The Pharos
of Alpha Omega Alpha Honor Medical Society

Summer 2012

“Be Worthy to Serve the Suffering”

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

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Robert Joy Glaser, MD, Executive Secretary of Alpha Omega Alpha Honor Medical Society and editor of *The Pharos* from 1962 through 1997, died in his home in Palo Alto, California, in June following a period of declining health. He was ninety-three.

Dr. Glaser was born and raised in St. Louis, Missouri, attended Harvard College for his undergraduate degree, and received his MD, magna cum laude, from Harvard Medical School in 1943. He returned to St. Louis for his residency at Washington University School of Medicine, where he met medical student Helen Hofsommer, who soon became his wife. Dr. Glaser was elected to Alpha Omega Alpha as an alumni member of Harvard in 1953.


He was involved nationally in medical education through the Association of American Medical Colleges and service on the National Advisory Committee on Higher Education; he was a founding member of the Institute of Medicine of the National Academy of Medicine. He received many awards in his lifetime, including the Abraham Flexner Medal for Distinguished Service to Medical Education, the Stearns Award for Lifetime Achievement in Medicine from the New York Academy of Medicine, and the Harvard Medal for Distinguished Service. The AΩA Distinguished Teacher Award is named for Dr. Glaser.

Dr. Glaser became executive secretary (the position is now called executive director) of Alpha Omega Alpha in 1962. For the next thirty-five years, he and his wife Helen, who was managing editor of *The Pharos* until her death in 1999, worked to promote the society and its goals.

I first met Bob when I was the head of the Section of General Internal Medicine at the University of Chicago and he was leading the Kaiser Family Foundation. He was very supportive of the new academic movement in general medicine and provided grant support for our new programs. Bob became one of my mentors and continued his support of our push to raise the academic standards of medicine when I moved to the University of Colorado, where he had been dean of the school of medicine. I served on the AΩA board of directors at Bob’s request from 1990 through 1997. In 2009, inspired by Bob’s devotion and leadership of Alpha Omega Alpha, I applied for the position of Executive Director of AΩA, and was fortunate to be appointed in 2010. I continued to see Bob at his home in Palo Alto until shortly before his death.

Bob cared deeply about medicine, medical education, and the role of AΩA in working for the best in medicine and our professional values. He was a dear friend, mentor, and inspirational leader and person. We will miss him but are grateful for all he contributed to medicine.

Richard L. Byyny, MD, FACS
Executive Director, Alpha Omega Alpha Honor Medical Society

To our readers: Please send your reminiscences about Dr. Glaser to us. We will devote a page on our web site to them and publish some in *The Pharos*. E-mail: info@alphaomegaalpha.org. Mail: 525 Middlefield Road, Suite 130, Menlo Park, California 94025.
Author's note: In this editorial I have incorporated many documents and other materials to summarize AΩA's history and programs. I especially want to thank Dr. David Dale, Past President of AΩA, and Dr. Ted Harris, the society's late executive director, who published an excellent article in The Pharos, "Alpha Omega Alpha: Encouraging excellence in medicine for more than a century," in Autumn 2002.

AΩA's founder was thirty-five-year-old medical student William Webster Root. He was galled by the lack of interest in academic achievement and professional values shown by most medical faculty and students, as well as by their immaturity, poor conduct, and dishonesty. Root wrote in 1909, “It was the lack of interest in scholarly attainment among medical students that led me to begin AΩA.” He, and his like-minded classmates, decided to do something about it.

Root was more mature and better educated than most medical students of the time. He had graduated from Cornell University with a Bachelor of Science degree in chemistry in 1890. He had then completed two years of graduate work at Cornell while teaching chemistry, physics, and biology. He entered the University of Chicago graduate school and obtained a Master's degree in chemistry. During that time he also taught sciences at the Chicago Manual Training School. He was married to a college classmate, Anna Bronson, and the father of three children.

Medical school faculty were frequently unqualified and ill-equipped to teach a scientifically oriented curriculum, and many doctors questioned the value of research in medicine. Most medical schools were proprietary and not associated with a university. Standards were virtually nonexistent. Thus, some physicians found running a small independent medical school could be a profitable pursuit.

AΩA's story begins in 1902 at the College of Physicians and Surgeons of Chicago, now the University of Illinois. At the beginning of the twentieth century, in the pre-Flexner era, the practice of medicine relied on tradition and was mostly empirical. The sciences basic to medicine—biology, physiology, and chemistry—were rapidly growing, but only a few medical schools had faculty qualified to teach this new and evolving theory and science.

The number of students in medical schools had been increasing dramatically. In 1880, the United States had about 100 medical schools and 12,000 students; by 1903 the number of medical schools had risen to 160, and the number of medical students had doubled. However, medical education remained poorly structured and medical students were poorly prepared academically. Many students had never graduated from high school, and only a few had attended a university prior to entering medical school.
In July 1902, Root first discussed with classmates his idea of forming an “honor medical fraternity.” They decided to model the new organization after Phi Beta Kappa, and decreed that membership in ΑΩΑ was to be based on both scholarly achievement and professional conduct. The duties of ΑΩΑ members were “to foster the scientific and philosophical features of the medical profession; to look beyond self to the welfare of the profession and of the public; to cultivate social mindedness, as well as an individualistic attitude toward responsibility; to show respect for colleagues, especially for elders and teachers; and to foster research and in all ways to ennoble the profession of medicine and advance it in the public opinion. It is equally a duty to avoid that which is unworthy, including the commercial spirit and all practices injurious to the welfare of patients, the public, or the profession.”

A classmate and one of the original members of ΑΩΑ, Ernest S. Moore, later wrote, “In the summer of 1902, I was sitting on the steps of the old College building. It was almost time to start the grind when Dr. Root came out of the building and sat down beside me to tell me about a plan he had in mind to organize a medical honor fraternity patterned after the likes of Phi Beta Kappa. I was convinced of Root’s ideas and Root provided a list of men to be invited to membership.”

Moore continued, “honesty was conspicuously absent,” and “behavior in the halls and classroom was rough and boorish,” “while articles of any value would be sure to remain where they were placed in the medical building only by nailing them securely.” He also noted that faculty were only interested in training new practitioners and “the heads of departments were selected by who could buy substantial blocks of stock.” Schools could thus receive income from students who were poorly prepared for medical school.
Root presented his proposal for the new society to his fellow students on August 25, 1902. Plans moved quickly, and on September 27, 1902, twenty-eight students met at the Bismarck Hotel in Chicago to ratify a constitution drafted by Root and to induct the society’s original members. In 1903, the State of Illinois granted the charter and the articles of incorporation for the Alpha Omega Alpha Medical Honor Fraternity. Remarkably, the original charter clearly stated that race, color, creed, gender, and social standing should never be barriers to membership.

AΩA has stayed true to its founding principles for the last 110 years. The society’s mission statement, adopted in 2008, is:

Alpha Omega Alpha—dedicated to the belief that in the profession of medicine we will improve care for all patients by
  • recognizing high educational achievement
  • honoring gifted teaching
  • encouraging the development of leaders in academia and the community
  • supporting the ideals of humanism
  • promoting service to others.

AΩA retains the motto proposed by Root in 1902: “Be worthy to serve the suffering.”

Root transferred to the Rush Medical College and graduated in 1904. Upon graduation, he practiced medicine for four years in Parker, Indiana. He then conducted bacteriological research for three years at Parke-Davis Company in Detroit, Michigan, and then at the HKY Mulford laboratories in Philadelphia for three more years.

Following his years of research, Root moved and started a medical practice in Slaterville Springs, New York, about nine miles from Ithaca. At the outbreak of World War I, he joined the Army as a First Lieutenant in the Medical Reserve Corps, serving from 1912 to 1917.

Root’s wife, Anna Conant Bronson Root, graduated from Cornell University in 1893, and taught French and German in secondary schools and at the Women’s College at Brown University. Her father was the founder and first president of Colby College. She too, with her strong academic background, was a staunch supporter of AΩA.

For thirty years Root served as the secretary-treasurer (the title is now Executive Director) of AΩA, working from his home with his wife’s support to promote new chapters in the best medical schools in the country. Mrs. Root served as assistant secretary-treasurer and editor of The Pharos. One of their daughters wrote, “Indeed, Society work became so much a part of their family life that their children learned to say ‘Alpha Omega Alpha’ as soon as they learned to talk at all.”

Root died in 1932. His tombstone is engraved “Founder of AΩA.”

Between 1904 to 1913, under the leadership of Root and
ΑΩΑ's first president, Winfield Scott Hall, ΑΩΑ rapidly established new chapters in medical schools throughout the East Coast and Midwest. Hall was the head of the Department of Physiology of the School of Medicine at Northwestern University. Like Root, Hall was a crusader determined to bring scientifically minded teaching to Northwestern. He was a strong supporter of the ideals of the new medical honor fraternity.

Hall and Root recruited another physiologist from the Harvard faculty, Walter B. Cannon, to be the vice president of ΑΩΑ. Cannon was largely responsible for promoting and vetting new chapter applications, with one primary standard: that new chapters be from the best medical schools in the country. It was a difficult task, since no standardized criteria for medical school programs existed at the time. ΑΩΑ continued to establish many new chapters in the best medical schools, and often rejected applications from proprietary medical schools. The number of members grew rapidly.

The ΑΩΑ Constitution made it relatively easy for schools to organize chapters, and gave considerable latitude to each school in selecting a councilor, organizing chapter activities, and selecting students based on the criteria of academic achievement, leadership, professionalism, service, teaching, and research.

In 1909, the ΑΩΑ Constitution was revised to allow election of a limited number of house staff, faculty, and alumni, as well as honorary members “who have gained wide recognition through original research, or in an administration, and who conform to the requirements demanded for undergraduates.”

Hall was followed as president by Russell Burton-Opitz of Columbia (1913–1918) and John L. Heffron, Dean of Syracuse University (1918–1924). In 1924, Walter L. Bierring, a distinguished physician and member of ΑΩΑ from the University of Iowa, began a thirty-five-year term as president. He served ΑΩΑ until his death in 1960. Under his leadership, ΑΩΑ grew to eighty-five chapters.

William Bean, MD, chairman of the University of Iowa Department of Medicine, wrote, “Dr. Bierring saw the unprecedented growth of American medicine with great improvement in quality of research, scholarship and practice. Members of Alpha Omega Alpha may be proud that through his wise statesman-like control this growth has been not only very extensive in scope but very fruitful in encouraging excellence.”

One among many of Bierring’s noteworthy accomplishments was launching the ΑΩΑ quarterly journal, The Pharos, in 1938. It was distributed to all members in the then forty-one chapters. The semiannual journal initially served as a newsletter for the society and listed the board of directors, chapter names and schools, councilors, committees, and how schools could apply to create a chapter. The inaugural issue of January 1938 consisted of four pages of news, lists, an obituary, and the society’s financial statement (total balance on August 31, 1937: $17,374.15). Dr. Bierring wrote: “The Directors of Alpha Omega Alpha Society in presenting to members this first number of The Pharos bespeak for it a kindly reception and express the hope that it will serve as a 'Beacon' and worthy exponent of the aims and purposes of our society.”

Following Dr. Bierring’s death, Robert J. Glaser became secretary-treasurer, serving from 1962 to 1997. During his tenure, ΑΩΑ expanded to 130 chapters and added many national programs. Dr. Glaser, with his wife Dr. Helen H. Glaser, worked together as editor and managing editor of The Pharos. They developed the journal into a leading publication on social, economic, and professional issues of medicine, and included...
new sections to enrich the experience of readers.

Following Dr. Glaser’s retirement in 1997, Edward D. Harris, Jr., became executive secretary of the society, serving until his death in 2010. He further expanded national programs and developed The Pharos into what it is today: a unique nontechnical medical journal that sits at the intersection of the medical sciences and the humanities.

Beginning in 1982, AΩA’s board of directors refocused the society to look to the future by developing a broader range of programs. This included the establishment of AΩA visiting professorships, the student essay award, and student research fellowships. The board further promoted national meetings of chapter councillors, the Leaders in American Medicine videotape series, and regular communication between the national office and AΩA chapters.

AΩA today provides more than half a million dollars each year to support its national programs. Dues and contributions fund all of these:
- Four Robert J. Glaser Distinguished Teacher Awards
- Visiting professorships
- Up to fifty Carolyn L. Kuckein Medical Student Research Fellowships
- As many as twenty Medical Student Service Leadership Awards
- Up to $50,000 for the Edward D. Harris Professionalism Award
- The Helen H. Glaser Student Essay Awards and Pharos Poetry Competition Awards
- Volunteer Clinical Faculty Awards
- Chapter Administrative Awards.
- Publication of The Pharos.

As it has since the beginning, AΩA has an active and distinguished board of directors that includes nine at-large directors, three councilor directors, three student directors, and a medical organization director. (See the list of directors on the inside front cover.) The board meets annually to develop AΩA policies and programs and chart the society’s direction.

On this 110th anniversary, AΩA counts more than 160,000 members in 130 chapters.

Membership continues to grow. Each year, the top twenty-five percent of students, based on academic achievement, are eligible for nomination. Of those eligible, only sixteen percent of a class can be nominated. Election to the society is based on scholarship, leadership, character, professionalism, service, teaching, and research. Members may also be elected later in their careers to honor their achievements and contributions to medicine and the medical sciences. Members are nominated by AΩA chapters that are comprised of all AΩA members,
and are based on member input, deliberation, and decisions based on the established criteria.

Fifty-four Nobel Prize winners in physiology, medicine and chemistry are AΩA members, and nearly seventy-five percent of medical school deans are members.

AΩA continues to elect members based on its core values and criteria; it supports important programs for our profession, and strongly advocates for academic excellence, leadership, professionalism, service, teaching, and research in patient care and medicine.

As those who have gone before us so eloquently put it, it is our charge to “in all ways to ennoble the profession of medicine and advance it in the public opinion.”

I am proud to serve as the current Executive Director of AΩA, and I am quite certain that you are equally proud to have been elected to membership. In facing the challenges to medicine in the twenty-first century, we all now need to reaffirm our dedication to the AΩA ideals and work to continually “Be Worthy to Serve the Suffering.”

