AMERICAN ACADEMY OF OPHTHALMOLOGY®

The Newsletter of the Senior Ophthalmologist

Summer 2021 | Volume 25 | Issue 3

SCOPE

J. Geoffrey Slingsby, MD: Flying About

By Alfredo A. Sadun, MD, PhD

My predecessor, Bruce Shields, MD, explored what our colleagues are doing as avocations and hobbies. In this issue, we continue the series with pilot Dr. J. Geoffrey Slingsby, who has nurtured and passed along his passion to his family.

Dr. Slingsby's flying career took off after he finished his ophthalmology residency in 1980. His wife-to-be, Jacalyn ("Jackie") came from a flying family and was already a pilot.

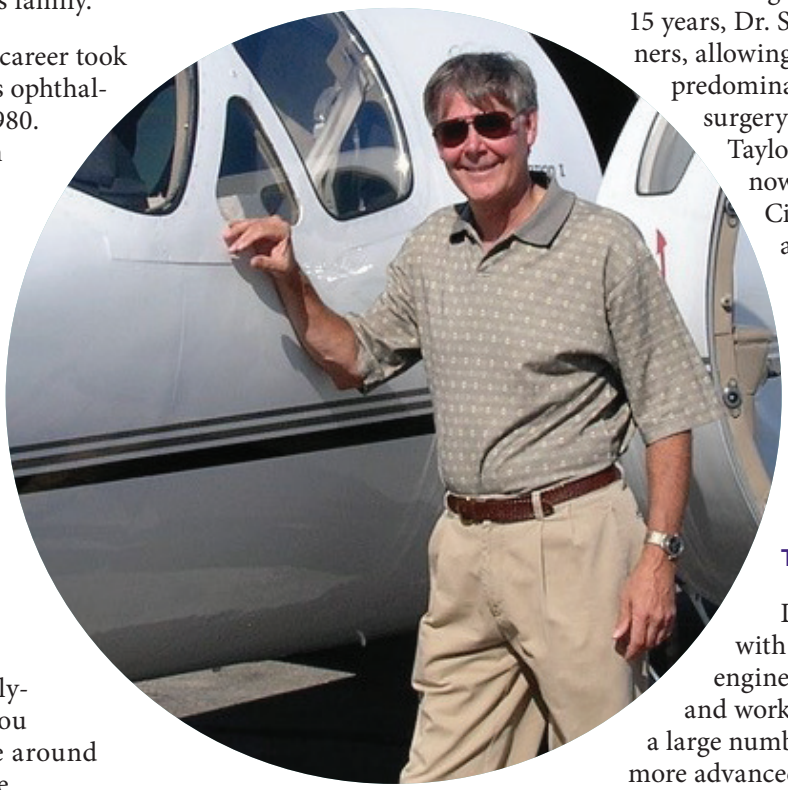
One day, Jackie's father influenced Dr. Slingsby to join the family tradition. Dr. Slingsby was already an accomplished sailor, but Jackie's father feared that he and his daughter might be caught in open ocean during a storm and pitched flying as safer because you could outrun or circle around a squall in an airplane.

"Flying will change the way you live your life," he told Dr. Slingsby.

That advice proved to be golden. Dr. Slingsby and his family now travel by air extensively, and flying to a destination has become just part of the journey as well as an efficient use of time that allows them to enjoy family vacations.

EARLY EDUCATION

Dr. Slingsby grew up as the son of an OB/GYN specialist in Rapid City, S.D. He went to medical school at the University of South Dakota and then finished his MD at Emory University in Atlanta. He did his residency in ophthalmology at the University of Colorado and a fellowship in retina at the Doheny Eye Institute at the University of Southern California under the direction of Stephen J. Ryan, MD. He completed the residency in 1982 two years before I got there and returned to Rapid City to begin a comprehensive ophthalmology and retina practice.



