to observe, interpret, understand, and interact with the world of bioinformatics through a set of specialized terms (for example, computational biology, genomics, proteomics, deconvolution, relational database) that are networked together in a specific way to form the linguistic domain of the world of bioinformatics. Similarly, a population health scientist becomes a master by observing, interpreting, and interacting with the world of population health by means of a set of specialized terms (for instance, outcomes, disparities, determinants, risk factors, health production function) that are networked together in a certain way to form the discourse community of population health for a master population health scientist. In other words, the source of being extraordinary in any domain is mastery of the unique conversational domain that gives one access to that domain.

Conversational domains, once mastered, grant considerable power. Experts could not create new knowledge without having mastered their domains’ language because the specialized language is what gives them actionable access. Medical school and residency are “first-person as-lived” experiences that are intended to teach physicians to become masters of the conversational domain of medicine.

Conversational domains can overlap and frequently do. The field of bioinformatics was born when the intersection between computer science and biology was harnessed. Over the past few decades, the conversational domain of bioinformatics has become more sophisticated as researchers have developed a shared language that functions as a kind of lens that grants better actionable access to the world of bioinformatics. This improved access, which enables new linguistic distinctions that further advance the field, is the result of a more refined set of specialized terms that are linked together to create the discourse community. This process of mastering a conversational domain such that it “uses” the master by providing a context (a way of perceiving, interpreting, and relating to the corresponding knowledge domain) is key to performance and innovation whether one is a geneticist, a plumber, or a physician.

Because many of the changes that are taking place in health care are inevitable, mastering context as a leader is critical. Content (the particular situation at hand) is always observed within a linguistic context and, as human beings, we have the freedom to recontextualize our leadership challenges by shifting the context. In so doing, we can be a different kind of leader. When we change our thinking and speaking, a different reality becomes available to us. Shifts in our mental maps generate new possibilities for actions and outcomes not previously accessible. Only by means of language can we lead ourselves, each and every day, to become the wiser, more effective leaders that we must become.

Curiously, our enhanced leadership effectiveness won’t be, first and foremost, because we acquired another technical skill—rather, it will be because the perspective from which we operate has changed. A different “you” will show up. What is transformed is not us per se but the way in which we interact with whatever we are dealing with. Said somewhat differently, the ensuing improvement in effectiveness is less the result of having grasped some new theory and more a function of having altered the context through which we “see” our leadership challenges. This incredible capacity—to go beyond our ordinary selves to unleash our best selves—is unique to human beings and is only possible because we are not determinable by a what, like an entity, but by a who that is shaped by our choices over time.

References


The author’s address is:
Geisel School of Medicine
1 Rope Ferry
Hanover, New Hampshire 03755
E-mail: chip.souba@dartmouth.edu
The retired judge, a widower and avid barbershop tenor, dutifully came once a month to sing with the twenty-odd ladies of the Alzheimer’s ward. But only a few ever joined in. The rest just sat, chin on chest, slumped in their wheelchairs. Until one day he said: Let’s all sing the Anniversary Waltz. Then one head did look up. One who had not moved before, stood and slowly walked towards him, arms outstretched. He grasped the cold bony fingers in his hands and began to waltz around and around; and, although this never happened again, when they were done, the mouthed words came: I love you.

George Young, MD
The surgery panel in Diego
Rivera’s Detroit Industry Murals
The surgery panel in Diego Rivera’s *Detroit Industry Murals*

Don K. Nakayama, MD, MBA
The author (AΩA, University of California, San Francisco, 1978) is professor and chair of the Department of Surgery at West Virginia University School of Medicine.

Easily overlooked, high in the upper left corner of the south wall of Diego Rivera’s (1886–1957) monumental *Detroit Industry Murals* (1932–1933) at the Detroit Institute of Art, is a pair of bloodied surgeon’s hands at operation, one of the smallest panels of the twenty-seven in the composition. To each side are human organs, some whole as animal organs are displayed and sold at a Mexican mercado, others in cross section as they appear in anatomy texts. They are small, soft, and delicate amid the industrial machinery, gigantic symbolic figures, and the subterranean hive of human labor that surround a visitor to the museum’s central court.

Close observation is necessary to discern the identity of each organ and surgical details because of the height of the painting above the courtyard. Most are glands; also present are a histological section of the small intestine; the posterior anatomy of the lower male urinary tract with prostate, seminal vesicles, and bladder; a fallopian tube and ovary; and a female breast partially cut away to reveal the lactiferous ducts. A surgeon, particularly a urologist, may be among a small handful of museum visitors to look beyond the graphic bloody sponges and drapes of the operation, because to his or her eye, it is an orchietomy. Not the usual images in public art.

Why did Rivera include them in his work, the one that he considered his greatest effort? There are no direct quotes from Rivera on the reasons for his choice of organs and operation. Some suggest that because the overall composition celebrates all Detroit industries and not just automobile production, the panel represents medicine as one of the modern activities for which the region was noted. Misidentification of the operation and some of the organs by Rivera scholars makes answering the question more difficult. Understanding Rivera the artist and his overall vision for the work reveals the surgery panel as the allegorical assembly of a human worker, both male and female, from human parts, the central orchietomy being the life-giving and death-demanding Aztec act of human sacrifice.

Four books are the basis for most of the discussion that follows. Linda Bank Down's study, *Diego Rivera: The Detroit Industry Murals,* is the definitive review of the murals, their execution, the industrial machinery and persons featured, and the iconography represented. She uses Rivera’s notes, correspondence, and interviews related to the work, much of which are available for review in the museum library. Dorothy McMeekin’s monograph, *Diego Rivera, Science and Creativity in the Detroit Murals,* focuses on the scientific images in the*
work. She gives a detailed discussion of the surgery panel, but misidentifies some of the organs and states that the operation is a craniotomy for a brain tumor. Patrick Marnham’s biography of Rivera, Dreaming with His Eyes Open, traces his artistic development as master muralist. The author links important personal events that occurred during Rivera’s stay in Detroit, specifically the miscarriage of Frida Kahlo, his wife. Diego Rivera, the Complete Murals, edited by Luis-Martin Lozano and Juan Rafael Coronel Rivera, is a chronological compendium of all of Rivera’s murals with history and commentary. Weighing nearly twenty pounds it probably is best viewed in a library. The Detroit Institute of Arts website displays the murals of the Diego Court, including the surgery panel and other detailed close-ups.

Background

In 1932 Edsel Ford, scion of the Henry Ford family and principal benefactor of the Detroit Institute of Arts, and William Valentiner, museum director, awarded forty-six-year-old Rivera a commission to decorate the large areas of the north and south walls of the inner garden court of the museum with mural art, a medium for which the artist had become world famous. Despite his Communist political beliefs Rivera became fascinated by the power of American industry and the factories and skyscrapers that were its monuments. He later wrote, “In all the constructions of man’s past—pyramids, Roman roads and aqueducts, cathedrals, and palaces—there is nothing to equal these.”

He was so inspired by the Detroit offer that he proposed a composition to include nearly all the paintable surface in the museum courtyard. In response Ford convinced museum philanthropists to raise the grant from the initial figure of $10,000 to $20,889, a princely sum at the height of the Depression.

The subject would be Detroit industry, the major theme the manufacture of automobiles. The Ford Motor Company Rouge Plant on the banks of the Rouge River was the largest industrial complex in the world at the time, an immense operation that
The top register of the North wall of Rivera Court has a volcano at center, hands thrusting from the earth holding raw ore. The Native American titan to the left holds red iron ore; the African American, coal. Crystals of red hematite form in the midst of red waves of the mineral, while coal, containing fossil animals, becomes diamonds. Beneath the volcano is the blast furnace, energy flowing first rightward, then to human figures going clockwise. Human faces turn cadaveric green in the segment at middle left. Assembly line is between the two rows of white machines. Vaccination is in the small panel at top right, controversial because of its secular depiction of the holy family, the kidnapped Lindbergh baby as Jesus, Jean Harlow as Mary, the physician as Joseph, and scientists as the three wise men. Healthy Human Embryo is the small middle panel to the right, Cells Suffocated by Poisonous Gas is beneath the poison gas workers in the small middle panel to the left. The predella shows workers in line to clock in for their shifts at left, then show a number of factory activities as images progress to the right, ending in a lunch break at far right.
included producing steel from blast furnaces, smelting iron ore and coke, manufacturing tires from raw rubber, and generating its own power. Rivera and his assistants travelled the Detroit area widely and were given full access to the vast plant and other industries in the area.\textsuperscript{1} Downs notes that the artist was deeply impressed:

[The Ford Rouge Plant’s] sheer energy, power, and magnitude made him associate it with the vast archeological sites in Mexico, and the individual industrial processes became analogous to religious rituals.\textsuperscript{1p165}

Ford the industrialist and Rivera the unapologetic Marxist shared a deep appreciation of the spectacle of industrial power:

Henry Ford conceived of his automobile industry as having power, breadth, and scope that went beyond the human scale of management, labor, and machines to take on a universal life of its own. Rivera instinctively understood this and compared it to Aztec cosmological beliefs.\textsuperscript{1p67}

The entire work, twenty-seven panels and some 434 square meters of surface, took more than seven months to complete, with Rivera sometimes working twenty-hour days. Its imagery attests to the mysticism behind his homage to the power of American industry to work raw materials from the earth to mass-produce autos, airplanes, and weapons.\textsuperscript{1}

But in the midst of blast furnaces, conveyors, steel presses, and turbine generators how did a surgical operation come to be included in the bravura composition?

\section*{Medical imagery}

The human body fascinated Rivera. He and his wife Frida Kahlo kept their Detroit apartment amply supplied with medical texts and illustrated books that provided illustrative material for both.\textsuperscript{1} Kahlo had both studied and personally experienced medicine. She had completed premedical studies before a horrific streetcar accident at age eighteen caused injuries that would blight the rest of her life, require more than thirty operations, and lead to her early death.\textsuperscript{2} She took up painting during the enforced months-long bed rest after the initial reparative operations following the accident, famously self-portraits, many alluding to her painful surgical treatments. Rivera’s experience was more indirect, typically flamboyant, and apocryphal. He claimed that he had eaten the flesh of cadavers in the company of friends who were medical students with access to the morgue.\textsuperscript{4}

Early in his career, while perfecting his artistry in Europe, Rivera visited the operating theatre of Jean-Louis Faure, a surgeon and brother of Rivera’s mentor, art historian, art dealer, and physician Élie Faure. Jean-Louis Faure had a powerful influence on the artist, inspiring his politics and convincing him to study fresco painting in Italy, which would become his most famous medium. Faure held that surgery was important in understanding art:

It was while I was watching a surgical operation that I uncovered the secret of “composition” which confers nobility on any group where it is present. . . . The group formed by the surgeon, the patient, his assistants and the onlookers seemed to me to form a single organism in action. . . . It was the event itself which governed every dimension and every aspect of the group, the position of arms, hands, shoulders, heads, none of which could be [altered] without breaking the harmony and rhythm of the group immediately. Even the direction of the light was arranged so that each of the actors could see what he had to do.\textsuperscript{3p145}

There is no doubt that Rivera absorbed Faure’s message. He included a scene of Jean-Louis Faure operating in his 1925 mural in the Mexican Ministry of Public Education.\textsuperscript{8} In the Detroit murals he began to populate his work with realistic medical images. Later he would compose entire works devoted to medical science (Water the Source of Life, 1942–1957), physicians (The History of Cardiology, 1943–1954), and clinical practice (The History of Medicine in Mexico: The People’s Demand for Better Health, 1953–1954).

\section*{Labor as human sacrifice}

Rivera identified closely with labor and industrial workers. Four human figures—Rivera called them titans—dominate the top panels of the main south and north walls. They embody human labor as a primary source of industrial power. Each represents a human race: Caucasian and Asian atop the south wall; Native American and Black on the north. Both Downs and McMeekins note the androgyny of the figures,\textsuperscript{1,3} Rivera’s personification of male and female workers. Massive human hands thrust from the earth, minerals in each clenched fist, the human energy required to mine raw ore from the earth.\textsuperscript{1}

Real human figures in the hive of industrial activity below the idealized figures, however, show industry’s destructive side. In contrast to the bright yellow-white heat of the furnace, the human faces are pale and wan and fade in a grotesque transition to a cadaveric green, their life energy drained. While they have recognizable racial and ethnic features, all share a grim visage reflecting the physical exertion and monotony of assembly line work. The predella beneath the main panels on the north and
south walls depicts a day in the life of a worker. In shades of
grey to mimic bas-relief, the workers remain featureless from
the point at which they arrive to work bundled in hats and coats
on the far left of the north wall to where they return to cars at
day’s end, bent from fatigue, at the far right of the south wall.

Thus modern industry drains human energy, a contempo-
rary form of human sacrifice. The dominant image of the au-
tomotive panel of the south wall is a giant industrial press that
stamps three-dimensional auto bodies from sheets of steel in
the form of the terrible Aztec goddess Coatlicue, both life-giv-
ing and life-destroying, who demanded human sacrifice. It has
an appropriate position beneath
an Aztec pyramid, dark and in sil-
huette, at the center of the top
register of the wall.1 Downs notes:

Rivera’s understanding of ancient
religious concepts included the
idea of a compact between Aztec
Indians and their gods. Humans
were created by the sacrifice of the
gods and therefore humanity must
reciprocate by sacrificing lives in
order to nourish the gods with hu-
man hearts and blood. Just as the
Aztecs were human fodder for the
sun, Rivera drew the analogy to
the factory workers who sacrifice
their energy for the technological
universe.1p166

Rivera embraced human sac-
ifice as his Aztec heritage. His
epic Visions of the History of Mexico (1929–1935) on the
walls of central staircase of the Palacio Nacional has at its
exact center an Aztec priest holding a human heart aloft,
the victim in a bloody white shroud, a brutal image of the
country’s Aztec heritage and the blood sacrifice Mexicans
paid throughout its history.9 Each of the pyramids in his
later mural The Great City of Tenochtitlan (1942–1953),
also at the Palacio Nacional, has bloodstained steps from
the temple at its apex.5p445–48

So where is human sacrifice in the Detroit murals?

Pyramid and volcano
The central image in the Surgery Panel is the operative

field. The mound of bloody surgical sponges and drapes be-
comes an Aztec pyramid, the scene of human sacrifice. The
panel occupies the same wall as the dark, brooding pyramid and
the industrialized image of the bloodthirsty goddess Coatlicue,
the creator and destroyer.

The surgeon becomes a modern-day Aztec priest remov-
ing a testis, the gland that in Rivera’s male eyes at least, is both
life-giving and the seat of masculine energy, the sacrifice made
in the name of industrialism. The surgeon’s right hand holds
an ovoid organ, the opposite hand providing counter-traction.
McMeekin, in her monograph addressing the science depicted
in the murals, mistakes the operation as
brain surgery (the right hand holding a
brain tumor), and the figure at top center
an open skull showing the tumor.3 A photo
of Rivera at work on the surgery panel
from a line drawing clearly shows the ovoid
testicular shape in the surgeon’s hand, the
opposite hand providing counter-traction
to stretch the spermatic cord.2

Misidentification thus misses the sig-
nificance of the organ: the seat of masculine
energy, the human raw material of industry.
When painting the Detroit murals, Rivera
was at the height of his artistic powers and had left dozens of lovers in his wake. He likely viewed castration viscerally as an unthinkable act, a sacrifice of a part of himself that energized both his personal and artistic life. Removal of a testis would be the modern equivalent to the Aztec ritual removal of the heart.

The mound of white sponges with its bloody crater-like center also becomes a white-sloped volcano with red lava flowing from its summit. It thus recalls the volcano atop the furnace of the opposite north wall, and the iconic geologic landmarks of the Aztec capital, the snow-capped volcanoes Popocatépetl and Iztaccíhuatl. It is an image Rivera used before in the human sacrifice scene in his mural at the Palacio National. The white shroud covering the victim and the bloody rent in its side is peaked, taking the form of a snow-covered Popocatépetl with lava flowing from its summit.

Energy

Flowing toward and away from the operative field in a broad "V" are broad waves in light grey, viscous and amorphous on the left, then coalescing into crystals toward the right. It recapitulates the strata motif in the middle registers of the main north and south walls. The waves signify the energy locked within inanimate raw materials. Downs suggests that Rivera would have known the early twentieth-century writings and beliefs of theosophists Annie Besant and Walter Russell, who became president of the Artists' League of New York in the early 1930s. They proposed that the recent discovery of the wave properties of light explained the movement of energy on earth in the form of waves.

Rivera had always been intrigued by the image of the wave. Increasingly it had been implicit in his painting. . . . Now he set out to paint the wave explicitly, the wave that runs through electrons, mountains, water, wind, life, death, the seasons, sound, light, that does not cease to undulate in the dead, nor in things that never lived.

Understanding the image to signify human energy and recalling Rivera's appetite for sex, the ropy material on the left resembles semen, which one could imagine Rivera's personal image of germinal energy. Never before shy in his personal sexual exploits (a nude Helen Wills Moody, a Rivera inamorata, stretches across the ceiling in his San Francisco mural at the Pacific Stock Exchange), Rivera might be showing more restraint and less explicit imagery for his Detroit benefactors.

An assembly line—for a worker

To the left of the surgeon are the digestive organs and endocrine glands that provide human energy. McMeekin misidentifies several organs, missing altogether the pituitary, thyroid, adrenal, and thymus. No doubt dependent on her medical sources she sees a gall bladder where there isn't one, says that the segment of duodenum attached to the pancreas to be partially obstructed small bowel (it isn't), and identifies one of the organs as "an intussusception" (not so). By wrongly including pathological conditions she misses one interpretation of the array of organs to each side of the surgeon; it is an assembly line for the formation of a human worker. Beneath the furnace on the north wall is an assembly line of parts hanging from a conveyor in the same broad "V" as the organs on each side of the surgeon. Some parts on the conveyor to the left are bent pipes with open mouths on each side, one in a "C" shape in the same orientation as the duodenum, pancreatic head seated in place, both ends open. The surgeon, then, might well be placing organs into a living being rather than removing one, becoming the life-giving embodiment of Coatlicue.
To the right of the operation are male and female sexual glands and female breast that are the basis of reproduction and infant nurturing (each of which McMeekin correctly names). This begins several scenes in the composition that shows the genesis, nurturing, and destruction of humans: a human embryo (Healthy Human Embryo panel, upper right corner of the north wall), a fetus gestating in the embrace of the roots of a plant (Infant in the Bulb of a Plant, center of the east wall), two women (in Downs’s words, “exuding fecundity”1p74) holding fruit and grain (both east wall), vaccination (above the Embryo panel), and death (Cells Suffocated by Poisonous Gas, upper left corner of north wall). The juxtaposition of male and female structures also reveals the hermaphroditic identity of the androgynous titans atop the composition.

Frida Kahlo’s medical art in Detroit

Rivera was not the only artist producing memorable medical artwork in Detroit. Frida Kahlo painted some of her most famous masterpieces during their stay in Detroit. In 1932 while he was painting what he considered his finest work, his wife was enduring a miscarriage and the news of her mother’s death more than 2,000 miles away in Mexico City. Three of her works that year, the lithograph Frida and the Abortion (1932) and two paintings on metal, Henry Ford Hospital (1932) and My Birth (1932), portray brutally explicit medical images that have become landmarks of Surrealism.7

In Downs’s words, Kahlo’s stay in the United States “was wretched.”1p8 She had just suffered a miscarriage. She was not fluent in English and felt isolated among the glitterati that surrounded them. While her husband embraced the accoutrements of wealth, she disapproved of American capitalism. The
obese sybaritic extrovert could be seen in San Francisco stuffed beside blond haired Moody in her convertible. Kahlo handled her own affairs with both men and women during her stay with more discretion.4

Kahlo became pregnant again in Detroit. She and a trusted friend, Leo Eloesser, a San Francisco surgeon, debated whether she should have an abortion or try to carry the child. Rivera was not interested in a child, anticipating that one would be a nuisance to his work and travels. A child would keep Kahlo from accompanying him, something she wanted to do. Eloesser and Rivera were also concerned about the effects either an abortion or childbirth would have on her health. Kahlo wanted a child but was convinced that childbirth would kill her. She requested an abortion and received quinine and castor oil as an abortifacient that produced only a light hemorrhage. She then decided to continue the pregnancy, but miscarried in July 1932. Rushed to Henry Ford Hospital, she recuperated as an inpatient for a week.4

Kahlo grieved her loss despite her ambivalence about the pregnancy. In both Frida and the Abortion and Henry Ford Hospital Kahlo cries large oversized tears. While Rivera may not have wanted a child, the connection she feels for him is unmistakable. Marnham notes a resemblance between Rivera and the fetus in Frida and the Abortion (1932).4 She had previously depicted Rivera as her unborn child in a earlier drawing after her 1930 abortion; she later erased the image.7

Against the advice of her doctors Rivera brought medical texts and references to Kahlo’s bedside and encouraged her to paint. Obstetrician Helene Bernstein notes that the medical images in the works that resulted are the most strikingly accurate portrayal of reproductive anatomy and childbirth in art history to that date.6 Rivera understood that behind the anatomic accuracy there was profound agony:

[Frida] began work on a series of masterpieces which had no precedent in the history of art—paintings which exalted the feminine qualities of endurance to truth, reality, cruelty, and suffering. Never before had a woman put such agonized poetry on canvas as Frida did at this time in Detroit.11pp123–4

Both artists used medical images, startling in their realism, to produce artistic masterpieces. Rivera’s work covered hundreds of square yards in the center of one of America’s great museums; Kahlo’s were on two small sheets of metal barely a foot square, easily small enough to be packed away and sent back to Mexico City, out of view in private collections. (Today Henry Ford Hospital is in the Dolores Olmedo Museum; pop star Madonna owns My Birth.)