Richard L. Byyny, MD, FACP
Executive Director, Alpha Omega Alpha
Editor, The Pharos

### AΩA Members who have received the Nobel Prize in Physiology or Medicine

<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
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<tbody>
<tr>
<td>John J. R. Macleod</td>
<td>1923</td>
<td>Renato Dulbecco</td>
<td>1975</td>
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<td>Frederic G. Banting</td>
<td>1923</td>
<td>David Baltimore</td>
<td>1975</td>
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<tr>
<td>George R. Minot</td>
<td>1934</td>
<td>Roger C. Guillemin</td>
<td>1977</td>
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<td>George H. Whipple</td>
<td>1934</td>
<td>Hamilton O. Smith</td>
<td>1978</td>
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<td>Otto Loewi</td>
<td>1936</td>
<td>Daniel Nathans</td>
<td>1978</td>
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<td>Edward A. Doisy</td>
<td>1943</td>
<td>Baruj Benacerraf</td>
<td>1980</td>
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<tr>
<td>Herbert S. Gasser</td>
<td>1944</td>
<td>Torsten N. Wiesel</td>
<td>1981</td>
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<td>Joseph Erlanger</td>
<td>1944</td>
<td>Sir John R. Vane</td>
<td>1982</td>
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<td>Carl F. Cori</td>
<td>1947</td>
<td>Joseph L. Goldstein</td>
<td>1985</td>
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<td>Philip S. Hench</td>
<td>1950</td>
<td>Michael S. Brown</td>
<td>1985</td>
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<td>Fritz A. Lipmann</td>
<td>1953</td>
<td>Rita Levi Montalucini</td>
<td>1986</td>
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<td>Frederick C. Robbins</td>
<td>1954</td>
<td>Stanley Cohen</td>
<td>1986</td>
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<td>Joshua Lederberg</td>
<td>1958</td>
<td>Stanley B. Prusiner</td>
<td>1997</td>
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<td>Severo Ochoa</td>
<td>1959</td>
<td>Louis J. Ignarro</td>
<td>1998</td>
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<td>Sir Frank M. Burnet</td>
<td>1960</td>
<td>Robert F. Furchgott</td>
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<td>Charles B. Huggins</td>
<td>1966</td>
<td>Paul Greengard</td>
<td>2000</td>
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<td>Salvadore E. Luria</td>
<td>1969</td>
<td>Sir Paul Maxime Nurse</td>
<td>2001</td>
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<td>Earl W. Sutherland, Jr.</td>
<td>1971</td>
<td>Sydney Brenner</td>
<td>2002</td>
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<td>Gerald M. Edelman</td>
<td>1972</td>
<td>Ralph M. Steinman</td>
<td>2011</td>
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<tr>
<td>George E. Palade</td>
<td>1974</td>
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### AΩA members who have received the Nobel Prize in Chemistry

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<tr>
<td>Wendell M. Stanley</td>
<td>1946</td>
<td>Roderick MacKinnon</td>
<td>2003</td>
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<tr>
<td>Paul Berg</td>
<td>1980</td>
<td>Peter Agre</td>
<td>2003</td>
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<tr>
<td>Thomas Chech</td>
<td>1989</td>
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Where the lizard used to sun himself on the warm rocks lies a cold shadow cast by the birch tree above. Mornings are fumbling darkness, while evenings are spent turning on light after light to compete with the deepening black outside. Winter is coming, and with it, the self-perpetuating thoughts and the old nightmares, feeling exhausted but unable to sleep at the same time. Each step I take is like walking through tar, until the sticky stuff defeats me and I stay curled up in my bed all day, eyes open, feeling uneasy about I don’t know what. In the summer, I complain of the heat, as sweat trickles down my neck and my old car heats up like a large oven. But now I am ashamed of my frivolousness, and I crave light. A black squirrel scurries around outside my window, gathering nuts in the ever-lengthening shadows. I wish I could do the same: store up that extra sun in some old glass jars, keep them in a cupboard in my kitchen. Then on December nights, when my illness becomes too much, I will pull a jar out, let the light spill across the kitchen, and suddenly, without ever really understanding why, feel better again.

Terrell Nabseth Stevenson, MD
From Auschwitz with love

Stephen Harvey, MD

The author is an assistant professor in the Department of Anesthesiology at the Vanderbilt Clinic in Nashville.

One Friday night a few years ago, I was finishing a long day and hoping to make a late dinner with my wife when I received another page. Reluctantly, I turned around and headed back to the holding room to find Ms. J, an eighty-six-year-old woman who had fallen on the sidewalk and broken her hip. I called my wife to let her know I would be working late and then walked over to the patient's bedside.

Ms. J was alert but in obvious pain. I introduced myself and reviewed her medical history. Despite her age and present condition, she appeared to be in good health. To add to my surprise, she was pleasant—something I rarely encounter among patients in such circumstances. She even apologized for “inconveniencing” me. She then noticed my wedding band and asked about my family.

After I explained the anesthetic plan and assured her that I would take excellent care of her, she smiled gratefully. While we waited on the OR to get ready, I noticed her IV had infiltrated. I turned her forearm over to search for another vein and noticed a faded tattoo a few inches above her wrist. The numbers were barely decipherable. When I asked her what they meant, she answered with one word: “Auschwitz.”

For the next several minutes she told me her story. Her entire family had been taken from their home and transported via cattle cars to one place after another before arriving at the concentration camp. She was a teenager then and was imprisoned initially in the same camp with her mother. At one point, she could look through the fencing and see her father in the men’s camp, but soon he disappeared. Her mother was taken elsewhere not long afterward. She never saw any of her family again.

Ms. J’s surgery proceeded uneventfully and she was taken to the recovery room in good condition. I endorsed her care to the recovery staff and went to complete a few charts before heading home. On my way out the door, I stopped by to check on her one last time. She was comfortable and perfectly lucid. She asked me how everything had gone during surgery. I explained that she had done remarkably well and should be going home in a couple of days. She expressed her thanks and then motioned for me to lean closer. As I did, she took my hand, kissed me on the cheek, and said, “I love you.”

In a profession that can desensitize its practitioners to suffering, I struggle at times to maintain compassion for my patients. I administer over a thousand anesthetics a year to patients with all types of illnesses, and I try to comfort them and their families. But it is not often a patient comforts me. Ms. J had as much as reason as anyone to be bitter, but she possessed a spirit of kindness I have rarely encountered.

Ms. J, wherever you are, I hope you are well. I hope you are surrounded by loved ones, and that the people in your life are touched with your gentleness and grace, as I was. Thank you for reminding me of the compassion I am to give to others. And I love you, too.

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The children of physicians
The viewpoints of a small cohort of medical students upon entering the profession of their parents

Vladimir Ratushny, PhD
A s a third-year medical student and MD/PhD candidate with a neurologist mother and a pediatrician grandmother, I have always wondered how heavily my path into medicine was influenced by my family. There are few published accounts explaining why the children of physicians decide to become physicians themselves. I interviewed five fellow medical students who are themselves children of physicians: Jennifer, the daughter of an allergist; Layla, the daughter of a plastic surgeon; Sam, the son of a psychiatrist; Santosh, the son of an internist; and David, the son of a neurosurgeon. All are in MD programs and intend to become clinicians, while I envision a career as a physician scientist. I analyzed their viewpoints and compared them to my own experience. Despite the uniqueness of each story, there were shared similarities in their opinions and experiences growing up as children of physicians, their reasons for entering medicine, and their experiences in medical school.

In Ukraine in the 1940s my grandmother attended medical school by day and prepared cadavers for her medical school's anatomy lab by night. She became a pediatrician and married my grandfather, a veterinarian. She was chief of the Department of Pediatrics in her hometown for more than thirty years. My mother became a neurologist and practiced in Ukraine for ten years before emigrating to the United States with our family. She is currently the director of a stroke unit at a university medical center.

When I was thirteen years old, my mother took me to see neurosurgery performed at the hospital in which she was completing her stroke neurology fellowship. I expected to see dignified grey-haired doctors somberly operating on a sick patient. I saw young, arrogant physicians making inappropriate jokes while removing a tumor from a woman's brain. The surgeons advised me stay out of medicine, stressing the long hours and inadequate pay. After this experience, I decided that medicine was not for me. I entered college as a computer science major, following in my father's footsteps.

Among the interviewees, first opinions of the medical profession differed greatly. Recalling her first impression of medicine, Jennifer states, "Well, I loved it ever since I was a little kid. I can't even remember wanting to do anything else in my life." Layla shares Jennifer's opinion, adding, "I liked the idea of being a doctor at a very young age. It just felt very important and very useful, like you really made a difference in your patients' lives." Santosh's early memories of the medical profession were more fiscally oriented. He recalls thinking that medicine would be a financially rewarding profession with ample job stability. In contrast, Sam recalls the effect the profession's long working hours had on his father's ability to participate in his life. He states, "I thought you had to work a lot. My dad wouldn't be able to make it to all the sporting events."

I wanted to further explore the effects that the long hours had on the physicians' families. When I was a teenager, my mother was completing her residency and fellowship, and most of her time was spent at the hospital. Nevertheless, I never felt that she was unavailable, and I learned to treasure the time I spent with her. Jennifer recalls her own thoughts on her father's practice: "I want to say his work comes home but that's because he's a doctor twenty-four/seven. He was extremely committed." She adds, "It doesn't bother me because I knew that his patients probably really need his time." Sam frames his father's busy schedule differently, "I think he believes that being a doctor always came first for him, even in front of his family." Layla states, "The way it affected me was indirectly: the way I saw it affected my mom. My parents are divorced and [my dad's time commitments during residency] had a huge role in it with my dad being gone a lot." When asked about what her mother thinks about medicine as a career, Layla, answers, "[Even though] it did negatively affect her, she still was very supportive of me going down the same path."

Reactions to observing their physician-parents in the professional setting differed among the interviewees. Layla recounts her first experience of seeing her father at work, "At home my parents and I would speak Persian. When I would go to the office, I would see him speaking English and being very professional. It was a different side of him. I felt like he was very important; like I couldn't talk to him or bother him. I was always really in awe of what he did." David describes his father's neurosurgery from a different perspective: "When I saw the surgery, it was because no one could watch me and it was the only way my dad could make sure I wasn't getting into trouble. I don't remember my dad's surgeries too much, to tell you the truth. I mean it could have been anything else, it could have been carpentry."

My parents, like those of David, Layla, and Jennifer, did not try to influence my career decision. But Santosh's and Sam's parents gave their sons very different types of career advice. "There weren't many options there. It was either go to med school or go to engineering school," says Santosh. Commenting on his parent's belief that Santosh's success is judged by his entry to medical school, he says, "It's a terrible perception if you think about it. I will do differently with my kids." On the other hand, Sam says, "My parents tried to push me out of medicine. My mom tried telling me to go into business."

Deciding to go into medicine must be a personal decision. While medicine seemed like an obvious choice for the son of a doctor, I did not want to choose my professional career for reasons such as "continuing a family tradition" or "following in my parent's footsteps." But when I found that I was not happy in my computer science studies at the end of

The author with his mother, Sophia Ratushny Sharfstein, MD, and grandmother, Bina Sharfstein, MD. Photo courtesy of the author.
my freshman year of college, I spoke to a guidance counselor about possible career choices. And when a career in medicine was suggested, I embraced it as the career I wanted.

Layla describes her own path to medicine. In her mid-teenage years, she started to question her early desire to go into the medical field. “I almost just wanted to not go into medicine,” she says, concerned about the profession’s busy lifestyle and the length of training required. Layla describes the point in her life, after returning from a semester abroad in France, when she decided to enter medicine: “I felt like I came to the conclusion on my own later in life. It was totally separate from my dad. When I was younger, I was exposed to medicine all the time. Since I was around it all the time, I think I was just naturally more inclined to do it. But when I broke away from that and went abroad, I felt like I went through all the other options and then I came back around and said, ‘Well actually this is what I want to do.’” Layla describes what I, too, came to believe: “I realized that you make your own life. It’s up to you [to decide] what you are going to end up doing.”

What do parents who are doctors think about their children’s desire to enter medicine? When I called my mother to tell her that I was switching my major to biology and that I hoped to enter medical school, I expected to hear unbridled excitement—what I got instead was a response emphasizing caution. She told me getting into medical school needed commitment as well as grades that I frankly did not have at the end of my freshman year. Unfazed, and even emboldened by my mother’s warning, I started my sophomore year as a premed student. Once I decided that I was going to become a physician, something changed in me; for the first time in my life I felt driven. I let my newfound drive and devotion propel me through the rest of my college days, earning straight A’s and, finally, entrance to medical school.

Among the interviewees, I was not the only one whose motives were questioned. Jennifer recalls, “[My father would] always question me like, ‘Oh, really, why? You want to make the big bucks, is that what it is?; always challenging me to give him the right answer.” She further explains, “[My father made] sure that I have the right reasons to go into medicine; not just because he’s a doctor, that I should be one, too. He wants to make sure that I am doing it, not for the money, not for anything else, but for helping people, making an impact on people’s lives.” David describes his father’s reaction upon hearing that his son wanted to enter medicine: “I think when I told him he kind of laughed or smiled. He was happy but he wasn’t sure how well founded [my decision] was. He just wanted to make sure I knew that it was a hurdle and that it is a lot easier said than done.” Despite his parents’ initial discouragement of him entering the medical profession, Sam recounts, “I think that they were excited that I actually chose to go into medicine.” Sam also adds that his parents suggested that he choose a medical specialty that allows for a balance between work and personal life.

The insights provided by physician parents are influential in helping the students choose a specialty. Jennifer describes her father’s advice: “When you’re thinking of a specialty, think of three things: think of interest, first and foremost; also think of economics, you have a [standard of living] to uphold so you want to make some money; and lifestyle. [Consider] almost all equally but interest should be [weighed] a little bit more: you’re doing it every day of your life.” While her father would like her to take over his practice, Layla says, “I am almost ruling out plastic surgery because I saw what it did to my family. I don’t think it will be just a profession; I think it will be your life and that’s not attractive to me. It’s too much of a sacrifice, I think.” Sam does not think that children of doctors have any extra insight in choosing a medical field than their colleagues: “You hear all the doctors in the hospitals or all the medical students talking [and discussing the merits of different specialties]. Everyone has a good sense of what each field entails. People try to find the one that best matches their personality.”

The rigors of medical school present challenges for many medical students, and the children of physicians have a valuable resource in their parents. Jennifer says, “My dad would always say, ‘You can’t just jump in a patient’s room and see a patient. You have to earn that right to see a patient. Your relationship with a patient is like a sacred relationship. They look up to you; they listen to everything you say, everything you do. In order to have that relationship, you have to earn that.’” David describes his feelings of building a closer relationship with his father when he decided to enter medicine, “He wanted to share more. At that point, it kind of felt like he wanted to be more influential in my life.”

These five unique children of physicians all agreed on one topic: the career advice they will one day give their own children. Santosh reflects, “I would not push medicine as opposed to other fields. I would let them choose on their own.” Nevertheless, when asked how he would feel if his children become doctors, Santosh replies, “Honestly, I would be proudest if they were doctors.” Layla adds, “I think it feels good if your kids follow in your footsteps; every parent would like that. But I definitely am going to try not to influence them too much.” Sam describes the thoughts he will share with his children, “When you look back, medicine would really be the most rewarding job I can think of.”

References


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I'm a bat,  
my cave, dark  
except for walls lit by white light—  
letters and figures  
from a computer screen  
growing every moment  
until they consume the room.

There's a bed in there  
protected from the cold.  
But awakened every hour by chirps,  
bells, phones ringing,  
I stalk the night hallways  
flitting from screen to screen.

I'm an accountant,  
a bad one—  
to keep the outs  
always greater than the ins,  
a Promethean task.

Somewhere in a room  
a gentle alarm rings and I walk in.  
The hiss of the stout mechanical dwarf  
beside the bed, pumping bellows,  
keeps me company  
as I try balancing my budget.

Then I notice a pair of eyes  
from under the covers  
following my every move.  
We're both awake. We're creatures of the night.

Kalyan Banda, MD

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Illustration by Jim M’Guinness
Maybe he thought of them as tapestries if he thought about them as anything other than something to do. In the end, he didn’t have enough to occupy himself. He’d been a doer, not a contemplator. He looked ahead to the end of the day, and behind him to that morning. Surgeons focus on the thing in front of them. Only after a heart attack at fifty-two did he begin to worry about tomorrow. Because he had been raised as a too-precious only child, he learned to value hard work and the success that was expected more than the mystery of life. Lord knows, he worked hard, and demanded diligence of himself and others. He did not complain, as some modern doctors do, about the calls in the night, the weekend interruptions, the bother. He considered it his duty and his joy to answer the phone in good spirits, and always do what needed to be done, never really thinking about his income.

When robbed of his pleasures, first by illness and then age, he seemed uncertain how to replace the drive to the hospital each morning, the intense routine of his days, his responsibilities. So, perhaps what he was making really were tapestries, a record of where he had been, as well as a craft. He certainly would not have thought of it as art.

They were not beautiful, his copies of Norman Rockwell’s Post magazine covers, coasters with the imbedded initials or names of family members, cushion covers of odd color combinations and even stranger geometries. Some were stitched into patterns stamped onto the mesh canvas of kits he bought, complete with the thread and instructions, but many of them he made up. Before the life he had either constructed or had simply happened to him became truncated, he’d have thought making these objects too female. Then he would have scoffed at the idea of a grown man, a surgeon, doing needlepoint.