J. Geoffrey Slingsby, MD

After being in solo practice for 15 years, Dr. Slingsby took on partners, allowing him to evolve to a predominantly vitreoretinal surgery practice. His son, Taylor Slingsby, MD is now a retina fellow at the Cincinnati Eye Institute after completing his residency in ophthalmology, also at the University of Colorado. He hopes that his son will join him in practice next year in Rapid City.

TAKING TO THE AIR

Dr. Slingsby started with a small, single-engine training Cessna 172 and worked his way through a large number of larger and more advanced aircraft. The Cessna 210 had a more high-powered engine. He then acquired a twin-engine Cessna 340 and then a 421 aircraft. He satisfied the "need for speed" with a turbo-charged engine and pressurization, eventually settling on a Cessna Citation that is a twin-engine jet.

J . Geoffrey Slingsby, MD

Recently, Dr. Slingsby moved on to a TBM 850. This is a turbo-prop jet with a single engine and with capabilities that include modern avionics and systems. Indeed, Dr. Slingsby flies the TBM turbo-prop as part of his profession as well. He uses it to fly to satellite ophthalmology clinics. It's large enough to take along five members of his staff and the appropriate ophthalmology equipment. Dr. Slingsby routinely flies to the Academy and American Society of Retina Specialists (ASRS) meetings. One day, I hope to hitch a ride with him.

However, flying for Dr. Slingsby remains primarily a hobby and a pleasure. He has pursued competitive aerobatics, which for the uninitiated means feats of daring and drama done before judges on the ground. It involves extreme maneuvers not used in normal flight. For this, he started with a Decathlon aircraft and then moved on to a Pitts S2B, an aerobatic biplane that is even more high-powered. The aerobatic competitions have provided Dr. Slingsby with a focused search for excellence and precision. He is challenged by, but enjoys the time required for repetitive training for safety and precision and disciplined concentration. He also flies an amphibious Cessna 185 which can be altered to use floats in the summertime and wheels in the wintertime. With this, he and his family take trips into Canada to go fishing.

Dr. Slingsby with his sons, Jason and Taylor, and their float airplane on land.

The newest addition to the family-the TBM 850.

The range of these planes allows Dr. Slingsby to access every state in the continental United States. They are fortunate, insofar as South Dakota is fairly centrally located, allowing them to go, for the most part nonstop, to their favorite destinations, including New York City, Miami, Los Angeles and Seattle. But they also fly to the Bahamas and most of Canada, including Vancouver for meetings, and Ontario for fishing trips.

That is not to say that Dr. Slingsby is unfamiliar with flying commercial. Long, international flights require going commercially. However, he prefers using his own planes for domestic flying. This saves him time. But it also converts the down time of getting there to a pleasure consisting of adventure and excitement. He calls his plane a "time machine" for the cost savings in time.

We are all familiar with the fact that in addition to the time in the air, we lose much time going to and from airports, not to speak of the delays and lost time with waiting for or missing connections. Most simply Dr. Slingsby would rather pilot himself.

A FAMILY THAT FLIES TOGETHER …

When I asked Dr. Slingsby what was most special about his chosen avocation, he said that it's because flying involves the whole family. It is a lifestyle that he shares with them. Once a pilot herself, his wife retired once they had children. Now they all fly together. Both of Dr. Slingsby's sons became pilots and use the Cessna 185 for the adaptability of the amphibious floats. They will eventually transition into the TBM 850 pressurized turbo-prop.

Dr. Slingsby takes pleasure in watching his kids learn the demanding skills of flying and of inheriting his enthusiasm for aviation. His influence is not just limited to his children. He has been able to pass along this excitement to others outside of his family as well. His son, Jason, has an aviation-themed brewery in Denver called the FlyteCo Brewing Co. that's a hangout for many pilots. He enjoys visiting the brewery for the interesting flying conversations that he can reliably hear.

As his photographs attest, Dr. Slingsby is not just an accomplished pilot. He has embraced flying as a connection to his profession, other hobbies (like fishing), aerial acrobatics (aerobatics), vacation travels and most of all, as a tie that binds his family.