Today popular acclaim has taken a turn. Thousands poured into the museum courtyard after it reopened to the public March 21 1933. 10,000 on Sunday March 26 alone.1 Now the museum is at risk of having its collection sold off to pay municipal debt.12 A recent exhibit of Rivera and Kahlo’s work that included Frida and the Abortion and Henry Ford Hospital attracted thousands and generated blockbuster revenues for the High Museum of Art in Atlanta.13 Downs notes the irony: “Kahlo’s tiny paintings done in this difficult time in Detroit have now become well known and a significant part of world popular culture, and Rivera’s gigantic murals . . . which were intended to reach the masses, are little known outside of that city.”1960

References

2. Perriot GR, Richardson EP. Diego Rivera and his Frescoes of Detroit. Detroit: The Detroit Institute of Arts; 1934.

The author’s address is:
Department of Surgery
1 Medical Center Drive, P.O. Box 9238
Health Sciences South, Suite 7700
Morgantown, West Virginia 26506
E-mail: dknakayama@hsc.wvu.edu

The Pharos/Summer 2014
Until 1907, scurvy was thought to be a strictly human disease. In that year, Theodore Frølich and Axel Holst, two Norwegian physicians studying beriberi, a similar appearing but fundamentally unrelated disease, decided for no very compelling reason to use guinea pigs instead of pigeons as their research animals. To their surprise, the guinea pigs on the experimental diet did not develop beriberi, but
scurvy instead. Serendipity often graces science: guinea pigs accidentally made toothless due to weakened connective tissue led to the discovery of vitamin C and, along the way, helped stir up public support for the initiative to iodize salt in the United States.

Much of the developed world has in recent years become over-inundated with news about vitamins, minerals, antioxidants, flavonoids, and the like. Today it is hard to imagine a time when people did not know about the relationship between vitamin C and citrus fruit, or when iodine was just an unnamed element dissolved in the sea. The thoughtlessness with which we can pop a pill filled with thirteen vitamins, thirteen minerals, and six trace elements belies the tortuous path knowledge can take. While we are a far cry from Anaxagoras’ 475 BC proclamation of the existence of “homeomerics” (generative components) in food, it is also true that the primary cause of mental retardation in 2013 is lack of iodine, an easily curable mineral deficiency. The history of vitamins and minerals is a fascinating look—uplifting and discouraging in turn—into how we interact with scientific truth and with each other.

The Limeys, scorbutus, and vitamin C

Hippocrates wrote one of the earliest known descriptions of scurvy. As quoted in A Treatise on the Scurvy, he wrote that patients “had ulcers on the tibia, and black cicatrices.” It is from these cicatrices—which form because of aborted collagen synthesis resulting in impaired tissue repair—that the disease got its Latin name, scorbutus, which then became, via a short detour through Scandinavia, the English scurvy. In 1747, Scottish naval physician James Lind undertook what was the first almost clinical trial in history. Twelve sailors with scurvy were divided into six groups of two, each of which got the same diet but with one different ingredient. One group got cider, one vitriol, another vinegar, the fourth seawater, the fifth oranges and lemons, and the sixth a spicy paste plus barley water. The results of the trial—one cure and one nearly complete recovery after six days in the oranges and lemons group, as well as partial recovery in the cider group—were published in Lind’s 1753 work, A Treatise on the Scurvy.

Lind was by no means the first to suggest a cure. John Woodall in the early 1600s persuaded the Dutch East India Company to provide lemon juice along with “Limes, Tamarinds, Oranges, and other choice of good helps” for its sailors. And in 1536, the crew of Jacques Cartier, the explorer who claimed Canada for the French, was saved from scurvy by the suggestion of Iroquois prince Domagaya to drink a tea brewed from the annedda (arbor vitae) tree.

These discoveries notwithstanding, scurvy caused the deaths of two million sailors, including the majority of the crews of both Vasco da Gama and Magellan, between 1500 and 1800. Why did it take centuries to institute something as simple as citrus fruit in the diets of navies worldwide?

Part of the answer lies in an astonishing fact: James Lind did not himself believe that citrus fruit alone was a cure for scurvy. This illustrates an important aspect of scientific progress: if a scientist cannot conceive of a reason for a given result, he is far more likely to attribute the result to chance. The term “vitamin” would not be coined for another one hundred and fifty years and hundreds of thousands of sailors would die from scurvy after 1753.

Finally, in 1794, lemon juice was issued on board the HMS Suffolk on a twenty-three-week nonstop voyage to India. There was no major outbreak of scurvy on the voyage. This stunning result, coupled with the work of Gilbert Blane, chairman of the British Navy’s Sick and Hurt Board, who knew of Lind’s experiment, resulted in the provision of fresh lemons to the Royal Navy during the Napoleonic Wars. The improved health of British sailors played a critical role in naval battles, including the Battle of Trafalgar. There is nothing like defeat in war to make a country take notice; the French and the Spanish adopted...
the British solution in their navies soon after. And yet this is only half the story. Three factors combined to deeply confuse matters in the nineteenth century. First, lemons were replaced by West Indian limes—thus the term Limeys for British sailors—because they were more easily obtained from Britain’s Caribbean colonies. But limes intrinsically have one-quarter the vitamin C content of lemons, and they were served as juice that had been exposed to light and pumped through copper tubing, further decreasing their vitamin C content. This was another reason for Lind’s skepticism: after his experiment he had switched from fresh citrus to lime juice, which was not nearly as effective. Second, fresh meat also cured scurvy, and there was no obvious connection between the two foods. Third, the infectious theory of disease was coming into vogue. Under this theory, scurvy was attributed to “ptomaines”—alkaloids—in tainted meat. As late as the early twentieth century, voyagers to Antarctica developed scurvy.

It was at this crucial time—in 1907—that Frølich and Holst’s guinea pigs came into the picture. The two scientists found they could cure the animals using a variety of fresh food and extracts. Unable to make sense of their results, the scientific community ignored their contribution for decades. By 1928, the anti-scurvy agent, whose structure was still unknown, was referred to as “water-soluble C.” That year, two separate teams, one in Hungary led by Albert Szent-Györgi, the discoverer of the citric acid cycle, and one in the United States led by Charles Glen King, began work to isolate the compound. Szent-Györgi isolated hexuronic acid as a candidate for vitamin C but could not prove it without a biological assay. In 1931, he sent the last of his hexuronic acid to King’s lab, which proved that it was indeed the long-sought vitamin C in 1932. The compound’s chemical structure was deduced by British chemist Walter Haworth a year later, and it was named ascorbic acid in honor of its anti-scurvy properties. Szent-Györgi was awarded the 1937 Nobel Prize in Medicine and Haworth shared the 1937 Nobel Prize in Chemistry, marking the culmination of the search for the cure for scurvy.

Polished rice

At first there is paralysis of the extensors of the legs; the bird sits on a flexed tarso metatarsal joint. Paralysis soon extends to the wings, nape of the neck and the entire musculature. The animal then lies motionless on its side; a deep prostration appears frequently on the second or third day after the onset of paralysis— at the latest, in one week—and is followed by death in all cases; the whole course of the disease is run in a very short time.

So reads Casimir Funk’s chilling description of chicken beriberi. The disease has existed for millennia. The terms for it...
All describe the generalized weakness, the bizarre gait, and the paresthesias that were outlined by Jacobus Bronnitus, the physician for the 1627 Dutch East India Company in Java—whose ship, incidentally, was likely amply stocked with lemon juice.¹¹

How did a disease in the exotic East influence the direction of Western vitamin research when Europeans weren’t the ones getting sick? In the latter half of the nineteenth century, European imperialism had made forays deep into Asia; many Asian countries assimilated European technology. Steam-driven mills sprang up all over the continent, efficiently stripping the hulls (“polishings”) off of rice. White rice quickly replaced brown rice as a staple food, and in the wake of this so-called superior product, the incidence of beriberi skyrocketed.

From 1878 to 1882, one-third of Japanese Navy sailors developed the disease and many died. Kanehiro Takaki, later to be affectionately dubbed the “barley baron” for his work, was a Japanese naval physician who had trained both in traditional Chinese medicine and in London. In 1883 on a training mission from Japan to Hawaii, he noticed two things: the high incidence of beriberi among enlisted men, whose diet was mainly composed of white rice, and the absence of the disease among officers, whose diet consisted of vegetables and meat. Takaki petitioned the emperor to fund an experiment with an improved diet on the same mission the next year. It was a great success—the incidence of beriberi dropped an order of magnitude. The diet, which included meat, barley, and fruit, was implemented throughout the Japanese Navy, virtually eliminating the disease from the fleet.

Takaki attributed the incidence of beriberi to protein deficiency; thus, he was wrong in the particulars. But the disease is indeed caused by dietary deficiency, and in that sense Takaki’s theory, though imperfect, was a tour de force of epidemiology.¹²

A Dutch physician, F. S. van Leent, had in 1879 proposed that a one-sided rice diet was the cause of beriberi.¹³ But Europeans ignored both his results and those of Takaki. In 1886, two years after beriberi rates had begun plummeting in the Japanese navy, the disease was endemic in the Dutch East Indies and the Dutch government sent a commission to discover the cause. One of the investigators was Christiaan Eijkman, whose thesis had been On Polarization of the Nerves, making him an ideal candidate to investigate the peripheral neuropathy of beriberi. Eijkman’s studies with Robert Koch predisposed him to assume an infectious cause, and although none was immediately discerned, an undeterred Eijkman, by now the Director of the Geneeskundig Laboratorium in Indonesia, continued his work injecting chickens with isolates from people who had died of beriberi.

In 1889 he got lucky. A disease eerily similar to beriberi broke out among the chickens. Eijkman was nothing if not thorough—when he learned that the chicken feed had recently been switched to white rice, he began feeding experiments and found that both unpolished rice and the discarded rice polishings cured the disease.

Old habits die hard. Influenced by the ubiquitous “ptomaine” theory, Eijkman clung to his infectious framework for years, writing that “cooked rice favored conditions for the development of micro-organisms . . . and hence for the formation of a poison causing nerve degeneration.”¹⁴ He thought his results important enough to share, however, and in 1895, before leaving for Europe due to ill health, he told Adolphe Vorderman of his feeding studies.

As the physician responsible for medical inspection of the prisons across the East Indies, Vorderman was intrigued: he remembered having noticed in passing that prisons with different rice had different beriberi incidence. Vorderman was unique in his efforts to avoid scientific bias, both in himself and in others, and the study he designed and implemented, though imperfect, was a tour de force of epidemiology.¹⁵ His first step was to write each prison governor with regards to beriberi incidence and the type of rice used, without suggesting a possible connection. When the correlation seemed nearly perfect, Vorderman visited all 101 prisons he had written to, with the purposely vague official mission of “looking in to the health status of prison inmates.” He sampled the rice from each prison, placed it in containers marked only with de-identifying letters, and sent them for analysis. The results were staggering: in prisons with white rice, the proportion of beriberi cases to number of prisoners was 1:39; in prisons with fully unpolished rice, this fell to 1:10,725.

Dutch physician Gerrit Grijns continued Eijkman’s work with Vorderman’s results in the back of his mind. He excluded as a cause every one of the dietary components of a “complete” nineteenth century diet. The nutrient beriberi patients lacked was neither a protein, a carbohydrate, a fat, nor an inorganic salt. Grijns took particular note of the fact that had bedeviled scurvy researchers for years: scurvy could be cured by fresh

---

¹¹p445

¹²Christiaan Eijkman. Courtesy of the National Library of Medicine.
meat or by citrus fruits. In 1901, putting two and two together, he postulated that there was some hitherto unknown class of nutrient and that the missing substance in beriberi was either necessary for maintaining metabolic functions in the peripheral nervous system or protecting the nervous system from some other environmental agent.

In 1912, Polish chemist Casimir Funk isolated an amine that he thought was the anti-beriberi compound (in fact it was actually nicotinic acid, vitamin B₁, contaminated with thiamine, vitamin B₁) and coined the term “vital amines,” shortened to “vitamines.” That same year, Frederick Hopkins published his work demonstrating that “complete” nineteenth century diets fail to support animal growth. History is not always just; Grijns, whose work corrected Eijkman’s hypothesis and preceded that of Hopkins, was barely mentioned in either of their Nobel lectures in 1929.¹³,¹⁵

One final peculiar turn of fate: chickens take a long time to develop beriberi and are therefore not ideal research animals for the disease. The isolation of the anti-beriberi factor was therefore tremendously accelerated by the accidental observation that the bonbol, a small tropical bird, develops beriberi with alarming alacrity. In 1926, aneurin (for anti-neuritic vitamin)—subsequently renamed thiamine for a previously overlooked sulfur atom in the chemical structure—was discovered by B. C. P. Jansen and W. F. Donath. And so we come full circle: today we eat white rice without fear of beriberi because it has been fortified since the 1950s with synthetic thiamine, the vital amine stripped off in Asia more than a century ago.

The goiter belt and the globe

Between 1804 and 1814, with the Napoleonic wars raging across Europe, France was in dire need of gunpowder. Gunpowder was manufactured from saltpeter, a collection of nitrogen-containing compounds, made then by mixing manure with wood ash and composting the two with straw. Parisian Bernard Courtois was at that time running his family’s saltpetr business, and in 1811 the wood ash began running low. He began to experiment with seaweed ash. One day, after adding sulfuric acid to the ash, he was startled to find a purple vapor coming out of the glassware. The newly discovered element was later named iodine, after iodes, the Greek word for “violet.”¹⁶

Soon after Courtois’ discovery, Swiss physician Jean-Francois Coindet speculated that the mineral might be the ingredient in seaweed that was effective against goiter.¹⁷ He began dispensing an iodine tincture to patients with goiter as early as 1820.

Jean-Baptiste Boussingault, a French engineer, chemist, and agricultural scientist, in his travels throughout South America, noticed that the prevalence of goiter varied with geography and was highest in areas that did not have access to sea salt. Boussingault advocated the use of iodinated salt—in 1833! In the 1850s, French chemist Adolphe Chatin wrote as explicitly as could be: “the main cause of goiter seems to be a low concentration of iodine in drinking water in certain areas.”¹⁸ For a variety of reasons, Chatin’s idea was stifled by the French Academy of Science; iodine would not be widely reevaluated as a treatment for goiter for another fifty years, despite the fact that it was actually used successfully in France around that very time to improve goiter in 4000 of 5000 children.¹⁷

People were once again rediscovering—and promptly forgetting—something known for ages. It was fitting that Courtois named the seaweed-borne mineral after a Greek color, for the ancient Greeks had been using seaweed to treat goiter thousands of years earlier. In the first century AD, the Roman poet Juvenal wrote, “who wonders at a swollen throat in the Alps?”¹⁹ In 1215 an illustration from the book Reuner Musterbuch depicted an imbecile with an immense goiter, perhaps the first recorded association between goiter and cretinism.²⁰ Swiss physician Felix Platter gave a detailed description in 1602:

Besides, the head is sometimes misshapen: the tongue is huge and swollen; they are dumb; the throat is often goitrous. Thus they present an ugly sight; and sitting in the streets and looking into the sun, and putting little sticks in between their fingers, twisting their bodies in various ways, with their mouths agape they provoke passersby to laughter and astonishment.²¹

The link between the thyroid gland, goiter, and cretinism was not firmly established until 1885, when neurosurgeon Sir William Horsley, known primarily as the first to perform pituitary surgery, pieced together his own patients’ thyroidectomy outcomes and wrote in the British Medical Journal: “I am prepared, in my first two lectures, to support the dictum . . . that cretinism . . . [is] due to . . . arrest of the function of the thyroid
Ten years later, German chemist Eugen Baumann discovered thyroiodine in thyroid tissue, making it easy to understand how iodine deficiency might lead to cretinism. Only in 1907 did American physician David Marine begin work using iodized salt to prevent goiter; it took almost a decade to get an eventually successful large-scale trial of iodized salt in Cleveland public schools underway. Even this success, however, was not enough to get iodization of salt onto the list of national priorities. It was only during World War I, when the United States military noticed that the draft had disqualified many men with goiter in the Pacific Northwest, Northern Michigan, and Wisconsin—the latter two being part of the so-called “goiter belt”—that the necessary impetus finally materialized. David Murray Cowie, professor of pediatrics at the University of Michigan, began a push for salt iodization, citing the results of Marine’s trial as well as the Swiss practice of iodizing salt. The timing was perfect: it was the 1920s, and “important discoveries of vitamins and their roles in food nutrition” were occurring. Public opinion was behind him, and on May 1, 1924, iodized salt appeared; later that year the Morton Salt Company began national distribution. Goiter incidence in the United States plummeted, in Detroit from 9.7 percent to 1.4 percent within six years.

Today, it costs five cents per person per year to iodize salt. Yet, according to conservative estimates, twenty million people worldwide are mentally handicapped because of lack of iodine, with nearly two billion having insufficient iodine intake. Even these statistics are a striking improvement from pre-1993 data, the year—almost two centuries after Boussingault’s suggestion—that the World Health Organization (WHO) adopted universal salt iodization.

The WHO, along with organizations such as the International Council for the Control of Iodine Deficiency Disorders (IDDICCC), has made major strides in recent years. Ten percent of households consumed iodized salt in the 1990s. In 2003, this number has risen to sixty-six percent. Though much work remains to be done, it is not unreasonable to look forward to a time when an accidental byproduct of French gunpowder manufacturing reborn from ash brings forth the true potential of millions of children the world over.

Reflections on a saga

A few interesting observations on medical progress can be gleaned from the history of medical advances:

1. Science moves forward by the hard work of brilliant and lucky people—Adolphe Vorderman’s trek to 101 prisons in the Dutch East Indies was hard work, Kanehiro Takaki’s insight into the true nature of beriberi was brilliant, and Axel Holst’s and Theodore Frølich’s switch to guinea pigs was lucky.

2. Discovery is rarely the product of one person—while Albert Szent-Györgi received the 1937 Nobel prize in Medicine for his discovery of vitamin C, the prize could well have been divided infinitely among the Iroquois people, James Lind, James Woodall, Frolich and Hølst, Charles King, and on and on. True, Szent-Györgi put it all together, but he built on a multitude of contributions.

3. Truth is not enough—Domagaya’s annedda tea, Kanehiro Takaki’s improved diet, Adolphe Chatin’s calls for iodized drinking water—none of them had a permanent effect on pushing
Science forward. Sometimes, timing is everything. 4. Disease does not respect international boundaries, and neither does scientific progress. When we ignore this simple fact, people the world over suffer. On the other hand, when we remember this fundamental interconnectedness, medicine serves its true purpose: the prevention and cure of disease, wherever it might be found. A final episode from vitamin history illustrates the point: Wernicke-Korsakoff syndrome, mainly observed in Europe and the United States and long thought to be a result of alcohol toxicity, was hypothesized in the 1930s to be caused by thiamine deficiency. This was conclusively demonstrated in the 1950s. Thus a treatment first discovered to prevent beriberi in Japanese naval soldiers in the late nineteenth century was shown to heal Western alcoholics in the mid-twentieth.

History is laced with serendipitous beauty. There is perhaps no better reminder of this truth than the vital chemicals hiding in our food and the stories of the people who discovered them. Indeed, as the vitamin pill begins to dissolve in our stomachs, spilling its molecular intricacies, a saga bought with the toil and insight of millennia begins to unfold.

References

The author’s address is:
10 E. Ontario Street, Apartment 3308 Chicago, Illinois 60611 stanley-gutiontov@fsm.northwestern.edu.
An obstetric story

J. Allan Wolf, MD, FACOG

The author (AΩA, New York University, 1972) was a medical director for UnitedHealthcare until his retirement in April 2014.

In July 1977, having finished medical school, internship, a residency in obstetrics and gynecology, and a one-year fellowship in family planning with training in the treatment of sexual dysfunction, I went to work as the junior associate in a well-respected local OB/GYN practice in southern California. One night six weeks into my new role as private practitioner, I was on call for the group when one of our pregnant patients near term was brought to the hospital by her husband. I was there to meet her when she arrived. A young primigravida near term, she appeared acutely ill with markedly elevated blood pressure and abdominal pain that I quickly realized wasn’t labor. Physical examination and lab work confirmed that she had severe preeclampsia with HELLP (hemolysis, elevated liver enzymes, low platelets) syndrome, a potentially fatal complication of pregnancy in which red blood cells break down, the liver and other organs swell, liver function is altered, and the number of platelets falls, increasing the risk of hemorrhage. A major risk associated with HELLP syndrome is hepatic rupture with massive intraperitoneal bleeding. I had seen one case of such catastrophic rupture while in residency, and both mother and baby had died. None of the six other OB/GYNs in the practice I had joined had ever seen a case with hepatic rupture; nor had any of the other OB/GYNs in my community.