The biggest of the Norman Rockwell reproductions is a famous one from 1955: a boy of about eight years, pants dropped, stands on a chair with his nose an inch from a wall full of diplomas while, off to the side, a white-coated doctor is busy loading his syringe. Surely most American children have such a memory, and all doctors. Greatly admiring my doctor father, I took pride in the magazine cover when it appeared through our mail slot just before my twelfth birthday. He might have, too.

When my father started as an intern in 1939, the first sulfa antibiotics had recently been introduced. Medical x-rays were only fifty years old. Surgery required open-drop ether to produce anesthesia. Most diagnoses still depended on looking, feeling, listening; doctors had to get a sense of the patients they tended, and create a kind of understanding with each one of them. They had to appreciate the illness or injury with these hand tools, but also to see their patient and to be seen, because that was most of what they had. He was very good at this, and his patients loved him, as did the other doctors, nurses, and staff in the several hospitals of our town. In the nurse’s stations, halls, and elevators of these hospitals, in the gas stations and grocery stores, on the streets, people recognized him. He always had a story to tell, a pat on the arm to the sorrowful, advice to offer. As a consequence, he was at home anywhere in the town.

But the home he valued most was the OR. While there
may have been a primitive idea of teams when he was operating, surgeons were clearly the star players.

My father’s parents, like almost all parents, had prepared him for the last generation rather than the next one. The lives of his parents and grandparents had all been informed by the death of Czar Alexander II, the election of Handsome Karl Lueger in Vienna, the collapse of the Hapsburgs, and what followed. They were the dispossessed, whose only refuge was an ancient culture branding them the other. When they left Yiddish behind in that part of Eastern Europe sometimes called Russia, sometimes Poland or Galicia or Lithuania—depending on who had the nuttiest ruler or the biggest hired army—and arrived in America, what they brought with them in their baggage was fear. Fear and mistrust.

By the time my father was born, the fear had been buried under several layers of success in the new world. He had his own room, a careful education, a pony, and most of what he asked to be given. When he stumbled, he was picked up, put right, and told to be a bit more diligent. From his beginning, the world was filled with toys. First the wooden playthings of the early twentieth century, then the pony, then cars, schools, alcohol, women. Before he married my mother, he’d entertained himself, while at the same time advancing in an expected way, although his path was not always a straight one.
The wife and infant, the war, the work as a flight surgeon in the Ninth Army Air Corps, then the residency: he took it all up manfully. He did believe in responsibility, and in what he knew. And what he knew was simply what he believed, with footnotes. It seems to me now that the experiences of World War II fixed forever his view of the world. How could it not? He was twenty-eight years old when he went to Europe, not to kill people, but to try to keep them from dying.

My mother’s voice was softer. This was in part the moment, in part her nature, and in large part her life-long disingenuous insistence that I, the eldest, had been born three months premature but somehow had survived even before there was a pediatric ICU.

He liked things his own way, and he was habitual. One cup of Folgers instant coffee in the kitchen at seven, just as the rest of us were getting up. He was down the short stairs, out the never-locked back door to his Buick by a quarter after, and off to make rounds or to operate. He never ate anything then, although as a boy he took with him some Sundays and I discovered he often had a doughnut or two in the surgeon’s lounge later in the morning.

He liked to schmooze. In those years, doctors all smoked in the hospitals, and between cases he sat back in one of the comfortable upholstered chairs, another cup of coffee balanced on one chair arm, a jelly-filled on the other, waving around a Chesterfield to make his point. Because he was a thoracic surgeon, other doctors sometimes brought chest x-rays into the lounge for him to interpret. They didn’t look at what are now called the images on a screen, advancing and retreating through computer files like a movie, but hung the films on illuminated view-boxes that they all gazed into, and pointed at with fingers still clutching their cigarettes. He was generous when asked for his opinions, and known for being correct.

When he took me with him to make rounds, he showed me to the staff, to his friends, to his patients. “This is my son, Ricky,” he announced, as I stuck out my hand to be shaken, or said hello. I tried to do these things the same way he did; I thought it manly. We took the stairs between floors, and I sat waiting in the nurses’ station on the wards while he saw his patients. The nurses were all nice to me, brought me juice, and told me what a wonderful doctor my father was. I admired him, too, and thought it nearly magic to watch him pull out a stack of metal covered charts, expertly flip through the pages looking for what I couldn’t then know, and finish by writing “an order” that ended with his scrawl I could barely recognize as a signature.

He was what he did.

By noon most days he went to meet his friends at the Elks Club. A dark green awning labeled BPOE stretched out onto Second Avenue announcing this haven, a square two-story brick building that, along with its parking lot, occupied most of the block, even though the building itself was not large. In the dining room, waiters wearing white jackets brought them midday meals that would have satisfied farmers at the harvest. They all had accounts at the club, and charged the food. After lunch, they often moved to play bridge for an hour in an unventilated room filled with so much cigarette smoke that people simply passing the doorway coughed.

More waiters navigated between the small tables that cluttered the card room, empty of anything else but a bar along one side. Bridge partners faced one another, either hunched intently over their hands or leaning back in a sturdy wooden chair, the kind with wraparound arms, as if unconcerned. Bridge for my father was consequential, one of those things that had to be done properly, like removing a lung tumor. “No!” he sometimes exclaimed while still smiling, but with exasperation. “How can you lead that card when I bid four no trump?”

There were three rooms to his office on the seventh floor of the Mott Foundation Building. The opaque glass outer door window lettered in black read:

706
Richard L. Rapport, MD
Practice Limited to Thoracic Surgery
and Diseases of the Thyroid
Hours by Appointment

His secretary sat at one end of the long outer waiting room, the walls of which were lined with eight Harvard University chairs, a school that he’d attended for a semester and a half. Through a door to the left of her desk patients entered a consulting room, and then passed through another door to be examined. There they had the option of sitting on a standard examination table, or standing behind a gigantic fluoroscope that he operated himself. This machine, mounted vertically so that a patient could stand behind it, was of doubtful integrity and made disturbing noises. It probably leaked enough radiation to mutate fish swimming in the river two blocks away.

He made rounds, consulted, and operated. He played the piano, composed, and wrote most of the music for the 1955 centennial celebration of the town’s founding. Vice President Richard Nixon rode in an antique Dort automobile as he led the parade for that event, while I watched, along with the grandson of the founder of what had originally been the Durant-Dort Buggy Company, from the window of my father’s office.

In the summer, he sometimes drove with us to my grandparents’ summer place on Saginaw Bay. My grandparents had never owned a house when my father was young. They lived their entire married lives in a spacious four-room apartment especially remodeled for them in the Durant Hotel. Heavily draped windows faced the town’s main street. When we visited there, women operators took my brothers and sisters and me to the fourth floor in elevators closed in front by an
expanding gate, and made to go up or down by rotating the knob on a dinner-plate sized bronze wheel in the right front corner of the lift. In 1949, they had their only house built, a handcrafted four-bedroom lodge they called a cabin, on Crescent Beach, a spit that extended some five miles into the Bay. My mother, brothers, sisters, and I stayed there for much of the summer, supervised by my grandmother, a demanding woman who never forgave my mother the “prematurity” of her first pregnancy. My father usually came on weekends. He drove the Lyman boat powered by a twenty-five-horsepower Evinrude while we waterskied, and sometimes he skied too, until he hurt his back.

When I was sixteen, I drove with him up to the cottage, just the two of us. By then, I was away at school, and had become suspicious of his authority. We couldn’t talk to each other, and most of the two and a half hour trip was in silence. We were both embarrassed. We didn’t know how to talk to one another just then, and the silence in the car that began on that day continued through the end of the Vietnam War.

Five kids later, a surgical career abridged, lunch every day at the Elks Club behind him, and the more than a few girlfriends no longer possible, his heart didn’t work very well. He never saw the end of it all coming. He still made rounds in the morning, although the Catholic hospital had closed by then, and still took the stairs up one flight. More than that caused him shortness of breath. After the angina became too bothersome to ignore, he submitted to a coronary artery by-pass operation in Ann Arbor, although it frightened him, he admitted. Knowing what actually happens in an operating room can do that. While he recovered, the nurses and other doctors he knew faded from view, people he did not know became heads of the committees, sometimes in the halls and elevators no one recognized him at all. He gained weight, walked more slowly, wheezed.

That’s when he started needlepoint.

The first thing to arrive in our mail on the West Coast was a set of coasters. I’d never seen my father repair a leaking faucet or paint a wall, much less try to make something, but he had put effort into the needlepoint. One of the four-inch beige squares was decorated with my wife’s abbreviated name in orange block letters, and another with my initials.

The next time we visited my parents in the Midwest he had given up his solo private practice. When he’d opened his office thirty-five years earlier that life was manageable. He had kept at it even when it was difficult after his own operation, but maintained that he couldn’t stand the idea of working for someone else. He couldn’t have. Although he still saw patients in a walk-in emergency room he’d helped establish through the County Medical Society, I’m not too sure what kind of advice he might have provided for patients with hypertension, congestive failure, or urinary problems. But still they called him doctor, he flirted with the nurses, and he had a little work to do a few days a week.

The yard occupied him. He came to the garden late in life, having made fun of the vegetable patch my mother had established on the vacant lot next to our house in the fifties. Now he sat on a low stool along the edge of the flowerbeds, pulling weeds and adjusting the borders. He mowed the lawn twice a week. He watered.

When he watched a game, any game, sitting on the dramatically hand-embroidered couch I remembered from my grandparent’s apartment, he did needle work. Maybe the couch, which was beautiful, had planted that idea. Sports he liked, and he had firm opinions about players, coaches, and schemes, even though I had never seen him play any game except golf. Once he suggested to me that he’d been a baseball catcher in school, but I don’t think it was true. He took lesson after lesson from a variety of golf pros, and had a style that was his alone, but his scores never budged.

Between moments of providing instructions to players from across the living room at the TV, or complaining about officiating, he made his tapestries. They became more elaborate with time, if never more graceful. Soon stacks of them began to pile up beside his desk, the desk from his first office on the seventh floor of the only high-rise professional building in town that now filled his small basement study. He hauled them out from time to time to show us when we visited, just as my mother pulled out silver platters, ancient piles of dishes, complete settings of silver flatware including fish forks, finger bowls, handmade table cloths, and never-used champagne glasses to display. She promised she’d give it to us someday, though we had no use for any of those things, and then she stuffied it all back in under the counters until another child showed up. She loved each of her children almost equally, but in far different ways, and by means that she could show better than she could ever say. The most deeply emotional parts of her character were constrained by circumstances, and by my father’s mother.

I think I know what all that cargo meant to my mother, but I was too young and unformed to ever think to ask my dad what the needlepoint meant to him. I have all those stacks of the things I’d pretended to admire in my basement now, artifacts reminding me of old hospitals, Tiger games, missed calls, and sliced tee shots. They might have simply been something for him to do, but maybe they did have meaning that only he understood, a way for him to see more clearly that which had disappeared.

It’s painful to me that I never asked him. He was trying to show us something.

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The Pharos/Summer 2012
Chad Klochko, MS

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Happy, cheerful, a positive outlook, a role model, Chad enjoys life, has a passion for learning, appreciates his colleagues, demonstrates his respect for medical school by his encyclopedic medical knowledge. Chad is the very first person in my life, a life filled with thousands of very deserving individuals, who has provoked my most total and unconditional respect and admiration. Chad earned it by the ease with which he walks in difficult circumstances, by his focus on achieving excellence, and by his limitless belief in his right to become an academic physician, and his unbelievable effort to qualify for a glorious career. He is one in a million and the most brilliant feather in the CHM cap.

— Houria Hassouna, MD

I move aided by crutches and troubled by a question: What’s next? Physical therapy and minor surgeries help my musculoskeletal imbalance, but despite years of testing and multiple surgical interventions, a definitive cause for my symptoms has never been identified.

After two years of sheltered existence in the classroom, I am a third-year student at Michigan State University College of Human Medicine, aloft in the whirlwind of the rapidly moving world of hospital rooms, nurses, surgeons, midwives, and medical students. I struggle to stand for hours without flinching; I cannot run down halls to respond to an emergency or speed to catch the next bedside teaching round.
It is awkward to get close to the operating table while using my crutches, and without them I cannot keep my balance for more than ten minutes. I waited two months for permission from mothers-to-be to attend the delivery of a newborn, an experience that affected me profoundly. I have cleared the required pediatric, obstetric/gynecology, and internal medicine clerkships.

I have wanted to be a physician since I was a child.

I have yet to be asked by any of my attending physicians why I use crutches.

I was born with bilateral hip dislocation, identified when I was just over a year old. Scoliosis was diagnosed when I was four and because of other symptoms I was loosely categorized under muscular dystrophy. My pediatric neurologist correctly predicted the strengthening of my muscles with age. He did not, however, expect the orthopedic problems that plagued my youth. In an attempt to pair me with a known medical syndrome, he relied on batteries of tests, annual EMGs, and repeated muscle biopsies. Symptoms and test results seemed to agree with a diagnosis of muscular dystrophy: I used the Gower maneuver to stand up; EMG tests produced a “popcorn” sound, and in biopsied muscle sections the tissue looked “grey.” However, as I became older, biopsied muscle tissue had a more “normal appearance,” my joints from connective tissue adhesions became distorted in varying degrees of flexion or extension, and I was reclassified under metabolic myopathy.

It was extremely difficult to be confined to a wheelchair as a child, and the joint stiffness meant I needed multiple forms of rigorous therapy aimed at sustaining my muscle strength. I persevered through nerve stimulation to water therapy, from traditional physical treatments to medicinal karate methods. I attended the Muscular Dystrophy Summer Camp with children similarly afflicted with diseases that restrict mobility, all of us in wheelchairs. Most of the friends I made at the camp, because
of the nature of muscular dystrophy, have not survived. I was thirteen months old when I had my first surgery, after my pediatrician identified bilateral hip dislocation. By the time I was three years old, I had had bilateral adductor tenotomies, iliopsoas release and distal femoral pin placement, with two weeks of traction, multiple closed reductions, and manipulation of both hips. After five months I had open reduction of the left hip and a derotation osteotomy of the left distal femur with crossed Steinman pins. The right hip open reduction with capsulorrhaphy and femoral derotation osteotomy was performed using the mini-Hoffman fixator.

Other significant issues, including scoliosis, an unspecified metabolic muscle disease, and a dislocated right radial head, were identified. At age eight, x-rays indicated progressive subluxation of the right hip, which led to a right acetabuloplasty. It was also determined that the left patella was dislocated and this led to a fixed flexion deformity that my parents feared would permanently affect my mobility. At age eleven, I underwent a relocation of the left patella, lateral release, medial reefing, intramuscular lengthening of the biceps tendon, and a step-out Z-lengthening of the iliotibial band. The flexion contracture was reduced to approximately ten degrees, but the success of this surgery was short-lived. Within eighteen months, the flexion contracture was up to thirty degrees and another hip surgery was scheduled. This time it was a left Staheli shelf procedure with bone graft. I was immobilized in a spica cast with the knee flexed. After the cast was removed, the fixed flexion deformity recurred. With a 30 degree left hip flexion contracture and a 20 to 30 degree left knee contracture, the orthopedic surgeon recommended manipulation under anesthesia and a possible posteromedial release of the knee structures. This unfortunately resulted in a proximal-tibia fracture and subluxed position of the knee. The fracture was reduced in a closed fashion, using C-arm intensification and pins placed across the knee joint for stabilization. Once again, I was cast in a flexed position, resulting in a fixed flexion deformity of 50 degrees. This was treated with aggressive physical therapy and Dyna-splints to no avail. At this stage I was confined to a wheelchair, needing surgery for my scoliosis and having a recent diagnosis of a metabolic bone disease. Since the active curve measured 55 degrees, surgery was my only option. I was placed in a full-body cast from which my knees and muscles did not recover.