From the Editor's Desk

Polysemy

By Alfredo A. Sadun, MD, PhD

Polysemous words carry related but sometimes remarkably distinct meanings that vary with context. I was frequently exposed to this issue when attending scientific meetings with my friend, professor Joseph Bogan.

Joe was a world renown neuroscientist who wrote books and articles attempting to define and understand "consciousness," and I watched him twist in the wind as he addressed public questions from people who used the term consciousness in varied ways. Think a moment as to what you mean regarding consciousness as you consider: A man versus an ant. Awake versus asleep. Before and after anesthesia. Alert versus in a coma.

In each of these comparisons, we can see the presence versus the absence of consciousness, but we're talking about very different things. If one person is a philosopher who considers consciousness to be the defining characteristic of being human, and the other is an anesthesiologist, then the finer points of mind/brain will likely be lost in their discussions. What does that have to do with senior ophthalmologists? We have a similar problem.

"Senior" is another important polysemy. It can convey wisdom, longevity, accumulated experience, rank or just plain old. When I say that I am the senior most clinician of Doheny Eye Institute, I may be bragging or making excuses. And yet 43% of all ophthalmologists in the Academy are called senior ophthalmologists (SO) by the definition of age. No judgment.

Polysemous art. "Apres L'amour" part of Manhattan Project by Madelon Vriesendorp, 1975.

But judgment follows depending on context. Why does this matter? I can think of at least two important reasons. The first is that labels are branding and as such tend to filter all future perceptions on the matter. Through the lens of "senior" we may be perceived by some as wise or at least seasoned, but by others as marginal or even irrelevant.

The second reason is that labels set expectations. When we label ourselves as senior we may be looking back and congratulating ourselves on our successful careers or looking forward and thinking about retirement. Or we might be feeling the aches and pains in our joints and just complaining. I find myself often muttering, "I'm too old for this," but rarely mean it. Usually I'm just comparing how some things seem harder than they were before, and often I'm just grumpy. I've tried to cut back on that expression as it probably is a self-fulfilling prophesy.

So, should we stop using the label "senior" in referring to ourselves and our SO status?

A polysemous word is a much more dangerous thing than a homonym for which context is revealing. If someone says, "Don't be so juvenile," you can be sure he means don't act so silly; he's not saying you should stop being young. But when we are labeled as seniors, we are not sure whether people are concerned for our age, our health or our status. Worse yet, when we tell ourselves we are seniors by way of explanation, we may also be unconsciously making excuses or lowering the bar.

At the Academy, I may run into a young ophthalmologist (they have their own group called YOs) and tell them that I am a SO to set up the impression that having been in the field for over 40 years, I know something of how difficult it is to balance a career with teaching, research and patient-care. But what they are more likely to think is, "Poor guy doesn't know how to use electronic health records efficiently."

We are both right, but without more discussion, we won't be on the same page. I probably have much to learn about EHRs but maybe something to teach about an academic career. Further talk will provide context, and we may both learn something. But first, let's not fall into the trap of speaking past each other. British Prime Minister Winston Churchill once said of Americans and the English, "two nations divided by a common language." Just so, with polysemes.

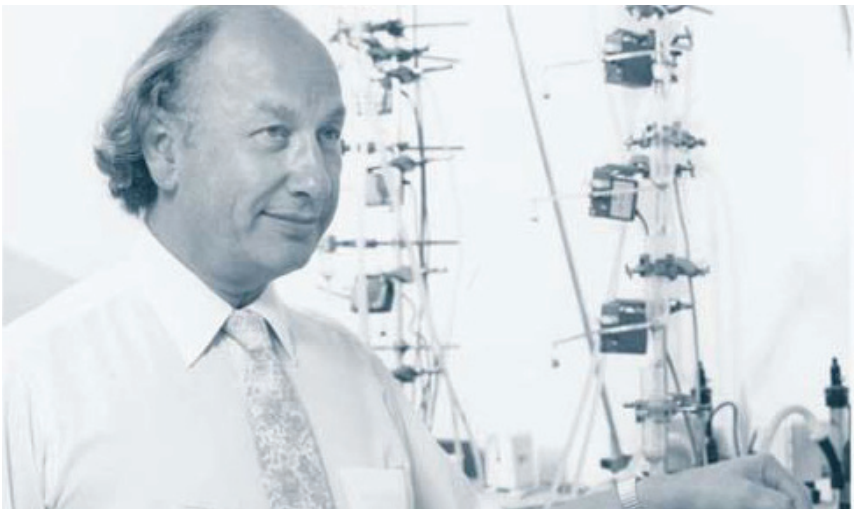
One interesting insight is that polysemes probably didn't arise by