The definitive cure for severe preeclampsia with HELLP syndrome begins with ending the pregnancy, but I feared that my patient would not withstand induction of labor. I also knew that to proceed with a Caesarean section at that moment might well prove fatal for her, so I opted for an initial effort at stabilization with standard measures for treating preeclampsia: dark room, bed rest, antihypertensive medication, anticonvulsant therapy to try and prevent eclamptic seizures, and something for pain. My plan was to give her six hours to settle down and then do the Caesarean section. I was frightened, but I also knew that panic wasn’t going to help.

The night passed with agonizing slowness and was complicated by the need to manage another labor and delivery that, fortunately, went well. Finally, at 7 AM, I decided that it was time to deliver the baby. While transferring her to the operating table, she suddenly went into shock and, from my reading about the few cases that had been reported, I was certain that she had ruptured her liver and was bleeding internally. I put out a call for a general surgeon, the anesthesiologist crashed her, and I got the baby delivered in under two minutes from skin to placenta. It was of no avail. The baby, deep in shock, could not be resuscitated and was pronounced dead almost immediately.

Mom did better. With the surgeon working on her exploded liver, the anesthesiologist pouring unit after unit of blood, platelets, and cryoprecipitate into her, and me working on her massively hemorrhaging uterus, we managed to get her under good enough control to make it to the ICU.

I had now been up for around thirty hours. One of my associates sent me home to get some sleep and took over her care. Shortly after I left, however, he had to take her back to the operating room for a hysterectomy because of uncontrolled bleeding secondary to a consumptive coagulopathy, a well known complication of HELLP syndrome. Postpartum, she developed Sheehan’s pituitary necrosis requiring comprehensive hormone replacement but, at least, I took some consolation knowing that she had survived.

She continued to see me for care for nearly nine months. Then, her husband’s business failed and, in financial straits, the couple filed a lawsuit against me for wrongful death of the infant, the allegation being that I should have intervened several hours earlier to deliver the baby. The expert brought in by my malpractice attorneys...
predictably disagreed, noting that regardless of the timing of delivery, both perinatal and maternal mortality rates were high in pregnancies complicated by HELLP syndrome with hepatic rupture. The case dragged on for three years until, a couple of days before the trial was to begin, I received a call from my malpractice attorneys to tell me that a former professor and mentor had agreed to testify in court that my care had been below acceptable standards. I was devastated and yielded to pressure from the attorneys to settle the case. Of the six figure settlement, the woman's attorneys got forty percent.

Shortly after the settlement was inked, it came out that the plaintiff's attorneys had lied, and my professor had not agreed to testify but had, in fact, told them that my care was entirely appropriate. Despite my insistence that the case be reopened, my attorneys refused, saying they didn't want to risk putting the woman on the stand and getting enough jury sympathy to swing the verdict against me.

Shattered emotionally, I spent the next five years in deepening depression and self-doubt, unable to find the joy I’d hoped for in my chosen specialty, paranoid in my interactions with patients, and ultimately seriously enough impaired to consider suicide. My 2 AM drives down a twisting mountain road from home to the hospital for laboring patients were filled with thoughts of simply driving over the edge to escape the suffering I thought I could no longer bear. Finally, though, frightened and realizing that while suicide might be an answer for me, it would be no answer for my wife and young daughters, I erupted into the open and told my wife I couldn’t go on and would have to leave practice, even though I had no well-thought-through idea of what I would do next.

As we talked, I realized that I had had no real understanding of how my depression had been affecting her—but her immediate willingness to support my decision made it clear that I had been dragging her down with me in ways I would never have wished. Over the next year and a half and despite many tense days, she stood by me as I worked to move my career in some meaningful direction without throwing away my years of training.

I will not detail all of the intervening steps that led, progressively, to the role I have played for the last nine years that culminated in my recent retirement, but this final professional role has been, in many ways, my salvation and the way I finally have been able to put away the experience that has haunted me so terribly for so long.

In 1999 I went to work for a large health care insurance company and, although it wasn’t the role I had been hired into at the outset, after several years I segued into a full time position doing quality management and, specifically, addressing grievances filed by insured health plan members, problems with impaired or incompetent physicians, and defending physicians and medical facility staffs wrongly accused by patients and their supporters of incompetence, ethical breaches, or other clinical or administrative inadequacy. My role has led me to interact with medical experts in a variety of fields, with (and against) attorneys both admirable and despicable, with hospital, outpatient urgent care, and surgery facilities, and with pharmacies, all with the goal of finding truth while being fair to all, and trying to develop and implement appropriate corrective actions when necessary.

While it is certainly true that many grievances filed against doctors, nurses, and other medical professionals have merit and require intervention to prevent ongoing and future harm, it is equally true that many accusations made by patients are groundless, born of anger over imagined or trivial slights, disappointment over unpreventable adverse outcomes and, not least, billing disputes. Being in a position both to advocate for patients with legitimate grievances and to defend providers wrongly or unfairly accused of substandard practice or unethical conduct has enabled me to redirect what was disappointment and disillusionment with the reality of my personal experience in medical practice into the meaningful pursuit of fairness for both patients and providers caught up in situations that can often spiral wildly out of control.

In so doing, I have come to accept that the vast majority of patients are well intentioned even when wrong in their allegations, and that physicians and other medical personnel overwhelmingly strive daily (and nightly!) to perform their duties at the very highest levels of both ethics and clinical competency. But it is a fact that there are outliers: sometimes patients, who can often be angry, depressed, unreasonable and vindictive, and sometimes providers, who may be insensitive, aloof, and unfortunately lacking in skill or deficient in their personal conduct or communication skills. It has become my good fortune, in the end, to be someone privileged to seek a reasonable path through the maze of human behavior complicating the doctor-patient relationship. I now view human nature in a way I formerly did not, and because of this I have overcome the bitterness, hurt, and depression that destroyed my early career.

Finally, I’ve evolved enough to feel compassion without anger for the young couple whose baby was lost over the course of that horrific night and morning nearly forty years ago, people whose ability to have a mutually conceived baby was lost forever, whose source of income was suddenly cut off, and who lashed out at me in grief and anger, their world collapsing around them. I do not know whether they have ever found sufficient peace or understanding to forgive me, but I have forgiven them, and I am happy.

The author’s e-mail address is: k6jw@arrl.net.
The mysterious illness of Emma Lazarus,
The author (AΩA, University of Rochester, 1955) is Clinical Professor of Medicine in the Department of Medicine at the Robert Wood Johnson Medical School of Rutgers University in New Brunswick, New Jersey.

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in

The New Colossus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon-hand
Glows world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!"

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in

Emma Lazarus is remembered today mainly for her iconic sonnet, written hastily to include in a booklet used in fundraising for the pedestal of the Statue of Liberty.¹⁻³

The statue was a gift from the French to the American people to celebrate liberty and other values shared by the two nations.¹⁻³ The poem attracted little attention in 1883 and, in
The mysterious illness of Emma Lazarus, Lady Liberty’s poet

Life and career

Emma Lazarus was born in New York City in 1849, the second of five children of a wealthy sugar refiner. She was educated at home by tutors, who emphasized cultural and literary interests and fluency in languages. Summers were spent at the seashore in Newport. At age eleven she began writing poetry and her first collection was published privately when she was seventeen. Her poems also appeared in periodicals and she developed many connections within the New York literary community. Her Sephardic Jewish family was fully assimilated and did not practice their religion; virtually all of her friends were Christian. She never married and was never known to have had a romantic relationship with a man.

Lazarus’s life was transformed by violent anti-Semitic outbreaks in Russia in the early 1880s. She took part in relief...
efforts for immigrants and incorporated their distress into her poetry and essays. Lazarus was the first American to propose a Jewish state in Palestine, more than a decade before the first Zionist Congress in Europe. Her passionate identification with the newly arriving Russian Jewish refugees emerged when she was invited to submit a poem for the Statue of Liberty pedestal fundraising campaign in 1883. Later, Lazarus realized that immigrants with other religious and national backgrounds had similar problems. Lazarus had returned from her first European trip three months earlier; she was thrilled to have met many famous writers and artists and looked forward to another visit. Unfortunately, however, this was delayed by what may have been the first symptoms of her illness in 1884 and by her father’s death the following year. In April 1885 she felt well enough to sail.

Illness and death
Almost all of the information about Lazarus’s illness is derived from her letters, particularly those to a close friend, Helena DeKay Gilder. Although we presume it is highly unlikely that an autopsy was performed, given her high social class, her death and funeral service at home, and her burial, which followed directly.

What was known about Hodgkin’s disease in 1887 and how was that diagnosis made? In 1832, Thomas Hodgkin, a London physician, described the clinical and gross pathologic findings that included lymph node and spleen enlargement. By 1887 Pieter Klaases Pel and Wilhelm Ebstein had described the intermittent fever associated with Hodgkin’s disease in a minority of cases. Late nineteenth-century reports of the histopathology featured a distinctive association of mononuclear cells and giant cells, which would eventually replace the gross pathology as the basis for diagnosis. Hodgkin’s disease was considered to be a variant form of tuberculosis by W. S. Greenfield (1878) and Carl Sternberg (1898) although the characteristic giant cells were atypical. In 1902, after Robert Koch’s discovery of the tubercle bacillus, Dorothy Reed, then a recent graduate and research fellow in Pathology at Johns Hopkins Medical School, pointed out the organism’s absence in Hodgkin’s disease. She concluded that it was “a histopathological disease entity.” Not until the mid-twentieth century would it be recognized with certainty as a neoplastic condition.

At the time of Lazarus’s death in 1887 surgical pathology, which had started in Germany, was in an embryonic stage in America. Contemporary case reports included some with confirmation by autopsy, but diagnosis by biopsy lay several years in the future. We must presume that the physicians caring for Lazarus made a bedside diagnosis of Hodgkin’s disease based her lymphadenopathy, splenomegaly, and history of intermittent fever. Various neurologic signs and symptoms had been reported previously and would not have been surprising in an advanced case with obvious cachexia. Hodgkin’s disease was considered to be an atypical form of tuberculosis; central nervous system (CNS) involvement by tuberculosis was well recognized.

Lazarus’s neurologic deficits included motor loss, facial weakness, loss of vision and hearing, dysphagia, photophobia, and cognitive dysfunction. Several paraneoplastic syndromes associated with Hodgkin’s disease and other lymphomas have some of these manifestations, including motor neuron disease,
The mysterious illness of Emma Lazarus, Lady Liberty’s poet

Guillain-Barré syndrome, inclusion body myositis, Sweet syndrome, and primary CNS vasculitis. In addition, the immunodeficiency associated with Hodgkin’s disease may increase susceptibility to rare viral infections, particularly JC virus, which causes progressive multifocal leukoencephalopathy (PML). The cardinal clinical features of PML are visual deficits, motor weakness, and cognitive impairment. With the very limited information available on Lazarus’s illness we can only speculate about the nature of her neurologic condition; PML may be the best guess.

The cause of Lazarus’s severe intermittent pain is also mysterious, as we have no knowledge of its location, duration, or character. Bone or visceral involvement or inflammatory arthritis are possible and, especially in relationship to its episodic nature, one might mention the pain induced by alcohol ingestion in some patients with Hodgkin’s disease. Lazarus drank wine but probably not regularly. However, many popular liquid medications of that era contained alcohol. In one series, seven percent of Hodgkin’s disease patients had this pain and its frequency was disproportionately higher in women. The pain appears very soon after alcohol is ingested, even in small amounts and subsides within thirty minutes to several hours. Almost all patients have objective evidence of disease near the site of the pain. Painful lymph nodes become swollen and warm, suggesting that vasodilatation may be the mechanism, but other vasodilators fail to reproduce the pain.

During her short life Lazarus’s main goal was to have her work recognized and approved by the literary establishment. Unfortunately, during her lifetime the barriers to the acceptance of creative work by women were enormous. Even Emily Dickinson, now one of America’s most revered poets, died in 1886 virtually unrecognized and unpublished. Lazarus had corresponded with Ralph Waldo Emerson, the leading American poet, and even travelled to Massachusetts to spend some time with him. He was very encouraging and supportive, but when Parnassus, an anthology of special poems he selected, was published none of Lazarus’s work was included. She was heartbroken and protested vigorously in a letter to him, but he did not respond.

At the time of her death there was little public awareness of Emma Lazarus and her work outside of the New York literary community and those who had shared in her immigrant relief efforts. Her sonnet had not been mentioned during the ceremonies at the Statue of Liberty’s public opening in 1886. Her sisters destroyed her papers and diaries, and in 1889 published some of her poems, but not “The New Colossus.”

However Lazarus had influential friends who had not forgotten her; one of them, Georgina Schuyler, successfully promoted the mounting of a memorial plaque upon which “The New Colossus” was engraved on the pedestal of the Statue of Liberty in 1903.

On the fiftieth anniversary of the statue’s dedication a Slovenian immigrant writer, Louis Adamic, and many others celebrated Lazarus’s role in transforming the statue into the Mother of Exiles. During World War II Hollywood’s patriotic fervor gave rise to recitations of the sonnet’s last few lines in several movies. In Saboteur, a 1942 film directed by Alfred Hitchcock, the dramatic climax takes place on the Statue of Liberty’s torch hand, from which a Nazi saboteur falls to his death. After the war, lines from the sonnet were included in the Broadway musical Miss Liberty by Irving Berlin, an immigrant from Russia. Today, Emma Lazarus is acclaimed as a champion of immigrants, a warrior against anti-Semitism and a proto-Zionist visionary. Almost single-handedly she reinvented the message of the colossal woman occupying New York harbor’s entrance, a statue which she had only imagined but never seen. Lady Liberty, in Lazarus’s own words, would become the Mother of Exiles, lifting her lamp beside the golden door.

References

The author’s address is:
18 Pickman Drive
Bedford, Massachusetts 01730
Email: bob@pinals.com
A Guest at Communion

The Pastor wipes the chalice clean, as one by one they come to drink. Some place the Host within their mouth then sip. Others dip into the wine, partake as one the body & the blood.

Between hymns and homily, from under his robes the Pastor takes a handkerchief, blows his nose.

With an eye for illness, I wonder what might pass from one to another. This congregation shares their faith and more.

Perhaps the blood of Christ destroys all germs. But to be safe, I'd rather be a wafer dipper than a goblet sipper.

Richard Bronson, MD

Illustration by Jim M’Guinness.

Dr. Bronson (AΩA, New York University, 1965) is Professor of Obstetrics & Gynecology and Pathology, Vice Chairman for Education, and Director of Reproductive Endocrinology at Stony Brook University Medical Center. He is a member of the editorial board of The Pharos. His address is Stony Brook University Medical Center, T9-080, Stony Brook, New York 11794-8091. E-mail: richard.bronson@stonybrookmedicine.edu. Illustration by Jim M’Guinness.
Soon after midnight, after a busy day on the inpatient psych unit, I slipped into a deep sleep. Then the phone rang in the residents’ on-call room.

“Dr. Lazarus?” the voice on the other end inquired.

“Yes,” I replied, half asleep.

“Dr. Hendricks (not her real name) in the ER. Are you the on-call psych resident tonight?”

“I am,” I answered drowsily.

Every physician knows that nightly awakenings are part and parcel of being on-call. And like most residents, I had learned how to short-circuit several stages of sleep to quickly attain alertness when paged. But tonight it was really difficult to wake up.

Arthur Lazarus, MD, MBA

The author (AΩA, Temple University School of Medicine, 1980) is adjunct professor of Psychiatry at his alma mater.
“We have a patient down here. I don’t think you need to see him, but I’d like to run the history by you and see if you agree with the treatment plan before we send him on his way.”

I sat up in bed and said, “Sure. Go ahead.”

“The patient is in his twenties. He has a diagnosis of schizophrenia, and he lives in a local boarding home. One of the staffers escorted him to the ER. The patient tells me he is hearing voices, but the voices are not telling him to do anything bad or hurt himself. Do you think it’s okay to increase the dose of his Haldol from 15 to 20 mg a day and set him up with an outpatient appointment in the psych clinic?”

“Yeah, that sounds fine to me,” I replied, still groggy. There were other aspects of the history that should have been explored, so I added, “Do you want me to come down and see him?”

“Oh, no. That won’t be necessary,” remarked the medical resident. “He looks pretty good. I’m just not too familiar with Haldol, and I want to know if bumping up his dose by 5 mg is appropriate.”

“It could go higher,” I explained, “but that can be evaluated further when he is seen in clinic.”

“Okay, then, Dr. Lazarus. Thanks for your help.”

“Is it quiet tonight?” I asked before hanging up. That was code for asking whether any other psych cases were pending and whether I could count on a good night’s sleep.

“Not much happening,” the resident replied. “Thanks again.”

It took me less than ten minutes to reverse the sleep cycle. I nodded off with a good feeling, comfortable that I was able to provide consultation without having to see the patient. It’s about time I caught a break, I thought, considering that it was spring and I was two-thirds of the way through my first year of residency.

The emergency department was run by the medical house staff, who liberally called upon psych residents to see depressed, addicted, and psychotic patients, even though these patients were supposed to be transported and seen at the community “crisis center” located at another hospital. I felt I was fortunate to be spared a midnight consultation. I also thought it was admirable that my counterpart in internal medicine at- tempted to handle the case herself.

Suddenly, the phone rang at 3 AM. I woke faster than before. “Dr. Lazarus, this is Dr. Hendricks again from the ER. You’re never going to guess what happened!”

Before I could utter a word, the resident continued in distress, “Remember the patient from the boarding home? Well, the paramedics just brought him back. He jumped out the third-story window and it looks like he broke both legs. We’re going to take him to X ray now, and he’ll probably need surgery. I just wanted to let you know.”

All I could say was, “Okay, thanks for letting me know. I’ll make sure the psych consultation team sees him in the morning.”

This time, I couldn’t get back to sleep. I asked myself how this could have happened. The patient was stable, according to the medical resident. He did not have command hallucinations. He was not suicidal or self-injurious. I lay awake second-guessing myself—and the resident—until daybreak. I should have seen the patient, I bemoaned, rather than take the word of a physician with less experience in my specialty.

To make matters worse, in the morning, the ER staff notified the consultation-liaison (C-L) team about the incident before I did, and a rumor had spread that I had refused to see the patient in the emergency room. Shame and guilt set in immediately, like an IV infusion.

I was interrogated by the upper-year resident on the C-L service. I assured the senior resident and the attending physician of the C-L service that I had offered to go to the ER at midnight, but I was told it was unnecessary. The C-L team appeared to be satisfied with my account but not with my judgment to do a telephone consultation rather than evaluate the patient in person.

Clearly, the damage was done. The patient had sustained serious injuries. The house staff dubbed him the “jumper,” and I had become infamously associated with him. No matter how many times I replayed the incident, I could not forgive myself for not seeing the patient, even though a face-to-face consultation had not been requested. I berated myself, thinking I should have known better, that a bad outcome would ensue.
I became overwhelmed with anxiety. I began to dread being on-call. I tried to avoid difficult cases. I became depressed. My performance suffered, and it was noted by many of the faculty. I was placed on probation midway through the second year of my residency.

I sought the help of a senior psychiatrist, who became my therapist. He was a kind and compassionate man who understood what I was going through. He assured me that even a modest improvement in my defenses—unconscious ways of managing conflict and strong emotion—could result in a sizable improvement in my life. But he warned me, “Art, unless you can acknowledge that a patient’s fate is beyond your control, you will not survive in practice.”

My residency director opened my eyes to the fact that psychiatry, like other specialties, has a mortality rate—from suicide and homicide. He said I could not predict the behavior of my patients with any more accuracy than could a lay person, much less that of a patient I had never seen. In fact, research has shown that psychiatric residents are not able to predict violent behavior in patients any better than chance.

Another psychiatrist pointed out that practice norms vary widely across the United States. Neither evidence from clinical trials nor clinical observation can dictate action—nor inaction—in particular circumstances. The management decision for a single patient is complex, requiring a synthesis of incomplete and imperfect information and medical knowledge. “What makes you think,” the psychiatrist probed, “this decision is made with any precision in the head of a sleep deprived resident?”

Intellectually, I agreed with all three psychiatrists, but emotionally, I was a wreck. I continued to blame myself for the incident, and I feared my reputation had been tarnished. I thought about leaving residency for a position in industry. I actually interviewed for a job and was offered the position—ironically, working for the makers of Haldol! I decided instead to stay and complete my residency, if possible.

I sought the help of a senior psychiatrist, who became my therapist. He was a kind and compassionate man who understood what I was going through. He assured me that even a modest improvement in my defenses—unconscious ways of managing conflict and strong emotion—could result in a sizable improvement in my life. But he warned me, “Art, unless you can acknowledge that a patient’s fate is beyond your control, you will not survive in practice.”