By age seventeen, the deformed hip and scoliosis had been successfully addressed, and I was scheduled to correct the stronger right knee, which had a contracture of twenty degrees. The surgery included a bilateral hamstring release, followed by the application of an Ilizarov fixator frame. The plan was to have a gradual distraction of the knee joint, followed by gradual correction of the fixed flexion deformity along with simultaneous anterior translation of the tibia over the femur. The frame required daily corrections over the next four months. Approximately six months after the removal of the frame, the patella was still quite adherent to the underlying femoral articular surface. Arthroscopic lysis of adhesions was performed to gain further flexion. Surgery to repair the left knee contracture was scheduled at Sinai Hospital in Baltimore for September 12, 2001, the day after the terror attacks on the World Trade Center and the Pentagon. We wondered whether my surgery would be cancelled because the hospitals near the Pentagon would be filled with casualties. But the tragic reality was that there were too many fatalities and the hospitals were not overwhelmed. My surgery went forward as planned. The historical and personal significance of this event will live with me forever.

After surgery I awoke in the recovery room with a metal frame attached to my leg. The Ilizarov fixator ran from my hip to my ankle, and consisted of fourteen rods and pins driven into the flesh and anchored in my bones to secure the frame to my leg. It looked as though someone with a deluxe erector set had built a scaffold of metal around and into my leg. I spent the next three months in excruciating pain as the frame, adjusted four times by tightening bolts, slowly realigned the bones in my left knee. The severity of the dislocation is shown two weeks after the frame was attached and two months later—the results of a successful realignment. For three months I was bedridden and totally dependent on caregivers recruited from my family—parents, grandparents, cousins, aunts, uncles. They gave me the strength; I gave the effort. I lost control over every aspect of my life except for time. I had time, so much time: time spent fighting pain and thinking about what my life would be like if I ever won this battle.

Without the wheelchair and with the aid of crutches, I began my undergraduate studies at Michigan State University (MSU) in the spring semester of 2003 with a clear understanding of who I was and a profound determination about what I wanted to accomplish. Technology has always played a large role in my life. I majored in Computer Science and eventually expanded my program to include premed. College life provided personal challenges. I had been completely dependent; now I needed to be completely responsible. College brought me dedicated professors who inspired my life’s direction and incredible friends who lifted my spirit and honed my skills in computer science and programming.

In 2005 and 2006 I served as a research assistant on two projects. Dr. Matt Mutka led an investigation to create a pervasive surveillance network by which a user with Internet access could connect to a network of cameras. The user would only have to specify a target; the software would then track it, and the program would automatically switch to the camera with the best view of the target. I was the first person to get the camera switching to
occur. I co-authored the published results. The abstract was presented at the 2006 International Conference on Robotics and Automation. In 2006 I was involved in Dr. Sakti Pramanik’s project to locate specific sequences in the human genome database in seconds instead of hours. After graduating in 2007, I was simultaneously accepted at the Neuropsychiatric Research Center at the University of Cambridge in the United Kingdom and by the University of Michigan’s Master’s program in Biomedical Engineering.

I chose the University of Michigan. Working under Dr. Thomas Armstrong in the Department of Ergonomics I developed software to aid occupational therapists in optimizing treatment regimens for soldiers injured in the conflicts in the Middle East. Immediately after receiving my master’s degree, I applied to medical school. In 2009 I entered Michigan State’s College of Human Medicine as a member of the Class of 2013. After my last surgery in 2010, I prepared and conducted an IRB approved research proposal, constructed a web site for my mentor Dr. Houria Hassouna, and cleared my USMLE Part I Board in July 2011.

Medical school basic science courses imply that modern scientific advances have no boundaries. As a medical student, I eagerly follow the rapid and significant advances in diagnostic technology. On the wards I face the reality of the limits of medical care. But I still believe in its potential.

After I graduate from medical school, I hope to decrypt childhood neuromuscular disorders like my own to help the children who, like me, will reach adulthood having received palliative treatment without the benefit of complete cure. I want to use the potential of embryonic stem cell transplantation research to uncover the hidden aspects of muscle nerve interactions and unlock the possibility of regenerative therapy.  

My mantra: Failure is not an option.

References

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Contagion

Starring Gwyneth Paltrow, Matt Damon, Jude Law, Laurence Fishburne, Kate Winslet, Marion Cotillard.
Directed by Steven Soderbergh. Running time 104 minutes.

In English, Mandarin, and Cantonese.

When I agreed to write this column in 1991, my charge was to discuss films that had a medical theme and to look at films with a medical eye. As the quality of the movies has deteriorated, I have found this more difficult to fulfill. However, Contagion, to this one-time infectious disease specialist, seemed to fit the bill and I decided to take one for the team by reviewing it. Let’s get one thing straight at the outset: despite its all-star cast, I don’t think this is a very good film.

The movie opens with a cough. Next we see ten minutes of short flashbacks to the onset of an illness in a married woman going home to Minneapolis from a business trip to open a casino in Hong Kong. After a wild night in a casino, she adjusts her return so she can spend a seven-hour layover in Chicago with her ex-lover. People exposed to her are shown taking the disease to London, Tokyo, San Francisco, Chicago, and Minneapolis, accompanied by ominous on-screen population figures of how many inhabitants could possibly be affected in each city with each post-Outbreak day.

At this point, we are transported to the Centers for Disease Control and Prevention (CDC) in Atlanta where a doctor (Laurence Fishburne) has just parked his car and is chatting with the attendant about the football pool and the attendant’s son who has attention deficit disorder (ADD). The doctor promises to help, which he will later do, but not as we expect. As the doctor reaches his office, his assistant tells him of a suspicious death of the woman in Minneapolis, and that her son and her husband have contracted an unknown disease. The son subsequently dies, while the husband (Matt Damon) survives and tries to piece together what happened to his wife who was so well when they parted. Cut to the lover, who starts coughing on a Chicago bus. When he gets off, he collapses and dies. This adds more confusion for the poor husband, who later recovers...
and searches for answers.

The rest of the film is devoted to successive fragments of stories involving sending an Epidemic Intelligence Service (EIS) officer (Kate Winslet) to Minneapolis to obtain specimens and to try to make sense of an attempt by a San Francisco lab to isolate the offending organism. There are visits to the Level 4 labs at the CDC, with lots of jargon like “fomite,” “pathognomonic,” “paramyxovirus,” “phylogenetic,” and “R-Naught number,” all of which may be intended to impress viewers—the last one confused me. We are transported to Geneva, where the WHO gets involved and an investigator (Marion Cotillard) is dispatched to Hong Kong, where the authorities are none too pleased with being implicated. Interspersed are rantings about the CDC by a blogging journalist (Jude Law) because they have refused to recommend his forsythia-based drug to combat the epidemic, instead helping Big Pharma corner the market.

The films shows attempts to grow the organism, named MEV-1, in tissue culture and then develop a vaccine with an attenuated strain, and efforts to isolate the sick and quarantine contacts. Homeland Security gets involved, and we see a gymnasium set up for all those affected. Meanwhile deaths mount, with the mortality at twenty percent and there’s neither a treatment protocol nor a vaccine. Homeland Security runs out of body bags. There’s a riot for food and an emptying of stores. People become violent when lining up for forsythia and the doses run out. The president makes a statement on day twenty-six from an undisclosed location telling the populace not to worry and that the CDC has things under control. Unfortunately the EIS officer gets the disease and the CDC chief tries unsuccessfully to get her back to Atlanta. He does, however, get his wife from Chicago back to Atlanta by eluding border checks. Meanwhile the WHO investigator is kidnapped by Chinese officials and is held hostage so that if a treatment or vaccine is discovered, their people will get to the head of the line. At this point, I debated whether to don a face mask to watch the rest of the film, but mercifully a vaccine is finally produced and given out by lottery and the outbreak is controlled. The story is brought full circle at the very end and we see how the disease originated, but not before we have endured 133 days of flashbacks. What became painfully clear to me in watching this film is that Steven Soderbergh either has ADD or is trying to inflict it on us.
The physician at the movies

The filmmakers extend a special thanks to the CDC. If I were in their place I would've made sure my name was left off this picture. The film's CDC officials mean well but show a remarkable lack of urgency or competence. The chief's attempt to get his wife home safely and his access to early vaccine further diminish his stature, although he tries to compensate for this by giving his vaccine dose to the parking attendant's kid. But then again the Centers for Disease Control is not what it was in the days of CDC chief Alex Langmuir, who must be turning over in his grave. When I was a medical resident in the early 1960s, doctors were subject to being drafted, and becoming an EIS officer was very well sought-after, deservedly so. In the past few decades, the agency has enlarged in size and scope and seems to have lost its focus, becoming more politicized and bureaucratic. The other identifiable institution is the University of Minnesota Hospital, which is shown to better advantage. The movie was praised by reviewers as raising questions about our preparedness for a pandemic, but a recent event involving the detention of Japanese students arriving at Auckland's airport led the health directors to admit they overreacted to an airport flu scare. Then again, maybe there is cause for worry with the recent publication of a process to genetically alter avian influenza to make it more transmissible. I must admit to being a little spooked during a recent flight by a nearby passenger's persistent cough, knowing that air is re-circulated.

The film may be useful for a discussion led by knowledgeable people about how to really respond to such an event in an Internet and global age. If you want to see how past movies have handled virus outbreaks, rent Panic in the Streets, A Matter of WHO, and Outbreak. You'd make better use of your time, though, reading The Medical Detectives by Berton Rouché, whose marvelous stories helped make the New Yorker such an outstanding magazine in its heyday.

Addendum

I thought it might be interesting to ask Dr. Gabor Kelen, Johns Hopkins Medical Institutions’ Professor of Emergency Medicine and Director of Emergency Services, for his reaction to the film, since he would be one of the lead persons in our area were such an event to take place:

The movie Contagion, like all epic disaster movies, is more entertainment than fact. There are a few strains (pun intended) that are reasonably portrayed. The ending, which shows animal-to-animal-to-human transmission as the explanation for the seed of the epidemic, is very plausible, even likely. The charlatan opportunist played by Jude Law, hoping to capitalize on people's fears by promoting snake oil (foysthia) as a cure, is also very plausible. In fact we see this routinely in daily life, notably by those pushing various (very expensive) cancer cures (remember Laetrile), which are in fact useless. Finally, when law enforcement breaks down (in this case due to decimation of the force), and there are perceived shortages of medicine, some lawlessness will occur, but not likely as widespread as portrayed. For example, during the H1N1 epidemic there was none of the hysterical lawless behavior displayed in the movie by citizens of any country as a means to procure the precious few aliquots of vaccine that was initially available. Similarly, during the great influenza outbreak of 1918, there was no widespread panic, nor was there widespread panic during SARS. On the other hand there was sporadic lawlessness experienced in New Orleans during Hurricane Katrina, although in truth even this was overhyped by the media and sporadic at best. Still we have not experienced a pandemic as lethal as that portrayed in the movie, and thus the panic and lawlessness shown in the movie could perhaps yet happen.

What is clearly fiction is the manner in which a vaccine was developed. This was pure fantasy. The idea that a rogue scientist would somehow break into his own lab and without any help be able to determine the secret to vaccine development is completely unreal. It could never happen. The idea that another rogue scientist would inject himself with the vaccine to prove its effectiveness has some historical basis, as early developer of vaccines did inject themselves and even family members. However, in these early days, there was no readily approved scientific method. Also, a single “success” as in any pandemic, no matter how widespread and lethal, would be unconvincing. In the worst imaginable pandemic, there would be those who have natural immunity or would not show (any, much, or severe) clinical symptoms even if infected. Consider that Native Americans were not completely wiped out by smallpox. Certainly, one individual success would hardly spawn worldwide mass production of vaccine.

The portrayal of the WHO and the CDC gets mixed reviews. On the one hand they are portrayed as hard at work and able the gauge the epidemic, but seem helpless if not bumbling to stop it. One need only to consider SARS, Avian Flu, and H1N1, in recent history to conclude the excellence with which the world body and the HHS in the United States handled these recent epidemics.

References

Of Gods and Men (Des hommes et des dieux)
Starring Lambert Wilson, Michael Lonsdale, Farid Larbi, and Jacques Hurlin.
Directed by Xavier Beauvois. Running time 120 minutes.
Rated PG.
In French and Arabic with subtitles.

This remarkable film, whose English title was curiously and somewhat significantly inverted from Of Men and Gods, was the most important movie of 2011, although it wouldn’t be a surprise if you missed it. The Academy of Motion Picture Arts and Sciences did not recognize it in any category and even where it was shown, it left town quickly. The Baltimore County Public Library, which purchases multiple copies of the violent and profane junk that passes for feature films today, never bought a copy of the DVD even when asked to do so.

Yet Wall Street Journal critic Joe Morgenstern called it “one of the most beautiful movies I know.” Washington Post critic Ann Hornaday said that “Xavier Beauvois’s haunting, exquisitely crafted film achieves a flawless balance between taut, truth-based contemporary drama and the timeless question of spiritual commitment and obedience.” Kenneth Turan gave it four stars, describing it as “a thrilling adventure of the spirit.”

It is based on the true story of nine French Trappists of the Monastery of Our Lady of Atlas, established in 1947 near the Muslim village of Tibhirine in the Atlas mountains about sixty miles from Algiers. The eldest, Luc (Michael Lonsdale), is a physician who conducts regular free clinics for the populace. Many come to him for advice, including a young girl who has
been pledged to marry someone she doesn’t love. He tells her that he had many loves before finding his “true love” sixty years before and that she will find hers. The monks help the illiterate residents with letter writing and getting photos for their required identity papers. They work the land and join happily in a Muslim boy’s coming-of-age party.

The first part of the film is idyllic, reflecting a decade of leadership by Father Christian (Lambert Wilson). He had fought on the side of the French in the Algerian war. After entering the Cistercians, he dedicated his life to establishing a strong relationship with Muslims, inviting them to share meals and discuss their religious beliefs at the monastery. A student of the Quran, which is seen prominently on his desk, he notes that devout Muslims identify with the monks because they both have ritual daily prayers. He is often more critical of his co-religionists, something that probably had its roots in his familiarity with prejudiced elites in France and Algeria. In addition, his great-great-aunt had been a member of the order of the Society of Helpers, which served the sick, poor, and outcasts, especially blacks, in New York City and St. Louis in the 1880s, fighting against religious prejudice in the church at the time.4p38 Indeed many of Father Christian’s colleagues find that he is “too sensitive” and loathe to criticize Muslims or the Quran.

In 1993, the comity is pierced when a radical Islamist stabs a young girl in the heart for not wearing her hijab. This is followed by a manifesto issued by a Muslim terrorist group, GIA Commandos or (Armed Islamic Group), stating that “Foreigners have thirty days to leave the country. If they do not they are responsible for their own deaths.” It is issued with an emblem of the Quran with crossed swords and signed by Abu Mariam (Father of Mary).4p138 This is followed by the proclamation of a fatwa to legitimize the killing of unarmed civilians that will lead the terrorists to paradise rather than to hell, where they would otherwise go, condemned to drink boiling water and putrid blood.4p140

The gang slits the throats of Croatian newcomers who are helping the locals with their farming. Some of the monks are worried that they are on the terrorists’ list to be exterminated. Christian is resolute in his belief that they will survive and rejects an offer of protection from the army as inconsistent with the order’s beliefs of openness and of standing apart from the government. When even the terrorist leader Ali Fayattia (Farid Larbi) warns him that their lives are in danger, Christian stares the leader down and unilaterally makes the decision to stay. As the violence escalates, he holds another vote to satisfy those who are in favor of leaving for another place where they can carry out their good works and prayer in safety. Christian points out how dependent the villagers are on the monks for their revenue (jams and honey) and medical care. Luc sees as many as 150 patients a day. They decide to stay, saying that to do otherwise would violate their Christian ethic, but put in place some precautions in case of attack, such as locking the gates at night and drawing up escape plans, if needed. When the terrorist leader seeks medical care, Christian decides that Luc should help him over the objections of governmental officials who question saving a wretch who has the blood of innocent people on his hands. This is followed by a temporary respite; there is a lovely scene near the end when the regional abbot visits with supplies. However, the day of reckoning...
finally arrives, and the monastery is emptied and the monks are taken away to what seems like certain death.