coincidence. Someone used a word intending one meaning and someone else heard another meaning which they clung to. Both parties were convinced that clear communication had just occurred. Someone said, "I had too much wine and wasn't conscious," meaning they lost social awareness. Their friend may have thought they fell into physical slumber.

Polysemes can be intellectual, emotional and psychological traps. As a scholar, they are to be avoided. But, polysemes can also be fun and are often the basis of good poetry. The author uses polysemous words to work multiple levels at the same time. Abstract art is said to be a mirror that reflects the viewer's outlook. The painter's mindset doesn't matter as much as the viewer's mindset. In this sense, some artwork may be the visual version of polysemous words. Indeed, there is work called polysemic art (Figure 1) in which the ambiguity is very deliberate.

So, should we stop using the label "senior" in referring to ourselves and our SO status? No, labels are helpful too. By saying we are seniors or at the Academy that we are SO, we acknowledge that we have many things in common and that can help set the table for various conversations. We might talk about retirement, grandchildren or the infirmities of age but we might also take a seasoned perspective on our profession.

We have a committee that considers SO concerns as well as bringing SO perspectives that may be useful to other members of the Academy. And our journal Scope indulges in topics that are thought to be of interest to at least our SO community. But let's not get too comfortable with the phrase "senior ophthalmologist." What we say may not be what is heard. And even in our own heads, when we call ourselves senior may set limits on what we are.



British biochemist and Nobel laureate John Vane (1927–2004).

Notable Dates in Ophthalmology

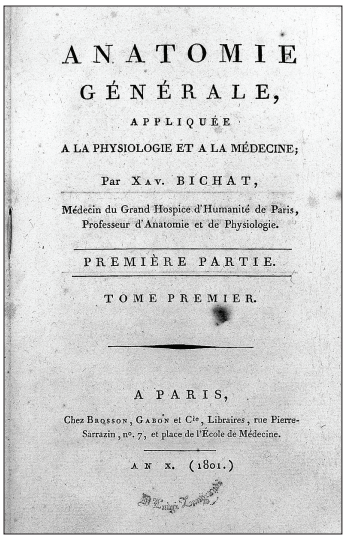
By Daniel M. Albert, MD, MS

10 YEARS AGO (2011)

An intravitreal insert releasing a sustained and controlled fluocinolone was reported to improve visual acuity for up to 36 months in patients with diabetic macular edema by Dr. David Brown and associates at Methodist Hospital in Houston.

25 YEARS AGO (1996)

Latanoprost, a newly introduced prostaglandin analog, was cited as "a new horizon" by Dr. Johan Stjernschantz of Pharmacia Ophthalmic and Uppsala University in Sweden and his associates in the medical management of glaucoma.



ANATOMIE
GÉNÉRALE,
APPLIQUÉE
A LA PHYSIOLOGIE ET A LA MÉDECINE;
Par Xav. BICHAT,
Médecin du Grand Hospice d'Humanité de Paris,
Professeur d'Anatomie et de Physiologie.
PREMIÈRE PARTIE.
TOME PREMIER.
A PARIS,
Chez Brosson, Gabon et Cie, Libraires, rue Pierre-Sarrazin, no. 7, et place de l'École de Médecine.
An x. (1801.)