Another psychiatrist pointed out that practice norms vary widely across the United States. Neither evidence from clinical trials nor clinical observation can dictate action—nor inaction—in particular circumstances. The management decision for a single patient is complex, requiring a synthesis of incomplete and imperfect information and medical knowledge. “What makes you think,” the psychiatrist probed, “this decision is made with any precision in the head of a sleep deprived resident?”

Intellectually, I agreed with all three psychiatrists, but emotionally, I was a wreck. I continued to blame myself for the incident, and I feared my reputation had been tarnished. I thought about leaving residency for a position in industry. I actually interviewed for a job and was offered the position—ironically, working for the makers of Haldol! I decided instead to stay and complete my residency, if possible.

I slowly regained my confidence, and my probation was lifted after six months. My performance evaluation contained a note from the chairman of the department: “There was some comment on your earlier fear of the psychotherapeutic role, but the consensus was that this has improved markedly.”

The director of residency training added, “The faculty felt you should be less concerned about making mistakes, that we all learn from making mistakes, and that nobody here is expecting you to know the answer every time.”

I knew I had “arrived” when, in my final year of residency, I was elected chief resident. I was now the senior resident on the C-L service. And what was about to transpire would have shaken me to the very core had I not had the benefit of therapy and additional clinical experience since my encounter with the “jumper.”

I was consulted to evaluate a man who had recently undergone extensive surgery for laryngeal cancer. While at home, the patient had put a plastic bag over his head to suffocate himself. Alarmed by the incident, his wife took him to the hospital, and he was admitted to the surgical floor. I found him to be despondent and hopeless. I thought he would benefit from inpatient psychiatric hospitalization, and I recommended transfer to the psych unit.

However, the patient’s doctor, a powerful head and neck surgeon and the father of one of my medical school classmates, resisted my recommendation. I stood toe-to-toe with him and strongly argued for psych admission even though I had not yet had a chance to discuss my plan with the C-L attending physician. The surgeon capitulated, and the patient was transferred for treatment. He was discharged a week later in much better spirits.

Over the course of my residency, I went from turmoil to triumph. I was asked by the chairman of the psychiatry department to stay on-board and join the faculty. I spent the next four years in the department, initially as an instructor, and I was promoted to assistant professor. I was becoming quite the academic, and residents began to call me “Article” Lazarus, because I was either handing out articles on rounds or publishing my own.

Unfortunately, I never could come to terms with the “jumper.” I suffered from post-traumatic stress disorder (PTSD), and I experienced “anniversary reactions” every spring in the form of distressing memories of the event. I had difficulty delegating responsibility to medical students and residents, and I worried excessively about my patients, even about writing their prescriptions. On a few occasions I called my patients to “check” that I had written for the correct dosage.

As time passed, I learned to hide my fears, but the “jumper” clearly haunted me and left an indelible mark on my psyche. I left academia for a career in industry after all. Although the burden of caring for patients was removed, my PTSD morphed into a generalized anxiety disorder (GAD) that has persisted throughout my nonclinical career. Given that PTSD and GAD commonly co-occur, perhaps it was only a matter of time until a different patient or traumatic event would have triggered such intense anxiety. In fact, prior to the publication of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders in 2013, PTSD was considered an anxiety disorder. It is now classified as a trauma- and stressor-related disorder.

The popular notion of PTSD is that symptoms of the disorder, such as flashbacks, intrusive thoughts, and feeling on-guard, coincide with highly stressful and specific traumatic events, for example, wartime combat, physical violence, and natural disasters. In truth, affected individuals may be exposed directly or indirectly to the stressful event. Exposure to the stressor may involve actual or threatened death, serious injury, or sexual violence. And although symptoms of PTSD usually occur within the first three months after the trauma, their onset may be delayed by six months or longer.
PTSD is usually not considered a result of medical training. But in reality, both residents and physicians suffer a high rate of PTSD due to medical practice, whether or not they treat trauma patients or patients with life-threatening conditions.\(^4\) Apparently, the stress of practice alone is sufficient to cause symptoms characteristic of PTSD. PTSD has also been diagnosed in professionals exposed to repeated or extreme aversive details of traumatic events in the course of health-related work. Examples include first responders collecting human remains and police officers repeatedly exposed to details of child abuse.

Dr. James S. Kennedy, formerly at Vanderbilt University Medical Center, stated, “The resulting feeling that physicians [with PTSD] ignore most is toxic shame . . . the belief that one is defective. . . . Once in practice, patient care ‘retriggers’ the toxic fear, loneliness, pain, anger, and shame physicians experienced in training.”\(^5\) I thought I was reading about myself when I read that passage.

PTSD is discussed in Dr. Danielle Ofri’s book What Doctors Feel: How Emotions Affect the Practice of Medicine.\(^6\) Dr. Ofri, an associate professor of Medicine at New York University School of Medicine, describes the riveting story of Eva, a first-year pediatric resident who was traumatized when a senior resident instructed her to let a newborn infant die in her arms—in a supply closet of the hospital no less—because the infant was doomed to a quick death due to Potter syndrome. Dr. Ofri commented, “Eva’s residency was truly a traumatic experience in which survival was the mode of operation. And the PTSD that resulted was real. . . . Certainly, in the breakneck pace of Eva’s residency, there was barely a blip of acknowledgment for the wells of sadness that bloomed, day after day.”\(^6\)

Dr. Ofri, herself, experienced long-lasting shame and humiliation after committing an error that nearly killed a patient. Exactly two weeks into the second year of her residency, Dr. Ofri mismanaged the insulin therapy of a patient in diabetic ketoacidosis. She was severely reprimanded by a senior resident in the presence of her intern. “I could almost feel myself dying away on the spot,” Dr. Ofri remarks. “The details of my insulin error in the dingy Bellevue ER are crisply stored in the linings of my heart.”\(^6\)

In medical school, many of us are told to “get over” our insecurities. It is only through a “hidden curriculum”\(^7\) that we learn that not all patients can be saved or rescued. Over time, we realize the limits of our abilities. Recognition of what it really means to be a physician—the sense of power and powerlessness, of hope and helplessness—is both an attitude and a skill that must be acquired during training.

Still, it is legitimate to ask: Who provides physicians the necessary skills to cope with loss and despair? Who consoles us when our best turns out to be not good enough? Who teaches us how to deal with uncertainty inherent in medical practice? How do we rise above the scandal and embarrassment of making a mistake? And how do we overcome our fear of making mistakes?

Despite psychotherapy and support from my colleagues, I was unable to resolve these issues. Assurance that I was a good doctor was insufficient. Guidance from my mentors didn’t sink in. Textbooks and self-help books seemed inadequate. Advice to “get tough” with patients—and, alternatively, to distance myself from them—was rejected.

I did learn, however, that caring for seriously ill patients, and those who have the potential to become seriously ill, can significantly impact our inner lives. “The inner life of individual physicians should, to some extent, be brought into the outer life of physicians as a collective,” remarked Dena Schulman-Green of the Yale Center for Excellence in Chronic Illness Care.\(^8\) In that case, writing this article has been long overdue.

Anaïs Nin said, “We don’t see things as they are, we see things as we are.” Practice protocols may guide treatment, but our emotions, prejudice, tolerance for risk, and personal knowledge of the patient guide our clinical judgment. We learn how to obtain good outcomes even when care decisions are made with incomplete or flawed data—the so-called art of medicine. Along the way, we learn from our mistakes, and hopefully we learn how to forgive ourselves and seek forgiveness from those we have harmed.

References


The author’s address is:
29 Shinnecock Drive
Palm Coast, Florida 32137
E-mail: artlazarus@comcast.net
The physician at the movies

Peter E. Dans, MD

Jack Ryan: Shadow Recruit

Starring Chris Pine, Keira Knightley, Kevin Costner, and Kenneth Branagh.

The film opens in London on September 11, 2001, where John Patrick Ryan (Chris Pine) is pursuing an economics degree. The 9/11 attack leads him to join the Marines. Cut next to Afghanistan where he and other Marines are being transported in a helicopter while discussing the relative merits of the Baltimore Ravens and Cincinnati Bengals. (This dialogue was probably an homage to Tom Clancy, a Baltimorean and the author of the Jack Ryan novels.) This is the only Ryan story that was not based on a novel; it is a prequel to the series created by Adam Cozad and David Koepp with the blessing of Clancy, who died on October 2, 2013, after production was completed.

The helicopter is shot down and Ryan sustains serious injuries. He is sent to Walter Reed Hospital where he meets and falls in love with Cathy Muller (Keira Knightley), a medical student rotating through physical therapy. She can’t date patients but when she is no longer his caregiver and has embarked on her ophthalmology residency, they begin a relationship. After he leaves the hospital, Ryan is recruited by CIA operative Thomas Harper (Kevin Costner) as an analyst to monitor the Russians who are plotting to destroy the dollar. We are treated to screensful of computer-generated figures and assorted mumbo-jumbo that essentially show that the Russians are hiding numerous accounts and could dump billions in treasury bonds on the market at a critical time, to devastating effect. Ryan is sent to Moscow, where he escapes killers, helps advise the tracking down of terrorists, all the while racing against the clock to prevent a stock market collapse. He is almost killed by the person who is sent to meet him at the airport to “protect” him. This is the first of three all-out battles to save his life.

The movie becomes more interesting when he meets Russian oligarch Victor Cherevin (Kenneth Branagh), the Soviet mastermind of the two-pronged attack on the United States that is code-named “Lamentations.” This is an allusion to the Russian Orthodox religion that was suppressed by the Communists but is now flourishing. Cherevin’s plan is aimed at extracting revenge as a retribution for the loss of his son when the United States backed the mujahedin against Russia.
in Afghanistan. His first prong involves the activation of his other son Constantin (Lenn Kudrjawiski)—who has lived in Dearborn, Michigan as a mole for years—to carry out a terrorist attack on Wall Street. The location made me wonder if this was originally scripted to involve Muslims and, sure enough, it was set originally in Dubai. One wonders what pressure was exerted to get this changed. The second prong is the cashing in of the billions of bonds timed to coincide with blowing up Wall Street. All this is accomplished by Ryan in what has to be an exhausting forty-eight hours with his bad back and gimpy legs. There are the requisite and hair-raising lunatic car chases in Moscow and Lower Manhattan. Totally far-fetched.

Add the cheesy low-budget sets—for example, shots of Saint Basil’s having been filmed in England (I assume the Russians nixed location shots)—and you get a not-very-good picture and one that I would usually tell people to avoid. Yet it’s strangely entertaining. It fits the category of pictures that are so exquisitely bad that they are good. What makes it so is the likeability of the cast, especially Branagh whom Muller diagnoses with jaundice and who has only a few months to live, a life expectancy that is likely to be shortened by his colossal bungling. Kevin Costner is excellent as Ryan’s CIA handler, who acts as a calming influence as Ryan races around Moscow and the United States. Knightley is perfect as Ryan’s fiancée who, because they are not married, cannot be told that he is working for the CIA. When she learns that he is she says, “Thank God.” She thought all his absences were because he was cheating on her. She is invited by Cherevin, who has a soft spot for women, alcohol, and heroin, to come to Moscow and she plays a major role in identifying and tracking the terrorists. The best line is at the end when Ryan and Harper are to meet the president and Harper tells Ryan to “Wipe that Boy Scout on a field trip look off your face.” It’s exactly the persona that’s made Pine unpopular with Ryan aficionados. I kind of liked it.

There were some interesting touches, such as the Snellen chart throw pillow on Muller’s sofa. I also resonated with Ryan meeting his handler at the Film Forum near Lincoln Center during the playing of Sorry Wrong Number, starring the much underrated Barbara Stanwyck, who never won an Academy Award despite numerous outstanding performances. She plays a bedridden hypochondriac who overhears a telephone conversation involving a murder plan and gradually realizes she is the intended victim. This scared the life out of me when I was eleven and swore me off scary movies.

There is also an excellent dinner scene where the wine is an Haut Brion, reminding me of having visited that vineyard with my wife Colette on our honeymoon in 1966. The owner offered to sell us a case of what he said was an excellent vintage but I demurred. Being unschooled in wine (a deficit that persists), we probably would have never held on to it.

Finally, as if to confirm that this is a Geezer movie, the film received the inaugural AARP Movies for Grownups seal intended to recognize films that have a special appeal to age 50+ audience members. What more can I say!

Reference

The Grand Budapest Hotel
Starring Ralph Fiennes, Tom Wilkinson, F. Murray Abraham, and Tony Revolori.
Directed by Wes Anderson. Rated R. Running time 100 minutes.

If I can convince even one reader to skip this movie and to put the time to better use, I will have accomplished my objective. If I hadn’t gone to the screening with two guests I would’ve walked out. I haven’t sat through so terrible a film as Paul Schlase, Tony Revolori, Tilda Swinton, and Ralph Fienes in The Grand Budapest Hotel. ©Fox Searchlight Pictures.
this since Last Year at Marienbad with its long, long couloirs (corridors). Like Marienbad, this film will appeal to intellectual cinéphiles, not middlebrows like me. It is a succession of visuals with a weird story line, if it can be called that. It also has the added attribute of appealing to those who like to spot the stars playing mostly cameo roles: see Bill Murray, see Edward Norton, see Adrien Brody, see F. Murray Abraham, see Jude Law, see Owen Wilson, see Tom Wilkinson, see Ralph Fiennes. That doesn’t include two of my least favorite actors who play menacing roles: Harvey Keitel (with a New York accent), and Willem Dafoe (although, I did like Dafoe in Mr. Bean’s Holiday where he plays a caricature of himself).

Its other appeal involves what I call “doing the Tarantino” (the ex-video store clerk turned director). The game involves recognizing visuals that pay tribute to other films like The Seventh Seal, Night Train to Munich, The Lady Vanishes, etc. Some people in the audience of the pre-release screening laughed at the inside jokes before the punch line.

To call the film “quirky” understates the grotesqueries with the lopped-off heads in a basket and fingers broken off by the closing of an elevator. A better description is pretentious and confusing, as the director skips around from one place to another. Give Ralph Fiennes credit for trying to connect the dots and hold the film together as the central character M. Gustave, “the finest hotel concierge known to humankind,” presiding over a Middle European hotel between the wars. Wes Anderson is considered an auteur director, which allows him to film his personal hallucinations whether the audience understands them or not. David Denby, critic for the New Yorker, characterized the movie thus: “the past becomes visible in stages, as if seen through the wrong end of a telescope that gets repeatedly extended.” He concluded his review by saying that the film is “no more than mildly funny,” producing “murmuring titters rather than laughter—the sound of viewers affirming their own acumen in so reliably getting the joke.”

To be fair I should note that some people liked this film. Michael Phillips, critic for the Chicago Tribune called it “one of Anderson’s cleverest and most gorgeous movies, dipping just enough of a toe in the real world—and in the melancholy works of its acknowledged inspiration, the late Austrian writer Stefan Zweig—to prevent the whole thing from floating off into the ether of minor whimsy. It’s a confection with bite. . . . Even when the dialogue slips into jokey anachronisms or less than sparkling repartee.” Talk about pretentiousness!

Joe Morgenstern of the Wall Street Journal said, “Hardly a moment goes by in Wes Anderson’s The Grand Budapest Hotel when there isn’t something to make us smile—a pretty image, a funny line, a droll sight gag, a charming set, a striking juxtaposition of color or tone. . . . Cosmopolitan, self-ironic and sexually ambiguous, just as Zweig was, Gustave is a picaresque hero, but he is also a fierce survivor who speaks more than once of ‘this barbaric slaughterhouse that was once known as humanity.’” All I can say about that is “Wow!”

Let’s give John Podhoretz, the Weekly Standard’s movie critic the last word: Comparing Anderson to Bertolt Brecht, he said, “I loathe Brecht, but at least he was up to something. What the hell is The Grand Budapest Hotel about? Beats me.”

References

Grand Hotel

Starring Greta Garbo, John Barrymore, Joan Crawford, Wallace Beery, and Lionel Barrymore.


Seeing The Grand Budapest Hotel made me want to check out the 1932 classic, Grand Hotel, a showcase of the luminaries in the Metro-Goldwyn-Mayer studio, which trumpeted that it had “more stars than there are in the heavens.” The film is based on Vicki Baum’s novel of the same name, drawn from her work as a chambermaid at two hotels in Berlin between the wars. The film’s premise is that “nothing ever happens at the Grand Hotel. People come and people go but nothing ever happens.” Actually, many things happen behind the scenes at the sprawling hotel—including murder.

It opens with the old-fashioned switchboard operators expertly handling calls coming in and going out of the most expensive hotel in Berlin. Would-be guests congregate at the front desk vying for a room; this includes Lionel Barrymore as a worker in the factory of another hotel guest, a brutish industrial magnate played by Wallace Beery. Barrymore* has only a few months to live and decides to use his savings on a fling. Beery is a loudmouth Prussian who is trying to engineer a deal under false pretenses to avoid financial ruin. Greta Garbo plays an aging Russian ballerina who no longer draws an adoring crowd. The twenty-seven-year-old Garbo signals her despair both in the film and probably in her personal life in her opening line: “I’ve never been so tired in my life.” She shoos away her hangers-on uttering her signature line that will later become a favorite of mimics, “I want to be alone.”

*For all except John Barrymore who plays the Duke I will use the name of the star since the film is really about them and not the characters they play. Indeed the tales of their interactions during the making of the film are legendary.
A world-weary fifty-year-old John Barrymore plays a Duke who has turned jewel thief to pay off his gambling debts. He intends to steal the ballerina’s pearls, which ironically mean nothing to her anymore because her career seems to be over. Joan Crawford plays a stenographer hired by Beery in one of the sexiest roles she ever played. There’s a great scene with her and the Duke, who when he learns she’s a stenographer asks her if she wouldn’t mind taking dictation from him. The scene would have been cut a few years later, but the film was made in what is called the pre-code era between the time when the Motion Picture Production Code was enacted and its strict enforcement in 1933. Crawford was clearly trying to upstage Garbo and did so to such effect that Garbo complained to Irving Thalberg, MGM’s so-called boy genius who was responsible for the film being made. Thalberg arranged to shoot some extra scenes of Garbo to give her more screen time, including a love scene with the Duke who gains entry to her apartment but changes his mind about wanting to steal her pearls when he sees the vulnerability of the despairing ballerina on the verge of suicide. He makes love to her, speaking such deathless lines as, “I want to be with you; I want to breathe the air that you breathe.” His love energizes Garbo as he tells her, “You must believe that I love you. I’ve never loved anyone like you.”

The film, which cost eighty million in today’s dollars, made substantially more than that. It won the Academy Award as the Best Picture of 1932, but is the only Best Picture that had no other awards. How could it have, being replete with a bevy of actors with large egos jockeying for supremacy and who made their mark emoting in silent movies. The worst is Wallace Beery. Pauline Kael said it best: “Anyone who goes to see this movie expecting an intelligent script or even ‘good acting,’ should have his head examined. Most of the players give impossibly bad performances. They chew up the camera. But if you want to see what screen glamour used to be and what, originally, ‘stars’ were, this is perhaps the best example of all time.”

If you want to see an entertaining film about hotels, I recommend *Weekend at the Waldorf* a 1945 remake of *Grand Hotel*. It stars Ginger Rogers, Walter Pidgeon, Lana Turner, Van Johnson, Edward Arnold, and humorist Robert Benchley, who opens the movie as a concierge walking a dog and inviting us into the hotel. I have a fondness for the picture, which also features Xavier Cugat, who with his pre-Charo singer Lina Romay and his orchestra, was regularly in residence at the hotel. The hotel retains most of the elegance it had when our high school senior prom was held in its Starlight Roof in 1953. There’s a wonderful clock in the middle of the foyer and the piano that Cole Porter played when he lived there. New York in 1945 is best captured in the excellent book *Manhattan ’45*.

**Reference**


Dr. Dans (AΩA, Columbia University College of Physicians and Surgeons, 1960) is a member of *The Pharos*’s editorial board and has been its film critic since 1990. His address is: 11 Hickory Hill Road Cockeysville, Maryland 21030 E-mail: pdans@verizon.net

**Greta Garbo in Grand Hotel. ©MGM**

**John Barrymore and Joan Crawford in Grand Hotel. ©MGM**
A Condition of Doubt: The Meanings of Hypochondria

Catherine Belling
New York, Oxford University Press, 2012
Reviewed by Sally K. Severino, MD
(AΩA, University of New Mexico, 1997)

A Condition of Doubt: The Meanings of Hypochondria is written by Catherine F. Belling, PhD, who is Associate Professor in Medical Humanities and Bioethics at Northwestern University Feinberg School of Medicine. As such, she is in medicine but is not a medical doctor. She views medicine and asks the important question, “How can you tell what is health and what is illness?”

She approaches this question by focusing on the medical condition of hypochondria, which she defines as “mental distress caused by uncertainty about the meaning of actual somatic experience.” Hypochondria is not malingering (pretending to be sick), not a delusion, and not a medical syndrome of unexplained symptoms such as chronic pain syndrome. Rather, the five necessary conditions for hypochondria are: the patient’s fear that disease is present, embodied resistance to surveillance (that is, doctors can find no evidence of disease), doubt about reassurance, informed responsibility on the part of both patient and doctor, and a narrative-based cultural context.