The movie poses the question: What would you do if your life were seriously threatened and you could escape? Would you stand your ground and live your faith no matter what the cost? Would you be like Brother Luc who says that he had met the devil in the Nazis and doesn't fear him? Movie critic Steven Greydanus suggests that the film may be seen as a test of the strength of the viewers' faith, a test I may have failed by feeling that they ought to have left because they had so much to give and it was inevitable that they would be killed. Other questions arise, like the perennial one about what to do when a physician is asked to care for an evil person, in this case a terrorist who has killed many and is likely to kill more if he survives. Another very relevant issue is that the majority of the Muslim townspeople pictured in the film are law-abiding and want to live in peace with Christians, but they are intimidated into silence, and those who do speak up are killed by the more radical extremists. The killing of the young woman raises the issue of the imposition of Sharia law. The film also can be used as a vehicle for discussing how poorly the mainstream media covers the killing of Christians around the world and their systematic ejection from lands they settled hundreds of years before Islam. It is estimated that more Christians have been martyred for their faith in the twentieth century than in the previous nineteen centuries, and this persecution continues unabated in the new millennium.

I'll conclude with the thoughts of one of the many long-distance friends I've met in the years of writing this column, John Neff, an AΩA member who contacted me about reproducing a chapter of my book Christians in the Movies: A Century of Saints and Sinners for a film discussion group that he has been part of for decades at Ohio State. A film buff, he submitted the following thoughts about the film:

I'm an immunopathologist, which is probably why I separate my movie impressions into the immediate (the ones you talk about on the way home from the show) and delayed (the ones you awaken a sleepy wife at 2:00 AM to talk about, weeks later). My initial thought was that the film was so beautifully done and so well paced, it seemed to be an almost perfect tragedy with one major flaw: you know the outcome from the beginning. I thought this was a modern martyrdom; why didn't someone do something more to stop this?

Later on I thought to myself that there had to be more to this; these men are principled, and faith-filled, but not martyrs (one said that he was not looking to be a martyr). I wondered what they were like, especially Luc (the physician). I couldn't—still can't—accept the fact that they stayed; they had so much more to give. I bought The Monks of Tibhirine and learned that Christian was the son of a distinguished French military family, really an old aristocratic family. He had been raised in Algeria and had actually fought in the war of independence on the French side. When Kiser (the author) began his research for the book, he interviewed Christian's older brother, a former director of the French nuclear arsenal. According to his brother, Christian knew well, very well, what danger he and the others were in. Kiser says that he will try to tell some of the truth of what went on at Tibhirine, but he knows he cannot tell it all. Articles in the Cistercian literature and the Tablet imply that we still do not know the truth. They were not martyrs if one uses that term in its classical sense; not only the Algerian government and military (corrupt to be sure) told them to get out, so did their own people, and trusted Muslim neighbors. Christian's unwillingness to leave may have been grounded in his studies with the White Fathers in Rome, a remarkable order devoted to both African conversion and Christian-Muslim reconciliation, before going to his monastery in Tibhirine. I think the deaths both tragic and unnecessary; probably an instance where belief (theirs that Christians and Muslims could live beside one another in the Atlas Mountains) and reality (that it was not possible at that time) were so far apart that some were going to get killed. Their bodies were never found, only their severed heads. I am moved deeply, but I wish I could have gone to that monastery and pleaded with them saying “Look, let's talk, there must be some other way…”

Kiser's book suggests that it wouldn't have helped.

References

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For more than a decade we have walked together, side by side and in tandem.

Once, we walked with straight backs and strong legs, confidently balanced.

No longer.

Though we still walk together, side by side and in tandem.

Our once supple responsive bodies, both now damaged by time passing,

Have aged in parallel inflicting changes, similar, progressive,

Slowing our pace.

Noticeable limp.
Unsteadiness of gait.
Distressing for me, seemingly less so for her.

For as long a time as we have remaining we will walk together, side by side and in tandem,

My canine companion, Tilly, and me.

Arvey I. Rogers, MD, FACP
Reviews and reflections

David A. Bennahum, MD, and Jack Coulehan, MD, Book Review Editors

Epigenetics in the Age of Twitter: Pop Culture and Modern Science

By Gerald Weissmann
Bellevue Literary Press, New York, 2012

Reviewed by Thoru Pederson, PhD

But the greatest thing by far is to be a master of analogy. It is the one thing that cannot be learnt from others; and it is also a sign of genius, since a good metaphor implies an intuitive perception of the similarity in dissimilars.

—Aristotle, Poetics 1459a 5-8

One of the most beguiling features of the essay—from the Latin exigere, “I have examined”—is its remarkable genesis in the writer’s mind, involving cerebral foreplay together with a sudden rush (in the shower or while walking the dog) typified by a consolidation of themes fueled by a momentary stream of consciousness. Many essayists also throw in a strong dose of undisguised irritation at sloppy thinking. They fold these ingredients into a mixing bowl lined with a desire to write cleverly. In his latest collection of essays, Gerald Weissmann, an accomplished physician-scientist and brilliant writer, brings all these features into high gear once again.

Each essay forges a link between a topic in modern medicine or biology and an interesting nonmedical subject from classical or contemporary culture. His range of topics is wide, and his deftness at sensing an apt analogy in each case, anent Aristotle (vide supra), is striking. Consider a few titles from the table of contents that illustrate the author’s métier:

- “An Arrowsmith for the NASDAQ Era: Extraordinary Measures”
- “Coca-Cola and H.G. Wells: Dietary Supplements as Subprime Drugs”
- “Ask Your Doctor: Justice Holmes and the Marketplace of Ideas”
- “Wild Horses and The Doctor’s Dilemma”

(Note that most of Weissmann’s essays are like GI cancer screening in that they involve a colon!) Such titles illustrate the author’s panache and intellectual reach, as in “Inflammation Is Complicated: From Metchnikoff to Meryl Streep,” in which he deploys the plot of the Hollywood movie It’s Complicated to segue into a master class discussion of inflammation from the time of its discoverer to the present.

In “Medea and the Microtubule,” the author uses the myth of Medea, as brought to us by Euripides, to introduce the drug colchicine, which, in turn, led to the discovery of the protein that comprises one of the major architectural elements of eukaryotic cells, the microtubule. Weissmann reminds us that this molecule is named for Colchis, a region in western Georgia on the Black Sea, and the home of Medea, the king’s daughter, who helped her lover Jason obtain the golden fleece. Historians of medicine believe that the golden fleece might have been Colchicum autumnale, the yellow crocus that grows in that region, the roots of which contain colchicine.

The author’s rich erudition delights and educates the reader. Biomedical scientists will have little trouble with the genomics, biochemistry, and signal transduction Weissmann throws at them, although a nonspecialized reader is unlikely to get the meaning of “methylated characteristics,” i.e. a one-carbon addition to DNA that can establish its function in progeny cells. Practicing physicians will grasp and enjoy the well-written material on biology and medicine. However, scientific readers will also be enriched by the parallel allusions to art, literature, and history. It’s true that many of us will find ourselves Googling figures from Greek or Roman mythology and other words not in common usage. I had to do so more than once. But is that not a good thing? And in many other essays Weissmann cleverly draws upon well-known current events as the referential enablement of his point. Weissmann stands on, and writes from, a world stage, not one confined to his immediate biomedical environs, and this is a defining feature of his appeal. Thus, in many cases the reader realizes, usually about one-third to one-half way through the essay, that Weissmann is using it as a bully pulpit in the best (Teddy Roosevelt) sense of the term, but it is so well done that the reader remains thoroughly engaged.

Gerald Weissmann’s powerful facility for analogy and brilliant expository style have elevated him to the pantheon of
science essayists in this post-Stephen Jay Gould and post-Lewis Thomas era. This new book surely catalyzes his strong covalent bond to the top tier. It cannot fail to educate and indeed inspire readers.

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The Sound of a Wild Snail Eating
Elisabeth Tova Bailey
Algonquin Books of Chapel Hill, Chapel Hill, North Carolina, 2010

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

How astonishing that in a quiet room a perceptive patient could hear a wild snail eating dried flower petals. Not a surprise once I read that Aristotle had observed that snails have teeth and that Bailey’s woodland snail has 2,640 and some of its kin may have up to 10,000 teeth! Elisabeth Tova Bailey, who has suffered from Chronic Fatigue Syndrome, has written a most beautiful and life-affirming book about her accidental companion whom she introduces to the reader on the first page.

In early spring, a friend went for a walk in the woods and, glancing down at the path, saw a snail. Picking it up, she held it gingerly in the palm of her hand and carried it back toward the studio where I was convalescing. She noticed some field violets on the edge of the lawn. Finding a trowel, she dug a few up, then planted them in a terra-cotta pot and placed the snail beneath their leaves.

The author describes with remarkable economy the long and disappointing course of her illness, her hopes for experimental therapy, and the cruel reality when later, “My doctors said the illness was behind me, and I wanted to believe them. I was ecstatic to have most of my life back. But out of the blue came a series of insidious relapses, and once again, I was bedridden.” She then continues with a series of vivid descriptions of her experience of Chronic Fatigue Syndrome, something worth reading by any physician who has ever doubted the sanity of patients with this complaint. The author writes that her “snail observations are from a single year of my nearly two decades of illness . . . While I was snail watching, there was so much I did not know about my small companion, and there was just as much I did not know about my illness. I was curious about my snail’s species, and solving that puzzle would take several attempts and the help of a few experts. Even more challenging was the mystery of the pathogen that had forever changed the course of my life, and I would track down the likely culprit. There was also the unknown future—my own, and that of all living things.”

But this rewarding book is not just about illness; rather it is about life as the author is gradually drawn to observing her new wild companion. “When I woke during the night, I would listen intently. Sometimes the silence was complete, but at other times I could hear the comforting sound of the snail’s miniscule munching.” Having arranged for a terrarium to house her snail companion and added first flower petals and then mushrooms to its diet (snails are hermaphrodites), the author despite her disability embarks on a thorough study of snails, ordering through inter-library loan the twelve-volume compendium The Mollusca, which covers the entire phylum of creatures without backbones that include the gastropods—snails and slugs—and the cephalopods—including the octopus.

She goes on to read everything that she can find on mollusks from Aristotle to Charles Darwin, including novelists and poets who have written about snails. Her bibliography is astonishing. It should not be forgotten that Darwin had studied mollusks, a study that had contributed to his great insight on evolution. It is also paradoxical that Darwin suffered from some form of chronic fatigue that began after his return from his seminal voyage on The Beagle. It has been suggested that he had fibromyalgia or had acquired Chagas Disease in Chile from observing a bug as it bit him, and that most of his research and writing was despite recurring bouts of illness. Quoting Darwin in the Descent of Man in 1871:

Mr. Lonsdale . . . informs me that he placed a pair of land-snails . . . one of which was weakly, into a small and ill-provided garden. After a short time the strong and healthy individual disappeared, and was traced by its track of slime over a wall into an adjoining well-stocked garden. Mr. Lonsdale concluded that it had deserted its sickly mate; but, after an absence of twenty-four hours, it returned, and apparently communicated the result of its successful exploration, for both then
This is a very special book that reminded me of the early writing of Rachel Carson. Richly packed with human experience, scientific information, clinical observation and poetic insight this book will bring joy, understanding, and considerable scholarship to any reader.

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Alan Blum’s work, as shown most recently in his book, Gentle Men, is a perfect example of the old adage, “A picture is worth a thousand words.” This small collection of sketches tells us a great deal about thirty-one of Dr. Blum’s male patients, but it also reveals much about the artist himself. Dr. Blum is a family physician who discovered, while in residency, a talent for capturing his patients’ personalities in casual sketches that he made on rounds and, later, in his office. His sketches were first presented to the medical community in 1981, when JAMA published a selection of them in a photoessay. Subsequently, Literature and Medicine presented a series of his sketches with a critical analysis by Mary Winkler, who wrote that Blum’s casual portraits portray “individual personalities who act in a human drama of courage, despair, humor, pettiness, suffering, and death.”

Winkler went on to comment that the artist, while “unpretentious in his approach,” “derives intense pleasure from the practice,” and his work demonstrates “a genuine and compassionate interest in the people he sees.”

While the pictures provide glimpses into his patients’ personal worlds, Blum supplements each sketch in Gentle Men with comments in the patient’s own voice, words that capture the immediacy of the moment, whether the message is comical, rueful, or wise. For example, on page 6, we see a long-faced, narrow-shouldered African-American man look pensively into the distance, as he says, evidently speaking of his daughter, “When she was eight years old, she asked to have a drink with me, and I stopped drinking.” On page 21, the image is that of a middle-aged man with a sour expression on his face, commenting on his experience with another doctor. “I don’t want to hurt his feelings,” the patient says, “but, really, that doctor didn’t do anything for me . . . / Nowadays you feel more like furniture / coming to be repaired.”

Medical procedures also receive due consideration. Take, for example, the patient on page 9 who confronts the reader with a pained, quizzical expression as he observes about his doctor, “He did that finger test. / Stick a finger up your butt / and smear it on a piece of paper. Said I passed.” On the next page, an elderly man with thick-rimmed glasses seems genuinely amazed at his experience of a colonoscopy: “That doctor put a Kodak in me. / He put it in and kept shovin’ and shovin’ / Showed up on TV.”

Gentle Men serves as a companion piece to Ladies in Waiting, Dr. Blum’s collection of sketches of female patients, which appeared in 2009, and offers graphic insight into the distaff side of his patient population. One grandmothersly woman with a delicate bow at her neck comments, “I had one doctor, / used to have to chase him, / grab onto his white coat. / Flittin’ up and down the hall. / You want to ask him somethin’ / you have to run him down.” Another patient almost sags out of the page, looking as if she carries the cares of the world on her shoulders, but quips, “I sure feel better since the doctor / took
me off all them milligrams." And a large, jowly woman on page 6 peers from above her glasses and confidentially informs the reader, “I figured it out: / I’m 329 pounds, / and at my weight / I should be 8 feet 7 inches tall. / So I’m not fat, I’m short.”

_Gentle Men_ and _Ladies in Waiting_ remind the reader of the visual richness of medical practice and, at least in Alan Blum’s case, the deep connection between sketching and empathic understanding. Blum consciously prolongs medical encounters by sketching his patients, arguing that by doing so he becomes a better listener, sees his patients more clearly, and “narrows the gap between physician and patient.”

While such careful observation undoubtedly benefits patients, the practice of reflective sketching also benefits the physician-artist, as Dr. Blum confirms in his very brief (single sentence!) introduction to _Ladies in Waiting_, “I awaken each day with the wonderful faces of patients in my mind and the simple but funny, poignant and wise stories I’ve been privileged to hear.” Those of us who feel that way—and I believe there are many—should greatly enjoy Alan Blum’s _Gentle Men_ and _Ladies in Waiting._

**References**


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_A Private Place_

The young couple stands alone at the elevator marked “Down to Parking.” They regard each other joylessly. Their bearing probes something measureless. Others queue up behind them, fall into their spell, and uneasily stand back... transfixed.

She, in early pregnancy, appears near tears, yet offers him a fleeting smile as if to lighten a weight they share. And he returns it like a blessing.

In this medical complex, this floor attracts pregnant women. The others waiting are also patients, and faces somehow soon betray a suspicion that this baby ...

is dead.

Doors open to an empty elevator, and the couple enters. No one follows.

_Douglas Forsyth, MD_

Dr. Forsyth (AΩΩA, Tulane University, 1960) is retired from private practice in Internal Medicine and Cardiology in Atlanta. His address is: 6060 Weatherly Drive, NW, Atlanta, Georgia 30328. E-mail: douglashforsyth@comcast.net.
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 presents 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, and $1000 for the third year to support the winning projects.