Title page of *Anatomie Générale.*

50 YEARS AGO (1971)

The British biochemist and Nobel laureate John Vane (1927–2004) showed that aspirin blocked the prostaglandin thromboxane, which is responsible for blood platelet coagulation. This was how aspirin was effective in preventing vascular occlusions.

100 YEARS AGO (1921)

Dr. Otto Barkan (1887–1958), trained in ophthalmology in Vienna and Munich, returned to his birthplace of San Francisco, where he focused on understanding the causative mechanisms and treatment of glaucoma.

250 YEARS AGO (1771)

Marie Francois Xavier Bichat (1771–1802), was a Parisian anatomist and pathologist and the founder of microscopic anatomy. He advocated the study of anatomy on the basis of the different tissues of the body. Bichat distinguished 21 types of elementary tissues from which organs of the human body are composed.

Eve J. Higginbotham MD, ML: Glaucoma Specialist, Scientist, Equity Scholar, and Avid Golfer

By Marcia D. Carney, MD and Ashley Harriott

I've known my dear friend Eve J. Higginbotham, MD since 1986, when we met as I was completing my second year of fellowship with Drs. Morton F. Goldberg, Gholam Peyman and Maurice Rabb at the Illinois Eye and Ear Infirmary.

Dr. Higginbotham came in for an interview after completing her fellowship at the Massachusetts Eye and Ear Infirmary, and Eve was on my schedule. We spoke for more than hour in my small office and emerged with smiles and laughter. The secretary sitting outside of the interview room was curious when we stepped out.

"Do you two know each other?" she said.

Eve and I laughed and replied, "No, we just met today!"

It was like meeting a best friend later in life. We hit it off like sisters in secrets. I later met Dr. Higginbotham's childhood best friend, Odile, in New Orleans who became like family as well. This was the beginning of a decades-long friendship, which included shared scholarship and yearly opportunities to room together at annual meetings of the Academy and the Association for Research in Vision and Ophthalmology (ARVO).

Dr. Higginbotham grew up in New Orleans, the youngest of three daughters of parents who were both dedicated educators in the Orleans Parish School System at the end of the Jim Crow era. To this day, she remembers the impact of that period on her daily life. Experiences, such as waiting for her pediatrician in a small dimly lit waiting room are early memories. She always wondered why she was not able to sit in the larger, sun swept room instead. Although she does not remember what her parents told her as an explanation, she knew then that it was a question that was not worth repeating, because the answer always seemed beyond her reach, and significant societal changes were not on the immediate horizon.

Dr. Eve Higginbotham meets one of her idols, the late Rep. John Lewis at Harvard's graduation, when Rep. Lewis received an honorary degree and Dr. Higginbotham served on the Board of Overseers (2012).

Fast forward to her more recent days sitting in class in the Law School at the University of Pennsylvania, and she was reminded that the Hill Burton Law required construction of medical facilities that were segregated, and the memories of early childhood revealed themselves once again. The answer that she could not even imagine as young child was that our government mandated that certain groups would be segregated.

Although her life experienced beyond the shelter of her home delivered different messages, she learned from her parents to remain confident in her own abilities and understand that any racism she encountered was based on the ignorance of others and not a reflection of her own talent. Of course, growing up in the 1960s and 1970s and witnessing the egregious actions that occurred in response to protests during the civil rights movement clearly influenced Dr. Higginbotham's career choices and professional interests during her entire life.

One year before the passage of the Civil Rights Act in 1964, Dr. Higginbotham, along with two other African Americans, integrated a Catholic elementary school. It was a school she and her mother had walked past every day to attend a segregated black elementary school in New Orleans, where her mother taught fifth grade. She remembers her first day of school, when she walked from the church where Mass had been held to start the new year at the school. The sidewalk was lined by adults. It is hard now for her to remember whether it was a protest or a supportive effort, but being surrounded by so many adults was memorable.