Having defined hypochondria, Dr. Belling approaches her question, “How can you tell?” by dividing her book into four sections:

• “Part One: A Biological Condition” focuses on hypochondria as a function of our human experience as embodied beings who understand our bodies in ways that biological science understands them.
• “Part Two: A Medical Condition” highlights hypochondria’s challenge to the validity of medical knowledge and doctor’s practices.
• “Part Three: A Cultural Condition” portrays the cultural context that frames medical information and gives rise to modern hypochondria.
• “Part Four: A Narrative Condition” describes the challenge that hypochondria poses to medical narrative.

In each section, Dr. Belling views hypochondria not with a physician’s eyes that objectively evaluate a patient’s body, but with the eyes of someone who understands the hypochondriac’s subjective experience of body as represented in literature, drama, and other cultural expressions. This lends itself to a rich experience for the reader as Dr. Belling introduces us to a wealth of serious humanities scholarship that has informed her view of medicine.

In “Part One: A Biological Condition,” Dr. Belling arrives at her view of hypochondria, which I summarize as follows: (1) Hypochondria is not a mental or physical illness but a position, (2) The position is of one who fears and doubts that disease lurks hidden in the body, (3) The position is of one who expects that there must be a doctor somewhere with technology to expose all the body’s inner threats, and (4) The position is of one who tries to discern the body’s future by listening to its symptoms and examining the body.

In “Part Two: A Medical Condition,” Dr. Belling traces the history of hypochondria and exposes the difficulty that medicine faces when it attempts to include the word or condition in its diagnostic classification. She focuses in some detail on psychiatry’s efforts at classification. In psychiatry’s Diagnostic and Statistical Manual (DSM)-4, hypochondriasis appeared as a somatoform disorder. In the new DSM-5, published in 2013, hypochondriasis and somatoform disorder are reconceptualized as a new category called somatic symptom and related disorder. This reconceptualization addresses two concerns of Dr. Belling: (1) that hypochondria is a condition of primary care medicine because the patient’s symptoms are real, and (2) that a diagnosis be based on positive signs and symptoms rather than an absence of medical explanation for somatic symptoms. It does not, however answer another issue: the way medical students are formed into physicians. Here Dr. Belling emphasizes the cultural change that occurred in medicine during the eighteenth century. Before Enlightenment science, the patient’s experience and the doctor’s interpretation co-constructed a diagnosis. After Enlightenment science, the doctor’s search for pathological anatomy of a material lesion became more real than what the patient felt. The ramifications of this change have been further
complicated by the social context of health care since the 1970s, in which patients have learned to challenge the evidence or lack of evidence of disease and doctors have been trained to be not entirely sure about whether a hidden biological reason might exist for the patient’s symptoms. Hypochondria, thus, is a medical condition at the center of a modern contest between patient and doctor.

In “Part Three: A Cultural Condition,” Dr. Belling focuses on three cultural contexts that frame medical information and give rise to modern hypochondria. The first context is the availability of medical information on the Internet that blurs the boundaries between doctors’ and patients’ use of this information and generates what she calls “cyberchondria.” The second context is public health communication, which moves masses emotionally to behave in certain ways to prevent disease rather than providing medical information about disease. The cautionary tales of public health communication contribute to hypochondriacal anxiety about risk of disease. Early detection of disease has created the term “previvor;” someone who has survived a disease before it has begun. Such is the example of Deborah Linder who, when she learned that she carried the gene that predisposes some women to cancer, had both breasts removed. The third context is reading or seeing horror stories. Horror stories offer an infectious anxiety. Both hypochondria and horror prevent closure that would render events meaningful and prevent catharsis that would maintain reassuring order.

In “Part Four: A Narrative Condition,” Dr. Belling illustrates how the structure of stories that tell of hypochondria denies closure and how the discourse in which the stories are told denies credibility. Hypochondria is the story that won’t begin and won’t end. It is like a time bomb. No one knows when it will explode. And, when organic disease is not found, “the patient is trapped in a story that is endlessly just about to begin.”

In the end, Dr. Belling concludes that the answer to the question, “How can you tell?” is: “Sometimes you can’t.” Hypochondria challenges medicine to admit that sometimes there is no objective understanding of reality. Hypochondria cannot be reduced to a pathology or a diagnosis.

Hypochondria suspects a diseased body. Medicine, finding no lesion, can best acknowledge that there may be illness within, but since it can’t be confirmed, it is best to live as if it did not matter.

Whether you agree with Dr. Belling’s portrayal of hypochondria or not, her perspective is erudite and interesting. As an insider—though not for the diagnosis of hypochondriasis—for the revisions of DSM-III-R, DSM-IV, and DSM-IV-R, I welcome Dr. Belling’s perspective on hypochondria, on medicine, and on the human condition. As an undergraduate major in the humanities, I commend Dr. Belling for her valuable collection of hypochondria narratives. As a bridge-builder for cross-disciplinary dialogue, I recommend this book to readers who search for much food for thought.

Dr. Severino is Professor Emeritus of Psychiatry at the University of New Mexico Health Sciences Center School of Medicine in Albuquerque, New Mexico. Her address is: 1050 Joshua Drive SE Rio Rancho, New Mexico 87124-1258 E-mail: skseverino@gmail.com

Far from the Tree: Parents, Children, and the Search for Identity

Andrew Solomon
New York, Scribner, 2012

Reviewed by David A. Bennahum, MD (ΩΩΩA, University of New Mexico, 1984)

Andrew Solomon has written a sensitive, informed, and quite extraordinary book that deserves a place in every physician’s library. At 960 pages this is not a book to be absorbed in a few days or weeks, but a work to be consulted over time. For those of us whose understanding of illness is rooted in medical science, Solomon presents not just fact and supposition but the narrative detail of what it is like to care for and to live with those whose many human experiences differ from the norm or the ideal. The author has copious research to buttress his stories, yet this is the least opinionated of works. Rather it is rich with narrative that carries the reader as close as possible to the actual experience of living with and coping with difference. The book is divided into twelve chapters that include “Son,” “Deaf,” “Dwarfs,” “Down Syndrome,” “Schizophrenia,” “Disability,” “Prodigies,” “Rape,” “Crime,” “Transgender,” and “Father.”

As I watch my son and his wife love and care for their seven-year-old son diagnosed as on the autistic spectrum I was particularly interested in Solomon’s chapter on autism. Let me quote from that chapter.

Some experts argue that we are simply diagnosing it more frequently, but improved diagnosis can hardly be the full explanation for the escalation from a rate of 1 in 2,500 births in 1960 to 1 in 88 today. We don’t know why autism is on the rise; indeed we don’t know what autism is. It is a syndrome rather than an illness because it is a collection of behaviors rather than a known biological entity. The syndrome encompasses a highly variable group of symptoms and behaviors, and we...
have little understanding of where it is located in the brain, why it occurs, or what triggers it. We have no way to measure it but by its external manifestations. The Nobel Laureate Eric Kandel said, "If we can understand autism, we can understand the brain." That is a generous way of saying that we will understand autism only when we understand the brain."\textsuperscript{221}

A wonderful quality of Solomon's writing is his ability to switch from the science to the stories. For example in discussing their child Cece, her parents Betsy and Jeff described visiting a neurologist when Cece was four. After examining the child he said, "If she's not talking at all after this high-quality early intervention [the child had had intensive preschool experience], she'll never talk, and you should get used to that. She has serious autism."\textsuperscript{225}

Cece has actually spoken four times in her life, and every time the words were appropriate to the situation. When Cece was three, Betsy gave her a cookie; she pushed it back at her saying, "You eat it, Mommy." Jeff and Betsy exchanged glances and waited for their world to change. Cece said nothing more for a year. Then one day Betsy stood up to turn off the TV, and Cece said, "I want my TV." At school, three years later, she turned on the lights and said, "Who left the lights on?" Then one day a puppeteer visited the Cece's class; when he asked, "Hey, kids! What color is the curtain?" Cece responded, "It's purple." The capacity to formulate and deliver these sentences suggests a tantalizing lucidity below the silence. . . .

"I think that she might be literate," Betsy said. "I believe that she has a wild intelligence somewhere. I worry that her soul is trapped."\textsuperscript{225}

In chapter one, "Son," Solomon writes that in 1993 the New York Times assigned him to investigate deaf culture. He writes that parents spend inordinate energy and time trying to help their children communicate, and in the process often neglect other aspects of education such as mathematics, history, and philosophy. He writes that the experience of these children and their parents “felt arrestingly familiar to me because I am gay. Gay people usually grow up under the purview of straight parents who feel that their children would be better off straight and sometimes torment them by pressing them to conform. Those gay people often discover gay identity in adolescence or afterward, finding great relief there.”\textsuperscript{231}

The measure of this book is the courage of the author, whether in writing of his own struggles in coming to terms with his natural identity or with his own depression, which he chronicled in a previous book, The Noonday Demon: An Atlas of Depression. The intelligence, honesty, and compassion found in reading Far from the Tree leaves one with a sense of hope and optimism that perhaps we can really take the world in for repairs, as Richard Selzer once wrote, if only we listen to our patient's stories as well as studying and learning the science.

Dr. Bennahum is a book review editor for The Pharos and a member of its editorial board. His address is: 1707 Notre Dame NE Albuquerque, New Mexico 87106 E-mail: dbennahum@salud.unm.edu

What Matters in Medicine: Lessons from a Life in Primary Care
David Loxterkamp, MD
Ann Arbor, University of Michigan Press, 2013, 184 pages

Reviewed by Jack Coulehan, MD, MPH (ΩΑ, University of Pittsburgh, 1969)

David Loxterkamp's What Matters in Medicine is a fascinating mixture of memoir, meditation, and health care policy. He weaves these elements together into a design that, for me at least, was not immediately clear, but which, upon further reflection, I found deeply meaningful.

At its most general level, What Matters in Medicine asks the question: "What would the practice of medicine look like if it were ruled by common sense, if we set out to do only the right thing?"\textsuperscript{168} In answering, the author sketches a picture that most of us would find appealing—more time spent with patients, meaningful personal relationships, shared decision making, community support. Will today’s rapidly changing medical scene, he then asks, end in the final demise of primary care? In other words, are “common sense” and “only the right thing” dying out, or is there hope for them in tomorrow’s medicine?

Drawing from the literature, as well as from his own broad experience, the author discusses the central features of relationship-centered medical practice and the limits placed upon them in contemporary medicine. He is cautiously optimistic about the Patient-Centered Medical Home (PCMH) movement as a possible future. In fact, his own Seaport Family Practice in Belfast, Maine, was part of a national demonstration project that “sought to determine what was needed to transform existing practices into the PCMH model”\textsuperscript{163} and is currently engaged in a five-year effectiveness study of twenty-five PCMHs serving 170,000 patients throughout Maine. Among the salient features
the author describes are same-day appointments, utilization of information technology, employment of midlevel practitioners, emphasis on teamwork, measurement of outcomes, and involvement in the community. However, Dr. Loxterkamp also adds a cautionary note, “What is clear . . . is that the medical home will need more than time to succeed.”

With this statement in mind, let me return to “Staging: A Moral Capital,” the first third of What Matters in Medicine. In this section Dr. Loxterkamp introduces the reader to the lives of three mid-twentieth century general practitioners. The first is Ernest Ceriani of Kremmling, Colorado, who was the subject of “Country Doctor,” a 1948 photoessay by W. Eugene Smith published in Life magazine. The young Dr. Ceriani served as the centerpiece of an article glorifying traditional medical practice and opposing President Truman’s drive to establish a national health insurance plan. The second physician he discusses is John Eskell, a British general practitioner who, under the pseudonym “John Sassal,” became the subject of John Berger and Jean Mohr’s A Fortunate Man, a book-length photoessay in which Dr. Sassal appears as a consummate country doctor, dedicated to his community and immersed in the lives of his patients. The third general practitioner introduced is the author’s own father, Dr. E. O. Loxterkamp, who lived and practiced in Rolfe, Iowa.

In the stories of these men, Loxterkamp discovers dedication, altruism, and compassion, but he also finds a darker side—alienation and depression. As he grew older, Dr. Ceriani experienced conflicts with colleagues and bitter separation from his wife. Dr. Eskell became severely depressed and eventually committed suicide. The elder Loxterkamp died of a heart attack when David was only in seventh grade. The author writes, “It is tempting to say they died with less than they deserved. They deserved longer and less harried lives, more collegial respect, the understanding and support of their communities, and no less happiness in marriage than they found in the discharge of their duties.” These were men whose lives were defined by their work, which eventually diminished or destroyed them. They had certainly set out “to do the right thing,” but theirs were not the rosy-colored lives that our nostalgia for the general practitioner imagines. Something was missing.

The author then turns to his personal memoir in “Departure,” the book’s second major section: his training in family medicine; his decision to settle in Belfast, Maine; the growth and development of his professional practice; his later aspiration to become a writer; and ultimately his national recognition as a model family doctor (à la Dr. Ceriani) in a 1998 Life cover story and an ABC television documentary in 2000. He accompanies this narrative with a series of engaging stories about his relationships with patients.

At this point the reader is left with the contemporary example of the successful—indeed the “model”—Dr. Loxterkamp occupying the foreground, but in the background there remain the three similarly dedicated physicians of the past who sacrificed their health and happiness to the overwhelming demands of primary care. It seems evident that the author views these predecessors as professional role models, but at the same time he has sought to understand and avoid the pitfalls to which they succumbed.

While Dr. Loxterkamp succinctly summarizes his “wish list” for improvements in primary care, he is less direct in explaining how the primary care doctor can maintain his or her own mental and spiritual balance. I think the answers lie in the story of the author’s professional development, along with his brief discussion of Balint groups and reflective practice. Though not explicitly stated as such, these insights include creation and nourishment of supportive peer relationships, development of personally fulfilling interests outside of medicine, a team-approach to practice, and creative engagement with new ideas that actually enhance patient care, i.e., as opposed to embracing expensive new drugs or procedures for their own sake. Perhaps I am reading too much into the stories of those mid-twentieth century general practitioners, but I can’t help but believe that better care for generalists does require a necessary component in providing a viable future for primary care.

Dr. Coulehan is a book review editor for The Pharos and a member of its editorial board. His address is:

Center for Medical Humanities, Compassionate Care, and Bioethics
Stony Brook University
Stony Brook, New York 11794
E-mail: John.Coulehan@stonybrookmedicine.edu

Eugene Braunwald and the Rise of Modern Medicine

Thomas H. Lee (ΩΩΩ, Cornell University, 1978)
Cambridge, Harvard University Press, 2013

Reviewed by Daniel Friedman, MD

A young cardiologist I had the good fortune to hear Eugene Braunwald speak on a number of occasions. I first met him when he gave the keynote address at an annual meeting of the Stanley Sarnoff Endowment for Cardiovascular Research. He spoke to a room filled with current and future investigators and
leaders in academic cardiology. Much impressed by his brilliant reputation I had purchased every edition of his famous textbook since entering the field and seen his name on countless papers. Still it was on that day in Washington, DC that I began to recognize the true magnitude of his contribution to modern cardiology.

Dr. Lee gives us an even deeper appreciation of a man who might be crowned the cardiology king of the last half of the twentieth century. Many physicians are familiar with his scientific contributions in ischemic heart disease, textbooks, and teaching. The biography before us tells so much more as Lee gives us insight into his deep involvement in unraveling the consequences of hypertrophic cardiomyopathy and valvular and congenital heart disease.

Although the book is well referenced and largely based on scientific facts, the early portions tell the dramatic and tragic story of his early life in the cauldron of Hitler’s Europe. It gives the reader a glimpse of the challenges faced by the young Braunwald when he and his family were forced to flee from Vienna and with great luck landed in New York City in 1939. As a Jew in Austria, “his options had been limited at each stage of his life; but perhaps because of those restrictions he wanted to do all he could to keep his future wide open.” His decisions along the way are profoundly educational to any young person mapping out an important career. Much of Lee’s writing deals with the deliberate manner in which Dr. Braunwald made choices at each respective stage of his life, both personal and professional.

He was careful during aspects of his training in New York to keep his options open. In addition to clinical experiences, he began to learn the art of being an investigator. He then spent a “magical decade” at the NIH as chief of cardiology. During that time he came in contact with many of the great basic and clinical science minds of our time. The list of his colleagues there reads like an atlas of Who’s Who in American cardiology.

After the NIH, Braunwald made a crucial and very brave decision to go to the University of California at San Diego, a new medical school, as its first Chairman of Medicine. It was there that he learned to build a great department on the model of Donald Seldin at the University of Texas Southwestern. It was also at the University of California that he learned to lead a research effort beyond his own work and to guide junior colleagues.

In 1972, he and his family headed east once more to New England. The last forty years in Boston has resulted for him in an unrivaled place in this century’s history in cardiology. He was the Chair of Medicine at the Brigham Hospital and later also at Beth Israel Hospital, a combination of jobs that he held with some regret, finding it to be highly draining. Still, he helped raise academic cardiology in Boston to the pinnacle of the field. Even before his arrival in Boston, he had become instrumental in the development of the Harvard Community Health Plan, a model for the nation. His support of this early Health Maintenance Organization not only provided good patient care, but also became an important instrument for departmental funding. Several times Dr. Lee mentions Dr. Braunwald’s great regard for physician “triple threats,” those excelling in clinical, research, and teaching endeavors. Whether we should consider that the best use of creative people today is another question.

The biography also concentrates on the great doctor’s personal life. On graduating from medical school, Braunwald married classmate Nina Starr, who became a prominent heart surgeon in her own right. Working alongside Dr. Glenn Morrow, she performed the first mitral valve replacement. The Braunwalds worked together to balance their important careers while raising two daughters. The author pays close attention to this challenge, which can help many young professionals recognize that one partner’s success does not have to be at the expense of the other.

The difficulties Braunwald faced are not ignored. Despite his prominence, he was unable to convince Bristol Myers Briggs to fund several large clinical trials of their products. Far more importantly, virtually every medical professional has heard of the John Darsee affair. This brilliant young investigator working under the supervision of Braunwald committed profound levels of fraud. Lee write, “The revelation that John Darsee had committed research fraud not just once, but repeatedly over the years at Notre Dame, Emory, and then Harvard came as a shock to the many faculty members who had been so impressed with him at those institutions.” Countless papers had to be withdrawn. “Suddenly Braunwald’s own prodigious rate of research publications became a focus of criticism instead of respect.” The question of whether he had demanded too much of his junior colleagues had to be considered and great lessons were learned. Braunwald himself came to realize that an outside team must pursue the investigation when a team member’s research honesty is called into question. He further realized that once fraud is uncovered the “burden must shift from finding other evidence of misconduct to proving the scientists’ other data were produced honestly.” The book does not play down this momentous event, but it is placed in the context of all of Braunwald’s other phenomenal accomplishments.

Braunwald told this story the day I met him at the Sarnoff meeting. He was telling young investigators how a remarkable career develops. He told the story in a simple matter of fact way. He was not boasting, but rather putting together a brief road map of an almost unbelievable path. Dr. Lee takes us further down that road.

Dr. Friedman is Director of the Presbyterian Heart Group in Albuquerque, New Mexico. His address is:

Presbyterian Heart Group
201 Cedar SE, Suite 7600
Albuquerque, New Mexico 87107
E-mail: dfriedma@phs.org
Poetic encounters: A review of poetry by four clinicians

Reviewed by Jack Coulehan, MD (AΩA, University of Pittsburgh, 1969)

Sometimes I fantasize that poetry is a healing wave sweeping over the face of contemporary medicine. When I was young, doctor poets were rare. Perhaps a few existed, but they didn't publish. Who could have imagined that one day poetry would appear as a regular feature in medical journals like JAMA, The Lancet, and Annals of Internal Medicine? While an average literary journal might reach one or two thousand readers, a poem published in JAMA might be read by 360,000. Nowadays dozens of poetry collections by physicians appear each year. Poetry conferences and workshops have invaded many medical schools. And some clinician-poets, like Rafael Campo, Roy Jacobstein, Richard Berlin, and David Moolten have “broken out” of the strictly medical realm to win major national poetry competitions. It’s a different world out there.

In this review I want to consider several recent collections by new or lesser known clinician poets. The first is Minimally Invasive, a remarkable chapbook by Maria Basile, a practicing colorectal surgeon.

Minimally Invasive: poems on a life in surgery

Maria Basile

Minimally Invasive breaks completely with surgery’s macho image—I should say macha image, I suppose, for a feminine surgeon. Some characteristics remain. Surgeons cut to the heart of the problem and fix it, if they can. They don’t take detours, or beat around the bush. Likewise, Dr. Basile’s poems on a life in surgery demonstrate a unique combination of precision, lyricism, and honesty that cuts to the core of experience. Consider her precise images drawn from professional practice: the panoply of surgical clamps, “the rabbit hole” a surgeon plunges into, the “fatty curtain,” “the clap of steel on rubber glove,” and “good guts” sliding “to quiet corners” of the abdomen. Consider also the extraordinary lyricism of poems like “So Good,” “Euterpe,” and “Goodnight Womb,” with its evocation of a well-loved children’s bedtime story.