The winners of this year’s award are:

- Salina Bakshi, Catherine Bigelow, Jonathan Giftos, Marie Hennelley, Andrea Jakubowski, Aisha James, with mentors Yasmin Meah, MD, Holly Atkinson, MD, Natasha Anandaraja Wagner, MD, Ann-Gel Palermo, Phil Landrigan, MD, Jon Ripp, MD, Ramin Asgary, MD, Angela Diaz, MD, and Theresa Soriano, MD, of Mount Sinai School of Medicine for the Mount Sinai School of Medicine Human Rights and Social Justice Scholars Program.

- Michael Gao, Sarah Akkina, Elizabeth Haworth-Hoeppner, Alex Lindley, Justin Conway, Andrew Chao, and Alissa Briggs, with mentors Sanjay Saint, MD, MPH, Lawrence An, MD, and Joel Howell, MD, PhD, of the University of Michigan Medical School for AffordCare, Mapping the Road between Uninsured Patients and the Clinics that Serve Them.

- Ravi Patel, Neil Issar, and Emily Zern, with mentors Michael J. Fowler, MD, and Robert Miller, MD, of Vanderbilt University School of Medicine for The Nashville Mobile Market Nutrition Education Initiative.

- Bridget Spelke, Joelle Rosser, Berendena Vandertuig, Shruthi Rereddy, Zoe Julian, Ashley Martinez, and Leah Machen, with mentors Lisa Flowers, MD, Ira Horowitz, MD, Martina Badell, MD, and Gary Teal of Emory University School of Medicine for the Harriet Tubman Women’s Clinic.

- Sandra Valenciano, Kristin Schwarz, and Jared Walsh, with mentors Colin Sox, MD, Barry Zuckerman, MD, and Joel Alpert, MD, of Boston University School of Medicine for the Child Health and Advocacy Project.

Summaries of the winning projects follow.

The Mount Sinai School of Medicine Human Rights and Social Justice Scholars Program

The HRSJ Scholars Program is a
multidisciplinary effort implemented for the first time in the academic year 2011–2012 by second-year medical students that offers ten to twelve first-year students a comprehensive, credit-based curriculum in health equity, human rights, and social justice in five areas: coursework, mentorship, research, service, and career exploration. Under faculty advisors Holly Atkinson, MD, Assistant Clinical Professor of Medicine; Yasmin Meah, MD, Assistant Professor of Medical Education and Medicine; Anu Anandaraja, MD, Assistant Professor in Pediatrics and Medical Education; and Ann-Gel Palermo, PhD, Assistant Professor in Pediatrics and Medical Education, the HRSJ Scholars Program aims to train students to push the paradigms of translational research and medicine into global and community advocacy, policy, and action. The program is now a joint collaboration between the Medical Education Department, the Center for Multicultural and Community Affairs, the Global Health Center, and the Physicians for Human Rights student chapter.

In addition to their service work, each HRSJ student is paired with a faculty mentor who works with the student throughout the year to identify or create a social justice research project that may involve working with a local community group or participating in an overseas global health program. Career and academic advice and human rights-based shadowing opportunities from mentors, as well as lectures from physicians who focus on social justice issues, help students learn the steps required to build a career focusing on social justice.

The second-year medical students at Mount Sinai who administered the program and have received this award are Salina Bakshi, Marie Oliva Hennelly, Andrea Jakubowski, and Aisha James, and fourth-year students Catherine Bigelow and Jonathan Giftos. These students also lead the student chapter of Physicians for Human Rights. Upon completion of this school year, four first-year scholars who participated will then take over the administration of the program and review applications from new first-year students.

AffordCare team members Sarah Akkina, Liz Haworth-Hoeppner, and Michael Gao.

AffordCare, Mapping the Road between Uninsured Patients and the Clinics that Serve Them

Affordcare is an organization geared towards connecting millions of uninsured Americans with the free and sliding-scale clinics that serve them. To do this, we are creating a Google Maps-like website that lists all free and sliding-scale clinics within close proximity to any location in the United States. We envision a patient or referring clinician entering his or her address and, within seconds, viewing a list of nearby clinics with names, location, contact information, hours of operation, services, and other key details. The site will also serve as a repository for additional resources including a searchable $4-medications list and links to medical education videos and pamphlets. The creation of this resource is being led by students from the University of Michigan Schools of Medicine, Public Health, and Social Work.

The Nashville Mobile Market Nutrition Education Initiative

The Nashville Mobile Market (NMM) is a social enterprise venture that works to provide access to healthful affordable groceries in Nashville’s food deserts to help address the growing obesity epidemic. NMM currently operates in the food desert communities in Nashville, Tennessee. The goal of NMM is to increase the intake of fruits and vegetables, along with facilitating other healthful diet decisions, by improving the availability of healthful options and thereby decreasing the incidence of diet-related chronic conditions.

Founded in March 2010 by Ravi Patel, a medical student at Vanderbilt University, NMM is a result of cooperation and collaboration among numerous Nashville community and educational institutions. Initially, faced with patient complaints regarding a lack of healthful food options, the Shade Tree Clinic, Vanderbilt...
University’s student-run free clinic, began investigating the possibility of attracting a profitable grocery store option to the East Nashville community. However, due to a lack of market share, another option was needed.

Since then, NMM developed a business plan, gathered funding, and began operations in February 2011. The Nashville Mobile Market’s Nutrition Education Initiative will now be implemented as a key component of the larger program with the generous funding of Alpha Omega Alpha. Vanderbilt University’s School of Medicine will host the education initiative to implement teaching kitchens throughout the areas served by NMM. As part of the college advisory system at Vanderbilt, students will serve the community in partnership with the social enterprise. This program will help NMM completely address the market failures surrounding food access through direct initiatives to address physical, financial, and educational barriers to healthful eating.

The Harriet Tubman Women’s Clinic

The Harriet Tubman Women’s Clinic (HTWC) is a student-run clinic operating out of Open Door Community, an intentional community dedicated to serving homeless people in Atlanta. Founded in 2010 by two first-year Emory medical students, the HTWC started with only a mission: to provide free patient-centered reproductive health services to underserved women in Atlanta while simultaneously providing medical students with early, hands-on experience in reproductive health. Today, through invaluable relationships with faculty, administrators, and community members, the HTWC’s one-room clinic has the capacity to diagnose and treat common STIs, provide basic contraceptive options, and perform vital preventative health screens and well-woman exams. First-year students at Emory are introduced to reproductive health in the first months of medical school by attending Women’s Health Training Day, a full-day clinical skills training organized by senior students. Incredibly popular, this event is now an annual tradition, with over one-third of the incoming M1 class developing skills in sensitive sexual history taking, recognition of STIs, ultrasonography, pelvic exams, and family planning counseling. Students who wish to become more involved then have the opportunity to volunteer at the bimonthly clinic or become clinic coordinators.

With the support of Alpha Omega Alpha, the HTWC is excited to expand both clinic services and student leadership training over the next three years. In keeping with its commitment to providing patient-centered care, the clinic aims to expand services and availability, providing patients with more reliable, comprehensive care, including HIV testing and an expansion of contraceptive options. A central element of the expansion is also dedicated to developing student-physician leaders committed to HTWC’s dual mission. Through workshops at the Woodruff Leadership Academy, peer-directed continuing education sessions, and post-clinic debriefs, the HTWC aims to transform clinic coordinators into informed student leaders who advocate for their patients and continue to help educate their peers. An advisory board composed of faculty mentors, community partners, and senior students is also being created to guide the development of clinical and educational activities and provide further opportunities for student leadership. Through the commitment of a strong team of
individuals and the AΩA Medical Student Service Leadership Project Award, the Harriet Tubman Women’s Clinic is creating an important opportunity for medical students to become engaged in service and leadership.

**Child Health and Advocacy Project**

The Child Health and Advocacy Project (CHAP) at Boston University School of Medicine is a student-run program that provides summer service-learning opportunities for rising second-year students who are interested in pediatrics and urban advocacy. The goals and objectives of CHAP include helping students develop a better understanding of the health care needs of urban underserved populations and teaching them how to advocate for their pediatric patients. Boston University students devote their time and effort to community groups and patients, while the program provides students with the opportunity to learn hands-on, as well as develop the leadership skills necessary to advocate for their patients. The concept of CHAP ensures that the benefits of the program flow bi-directionally—to the students and the community. CHAP participants have the opportunity to address local health care needs in a variety of programs ranging from childhood obesity to adolescent asthma, but participants also have the opportunity to create their own projects based on their child health and advocacy interests. Participants work closely with student leaders and project mentors to establish their project goals and objectives and receive guidance throughout the summer. Additionally, participants lead and attend didactic discussion sessions on their projects and pertinent aspects of urban health with pediatrics faculty and students. In the fall semester, project participants present their summer experiences in an oral presentation at the CHAP Fall Symposium, which gives students a chance to reflect on their roles as caregivers, leaders, and the role that advocacy can play in urban pediatric communities. The fundamental goal of the Child Health and Advocacy Project is to produce humanistic, socially responsible physician-leaders who grasp the many factors that affect health in urban communities. CHAP’s goals and objectives are not exclusive to students interested in pediatrics, as strong communication and leadership skills, a commitment to the community, and a better understanding of the cultural, socioeconomic, and environmental factors of health relates to all medical specialties.
I n 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 and dollar amount. As many as fifty $5,000 awards are made, and $1,000 is 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, AΩΑ’s longtime administrator, who died in January 2004.

Evaluations of the fellowship proposals were made by reviewers: Thomas T. Andersen, PhD; Syamal K. Bhattacharya, PhD, CLD; Sylvia Brice, MD; John C. M. Brust, MD; Paul A. Bunn, MD; Tim Byers, MD, MPH; Richard Byyny, MD; Y. Monique Davis-Smith, MD; Gerald V. Denis, PhD; N. Joseph Espar, MD; Ruth-Marie Fincher, MD; Daniel Foster, MD; Eve J. Higginbotham, SM, MD; Joseph A. Hill, MD, PhD; Marc G. Jeschke, MD, PhD, FACR; James Gamble, MD, PhD; Mary L. Gerend, PhD; Richard B. Gunderman, MD, PhD; Mary McAsey, PhD, HCLD; Mirjana Maletic-Savatic, MD, PhD; Gokhan M. Mutlu, MD; Thoru Pederson, PhD; Suzann Pershing, MD; Sheryl Pfeil, MD; Don W. Powell, MD; Steven P. Ringel, MD; William A. Robinson, MD, PhD; Sarah M. Roddy, MD; Shashikumar K. Salgar, PhD; Alan G. Wasserman, MD; Gerald Weissmann, MD.

The recipients of the 2012 fellowships are:

**Tamara Aghamolla**
University of Maryland School of Medicine
*Use of High Affinity FcyRIII (CD16) Chimeric Antigen Receptor (CAR)-Engineered T Cells in Recognition and Destruction of HER2 Breast Cancer Tumor in vivo*
Edward Davila, PhD, mentor
Donna Parker, MD, Gary D. Plotnick, MD, and Yvette Rooks, MD, councilors

**Dianne Bach**
Keck School of Medicine of the University of Southern California
*Tear-based Diagnostics for Sjögren’s Syndrome*
Sarah Hamm-Alvarez, PhD, and John Irvine, MD, mentors
Paul Holtom, MD, councilor

**Travis Boyd**
University of Louisville School of Medicine
*Development of anatomical landmarks to avoid injury and postoperative development of painful neuraloms to critical superficial nerves as well as facilitate anesthetic blocks during abdominal and pelvic operations: An anatomical study of the lateral femoral cutaneous nerve, ilioinguinal and genitofemoral nerves*
Bradon V. Wilhelmi, MD, mentor
Daniel Danzl, MD, councilor

**Satara Brown**
Medical University of South Carolina College of Medicine
*Effects of Aging on the Cardiac Conduction System*
Terrance X. O’Brien, MD, mentor
Christopher G. Pelic, MD, councilor

**Puja Chebrolu**
Medical College of Georgia at Georgia Health Sciences University
*Predictors of Bacteremia in Hepatitis C Positive Hemodialysis Patients*
N. Stanley Nahman, Jr., MD, mentor
Clarence Joe, DMD, MD, FACR, councilor

**Mohsin Chowdhury**
Albert Einstein College of Medicine of Yeshiva University
*Utilizing Thromboelastograph with Platelet Mapping™ (TEG-PM) to Predict Postoperative Chest Tube Drainage (CTD)*
Galina Leyvi, MD, mentor
Charles Nordin, MD, councilor

**Alex Cruz**
University of South Florida College of Medicine
*Assessment of Acute and Late Toxicity from Treatment of Prostate Cancer with External Beam Radiotherapy, Low-Dose Rate Brachytherapy, and/or High-Dose Rate Brachytherapy*
Matthew C. Biagioli, MD, and Sarah Hoffe, MD, mentors
Patricia Emmanuel, MD, councilor

**Emilie Dore**
University of Iowa Roy J. and Lucille A. Carver College of Medicine
*Evaluating Protein Interactions with PRICKLE2 in Mouse Models*
Alexander G. Bassuk, MD, PhD, mentor
Christopher Cooper, MD, councilor

**Gregory Ebersole**
Washington University in St. Louis School of Medicine
*Responsiveness of Patients’ DASH Scores following Ulnar Nerve Transposition for Cubital Tunnel Syndrome*
Susan MacKinnon, MD, mentor
Morton E. Smith, MD, councilor

**Jacob Eitel**
Indiana University School of Medicine
*O6-methylguanine-DNA methyltransferase (MGMT) as a Regulator of Angioenesis in Glioblastoma Multiforme (GBM): Potential Implications for Emerging Therapies*
Karen E. Pollok, PhD, mentor
Richard B. Gunderman, MD, PhD, councilor

**Megan Fracol**
Raymond and Ruth Perelman School of Medicine at the University of Pennsylvania
*Determining whether Her-2 Pulsed DCI Vaccines in DCIS Patients Induce humoral or Cellular Immune Responses that Prevents Breast Cancer Invasion*
Brian J. Czerniecki, MD, PhD, mentor
Jon B. Morris, MD, councilor

**Brian Freniere**
University of Massachusetts Medical School
*Cutaneous Perfusion Response to Varying Doses of Ionizing Radiation*
Janice F. Lalikos, MD, mentor
David A. Drachman, MD, councilor

**Wendy Fujioka**
University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School
*Effects of p75 and TrkB Signaling on Cognitive and Motor Function Following Traumatic Brain Injury*
Janet Adler, PhD, mentor
Geza Kiss, MD, and Michael E. Goldberg, MD, councilors

**Tanner Fullmer**
Medical College of Wisconsin
*Harmonic Manipulation and Timbre Perception in Cochlear Implant Users*
David R. Friedland, MD, PhD, and Christina Runge, PhD, mentors
James L. Sebastian, MD, councilor
Alevtina Gall  
University of Washington School of Medicine  
**Defining the protective role of Helicobacter pylori colonization in the development of esophageal adenocarcinoma**  
Nina R. Salama, PhD, mentor  
Douglas S. Paauw, MD

Clare Griffis  
Uniformed Services University of the Health Sciences F. Edward Hébert School of Medicine  
**Validity of Computed Tomography in Predicting Scaphoid Screw Prominence: A Cadaveric Study**  
Patricia L. McKay, MD, mentor  
Robert E. Goldstein, MD, councilor

Parth Khade  
Texas A&M Health Science Center College of Medicine  
**High Resolution Manometry to Analyze Esophageal Motility and GERD in Bariatric Patients**  
Joseph Kuhn, MD, FACS, mentor  
Mark L. Montgomery, MD

Sattar Khoshkhoo  
University of California, San Francisco, School of Medicine  
**Internal Representations Underlying How Sounds Become Speech in Human Auditory Cortex**  
Edward F. Chang, MD, mentor  
Sue Carlisle, MD, councilor