The transparent honesty of Maria Basile’s work is perhaps its most striking characteristic. In this era of glib emotion, her integrity shines through in every line. In the final stanzas of “To Sylvia,” addressed to the unstable Ms. Plath, Basile reflects on her own work:

The surgeon at 2 a.m. is stroking sunset blood on college-ruled canvas, breathing blue abandonment between lines, drenching gauze decay in bleach and lye.

She is writing for her life. Here the sentiment, the scene, the meaning are utterly convincing. In his Autobiography, William Carlos Williams wrote that medicine “was my very food and drink” as a writer, “the very thing which made it possible for me to write.” Likewise, in “Truant” Dr. Basile writes:

I have found poetry in the hands of a patient, read history by the lines on his face, heard symphonies in the rumbles of his gut.

These lines strike the reader as a metaphorical truth beyond doubt. Minimally Invasive offers us an amazingly tender look at a life in surgery.

Reference

Scissored Moon

Stacy R. Nigliazzo

Lyricism is also prominent in Scissored Moon, a first book by emergency room nurse Stacy Nigliazzo. In “Confidant”p10 she begins

I am your nurse.
No one knows the things I know.

And later affirms, “Face to face—I will listen.” Indeed, Nigliazzo’s poems reflect active listening, as well as compassionate seeing and sensitive touch. Scissored Moon embraces all the senses in exquisite detail. Her book depicts a nurse’s world fraught with illness, trauma, loss, endurance, hope, and sometimes healing. This is a world of vibrant images, like “his pupils quivering . . . slowly spilling over like bursting inkwells,” “Her
Reviews and reflections

The retired physician—but very active poet—acknowledges these feelings, while also experiencing a sense of unexpected joy and freedom. As he tells us in “Some Days,” there are times he can wake up and hum a little tune . . . and the world is fine, so fine you might imagine no one anywhere has it in for his neighbor or for us and those days I know I’m going to do all right.\(^{p67}\)

Common Illness


T

The title of Frederic Platt’s Was a Doctor highlights the identity crisis many physicians experience when they retire from medical practice. Dr. Platt was a pioneer in the field of physician-patient communication and has published several books on medical interviewing and the clinical encounter. It’s not surprising, then, that most of his poems reveal little “sparks” of insight that arise from interactions with patients. These insights are engaging, sometimes humorous, and always humane. They reveal Platt’s underlying humility in the face of life’s slings and arrows. For example, in “Fired”\(^{p10}\) a patient’s wife dismisses him as her husband’s doctor, a tactic she has employed with many other doctors. Even so, “when I’m told I need to study bedside manner/it pains.” The poem concludes, “There’s no pleasing everyone,/from which I take/no solace.”

The first half of Was a Doctor consists of practice-poems, collectively called “The Stories.” In “L-thyroxin” there is the 102-year-old woman who “drags a bit.” She is hypothyroid, “so I fixed her,/spruced her up with/L-thyroxin,/livened her up to eighty or so.” But she doesn’t take the medicine. What happens? Now she is 104 and “still she drags.”\(^{p33}\) And what about the man, “enormously fat, with a huge head?” He talks funny and “I’m convinced he’s crazy/until I look in his throat . . . ” and see the pus “boiling” behind his tonsils. Platt reflects, “I feel a lot of remorse/that I had so little compassion; yet he is thankful he can prescribe penicillin: “At least there I can help.” (‘Streptococcus,” p. 30)

The first part of Was a Doctor jumps to the fore in the book’s second half, after retirement, when “All that is left are/the memories and the stories/and the fading ring upon the water.” (“Was a Doctor,” p. 59) These poems are full of thoughtful nostalgia, as in “Lost or Misplaced,”\(^{p61}\) which ends,

Disconnection. I miss the relationships where I was important to someone and could pretend to be in charge.

Why did he close his practice? As he says in “Nobody Dies on My Shift,” for many reasons,

but most of all I was getting tired of patients dying, especially people I had known so long and loved so much and never wanted to bid goodbye.\(^{p65}\)

The retired physician—but very active poet—acknowledges these feelings, while also experiencing a sense of unexpected joy and freedom. As he tells us in “Some Days,” there are times he can wake up and

hum a little tune . . . and the world is fine, so fine you might imagine no one anywhere has it in for his neighbor or for us and those days I know I’m going to do all right.\(^{p74}\)

Was a Doctor

Frederic W. Platt
Denver, Colorado, Big Owl Press, 2014

The title of Frederic Platt’s Was a Doctor highlights the identity crisis many physicians experience when they retire from medical practice. Dr. Platt was a pioneer in the field of physician-patient communication and has published several books on medical interviewing and the clinical encounter. It’s not surprising, then, that most of his poems reveal little “sparks” of insight that arise from interactions with patients. These insights are engaging, sometimes humorous, and always humane. They reveal Platt’s underlying humility in the face of life’s slings and arrows. For example, in “Fired”\(^{p10}\) a patient’s wife dismisses him as her husband’s doctor, a tactic she has employed with many other doctors. Even so, “when I’m told I need to study bedside manner/it pains.” The poem concludes, “There’s no pleasing everyone,/from which I take/no solace.”

The first half of Was a Doctor consists of practice-poems, collectively called “The Stories.” In “L-thyroxin” there is the 102-year-old woman who “drags a bit.” She is hypothyroid, “so I fixed her,/spruced her up with/L-thyroxin,/livened her up to eighty or so.” But she doesn’t take the medicine. What happens? Now she is 104 and “still she drags.”\(^{p33}\) And what about the man, “enormously fat, with a huge head?” He talks funny and “I’m convinced he’s crazy/until I look in his throat . . . ” and see the pus “boiling” behind his tonsils. Platt reflects, “I feel a lot of remorse/that I had so little compassion; yet he is thankful he can prescribe penicillin: “At least there I can help.” (‘Streptococcus,” p. 30)

The first part of Was a Doctor jumps to the fore in the book’s second half, after retirement, when “All that is left are/the memories and the stories/and the fading ring upon the water.” (“Was a Doctor,” p. 59) These poems are full of thoughtful nostalgia, as in “Lost or Misplaced,”\(^{p61}\) which ends,

Disconnection. I miss the relationships where I was important to someone and could pretend to be in charge.

Why did he close his practice? As he says in “Nobody Dies on My Shift,” for many reasons,

but most of all I was getting tired of patients dying, especially people I had known so long and loved so much and never wanted to bid goodbye.\(^{p65}\)

The retired physician—but very active poet—acknowledges these feelings, while also experiencing a sense of unexpected joy and freedom. As he tells us in “Some Days,” there are times he can wake up and

hum a little tune . . . and the world is fine, so fine you might imagine no one anywhere has it in for his neighbor or for us and those days I know I’m going to do all right.\(^{p74}\)

Common Illness


Turning now to a younger generation, Aaron McGuffin is a pediatrician and medical educator at Marshall University in West Virginia. Common Illness, his first collection, is structured around the human life cycle, with six sections ranging from infancy to old age. He begins with a certain clinical detachment, as evidenced in the first poem, “Common Illness,” which concludes, “Death is a common illness,/diagnosed at birth.”\(^{p8}\) Detachment is transformed into gentle humor in “Press Conference,”\(^{p19}\) which describes an imaginary encounter with reporters over a breast milk stain on the front of this pediatrician’s shirt. They ask him about his “lactation sources” and “pump” for more information. Finally,
the weary poet confesses:

I can tell they see holes in my story,
that my heralded claims
of being the world’s first male wet nurse
are all titular.
I’m about to be all dried up.

However, beneath McGuffin’s coolness under pressure lies a vein of deep feeling. Many of his poems evoke the tension in medicine between steadiness of purpose and tenderness of action. He mourns a young boy run over by a truck. At a clinic in Honduras, in a room is packed with suffering patients, McGuffin reflects, “There is everything in their nothingness.” The oldest in a family of six children runs over to him,

I touch and we talk in a universal tongue,
the smile of my eyes
staring back at our normalcy.

The empathic connection is universal and normal. Or at least it should be. These poems are remarkable for their clarity, intelligence, and engaging images. And, again, McGuffin has the uncommon ability to convey the medical experience with self-deprecating humor, as in “A Doctor in a Dentist’s Chair,” which begins, “I hate it/on the other side/when I must be the patient.” As he reflects on his own sometimes cavalier or trivializing reassurance to patients, he awaits the dentist’s version of the same,

This won’t take long,
you shouldn’t feel a thing,
we’re almost done.

_Common Illness_ betrays its title. It is, in fact, an uncommonly fine collection of poems.

Dr. Coulehan is a book review editor for _The Pharos_ and a member of its editorial board. His address is:
Center for Medical Humanities,
Compassionate Care, and Bioethics
Stony Brook University
Stony Brook, New York 11794-8335
E-mail: john.coulehan@stonybrookmedicine.edu

---

**2014 Helen H. Glaser Student Essay Awards**

The thirty-second annual Alpha Omega Alpha Helen H. Glaser Student Essay Awards were made in May. This year’s winners are:

First prize: Amy Huang of the Class of 2017 at the State University of New York Downstate Medical Center College of Medicine for her essay, “In the Hollow of Her World: Healing and the Defiance of Illness in _Christina’s World_.”

Second prize: Steven Krager, Class of 2014 at Creighton University School of Medicine for his essay, “The Lullaby.”

Third prize: Melissa Pritchard of the Class of 2017 at Boston University School of Medicine for her essay, “23andWe: How Can Doctors Decode Direct-to-Consumer Genetic Testing?”


Winning essays will be published in future issues of _The Pharos_.

---

**2014 Pharos Poetry Competition winners**

The _Pharos_ Poetry Competition awards were made in April. This year’s winners are:

First prize: Bryan Cheyne of the Class of 2014 at the University of Utah School of Medicine for his poem, “Wounded.”

Second prize: Alyse Marie Carlson of the Class of 2016 at the University of Iowa Roy J. and Lucille A. Carver College of Medicine for her poem, “The Weight of Marbles.”

Third prize: Aisha Harris of the Class of 2017 at Georgetown University of Medicine for her poem, “Sandglass.”

Honorable mention: Trang Diem Vu of the Class of 2016 at Mayo Medical School for her poem, “Breast Exam.”

Honorable mention: Glenna Martin of the Class of 2014 at the University of Washington School of Medicine for her poem, “Third Year Medical School Encounter.”

Winning poems will be published in future issues of _The Pharos_.

---

The Pharos/Summer 2014 49
Alpha Omega Alpha is committed to preparing future leaders in medicine and health care. Leadership is about making a positive difference, and is learned through education, observation, and experience, and working with leader mentors. Service leadership may develop an excellent opportunity for students to develop as servant leaders. The most effective leaders are well grounded in and committed to positive professional values.

AΩA developed this award to support leadership development for medical students through mentoring, observation, and service learning.

The award provides $5000 for the first year, $3000 for the second year, $1000 for the third year. Second and third year funding are contingent on acceptable interim reports.

The winners of this year’s award are:

University of North Carolina at Chapel Hill School of Medicine—Medical Students at UNC Leading, Teaching and Interacting with the Community (MULTI)

Student team leader Stephanie Kiser (AΩA, University of North Carolina, 2013) and student team members, Jacob Stein, Justin Morse (AΩA, University of North Carolina, 2013), and Emily Cohn. Mentor leader Amelia Drake, MD (AΩA, University of North Carolina, 1996, Alumnus), and mentor team members Jeyhan Wood, MD (AΩA, University of Texas Medical Branch, 2007), Brent Golden, MD, DDS, Carlton Zdanski, MD (AΩA, University of Texas Medical Branch, 2013, Alumnus), and Mark Weissler, MD (AΩA, Boston University, 1979).

Over the past fifty years, the concept of multi-disciplinary care has become standard for patients with certain disease processes in which more than one medical discipline has expertise. Multidisciplinary team care offers unique advantages to patients, health care providers, and medical students. At UNC, the Head and Neck Tumor Board, North Carolina Children’s Airway Center, and Craniofacial Team are some examples of this concept at work. In addition to providing benefit to patients, these teams of specialists offer a distinct opportunity for medical student leadership development. Currently, no course at UNC School of Medicine is offered in leadership or multidisciplinary care. Therefore, a unique occasion exists to pilot a medical student course that would allow...
students to gain valuable experience in managing complex medical and psychosocial issues while also developing essential leadership skills as a part of one of these sophisticated health care teams. Our service leadership proposal involves three parts:

1. Developing a curriculum for a new elective in multidisciplinary care
2. Starting and leading an interest group in leadership in multi-disciplinary care for medical students
3. Establishing medical student participation in a formal leadership course.

Multidisciplinary Care Elective

The elective will serve as the first component of our program and will be designed to expose students to the intricacies of multidisciplinary care through active involvement in all aspects of one of the multidisciplinary teams already established at UNC. Students rotating on the elective will be able to choose a specific track (i.e., Head and Neck Tumor Board, Pediatric Airway Center, or Craniofacial Center) or a combination of these. They will develop a formal educational curriculum with selected readings on different aspects of care management and leadership. Student team members will pilot this elective as the first participants this upcoming academic year.

Interest Group in Leadership

The interest group, entitled “Leadership in Multidisciplinary Care,” will be a foundation point for organization of community outreach efforts and speakers on leadership. The AΩA UNC Gamma Chapter will take a leadership role in the organization and maintenance of this interest group, inviting speakers for conversations about leadership and multidisciplinary care, with an expected four speakers recruited annually. In addition, it is through this interest group that community outreach efforts will be organized. In keeping with the focus of the interest group, community outreach events will be centered on multidisciplinary care. The interest group serves as an avenue to which the entire medical student body can effectively be involved with leadership development and service events; we anticipate large participation from first and second year medical students.

ACCLAIM Leadership Course

The final part of the proposal involves having the student team members of this proposal participate in an ongoing formal leadership course in the School of Medicine, entitled ACCLAIM (Academic Career Leadership Academy in Medicine). This recently added leadership course is entering its third year at UNC. The goals of the program include promoting leadership and management development training, enhancing strategic thinking, problem-solving and negotiation skills, and providing mentoring and academic counseling. The program also includes a retreat where participants study the latest models and frameworks for leadership, participate in exercises that demonstrate leadership styles, learn from the leadership skills and approaches of their peers, and develop their own actionable individual leadership development plan. This grant provides the opportunity for extension to medical students and simultaneously opens the doors to allow further participation by medical students in the coming years.

Indiana University School of Medicine—Boys and Girls Club-Indiana University School of Medicine Partnership Program

Student team leader Andrew Krack (AΩA, Indiana University, 2014) and student team members Lori Myers, Josh Lukas, Taylor Coleman, Meagan King, Ryan Freedle, Courtney Myers, Mimi Huang, Mike Kalina, Kaleigh Fetcko, Colin Ray, Samer Kawak, Kayla Swick, Aurora Shands, Leah Oswalt, Korbin Davis, Mary Mattern, Milan Patel, Lindsey Junk, Jeremy Sherer, Hari Vasu (AΩA, Indiana University, 2013), Jonathan Parish, Kenny Moore, David Yang (AΩA, Indiana University, 2014), Katie Byrd, Kasiemobi Onyejekwe, Peter Haigh, Mentor leader Mitchell Harris, MD (AΩA, Indiana University, 1990), and fellow mentor Kathleen Boyd, MD.

Alpha Omega Alpha Alpha of Indiana and the Indiana University School of Medicine (IUSM) Medical Student Leadership Academy in Medicine). This recently added leadership course is entering its third year at UNC. The goals of the program include promoting leadership and management development training, enhancing strategic thinking, problem-solving and negotiation skills, and providing mentoring and academic counseling. The program also includes a retreat where participants study the latest models and frameworks for leadership, participate in exercises that demonstrate leadership styles, learn from the leadership skills and approaches of their peers, and develop their own actionable individual leadership development plan. This grant provides the opportunity for extension to medical students and simultaneously opens the doors to allow further participation by medical students in the coming years.

The Pharos/Summer 2014
Council (MSC) are partnering with the Boys and Girls Club (BGC) of America in nine cities around the state of Indiana—Indianapolis, Gary, South Bend, Muncie, Fort Wayne, Lafayette, Bloomington, Terre Haute, and Evansville. The newly-established Boys and Girls Club/IUSM Partnership Program (BIPP) exposes IUSM students throughout the state of Indiana to underserved youth and engages students at all nine IUSM campuses in civic leadership through the organization of events in collaboration with each respective Boys and Girls Club.

The initial idea for their project budded from the action of a second-year medical student, Samer Kawak, at the IUSM-Northwest campus. His idea was warmly received by $\text{Ω} \text{Ω}$ Alpha of Indiana members and the IUSM MSC following the success of a year-long pilot partnership of event-based mentoring between students at IUSM-Northwest and mentees at the BGC of Gary/Merrillville, Indiana.

$\text{Ω} \text{Ω}$ Alpha of Indiana, the IUSM MSC, and IUSM student body will use funding from the $\text{Ω} \text{Ω}$ MSSLP Award to promote improvements in BCG children’s knowledge and health literacy in areas including, but not limited to, physical activity, injury prevention, diet, social relationships, positive behavioral choices, bullying, mental and sexual health, and prescription/illicit drug use. Their initial educational project will focus on bicycle safety and traumatic brain injury in sports along with the distribution of approximately 300 free bicycle helmets.

In order to accommodate the variable needs of nine different Indiana BGC Chapters, there is and will continue to be a significant opportunity for character and leadership development at the IUSM campuses. Programming novel activities for the BCG mentees will require the active use of executive functioning skills including decision-making, social interaction, planning, troubleshooting, and compassionate leadership that will allow the students to develop robust, practical leadership intelligence.

IUSM faculty Drs. Mitchell Harris and Kathleen Boyd are serving as advisors for the project and overseeing a leadership development and service-learning curriculum. A journal club will meet every other month at which BIPP student leaders will discuss articles pertaining to leadership and service-learning and reflect on BIPP and medical leadership at large. During months opposite the journal club, guests from the IUSM and Indianapolis community will speak on their personal experiences with service-learning and leadership.

In February 2014, $\text{Ω} \text{Ω}$ Alpha of Indiana member Lori Myers and IUSM MSIII Samer Kawak travelled to Miami to present the BIPP concept at the Annual University of Miami Department of Community Services Conference. In March, American Medical Association students from around the Midwest collaborated with the Indianapolis BIPP chapter for a morning of health education at a local Boys and Girls Club. Other IUSM student interests groups are also taking notice and planning joint projects with BIPP.

**University of Miami Miller School of Medicine—Medical Students without Borders (MSB) Leadership Project**

Student team Leader Christine Bokman and student team members Arash Sayari, Yuliya Tipograf ($\text{Ω} \text{Ω}$, University of Miami, 2014), Julia Amundson, and Amir Sharim. Mentor Leaders Julie Kornfeld, PhD, MPH and Alex Mechaber, MD ($\text{Ω} \text{Ω}$, George Washington University, 1998) and mentor team members Michael Kolber, MD, PhD ($\text{Ω} \text{Ω}$, University of Miami, 2013, Alumnus), Stephen Symes, MD ($\text{Ω} \text{Ω}$, Howard University, 1988), and David Birnbach, MD, MPH ($\text{Ω} \text{Ω}$, University of Miami, 2013, Faculty).

From left to right: Arash Sayari (MS4), Christine Bokman (MS4), Dr. Julie Kornfeld, Assistant Dean for Public Health, and Dr. Alex J. Mechaber, Senior Associate Dean for Undergraduate Medical Education.
With the advent of telemedicine, electronic health records, and a rapid increase in international travel, medical professionals are extending treatment beyond borders to reach patients throughout the world. The Miami Students without Borders (MSB) Leadership Program, a four-year global health leadership program for UM medical students, will create physicians who are able to act as leaders not just within their local communities, but also within the global community that the evolution of medicine demands. The University of Miami Miller School of Medicine is particularly tailored for this type of leadership program because of its diverse indigent patient population and unique location relative to countries outside the United States.

The MSB Leadership Program will complement the four-year medical curriculum and focus on experiential learning, including interactive discussions, presentations, fieldwork, and a service project. Progress will be evaluated by upperclassmen mentors with the oversight of faculty members.

- Years one and two focus on the interactive seminars, which include the Foundations of Global Health Leadership I & II, a Global Health Seminar, and the Cultural Awareness and Global Health Disparities Case-Based Learning. Students will also participate in global health fieldwork to integrate leadership skills from the classroom and to lay the groundwork for a global health leadership service project.

- Years three and four require students to assume an active leadership role by mentoring first and second year students, assisting faculty in leading seminars, and carrying out a service project. Projects will focus on global health leadership such as designing a public health program in a developing country or in an underserved population in the United States.

By the end of the four years, students will be able to demonstrate the five proficiencies in global health leadership: 1) global health and social justice leadership; 2) professional responsibility; 3) socio-cultural awareness; 4) communication and teamwork management; and 5) knowledge of global health. Ultimately, the program will prepare future physicians to engage in collaborative capacity-building activities, understand the importance of evidence-based strategies to implement effective global health programs, work effectively within varied cultural settings, and apply leadership skills to advance health equity and social justice on a global scale.

USF Health Morsani College of Medicine—USF Plexus/TBSM Leadership through Service Cooperative

Student team leader S. Nick Kovacs and student members Jason Riccuiti and Bailee Olliff. Faculty leader Shirley Smith, MD, and mentor team members Catherine Lynch (AΩA, University of South Florida, 1990), Dr. Steven Specter, MD (AΩA, University of South Florida, 2012, Faculty), and Elizabeth Warner, MD.

Inducting its first class of twenty-three mentors and thirty mentees in October 2013 the University of South Florida (USF) Health Plexus mentoring initiative at the USF Morsani College of Medicine (MCOM) connects health professional students (medicine, pharmacy, and physical therapy) with pre-health undergraduate students to facilitate the development of professional behaviors and characteristics. A semi-formal program, Plexus includes eight monthly modules that span the academic year and cover a variety of topics ranging from professionalism to resource awareness. Mentors receive training for each module and then deliver this information to their mentees on an individualized basis. In conjunction with the USF Office for Student Diversity and Enrichment, Plexus also hosts mentee group sessions that aim to reinforce recent modules, provide an administrative perspective, and address questions or concerns from participants.

Wishing to expand its efforts, Plexus has partnered with USF faculty in the development of a leadership curriculum for mentors. Furthering these leadership development efforts, Plexus has also collaborated with Tampa Bay Street Medicine (TBSM) to provide a service learning opportunity for participants. TBSM is a new USF MCOM organization that will provide care to the homeless community in the Tampa Bay area. The overarching theme of the Plexus/TBSM coalition will be, “Learning leadership through teaching leadership and partnering in service.”

The current model is set to become the new first year curriculum for incoming mentors and mentees, with the new leadership curriculum offered to continuing second year professional student mentors. The leadership curriculum will also be required for all student leaders of Plexus and TBSM, in an effort to maximize its utility and unity. The curriculum will consist of the following eight workshops:

1. Myers-Briggs—Understanding your personality and the personalities of others
2. Negotiation Skills—Learning to compromise
3. Financing Your Initiatives—How to create an effective budget and manage funds
4. Health Policy—Keeping pace with changes and how they affect your organization
5. Politics—Understanding the motives of others
6. Time Management—How to effectively manage your commitments
7. Public Speaking—How to deliver an effective presentation
8. Dean for a Day—Possibly becoming a one-month elective for fourth year students

In addition to gaining valuable skills at these sessions, mentors will have the opportunity to forge new relationships with faculty who may serve as role models in the art and practice of leadership.

After receiving the above leadership education Plexus mentors will relay these principles to their mentee(s). Then
together, Plexus mentors and mentees will apply their new skills to serving the community through participation in TBSM. It is a future goal of this coalition for senior graduate student mentors to eventually teach the leadership curriculum to second year mentors. This will then create a cycle of health care professionals working together to learn from and teach each other, reinforcing interdisciplinary teamwork, leadership, and service.

Students committed to the Plexus/TBSM combined program will be required to volunteer for “street runs” at least twice per semester. During these “street runs” teams comprised of upper and lower-level professional students, undergraduate students, and volunteer physicians will be equipped with clinical supplies, common over-the-counter medications, and wound care supplies to provide basic primary care. By providing direct care, medical education, and access to resources, students will gain valuable insight into the issues faced by this medically underserved population. Students will also gain a better appreciation for barriers to care in medicine while humanizing and breaking down common stereotypes associated with this vulnerable population. By working together to apply the newly acquired leadership skills and attributes, participants in the Plexus/TBSM Leadership through Service program will complete the cycle of “Learning leadership through teaching leadership and partnering in service.”

Weil Cornell Medical College—
Weill Cornell Center for Human Rights (WCCHR) Leaders in Health and Human Rights Initiative

Student team leader Eleanor Emery (AΩA, Weill Cornell Medical College, 2014), Alexandra Tatum (AΩA, Weill Cornell Medical College, 2014), Alejandro Lopez, Krista Dubin, and Carmen Stellar. Mentor leader Joanne Ahola, MD, and mentor team members Terri Edersheim, MD (AΩA, Albert Einstein College of Medicine of Yeshiva University, 1980), and Yoon Kang, MD (AΩA, Washington University, 2000).

WCCHR is a medical student-run human rights clinic dedicated to providing forensic medical evaluations to survivors of persecution seeking asylum in the United States. Founded in 2010 through a partnership with Physicians for Human Rights, WCCHR is the first student-run asylum clinic at a U.S. medical school and has been heralded as a model for future asylum evaluation programs. The organization is comprised of a diverse and growing team of volunteer clinicians and medical students committed to serving asylum seekers and educating health professionals and the general public about the asylum process.

WCCHR was founded on the twin pillars of service and education. Service is provided to victims of torture from countries across the globe seeking asylum on multiple grounds, including persecution due to race, gender, religion, sexual orientation, and political affiliation. Asylum seekers with medical affidavits that have been prepared by trained physicians are three times more likely to be granted asylum than those without medical documentation. It has been estimated that there are over 500,000 foreign-born torture survivors in the United States and approximately twenty percent of them reside in the New York metropolitan area. Thus, WCCHR is uniquely situated to assist this population in the daunting process of attaining asylum in the United States.

WCCHR is also committed to educating medical students, residents and practicing physicians about human rights violations and ways in which they can utilize the unique skills of their profession to defend victims of torture. The Center provides training sessions and educational seminars to teach physicians and students how to evaluate torture survivors, identify the physical and psychological sequelae of torture and abuse, and write medical affidavits documenting their findings.

From left to right: Third-year medical students Bailee Olliff, Kathleen Pombier, Kathryn Dean, Cindy Shavor. Photo credit by Anabel Anon (MS3).
Trained medical students observe every evaluation conducted by WCCHR’s physician volunteers and assist the overseeing physician or psychologist in writing the medical affidavit. As of December 2013 WCCHR has conducted 130 forensic evaluations for 113 clients from thirty-nine countries. To date, one hundred percent of WCCHR’s clients who have been to court have been granted asylum or another form of legal protection in the United States. WCCHR has also trained a total of 262 medical students, 139 from WCMC and 123 from institutions across the country. In addition, to date WCCHR has trained a total of forty-three health professionals to conduct forensic evaluations and currently has sixteen active evaluators: twelve for psychiatric evaluations, three for medical evaluations and one for gynecological evaluations.

WCCHR is governed by a twenty-member Student Board composed of MD and MD/PhD students with oversight from three Medical Directors and a Faculty Advisory Board. As the first student-run asylum evaluation clinic in the country, WCCHR has served as a national role model. WCCHR is playing a lead role in training students and health professionals across the country as they develop human rights centers. WCCHR has trained students from UPenn, Columbia, NYU, Brown, UMichigan, UMDNJ, Yeshiva, and UC Davis and is currently advising teams of students from many of these institutions.

The goal of the Weill Cornell Center for Human Rights’ proposal to AΩA’s Medical Student Service Leadership Project entitled the “Leaders in Health and Human Rights Initiative” is to formally acknowledge and cultivate the leadership skills that medical students already develop as members of the Weill Cornell Center for Human Rights Student Board. This project will include the development of a number of new service, education, and research projects, each with structured mentorship and feedback components to promote the development of leadership skills and facilitate the creation of areas of expertise for medical students within the fields of human rights and asylum law. The new subcommittees that will supplement the current experience of WCCHR student leaders include Education, Self-Care, Advocacy, Continuing Care, and Research. These subcommittees each emphasize core skills with relevance that extends beyond the mission of WCCHR: students will develop expertise applicable to their future careers as physician leaders dedicated to service.
Dr. Marr responds to Dr. Volpintesta

I am in complete agreement with Dr. Volpintesta’s comments regarding the overuse of technology as a defense against frivolous malpractice suits. The malpractice industry, as with so many things, began as a legitimate attempt to help patients who had been wronged as a result of negligence; yet, it has become a terrible scourge in the practice of medicine due to its lucrative returns to attorneys, whether a suit be legitimate or frivolous. I considered putting something about this in the article. However, I did not because this defensive use of technology actually is tangential to the thesis—the inevitable dilution of the clinician’s role in diagnosis due to increasingly precise diagnostic technology. That is a different, and larger, issue. Although defensive medicine is a significant contributor to health care costs, due to the total costs of the tests and the loss of time that could be used elsewhere, and is worth an article of its own, I do not believe it is relevant here.

J. Joseph Marr, MD
(AΩA, John Hopkins University, 1964)
Broomfield, Colorado

Although offered by “a retired academic physician and business executive,” Dr. Marr offers an excellent review of the progress of Medicine and particularly of the voyage of physicians during the last sixty years. I can also address this course, as a privately practicing clinician for the last fifty-seven years . . . and counting.

My comments will be of little value unless the reader has studied Dr. Marr’s article, which I recommend particularly for younger physicians—since older doctors have lived it and are continuing to live it. I disagree with the author’s conclusion, beginning with the title of the article.

1. We have not fallen from grace: we are being pushed. But we will have a soft landing if only we can survive the next few years.

2. The subject matter brings to mind the title of three songs: “9 to 5,” “I Surrender, Dear,” and “[I Did It] My Way.”

3. “From shaman to skilled labor.” Wrong.

4. Dr. Marr rightly indicates that many physicians have been “complicit” in the changes that now challenge physicians. But he wrongly attributes this to “hubris.” The real error in physicians’ approach has been their understandable desire to protect their patients from the adverse effects of those changes, rather than allowing them to feel their own pain—and to thus be motivated and politicized to resist.

5. The nexus of physician/nurse/patient, with the legitimate addition of physician extenders, survives as the indispensable core of medical care, with the physician as the diagnostician and coordinator of that care. That the physician can now supervise and guide the work of several nonphysicians enhances rather than diminishes the physician’s central role in the process.

6. “Patient visits per unit time”: a corrosive idea. We learned in medical school that, of the three attributes that a physician can offer his patient—ability, affability, and availability—the most important is availability.

7. Yes, younger physicians are different, as are their entire generations. It remains to be seen whether these younger MDs, the 9- to-5ers, will have the foundation, the grit, and the joy of practicing medicine for the many decades that their older colleagues embrace—despite the recent “troubles.” Or will they succumb, not as much to burnout, as to ennui.

8. And that brings up the future. Demography is destiny. Patients will increase in number, age, and debility. Physicians will decrease in number and commitment. But those who remain will be highly valued and appreciated.
for their knowledge and for their devotion to their patients. They will be sought out.

9. And so I end with a quote from Dr. Marr’s fine review, and with my reaction: “The physician will become—has become—decreasingly the guide and guardian of the system and more and more of a supervisor in the mosaic of provision of care.” Wrong.

George A. Sprecace, MD, JD
(ΩΩΩA, State University of New York, Downstate, 1957)
New London, Connecticut

I read with great interest the very fine article, “Fall from grace.”

Dr. Marr’s analysis of what has happened during the past 100 years or so is penetrating. He may have omitted something of importance, however. He and most physicians appear to assume that the basic purpose for being a physician is to help other people, and that the medical profession considers that a physician’s purpose is to “help the sick.” It is worth considering whether this is, in fact, correct. Is not the basic, primary purpose for most physicians usually the same as the basic, primary purpose for almost everybody else? Specifically, is not the major, primary, and basic purpose for any man or woman to support himself or herself and his or her family? Is not that the primary reason why the overwhelming majority of physicians practice, teach, or perform the other roles that physicians play? Of course, physicians act on the basis of motivations for which they receive no reimbursement, such as the desire to help, the passion for teaching, or hope of leaving a legacy about which they can be proud. But where physicians act that way they usually rely on their paying jobs in the clinic, the laboratory, the academic office, or other source of income to pay their bills.

It seems unlikely that physicians have had as their primary purpose helping patients learn how to take care of themselves in order to keep themselves healthy or to improve their health. One need not look further than the Hippocratic Oath, which enjoins physicians to be sure they do not share their knowledge “with other than their brethren.” Teaching patients to take care of themselves is actually contrary to the first paragraph of the Hippocratic Oath.

Medicine has always been a business. Doctors sell services. They are really no different from street vendors selling bananas or bracelets. Physicians have all been reimbursed in various ways. They are all involved in a business.

There have, of course, been models of self-sacrificial physicians, such as Arrowsmith, the protagonist in the novel of the same name by Sinclair Lewis. Indeed, the idealized physician has often been put forward as a person whose life is dedicated to the well being of others. It is not surprising, though, that such self-sacrificial physicians often die young, and so cease being able to help people, as they could have continued to do had they not been so self-sacrificial.

Being a physician, in truth, is a wonderful way to earn an income. Perhaps it is a noble way, perhaps nobler than some other ways. But still, at its base, is the idea that being a physician will allow one to make a living while at the same time being of use to society.

I love being a physician. I get paid for what I love to do. But I get paid. As much as I love being a physician, it is not likely that I would continue to work as one if all I had was overhead and no income (though, actually, I’ve had months like that). It is hard to believe that the primal instinct to survive is not just as strong in physicians as it is in beggars or kings.

George L. Spaeth, MD
(ΩΩΩA, Harvard Medical School, 1959)
Wills Eye Hospital/ Jefferson Medical College
Philadelphia, Pennsylvania

Dr. Marr responds to Dr. Sprecace and Dr. Spaeth

The reader response to “Fall from Grace” has been gratifying. I have received more than fifty letters directly—not for publication—and essentially all have been very empathetic. The observations and conclusions seem to be shared widely by physicians—or the older ones at least.

Several asked about some specific issues and whether they should have been included—defensive medicine was mentioned more than once—but the intent of the piece was to paint the mural rather than focus too sharply.

With respect to Dr. Sprecace’s letter, it appears that we are seeing and living the same events but are reaching sometimes similar and sometimes different conclusions. I cannot comment further on that, but do agree with what I understand as his underlying theme: that quality and dedication are important and may correct some of the abuses over time. The letter from Dr. Spaeth raises interesting questions. Physicians enter into medicine for the best of reasons (Arrowsmith was one of my formative books many years ago) and over time succumb to varying degrees to the vagaries of life. Physicians should be paid appropriately, without question, and the survival instinct certainly is there. I believe we are seeing that in motion now, as physicians do what economics requires and, as a result, are increasingly driven by business practices rather than medical practices. That was one of my points. However, in saving ourselves we have been forced to sacrifice many of the original reasons we entered into this so many years ago. Stated another way, we are now too busy keeping the machine running to remember why we turned it on in the first place. Time, changes in our technology and society, and consequent economic mandates have undone us, as they have in so many others in other walks of life.

J. Joseph Marr, MD
(ΩΩΩA, John Hopkins University, 1964)
Broomfield, Colorado
In 1982, the board of directors of Alpha Omega Alpha established five student research fellowship awards to encourage and support student research. Since then, the awards have grown in number to more than fifty each year.

The fellowship emphasizes a student-designed and -initiated project with an academic mentor. Recipients of the fellowship tell us that the awards have helped them to learn about the joys of scientific and scholarly discovery, and increase their critical understanding of scholarship and research in health care and science. Many recipients of the fellowship have followed up their work as student-researchers to become physician-scientists.

The student receives a $5000 award, with $1000 available for travel to a national meeting to present the research results. In 2004, the name of the fellowship program was changed to the Alpha Omega Alpha Carolyn L. Kuckein Student Research Fellowship awards in honor of Carolyn L. Kuckein, AΩA’s longtime administrator, who died in January 2004.

Evaluations of the fellowship proposals were made by the following reviewers: C. Bruce Alexander, MD; Thomas T. Andersen, PhD; Carol A. Aschenbrener, MD; Robert G. Atnip, MD; Jeremiah Barondess, MD; Syamal K. Bhattacharya, PhD, CLD; Paul A. Bunn, MD; Tim Byers, MD, MPH; Ken Byrd, MD; Julio A. Chalela, MD; Stephen Y. Chan, MD; Lynn M. Cleary, MD; Benjamin Clyburn, MD; Graciela De Jesus, MD; Daniel Foster, MD; Bruce M. Frankel, MD; Doug Fredrick, MD; Gillian Gilraith, MD; Boyd Gillespie, MD; Richard F. Gillum, MD, MS; Richard B. Gunderman, MD, PhD; Diane Harper, MD, MPH, MS; Joseph A. Hill, MD, PhD; Pascal Imperato, MD, MPH&TM; Marc G. Jeschke, MD, PhD, FACS; J. Michael Kilby, MD; Paul R. Lambert, MD; Patricia G. Mburney, MD, MSCR; Mark J. Mendelsohn, MD; Lesley Motheral, MD; Gokhan M. Mutlu, MD; Douglas S. Paauw, MD; Ronald G. Pearl, MD, PhD; Thoru Pederson, PhD; Suzann Pershing, MD; Sheryl Pfeil, MD; Noah S. Philip, MD; Paul B. Pritchard, MD; Steven P. Ringel, MD; Alan G. Robinson, MD; William M. Rogoway, MD; Shashikumar Salgar, PhD; Wiley Souba, MD, ScD, MBA; Joseph W. Stubbs, MD, MACP; Bruce H. Thiers, MD; John Tooker, MD, MBA, MACP; Kenneth L. Tyler, MD; Gabriel T. Virella, MD, PhD; Alan G. Wasserman, MD; Gerald Weissmann, MD; John A. Zic, MD.

The recipients of the 2014 fellowships are:

Mizanur Ahmed
Class of 2017, State University of New York Downstate Medical Center College of Medicine
VpreB Expression in Mature B Cells Alters B Cell Development Leading to Autoantibody Production
Mentor Christopher Roman, PhD
Councilor Douglas R. Lazzaro, MD

Eric Anderson
Class of 2016, Stanford University School of Medicine
Pilot trial to evaluate the effect of vitamin D on melanocyte biomarkers
Mentor Jean Tang, MD, PhD
Association Chair Charles G. Prober, MD

Joshua Bakhsheshian
Class of 2015, Chicago Medical School at Rosalind Franklin University of Medicine & Science
Using wireless technology to assess objective measures of functional recovery in patients undergoing major elective spine surgery
Mentor Zachary A. Smith, MD
Councilor Michael J. Zdon, MD

Devang Bhoiwala
Class of 2016, Albany Medical College
The influence of systemic iron overload on retinal iron overload and retinal degeneration
Mentor Michael Sughrue, MD
Councilor William F. Kern, MD

Phillip Bonney
Class of 2016, University of Oklahoma College of Medicine
The roles of EMRα and EMRβ in invasiveness in glioblastoma: evaluation of cellular migration and investigation of downstream pathways
Mentor Michael Sughrue, MD
Councilor William F. Kern, MD

Trent Bowen
Class of 2016, University of Arizona College of Medicine
The Role of Myocilin in Receptor Endocytosis and Pathogenesis of Glaucoma
Mentor Brian McKay, PhD
Councilor Joseph S. Alpert, MD

Karen Bowers
Class of 2015, Virginia Tech Carilion School of Medicine
Ketamine as an adjunct to opiates for acute pain in the emergency department
Mentor Corey Heitz, MD
Association Chair Apostolos P. Dallas, MD, FACP

Bristol Brandt
Class of 2017, University of Kansas School of Medicine
Antibiotic Administration and Progression of Sepsis
Mentors Guoqing Chen, MD, PhD; Steven Q. Simpson, MD; Russ WAITMAN, PhD
Councilor Steven Simpson, MD

Bianca Bromberger
Class of 2015, Raymond and Ruth Perelman School of Medicine at the University of Pennsylvania
Pilot trial to evaluate the effect of vitamin D on melanocyte biomarkers
Mentor ZACHARY A. SMITH, MD
Councilor Michael ZDON, MD

Patricia Carr Reese
Class of 2017, George Washington University School of Medicine and Health Sciences
Schistosoma haematobium and urinary tract infections among women in rural Malawi
Mentor Abigail Norris Turner, PhD
Councilor Alan G. Wasserman, MD

The Pharos/Summer 2014
Gaurav Chattree
Class of 2017, University of Texas Southwestern Medical Center at Dallas Southwestern Medical School
Dissecting synaptic changes that underlie the temporal control of vocal behavior
Mentor Todd Roberts, PhD
Councilor Kevin Klein, MD

Megan Chock
Class of 2015, Mayo Medical School
Health care use by suicide decedents compared with members of the general population
Mentor J. Michael Bostwick, MD
Association Chair Carola Arndt, MD

Abigail Cline
Class of 2017, Medical College of Georgia at Georgia Regents University
DNA Damage and Apoptosis in Epidermal-Specific Protein Kinase D1 Knockout Mouse Skin upon Ultraviolet B Irradiation
Mentor Wendy Bollag, PhD
Councilor Clarence Joe, DMD, MD, FACR