Ahmed Toufic Kurdi  
American University of Beirut School of Medicine  
**Exosomal microRNAs in multiple sclerosis: Reconciling expression signatures with disease relapse, remission, and response to treatment**  
Samia J. Khoury, MD, mentor  
Ibrahim S. Salti, MD, councilor

Joseph Lamplot  
University of Chicago Division of the Biological Sciences The Pritzker School of Medicine  
**The Role of Recombinant Human IGFBP (rhIGFBP5) in Osteoblastic Differentiation of Osteoprogenitor Cells and Osteosarcoma**  
Hue H. Luu, MD, mentor  
Adam Cifu, MD, councilor

Sarah Lee  
Northwestern University The Feinberg School of Medicine  
**Oligonucleotide-nanoparticle conjugates to accelerate diabetic wound closure through ganglioside depletion: Mechanistic analyses**  
Amy S. Paller, MD, mentor  
John P. Flaherty, MD, councilor

Christen Lennon  
Columbia University College of Physicians and Surgeons  
**Detection of disruption in the PI3K/AKT pathway in patients with ileal carcinoids**  
Gloria H. Su, PhD, mentor  
John C.M. Brust, MD, councilor

Ting Li  
The University of Toledo College of Medicine  
**Protein-protein interactions in the isoprenoid biosynthesis pathway of human malaria parasites**  
Audrey R. Odum, MD, PhD, mentor  
Donna Woodson, MD, FAAP, councilor

James Lin  
University of Medicine and Dentistry of New Jersey—New Jersey Medical School  
**The Novel Use of Urinary Exosomes to Detect Biomarkers in Castration Resistant Prostate Cancer**  
Daniel P. Petrylak, MD, and Leileata M. Russo, PhD, mentors  
Robert Schwartz, MD, and Clark Lambert, MD, PhD, councilors

Ryan Lippell  
New York Medical College  
**A novel tetanus toxin subfragment as a neurotrophic vector for GM2 gangliosidosis therapy**  
Kostantin Dobrenis, PhD, mentor  
William H. Frishman, MD, councilor

Ian-James Malm  
Johns Hopkins University School of Medicine  
**Combinatorial Immunotherapy for Head and Neck Squamous Cell Carcinoma**  
Young J. Kim, MD, PhD, mentor  
Peter E. Duns, MD, councilor

Spyridon Mastroymannis  
George Washington University School of Medicine and Health Sciences  
**Are Mutations in Succinate Dehydrogenase complex II (SDHx) involved in pituitary tumorigenesis?**  
Constantine Stratakis, MD, d. (med.) Sci, mentor  
Alan G. Wasserman, MD, councilor

Emily McIntosh  
Emory University School of Medicine  
**Effect of Raltegravir on Bone Homeostasis in WT Female Mice and Osteoblast Cell Line**  
Igho Ofotokun, MD, MSc, and N. Neale Weitzmann, PhD, mentors  
Thomas C. Pearson, MD, DPhil, councilor

Jennifer Ornelas  
University of California, Davis, School of Medicine  
**Effects of Phytochemicals on Toll-like Receptor 2 Expression and Function in Sebocytes**  
R. Rivkah Isseroff, MD, mentor  
Regina Gandour-Edwards, MD, councilor

John Pham  
University of Texas Medical School at Houston  
**Characterization of focal adhesions in myofibroblasts harboring TGFBR2 and SMAD3 mutations**  
Dianna Milewicz, MD, PhD, mentor  
Eugene Boisaubin, MD, councilor

Sujoy Phookan  
Albany Medical College  
**Suppression of Gap Junctional Activity Attenuates Pathological Beta Oscillations in the Basal Ganglia of the Parkinsonian Rat**  
Damien S. Shin, MSc, PhD, mentor  
Neil Lempert, MD, councilor

I. Jonathan Pomeraniec  
University of Virginia School of Medicine  
**The framing effect and social cognition in individuals with autism spectrum disorder**  
Andrew James Gerber, MD, PhD, mentor  
Mark J. Mendelsohn, MD, councilor
Jordan Pyda  
University of Tennessee Health Science Center College of Medicine  
Increasing Access to Health Care in the Central Plateau of Haiti: The Petite Montagne Dispensary Project  
Theresa M. Waters, PhD, mentor  
Owen Phillips, MD, councilor

Ma Khin Pyi Son  
Mayo Medical School  
Effect of Correcting Refractive Errors on Emmetropization in Infants within the First Year of Age  
Brian G. Mohney, MD, mentor  
Carola Arndt, MD, and Judith Kaur, MD, association chairs

Nabijah Rehman  
Wayne State University School of Medicine  
Enhanced Cytotoxicity Directed at CD33-Expressing Acute Leukemia Cell Lines by Activated T Cells (ATC) Armed with Anti-CD3/ Anti-CD13 Bispecific Antibodies  
Abhinav Deol, MD, mentor  
Michael T. White, MD, councilor

Chen Shi  
New York University School of Medicine  
Volumetric analysis to predict an atrophy risk for chronic subdural hematoma  
Uzma Samadani, MD, PhD, and Henry Rusinek, PhD, mentors  
Steven Abramson, MD, councilor

Jeremy Song  
University of California, Irvine, School of Medicine  
Regeneration of functional human myocardium based upon perfusion-decellularized heart scaffolds and patient-derived pluripotent stem cells  
Harald C. Ott, MD, mentor  
Michael L. Berman, MD, and Ranjan Gupta, MD, councilors

Jeff SoRelle  
University of Texas Southwestern Medical Center at Dallas  
Southwestern Medical School  
Searching for Genes for Host Defense  
Bruce Beutler, MD, mentor  
Kevin Klein, MD, councilor

Marko Spasic  
University of California, Los Angeles David Geffen School of Medicine  
Gp100 Vault Nanoparticles for the Treatment of Glioblastoma Multiforme  
Isaac Yang, MD, mentor  
Neil H. Parker, MD, councilor

Prashanth Swamy  
The Ohio State University College of Medicine  
Role of NKT cells in Posttransplant Alloantibody Production  
Ginny L. Bumgardner, MD, PhD, mentor  
Sheryl Pfeil, MD, councilor

Julian Tokarev  
University of Minnesota Medical School  
A novel model of focal ischemic stroke in rats using an endovascular angiographic approach to MCA occlusion  
Afshin A. Divani, PhD, FAHA, mentor  
Charles Billington, MD, councilor

Voranaddha Vacharathit  
Vanderbilt University School of Medicine  
Animating Interdisciplinary Concepts in Lung Function and Pathophysiology: A Novel Platform for the Integration of Core Content for Medical Students  
John H. Newman, MD, and Cathleen C. Pettepher, PhD, mentors  
John A. Zic, MD, councilor

Amanda Velazquez  
Southern Illinois University School of Medicine  
Effects of a mobile phone application intervention on medical student weight loss and perceived patient counseling ability  
Laura Q. Rogers, MD, MPH, mentor  
Andrew J. Varney, MD, councilor

Nicholas Will  
Loma Linda University School of Medicine  
The role of microglial Fractalkine signaling in complement-mediated vascular fragility of cerebral amyloid angiopathy  
Wolf M. Kirsch, MD, FACS, mentor  
Sarah M. Roddy, MD, councilor

Frank Yuk  
Mount Sinai School of Medicine  
Synaptic Mechanisms of Age-related Cognitive Decline in Monkey Neocortex  
John H. Morrison, PhD, mentor  
Carrie Ernst, MD, councilor

2012 Helen H. Glaser Student Essay Awards

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

Second prize: Lisa Babin of the Class of 2015 at the University of Maryland for her essay, “Dancing: A Fifteen-Year-Old’s Descent into Madness.”

Honorable mention: Linda Drozdowicz of the Class 2014 at Mayo Medical School for her essay, “Chicken Fried.”

Honorable mention: Mark Salhanick of the Class of 2013 at the University of Texas School of Medicine at San Antonio for his essay, “Ethical Considerations for NIH-Funded Highly Transmissible H5N1.”

Winning essays will be published in future issues of The Pharos.

Website extra: A Medical Crossword

Earlier this year, AΩA member Dr. Peter Koetters proposed a crossword puzzle for members. He wrote us, “I think it might be fun to construct a puzzle designed to be solved by other physicians. In fact, it opens up a whole host of terminology and thematic ideas that are otherwise taboo in the world of puzzlemaking for the general public.”

We were intrigued and asked him to send us a sample. A number of editorial board members who are crossword fans tried it out and declared it satisfactory. We present it on our website for your enjoyment: http://alphaomegaalpha.org/news_cardio_workout. Dr. Koetters is a pediatrician in Pasadena, California. His puzzles have been published in the Los Angeles Times.
Constitution of Alpha Omega Alpha Honor Medical Society

Revision 2011

ARTICLE I. NAME
Section 1
This organization shall be called Alpha Omega Alpha Honor Medical Society, the three Greek letters ΑΩΑ being the initials of the essential words in the following motto:

‘Άξιος ὀφελείν τοὺς ἀγαθούς
“Be worthy to serve the suffering”

SECTION 2
The Mission Statement of Alpha Omega Alpha is constructed and modified when appropriate by the Board of Directors.

The mission statement adopted in 2008 is:
Alpha Omega Alpha—dedicated to the belief that in the profession of medicine we will improve care for all patients by
– recognizing high educational achievement
– honoring gifted teaching
– encouraging the development of leaders in academia and the community
– supporting the ideals of humanism
– promoting service to others.

ARTICLE II: MEMBERSHIP AND AIMS
Section 1
Individuals eligible to be nominated include:
a. Medical students who have excelled academically, demonstrated professionalism, and have shown promise of becoming leaders in the profession.
b. Physicians (residents or fellows, faculty, and alumni/alumnae) who later in careers have demonstrated such leadership.
c. Physicians or scientists who have attained distinction in any line of endeavor related to medicine but are not eligible for election by other means. These individuals are elected by the Board of Directors as honorary members.

Section 2
The Society is organized for educational purposes exclusively and not for profit, and its aims shall be the promotion of scholarship and research in medical schools, the encouragement of a high standard of character and professionalism among medical students and graduates, and the recognition of high attainment and service in medical science, patient care, and related fields.

ARTICLE III: INSIGNIA
Section 1: Badge of the Society
The official badge of this Society shall be in the form of a key or key-pin, and shall be designed after the manubrium sterni. The face shall have engraved thereon the three Greek letters ΑΩΑ and 1902, the date of organization of the Society.

Section 2: Certificate of Membership
The certificate of membership in this Society shall be of such design and wording as the Board of Directors approves. It shall bear the seal of the Society and the signatures of the President and Executive Director.

Section 3: Seal of the Society
The seal of the Society shall contain the official badge, the name, and other content deemed appropriate by the Board of Directors.

ARTICLE IV: MEMBERSHIP AND GENERAL CONSIDERATIONS
Section 1: General
The function and influence of the Society depend upon the wisdom with which members are elected. Candidates are selected as nominees for membership of a chapter as medical students, residents or fellows, faculty, and alumni/alumnae not currently members of that faculty of medicine. Individual chapters shall establish procedures to apply the national criteria for nomination of new members. All members of the chapter are eligible to vote for nominees at a meeting of members convened for that purpose or by mail. Selection as a nominee shall require a majority vote of those in attendance. Once nominated, election to membership in ΑΩΑ will occur when the nominee registers online and submits dues payment for the first year. This does not apply to those elected by the Board as honorary members.

No candidate shall be denied election because of race, color, creed, ethnic origin, age, gender, or any other characteristic prohibited by the Equal Opportunity and Affirmative Action laws of a state, province, territory, or nation.

Self-nomination will not be considered for any category of membership.

Section 2: Medical Student Memberships
a. Those candidates whose scholastic qualifications place them in the upper twenty-five percent of their class shall be considered as eligible for nomination for election. From that number, one-sixth of the total number of the class expected to graduate may be nominated for membership. In those medical schools that have no graded standings for students, the Dean or his/her designee can provide to the chapter Councilor the names of students that approximate in number the upper quartile of the class expected to graduate and who, by consensus, match the high criteria for nomination to membership (see section 2c).
b. Up to one-half of the quota for any class may be nominated for membership in the spring of their junior year. Each chapter, each year, may determine whether or not to nominate members from the junior class. Chapters may choose to nominate all or a portion of their quota of student members at any time during the senior year prior to graduation. Each chapter is encouraged to save one or two positions in each class of students for seniors to be nominated closer to graduation, in recognition of notable achievements during the final year of undergraduate medical education.
c. Criteria for nomination: Scholastic achievement should be the primary but not sole basis for nomination of a student. Leadership capabilities, ethical standards, fairness in dealing with colleagues, demonstrated professionalism, potential for achievement in medicine, and a record of service to the school and community at large shall be criteria in addition to the academic record.
Constitution of Alpha Omega Alpha Honor Medical Society

d. Method of nomination: Members of each chapter, including students, residents, fellows, and faculty, shall establish procedures to apply the national criteria for nomination of new members for election. Each eligible candidate shall be considered separately. If academic records and/or personnel files of eligible candidates are reviewed in connection with the selection process, the chapter must contact the Dean's office to determine if the specific written consent of students is required prior to this review. If so, that must be obtained from eligible students before the election process. Only the chapter Councilor or the Councilor-designated member(s) should have access to grades or class standing of students. Conflicts arising about choices of students for nomination for election must be resolved within the institution by processes set by the chapter Councilor and Dean.
e. Students who have taken part of their medical school education elsewhere will be eligible for nomination for election to the Society after being in attendance for one academic year in the medical school of the nominating chapter.
f. Nominated candidates will be declared elected and inducted into the Society only after registration with the national AΩA office is completed and the first year dues have been paid.

Section 3: Resident and Fellow Memberships
Residents and fellows who were elected as medical students to the Society are automatically members of the chapter of the medical school sponsoring the educational programs in which they are enrolled. In addition, each chapter may nominate for membership in the Society each year up to three residents or fellows who have completed a first year of residency or fellowship. Such election shall be based on continued achievement and promise referred to in Article II and Article IV, with special emphasis on teaching of medical students.

Section 4: Alumni/Alumnae and Faculty Memberships
The provision for nomination by each chapter of up to two alumni/alumnae members and two faculty members each year provides a means of recognizing and honoring individuals who have distinguished themselves in their professional careers. Inasmuch as the number of individuals eligible for selection in these two categories is limited, chapters should evaluate carefully the professional and personal stature of nominees.

a. Alumni/Alumnae: Graduates of medical schools in which a chapter exists, who were not elected as students, residents, or fellows, but who, after ten years or more following graduation are judged on the basis of achievement to be qualified, may be nominated for membership in the chapter of the medical school from which they graduated.
b. Faculty: Members of the sponsoring school's Faculty of Medicine who hold an earned doctoral degree (M.D., Ph.D., or equivalent) and have demonstrated a commitment to scholarly excellence and medical education may be nominated for membership in the chapter of that school.

Section 5: Honorary Membership
The Board of Directors may elect physicians or others distinguished in careers related to medicine to honorary membership. Eligible are those who have attained national or international recognition in teaching, research, or in leadership roles that are relevant to medicine, and who are not eligible for election through other means. Election shall be by unanimous vote.

Section 6: Membership Transfer and Reciprocity of Membership
Members of the Society may join the activities of the chapter nearest to the location of their continued professional activity by contacting the Councilor of that chapter.

Members not residing near a chapter may become affiliated with an Association or help in the founding of an Association (Section 7).

Section 7: Associations of Alpha Omega Alpha
Groups of ten or more Society members may, with the approval of the Board of Directors, form an Association of Alpha Omega Alpha in medical schools, cities, or districts where a chartered chapter does not exist. The function of these Associations will be to foster intellectual and social exchange among AΩA members forming the Associations. The Association may not nominate for election student members, but may nominate resident, fellow, faculty, and alumni members in accordance with Article IV, sections 3 and 4. Associations are formed and disbanded at the pleasure of the President of AΩA. Members desiring to form an Association may request a membership listing in a given area. The national office of AΩA should then be petitioned by providing a list of ten or more dues-paying members with e-mail and business addresses, and a brief statement of plans for activities. They should elect officers who will submit a yearly summary of activities and members to the Executive Director of AΩA.

Section 8: Membership Revocation
The Board of Directors may, at its discretion and by unanimous vote, revoke the membership of any member for proven behavior that is in conflict with the national criteria for election, or that is inconsistent with the mission, goals, and purposes of AΩA as outlined in Articles I and II, Section 2.

ARTICLE V: ORGANIZATION AND CENTRAL ADMINISTRATION

Section 1: General
The general management of the Society shall be vested in the Board of Directors and the officers elected by it. The Board of Directors shall conduct the business of the national organization of Alpha Omega Alpha. Nominations for vacancies on the board shall be made by a Nominating Committee chaired by the President-Elect and comprised of the three Councilor Directors and up to three additional members of the Board, chosen by the President.

Section 2: Officers
The officers shall be the Immediate Past President, President, President-Elect, Secretary, and Treasurer, each elected by majority vote of the Board. The latter two offices may be combined, if approved by the Board. Nominations for officers shall be made by a Succession Committee chaired by the Immediate Past President and comprised of the additional officers and the Executive Director.

Section 3: Executive Director and National Office
The national office shall be directed by an Executive Director, chosen by the Board, who will be responsible for implementation of all activities of the Society, for maintenance of all Society records, and for reports to the Board each year on the state of the Society.

Section 4: Immediate Past President
The Immediate Past President shall serve for a term of one year.

Section 5: President
The President shall serve for a term of one year. He or she shall be the executive head of the Society and shall, with the approval of the Board of Directors, administer the business of the Society not otherwise provided for by the Constitution. At the end of the term the President shall become the Immediate Past President.

Section 6: President-Elect
The President-Elect shall be elected by the Board and serve for a term of one year. The President-Elect shall serve as the presiding officer in the absence of the President or in the event of death or resignation of the President. At the end of the term the President-Elect shall become
President if approved by the Board.

Section 7: Secretary
The Secretary shall be elected by the Board to serve for one to three terms of three years. The Secretary shall perform the usual duties devolving upon such office, including but not limited to ensuring a complete record of all members and their addresses is maintained, and such other data as the Board of Directors may require.

Section 8: Treasurer
The Treasurer shall be elected by the Board for one to three terms of three years, and shall perform the usual duties of such officer in concert with the Assistant Treasurer on the staff at the national office. At the annual meeting of the Board of Directors, the Treasurer shall present a written report of the financial standing of the Society that includes a detailed statement of all monies received and expended during the preceding year and a full report of the annual external audit and of the Audit committee of the Society. The Treasurer shall be bonded to such sum as the Board of Directors may require.

Section 9: Installation of Officers
The officers will be installed at the time of their election.

Section 10: Composition of the Board of Directors
The Board shall consist of members of the Society elected by the Board of Directors based on recommendations by the nominating committee and installed after election by the Board. At least nine shall be Members-at-Large, each elected for a three-year term. Members-at-large are limited to three consecutive terms, except that member who are elected officers may serve an additional one to three years. At least three shall be Councilor Directors who are Councilors of chapters at the time of their election to the Board of Directors. Each shall be elected for one three-year term. At least three shall be student members of the Board, one elected each year to serve a three-year term. The student shall be elected so that he or she will serve in his or her senior year of medical school and first two years of residency. Nominations for student membership to the Board shall be submitted by chapter Councilors to the nominating committee, which will recommend candidates for consideration by the Board. Additional members of the Board may be elected by the Board of Directors for three-year terms to fill specific functions or representing constituencies not covered by existing board members.

Section 11: Meetings of the Board
The Board of Directors shall meet at the call of the President or any six members of the Board at such place as may be decided. An annual meeting must be held each year following financial report completion for the previous year. The Board may also conduct business by correspondence, including facsimile, electronic mail, and by telephone conference, and votes so taken shall be binding. A record shall be kept of its action by the Secretary, and a report thereof shall be made to the next annual meeting of the Board. The Executive Committee of \( \Omega \)\( \Lambda \) shall be the officers, the Assistant Treasurer, and Executive Director at the national office.

Section 12: Removal of Officers
The Board of Directors shall be empowered to remove officers for cause and to fill vacancies by majority vote.

ARTICLE VI: CHAPTER OFFICERS

Section 1: Composition
The officers of each chapter shall be: President, Vice-President, Secretary-Treasurer, and Councilor. The President and Vice-President shall be student members. The officers of Secretary-Treasurer and Councilor may be held by the same person. When chapter officers are chosen, the Councilor shall ensure that their names, school addresses, and other pertinent information are sent promptly to the national office of Alpha Omega Alpha.

Section 2: Chapter Councilor
The Councilor, who must be a member of the Faculty and of the Society, shall be appointed by the Dean of Medicine on the recommendation by the chapter to serve for three years. He or she may be reappointed to successive three-year terms, and shall be responsible to the Faculty and to the officers of the Society for the operation and well-being of the chapter. With the student officers, the Councilor should help organize social, educational, and service projects of the chapter, as well as arranging for full membership meeting(s) to select nominees for membership. The Councilor should be prepared each year to submit to the Executive Director a summary of the chapter activities, including the use of funds provided for specific projects by the national office.

Section 3: Election of Chapter Officers
The President and Vice-President will be elected by fellow student members for one year. The officers shall arrange in concert with the Councilor periodic meetings of the chapter and be responsible for generating social, educational, and service projects.

Section 4: Chapter Secretary-Treasurer
The Secretary-Treasurer shall be a member of the Faculty and of the Society, shall serve for three years, and may be re-elected to successive three-year terms at the discretion of the chapter. He or she shall maintain accurate records of newly nominated members and submit them to the national office. These records will furnish the full name, date of nomination and induction, and e-mail and home addresses for each member. After graduation of new members, the Councilor shall make a strong effort to gather their new e-mail and home office addresses to help ensure that the national office has contact information for them.

ARTICLE VII: CHAPTER MEETINGS

Section 1
At least two meetings shall be held each academic year at times and places decided upon by the chapter officers in consultation with the Councilor. This Society since its inception has been an organization of medical students. Every effort should be made to stimulate and maintain student interest in the Society and its mission. Chapters are urged to generate activities in which medical student members as well as non-members may take part.

Section 2
A meeting to discuss the nomination of student members shall be held at least once each year. Other meetings for any purposes may be called at the discretion of the chapter President in consultation with the Councilor. An annual Alpha Omega Alpha address by a distinguished member of the medical profession or other appropriate speaker should be sponsored by each chapter. The address may be given on the same day as the annual dinner for the recognition of new members and may be combined with the Visiting Professorship sponsored by the national office of \( \Omega \)\( \Lambda \).-

Section 3: Voting
All members of the chapter are entitled to vote at a chapter meeting or in response to receipt of a ballot by mail. Each chapter shall establish the number of members constituting a quorum for the transaction of chapter business and nomination of members.

Section 4: Fiscal Matters
Chapters may institute local membership dues each year at a level
agreed upon by a majority of members constituting a quorum at the annual chapter meeting. Other methods of fundraising for the chapter must have the approval of the Executive Director acting on behalf of the Board of Directors of the Society.

ARTICLE VIII: CHAPTER EXECUTIVE COMMITTEE

Section 1
The executive committee of a chapter shall consist of the chapter officers and the Councilor.

Section 2
The Executive Committee shall be responsible for arranging the meeting programs, for providing a suitable speaker to deliver the annual Alpha Omega Alpha address, for the nomination of candidates for election, and for the transaction of necessary business in the intervals between chapter meetings.

ARTICLE IX: NEW CHAPTERS

Section 1
A chapter may be chartered at a College or School of Medicine that meets the Society's requirements and has received LCME accreditation. An application signed by the Dean and by at least six members of the Faculty of Medicine who are members of Alpha Omega Alpha Honor Medical Society shall be sent to the President along with full information about the school's financial status, admission criteria, curriculum, faculty, and scholarship aid. The President will refer the application to the Committee on New Chapters for evaluation of the application and to make a site visit to the school. Upon receipt of a favorable report from the Committee on New Chapters, the President shall submit the application and recommendation to the full Board of Directors. If the application is approved by the Board of Directors, the proposed charter shall be granted, and the school may appoint a councilor and nominate junior and senior members after the date of the granting of the charter. Nominations for student membership will be made by the Councilor and the six members signing the application in collaboration with the office of the Dean.

Section 2: Form of Charter

The form of the granting of charters shall be as follows:

"Alpha Omega Alpha Honor Medical Society, by virtue of the authority granted to it by the State of Illinois, herewith grants to . . . . . . . . . . . . . . . . subject to the Constitution governing said Society. In token of these presents are herewith affixed the signatures of the President and the Secretary, with the corporate seal of the Society."

ARTICLE X: PROBATION, SUSPENSION AND WITHDRAWAL OF CHARTER FROM CHAPTERS

Section 1
A chapter may be placed on probation of one or two years for failure to fulfill expectations of the national office. After evaluation by the national office at the end of one or two years, the chapter may be reinstated with full privileges or a decision to suspend the charter may ensue.

During suspension the chapter shall not nominate or induct new members. Suspension can be lifted and the chapter permitted to nominate new members at any time during the ensuing two years by the Board. If the chapter has not fulfilled expectations after a two year suspension, the procedure for withdrawal shall be initiated (section 2).

Section 2
The procedure for the withdrawal of a charter shall include:

a. An investigation convincing to the Board of Directors that such action is desirable and a unanimous affirmative vote of the Board to that effect.

b. Formal declaration by the President of Alpha Omega Alpha to withdraw the charter.

c. Written notification of the withdrawal of a charter shall be forwarded to the chapter Councilor and the Dean of the Medical School.

In addition, the charter of a chapter in a school that loses its LCME accreditation will be suspended and the chapter cannot elect new members until accreditation has been reinstated.

ARTICLE XI: AMENDMENT TO CONSTITUTIION

Section 1
Proposals for amendment of the Constitution shall be submitted through the President to the Board at least sixty days before the next annual meeting of the Board. A two-thirds majority vote by the Board in favor shall be necessary to adopt any amendment or revision to the Constitution.

ARTICLE XII: OTHER PROVISIONS

1. Committees

A standing Committee on New Chapters shall be appointed by the President with the approval of the Board of Directors. This committee shall, upon direction by the President, investigate applicant institutions and make recommendations thereon to the Board of Directors.

An Executive Committee shall be appointed, consisting of the officers, the Assistant Treasurer, and the Executive Director. The duties of the Executive Committee shall be to transact routine business of the Society in the interim between meetings of the Board of Directors.

The President shall appoint other committees, temporary or standing, as may from time to time be required.

2. Fees and Dues

The initiation fee to the Society will be established by the Board of Directors upon recommendation by the Assistant Treasurer and may change from time to time as deemed necessary.

Annual sustaining dues shall be set by the Board of Directors upon recommendation by the Assistant Treasurer and shall be payable on-line or by mail upon receipt of notice. The fee for lifetime dues will be set by the Board of Directors upon recommendation by the Assistant Treasurer.

3. Fiscal Policy

The Board of Directors must approve an annual budget. There shall be an annual audit by an independent accounting firm.

The fiscal year shall extend from September 1 to August 31.

4. Publication Policy

The Pharos shall be the official publication of Alpha Omega Alpha Honor Medical Society. The Board is the publisher of The Pharos and responsible for editorial policy and management.

The Editor of The Pharos shall be appointed by the Board of Directors and provide an annual report to the Board.

Advertisements will not be included in The Pharos without the consent of the Board of Directors.

The editor of The Pharos shall be an ex officio member of the Board of Directors of the Society and may also serve as Executive Director of the Society at the discretion and direction of the Board of Directors.

5. Dissolution of Alpha Omega Alpha

In the event of dissolution of Alpha Omega Alpha at some future date, the net assets of the Society will be distributed to another non-profit organization qualified for tax exempt status under I.R.S. section 501(c)(3).

ARTICLE XIII

For all purposes this Constitution shall constitute the corporate Bylaws of the Society.
Letters to the editor


We discovered quite recently The Pharos, surely a unique journal, and we particularly enjoyed the editorial in the Spring 2011 issue “On the Shoulders of Giants” (p. 1). The aphorism “on the shoulders of giants” (OTSOG) is known throughout the world: in the United Kingdom and the United States it is attributed to Newton, in Italy and in France to Bernard of Chartres. Robert K. Merton traced back the several misattributions of the aphorism (e.g., to Bernard of Chartres, to the mysterious Didascus Stella, to Lucan’s Pharsalia, to the Gospel of Luke, etc).1 However, there is no doubt that Bernard of Chartres did indeed stand on the shoulders of Priscian, a Latin grammarian born in Cesarea in Mauritania, who taught Latin in Constantinople in the sixth century. OTSOG was well known in the Middle Ages. The stained glass of the south transept of the thirteenth-century Chartres Cathedral shows, indeed, the four major prophets of the Hebrew Bible (Isaiah, Jeremiah, Ezekiel, and Daniel) as gigantic figures, with the four New Testament evangelists (Matthew, Mark, Luke, and John) as ordinary-size people sitting on their shoulders. The evangelists, though smaller, “see more” than the huge prophets (since they saw the Messiah about whom the prophets spoke). Apostles on the shoulders of the prophets can be found also in the tenth-century church of Payerne in Vaud Canton in Switzerland.

The OTSOG aphorism has been used by poets including Coleridge, by writers such as Eco, by physicists including Hawking, by politicians such as Disraeli, Bukharin, and several United States presidents (Reagan used it in his 1981 Inaugural Address and in his 1987 State of Union Message).

This short tale suggests that to “be worthy to serve the suffering,” physicians should practice according to the standard of their profession, but never cease to verify the source of their knowledge.

References

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Re Mentoring and coaching in medicine

I enjoyed your editorial on “Mentoring and Coaching in Medicine” in the Winter 2012 issue of The Pharos (pp. 1–3). This topic is of great relevance in helping health care providers make it through the many stages of a medical career. As an activity, mentoring needs more participants and devoted effort. Your piece is especially helpful. After stating the importance of teaching, mentoring, and coaching, you giving a good list of tips for good mentoring and suggestions for working with a mentee are insightful. But also important are things the mentee can do in return to show appreciation and to keep the interaction appropriate.

I have an interest in mentoring, especially in trying to attract and assist medical trainees who might be considering a research component to their career, and who need help with beginning to apply for research support.1,2 I certainly benefited from this help in my own medical career.

In my piece that appeared in The Pharos in Summer 2007, a motive was to “encourage others who may have special expertise in mentoring to expand on my comments about the best ways . . . . “ You have done this and, hopefully, more colleagues will follow. Thanks.

References
2. Reynolds HY. In choosing a research health career, mentoring is essential. Lung 2008; 186: 1–6.

Herbert Y. Reynolds, MD
Hershey, Pennsylvania
E-mail: hyreynolds@hmc.psu.edu
Presenting the AΩA scarf

AΩA’s new scarf highlights the society’s insignia, based on the shape of the manubrium sterni. The center medallion features the Pharos lighthouse of Alexandria, one of the seven wonders of the ancient world, for which AΩA’s journal is named. The borders are stylized DNA strands.

Scarves are 35 x 35 inches, of 12 m/m silk twill with handrolled hems. Four colorways are available as shown: red/black, turquoise/purple, peach/mint, and navy/lavender. Scarf design by J&J Designs of San Francisco.

$65

To order, send a check for $65 to: Alpha Omega Alpha, 525 Middlefield Road, Suite 130, Menlo Park, CA 94025
Or order online at www.alphaomegalpha.org/store.html (Price includes shipping and handling)