Sahitya Denduluri
Class of 2016, University of Chicago Division of the Biological Sciences The Pritzker School of Medicine
Modulating insulin-like growth factor 1 receptor (IGF-1R) signaling as a potential treatment for osteosarcoma
Mentor Hue Luu, MD
Councilor Adam Cifu, MD

Rami Diab
Class of 2015, American University of Beirut School of Medicine
Role of hsa-miR-4747-5p and hsa-miR-4313 in the regulation of CYP2B1 and CYP2F4 activity in diabetic nephropathy-induced kidney injury: An in-vivo and in-vitro model of Type I Diabetes
Mentors Assad E. Eid, PhD, and Hanna Abboud, MD
Councilor Ibrahim S. Salti, MD

Peter Dorschner
Class of 2016, Northwestern University The Feinberg School of Medicine
A Retrospective Study of Early Post-Transplant Nosocomial Infections
Mentor Michael J. Ison, MD
Councilor John P. Flaherty, MD

Benjamin Farnia
Class of 2015, Baylor College of Medicine
Assessing predictive factors of intratumoral hemorrhage following stereotactic radiosurgery for metastatic intracerebral tumors
Mentor Paul Brown, MD
Councilor Kristin Angeline Kassaw, MD

Jesse Fitzpatrick
Class of 2015, Duke University School of Medicine
Can MRI inform return-to-play-guidelines in brain injury: An empirical study to identify predictive MRI markers in a mouse model of repeated traumatic brain injury
Mentor Christopher Lascola, MD
Councilor Edward Buckley, MD

Justin Gibson
Class of 2017, University of Cincinnati College of Medicine
Role of adenosine signaling in protection against secondary brain injury
Mentor Jed Hartings, PhD
Councilor Robert W. Neel, MD

Surbhi Gupta
Class of 2017 Michigan State University College of Human Medicine
Hemocompatibility comparison of medical grade polymers incorporated with nitric oxide donors
Mentor Hitesh Handa, PhD
Councilor Gary Ferenchick, MD, MS

Austin Ha
Class of 2016, The Warren Alpert Medical School of Brown University
Nrf2 and Other Gene Expression Profiles of Responders vs. Non-responders to Hyperbaric Oxygen Therapy
Mentor Paul Y. Liu, MD
Councilor Charlotte M. Boney, MD

Byounglun Han
Class of 2015, New York University School of Medicine
Use of an automated eye tracking system for early detection of hydrocephalus
Mentor Uzma Samadani, MD, PhD
Councilor Linda Tewksbury, MD

Lydia Hartsell
Class of 2015, University of Minnesota Medical School
Premature Neonates
Mentor Camilia Martin, MD, MS
Councilor David McAneny, MD

Jason Huang
Class of 2017, University of Illinois College of Medicine
Regulation of PAI-1 by miRNA-17-92 and Its Role in Pulmonary Arterial Hypertension
Mentors J. Usha Raj, MD, and Guofei Zhou, PhD
Councilors Melvin Lopata, MD, and Jessica Ryan Hanks, MD

Anna Huguenard
Class of 2016, Emory University School of Medicine
Use of an automated eye tracking system for early detection of hydrocephalus
Mentor Lynda Morrison, PhD
Councilor Dennis O’Connor, MD

Peter Ireland
Class of 2017, Saint Louis University School of Medicine
Cell-based Screening of Beta-Thujaplicinol Derivatives as Potential Therapies for Auditory Neuropathy Spectrum Disorder
Mentor Lynda Morrison, PhD
Councilor Dennis O’Connor, MD

Kathleen Jee
Class of 2015, Johns Hopkins University School of Medicine
Examination of Angiopoietin-like 4 in Patients with Diabetic Eye Disease
Mentor Akrit Sodhi, PhD
Councilor Charles W. Flexner, MD

Andrew Kadlec
Class of 2017, Medical College of Wisconsin
Effect of Novel Otoferlin Mutations on Temperature-Sensitive Auditory Neuropathy Spectrum Disorder
Mentor Christina L. Runge, PhD
Councilor James L. Sebastian, MD
Roger Khouri  
Class of 2017, University of Michigan Medical School  
Growth Hormone Therapy to Improve Recovery from Chronic Muscle Tears  
Mentors Christopher Mendias, PhD, ATC, and Asheesh Bedi, MD  
Councilor Cyril M. Grum, MD

Khamere Kidia  
Class of 2017, Icahn School of Medicine at Mount Sinai  
System-Level Analysis of Mental Health Services in Zimbabwe  
Mentor Craig Katz, MD  
Councilor Carrie Ernst, MD

Sushma Kola  
Class of 2017, University of Pittsburgh School of Medicine  
Regenerating Trabecular Meshwork by Mobilizing Adjacent Stem Cells in ex-vivo Human Eyes  
Mentor Nils Loewen, MD, PhD  
Councilor Carl R. Fuhrman, MD

Arooshi Kumar  
Class of 2017, University of Louisville School of Medicine  
Genetic Heritability Estimates of Ischemic Stroke Severity and Post-stroke Outcome  
Mentor Natalia Rost, MD, MPH  
Councilor Daniel Danzl, MD

Daniel Mascarenhas  
Class of 2017, University of Maryland School of Medicine  
“Is CT enough?” The Subaxial Cervical Spine Injury Classification (SLIC) System: Can CT alone predict the need for surgical intervention  
Mentor David Dreizin, MD  
Councilors Donna Parker, MD, and Yvette Rooks, MD

Ari Morgenthal  
Class of 2017, New York Medical College  
The role of lactoferrin binding protein B during infections with pathogenic Neisseriaceae  
Mentors Anthony B. Schryvers, PhD, MD, and Scott Gray-Owen, PhD  
Councilor William H. Frishman, MD

Justin Morse  
Class of 2015, University of North Carolina at Chapel Hill School of Medicine  
Optimizing Decellularized Bone as a Scaffold for Novel Stem Cell Therapies  
Mentor John A. van Aalst, MD, MA  
Councilor Amelia Drake, MD

Zaha Naseer  
Class of 2015, University at Buffalo State University of New York  
School of Medicine & Biomedical Sciences  
Next-Generation Sequencing in Pemphigus Vulgaris  
Mentor Animesh A. Sinha, PhD  
Councilor Frank Schimpfhauser, PhD

Matthew Recker  
Class of 2017, Drexel University College of Medicine  
The role of mTOR in exercise dependent axon regeneration through a peripheral nerve graft following spinal cord injury  
Mentor John D. Houle, PhD  
Councilor Kathleen Ryan, MD

Russell Reeves  
Class of 2017, Geisel School of Medicine at Dartmouth  
Determining Nanoparticle Distribution for Treatment Planning Using SWIFT  
Mentor P. Jack Hoopes, DVM, PhD  
Councilor Susan Harper, MD

Jessica Regan  
Class of 2017, Virginia Commonwealth University School of Medicine  
The impact of Interleukin-10 (IL-10) blockade on inflammation in a model of heart failure with preserved ejection fraction (HFrEF)  
Mentor Antonio Abbate, MD, PhD  
Councilor Susan DiGiovanni, MD

Timothy Richmond  
Class of 2015, Ohio State University College of Medicine  
Role of nucleolin in the development of chemo- and radio-resistance in cancer cells  
Mentor Carlo Croce, MD  
Councilor Sheryl Pfeil, MD

Sharmistha Rudra  
Class of 2015, The University of Texas School of Medicine at San Antonio  
Role for the Alternatively Spliced BAFF Isoform in Patients Without Chronic Graft versus Host Disease (cGVHD)  
Mentor Stefanie Sarantopoulos, MD, PhD  
Councilor Erin Nelson, MD

Cristian Serna-Tamayo  
Class of 2015, Rutgers New Jersey Medical School  
Poxviruses as Oncolytic and Immunotherapy for Melanoma  
Mentor Liang Deng, MD, PhD  
Councilors Clark Lambert MD, FAAP, and Robert A. Schwartz MD, MPH

Sasha Targ  
Class of 2017, University of California, San Francisco, School of Medicine  
Molecular Mechanism of IL-21 Mediated Regulation of IgE Antibody Responses  
Mentor Christopher Allen, PhD  
Councilor Lee Atkinson-McEvoy, MD

Siobhan Thomas-Smith  
Class of 2015, University of Washington School of Medicine  
Electronic Health Assessment for Adolescents Study  
Mentor Laura Richardson, MD, MPH  
Councilor Douglas S. Paauw, MD

Anthony Trenga  
Class of 2017, University of Virginia School of Medicine  
Radiographic patterns of congenital bony spinal deformities and their association with neural axis abnormalities on MRI  
Mentor Mark Abel, MD  
Councilor Mark J. Mendelsohn, MD

Justin Tse  
Class of 2015, University of California, Los Angeles David Geffen School of Medicine  
Tissue Engineering the Vocal Fold: A Multidisciplinary Approach  
Mentor Jennifer Long, MD, PhD  
Councilor Neil H. Parker, MD

Grant Turner  
Class of 2015, University of Nebraska College of Medicine  
The role of IFT88 on cilogenesis of motile respiratory epithelium and the regulation of ciliary motility  
Mentor Joseph Sisson, MD  
Councilor Jason Shiffermiller, MD

Michal Ursiny  
Class of 2015, University of Vermont College of Medicine  
Minimizing Cost and Antibiotic Resistance When Treating Uncomplicated E. coli Cystitis  
Mentors Turner Ostler, MD, and Brian Eisner, MD  
Councilor Gilman Allen, MD
Ralph Crawshaw, MD, 1921–2014

On May 24, 2014, Ralph Crawshaw of Portland, Oregon died of natural causes. Medical pioneer and tireless social activist, author, and passionate idealist driven to solve problems through practical innovation, Ralph left a legacy of achievements and organizations. His focus was the health of the community. In a few of many examples, he gathered leaders from many professions and industry to work to improve access to health care of Oregonians as well as those globally, to protect the forested watershed of Portland’s water supply from environmental degradation, and to educate physicians about managing pain. Born in Brooklyn, he found at age eleven his calling in medicine in the movie Arrowsmith. Crawshaw’s career highlights his broad interests and recognition. Service as a volunteer ski trooper and later as a Navy physician to marines in World War II bracketed graduation from NYU and a Menninger residency. Scholarly pieces on evolving medical oaths, election to the Institute of Medicine in 1978, presidency of his county medical society, and Senior Scholar at OHSU’s Ethics Center identify a renaissance character. Crawshaw conceived several non-profits. To address the lack of mental health services for children, in 1961 he and an engineer-magnate established what became Lifeworks Northwest. Today this agency annually serves over 17,000 children, adolescents, and adults with abuse prevention, mental health, and addiction recovery services. Decades ago he foresaw mental health as part of community health. In 1982 he formed Oregon Health Decisions and moderated scores of its town halls statewide to engage public dialogue in shaping health policy. Their medical priorities undergirded State Senator John Kitzhaber’s 1993 legislation that provided medical services to 300,000 working poor through the seminal Oregon Health Plan, a kinder, community-shared form of rationing limited resources. Following a rash of suicides of physicians challenged for their drug prescribing, Crawshaw pushed the 1984 creation of The Foundation for Medical Excellence, an educational approach parallel to the...
changes to the pharos editorial board

Concerns of the supportive state licensing board. TFME would more generally address the doctor-patient relationship and physician professionalism and well-being. The Foundation continues to sponsor regional courses on pain management, several annual lectures by national authorities on health policy and education, monthly colloquia on social and historical topics, and publications on health care reform. In 1986 in JAMA Ralph urged fellow practitioners to aid colleagues in developing countries. Healthcare Volunteers Overseas resulted, as of today having sent over 4500 volunteers on over 8000 missions worldwide.

Ralph was a cheerful, generous, and compassionate—while relentless—persuader, who stimulated the intellect and effectiveness of colleagues, community leaders, and newspaper editors alike. He deployed inaction when logic demanded action. Friendly debates, never arguments, over such topics as the soul versus the spirit of medicine were lively, but seldom resolved. Eclectic, energetic, apolitical in the party sense, naturally perceptive about human behavior, he persuaded others by “inviting their higher angels.” In every way Ralph Crawshaw epitomized the worthy physician-citizen.

John A. Benson, Jr., MD
(AΩA, Oregon Health & Science University, 1968)
Portland, Oregon

Ralph Crawshaw launched “The Physician at the Movies” column in 1971. A psychiatrist, he probed the psychological aspects of films in his reviews, many of which remain classics. I got to know him when I invited him to be an AΩA visiting professor at Johns Hopkins in the early 1980s for a two-day film series tracing the trajectory of Hollywood’s portrayal of physicians. We started with the 1946 film Miss Susie Slagle’s about the early days of the twentieth century when Johns Hopkins medical school acted in loco parentis, through Hospital, which showed the dark side of medicine and patient care in an inner city New York hospital, and finally to The House of God, a cult book about hardened and profane residents at a Boston hospital that was turned into a movie but never distributed.

In 1990 Ralph decided to give up writing the column, and he recommended me to Editor Robert Glaser. That led to at least quarterly phone calls or letters of support for my efforts. In his review of my book about doctors in the movies, in his typical enthusiastic way, he suggested to Steve Schroeder, then the president of the Robert Wood Johnson Foundation, that a copy be sent to every medical student. Steve, being more prudent, graciously agreed to send a copy to every medical school library.

Our conversations, which lasted right up to last year, would end up with his soliciting my thoughts about, and involvement in, his latest efforts to improve the profession and assure compassionate patient care. Like Don Quixote, he was always tilting at windmills, trying to make the seemingly impossible possible—and he often succeeded. He compiled many of his ideas and efforts in his 2002 book Compassion’s Way: A Doctor’s Quest into the Soul of Medicine (Medi-Ed Press, 2002). He didn’t look like a revolutionary. He wasn’t starry-eyed or wild-eyed, but being Brooklyn-born, he was realistic. He knew that revolutionaries often die on the barricades and to the extent that they succeed it is others who often get the credit. This didn’t bother him as long as some good was accomplished. One of the last things that we kicked around was starting a society named after Antoine Lavoisier. A tax collector, lawyer, and banker, Lavoisier’s main claim to fame was his revolutionizing the science of chemistry and proving that it was oxygen and not phlogiston that was responsible for combustion. The society’s motto was to be: “No good deed goes unpunished.” No one illustrated that motto better than Lavoisier whose tax collecting gig caught up with him—he finally rode the tumbrel to a rendezvous with Dr. Guilliton’s so-called “humane” dispatcher to the next world, an event that led the eighteenth-century French mathematician Joseph Louis Lagrange to say, “Only a moment to cut off that head and a hundred years may not give us another like it.” The same might be said about Ralph. Medicine has lost a great advocate for professionalism and compassion and many of us have lost a dear friend.

Peter E. Dans, MD
(AΩA, Columbia University, 1960)
Cockeysville, Maryland

Retirement

Editorial board member Eric Pfeiffer, MD, published poet, founding director of the Eric Pfeiffer Suncoast Alzheimer’s Center, and emeritus professor of psychiatry at the University of South Florida College of Medicine, is retiring from the Pharos Editorial Board.

Dr. Pfeiffer served as Interim Editor of The Pharos in 2011 after the death of Executive Director Edward D. Harris, Jr., and before the appointment of Dr. Richard L. Byyny. We thank him for the inestimable help and support he gave us during that difficult time.

62 The Pharos/Summer 2014
**New editorial board members**

We are pleased to announce the addition of three new members to the *Pharos* editorial board: Henry Langhorne, MD; Jenna Le, MD; and Janice Townley Moore.

Henry Langhorne graduated from Tulane Medical School in 1957 and trained in cardiology at Tulane and Charity Hospital New Orleans. He has practiced cardiology in Pensacola, Florida since 1963 as a senior member of Cardiology Consultants. Dr. Langhorne has eight collections of poetry published by the West Florida Literary Federation and Pelican Press. He is the former Poet Laureate of Northwest Florida (1999–2009), selected by the West Florida Literary Federation. Over the past twenty years, he has published poetry in a number of periodicals including *Plainsongs, The Cape Rock, Poem, The Chattahoochee Review, Negative Capability, Hurricane Review, The Panhandler, JAMA,* and *The Pharos.*

Jenna Le received a BA in Mathematics from Harvard University and an MD from Columbia University. She is a radiology resident at Montefiore Medical Center/The Albert Einstein College of Medicine of Yeshiva University in Bronx, New York. In 2015/16, she will be a Musculoskeletal Radiology fellow at Montefiore Medical Center. Dr. Le is the author of *Six Rivers,* a book of poetry that was published by New York Quarterly Books in 2011 and was a Small Press Poetry Bestseller. Her poetry, fiction, essays, book criticism, and translations of French poetry have appeared or are forthcoming in many respected literary journals including *AGNI Online, Barrow Street, Bellevue Literary Review, The Southampton Review,* and *32 Poems.* Her past national honors include being a two-time winner of the *Pharos* Poetry Competition, a William Carlos Williams Poetry Competition finalist, a Michael E. DeBakey Medical Student Poetry Award finalist, a Pushcart Prize nominee, and a PEN Emerging Writers Award nominee.

Janice Townley Moore, a native of Atlanta, is Professor Emeritus at Young Harris College in the mountains of north Georgia, where she has had a long career of teaching English and creative writing. For a dozen years she served as poetry editor of *Georgia Journal.* Her poems have been published in such journals as *Prairie Schooner, Georgia Review, JAMA, Connecticut Review, The Pharos,* and in many anthologies including *The Bedford Introduction to Literature and The Southern Poetry Anthology* (Texas Review Press).
I learned from a CD jacket
George Gershwin died
At thirty-eight, in ’37
From a symptomatic glio;
suspected but undetected.

Gave a concert before noon.
Was decerebrate by night,
He departed at full gallop.

I learned from the Times this year
That Oliver Sacks, nearly 80,
Wants death in the saddle too;
But in old age, after
A time of leisure and freedom
To wrap it up.

How death has changed,
From random, rapid, unexpected,
To predictable, slow, anticipated
Withering, weakening
Autoconsumption.
There is time for contemplation, but
Survival is the preoccupation.

Death has been displaced
By erosion of self,
And wishing for day’s end
to be trail’s end.

Myron F. Weiner, MD

Dr. Weiner (AOA, Tulane University, 1955) is Emeritus Professor of Psychiatry at the University of Texas Southwestern Medical Center in Dallas. His address is: 3945 Still Forest Drive, Dallas, Texas, 75252. E-mail: myronweiner@yahoo.com. Illustration by Erica Aitken
Robert H. Moser, MD, MACP, served for many years as an enthusiastic and skilled member of the editorial board of The Pharos. He was the book review editor of the journal from 2001 to 2004, and continued to contribute to The Pharos until his death last August.

Alpha Omega Alpha wishes to honor Dr. Moser by establishing an annual award in his name to recognize excellence in writing in The Pharos. We invite your help. We propose an annual award of up to $6000, to which Alpha Omega Alpha would contribute $2500 annually. To reach our goal of a prestigious and significant award, worthy to bear Dr. Moser's name, we have set a fundraising goal of $100,000 to fund the award annually. Dr. Moser's wife Linda has pledged $10,000 toward this amount. If you would like to contribute to funding this award to honor one of the giants of American medicine of the last century, please send your contribution, noting that it is for the Moser Award to:

Debbie Lancaster
Managing Editor
Alpha Omega Alpha
525 Middlefield Road, Suite 130
Menlo Park, CA 94025

Dr. Moser's illustrious career included an enormous variety of fascinating endeavors:

- He organized and serving as a surgeon in one of the first MASH units during the Korean War.
- He was a pioneering flight controller who monitored the physiological and psychological performance of astronauts for the Project Mercury through Project Apollo space programs.
- He served as Chief of Medicine at Walter Reed Army Medical Center in Washington, DC; William Beaumont Army Medical Center in El Paso; and Tripler Army Medical Center in Honolulu. During this period, he was instrumental in setting up programs that guided the education of generations of internal medicine house officers by integrating university-level training standards in Army teaching hospitals. He remained passionate about medical education throughout his life.
- During his years of private practice in internal medicine in Maui, he served as one of the doctors treating patients at the Kalaupapa leper colony on Molokai.
- Dr. Moser was the author of several medical reference books, some still in use today, and was one of the first physician/writers to deal with the problem of drug-induced disease.
- As editor-in-chief of the Journal of the American Medical Association from 1973 to 1975, Dr. Moser instituted sweeping changes in the journal that are still evident today.
- Dr. Moser served as Executive Vice President of the American College of Physicians in Philadelphia from 1977 to 1986. While there, he was invited to the People's Republic of China to observe medical practice there in one of the earliest signs of detente. More importantly, he met his wife Linda while working at the ACP.
- In the 1980s, he served as Director of Medical Affairs for Monsanto's NutraSweet division.
- After so-called retirement, he and his wife formed a medical consulting company to establish networks of medical experts in various specialties for large corporations.
- Not least, Dr. Moser was a frequent contributor to The Pharos and a member of its editorial board, on which he served until his death.

Dr. Moser published his autobiography, Past Imperfect: A Personal History of an Adventuresome Lifetime In and Around Medicine, in 2002. A video of reminiscences by Dr. Moser is available here: https://vimeo.com/22113933.