Eve J. Higginbotham, MD

Her parents took her out of that school after that year, noting that her shoes were never dusty when she returned home. It was an indication that she did not play at lunch, which was not an experience that her parents wanted to repeat a second year. Therefore, her parents took her out of St. Stephens Catholic Elementary School, and she returned to McDonough No. 6, followed by S.J. Green Junior High School and then McDonough No. 35, all segregated sanctuaries filled with fond memories and the roots of lifelong friendships.

Dr. Higginbotham returned to an integrated setting for high school, attending Benjamin Franklin Senior High School in uptown New Orleans. Her experiences from that one year in elementary school prepared her for an existence of often feeling isolated and the persistent need to exude excellence. Her work ethic intensified during these years. Franklin High School prepared her well to compete at institutions like MIT and Harvard Medical School. She always loved science, and completing undergraduate and graduate degrees in chemical engineering at MIT cemented a love for discovery that continued throughout her career.

Her time at MIT went quickly, initially choosing chemistry as a major then switching to chemical engineering. Years later, one of her classmates who majored in chemistry, noted the significant level of gender bias in that department. When asked, Dr. Higginbotham cannot recall whether the culture of chemistry was a factor for her own decision to choose chemical engineering. Still, what she found in engineering was a highly collaborative and diverse community of budding engineers who shared her love for solving problems. Spending hours studying in the 24- hour school library on the top floor of the Stratton Student Center, she realized her experiences at MIT were preparing her exceptionally well for her future career interest in collaborating with others and a career in research.

An afternoon on a boat ride at ARVO in the 1990s. Dr. Marcia Carney, (L), Dr. Higginbotham (R), and Dr. Thom Zimmerman (Center).

Her first job interview at Procter & Gamble in Cincinnati convinced Dr. Higginbotham that staying in academia aligned more closely to her core passion for science and a life of discovery. Somehow, the prospect of a career in food engineering in corporate America did not capture her sense of purpose for scientific discovery. Thus, she decided during her fourth year to stay at MIT and complete her Masters in chemical engineering. During that pivotal year, she applied to both graduate school in chemical engineering and medical school. Although her sister, Edith, had already matriculated in medical school, she was not well-acquainted with the life of a physician scientist. Nevertheless, despite gaining admission to the University of California at Berkley to do graduate work in thermodynamics, she stayed in Boston and attended Harvard Medical School instead. Always a pragmatist, she considered her primary reason for attending medical school was to ultimately land in biomedical sciences, and have her clinical skills sustain her career if grants were not forthcoming.

Harvard Medical School was very different from MIT. There was more memorization and no open book exams. There was also little opportunity to study with fellow classmates. Her new experiences of caring for patients, learning a new professional language, and applying the literature to patients seen on the wards, kept Dr. Higginbotham focused on understanding this different world and the new norms.

Mentors and role models are important for any inquisitive student at any stage of life. A memorable mentor emerged during Dr. Higginbotham's junior year, Dr. Mathea Allansmith. Dr. Allansmith exhibited all of the values and professional acumen that Dr. Higginbotham also aspired to achieve, including deep curiosity, love for research, clinical expertise, and a balance of work life and family. It

was Dr. Higginbotham's relationship with Dr. Allansmith that inspired her to seek a career in ophthalmology. Ophthalmology was the perfect discipline for meeting her goals of teaching, research, and patient care. Indeed, it was during the year that she worked in Dr. Allansmith's laboratory, that she wrote her first peer-reviewed scientific paper, an accomplishment that fueled her academic interests for many years to come. Her positive experiences with Dr. Allansmith sealed her lifelong interest in ophthalmology.

As Dr. Higginbotham pondered her choices for a residency, she considered all available, remarkable potential opportunities. Since she had been in Boston for eight years, she decided it was time to return to her hometown of New Orleans. Always inquisitive about other parts of the country, she completed her internship at the Pacific Medical Center (now known as California Pacific Medical Center) and then returned home to complete her residency at the LSU Eye Center, spending the majority of her clinical time at Charity Hospital. These two stops in her career introduced her to four giants in the field, Drs. Bruce Spivey, Robert Stamper, Herbert Kaufman, and Thom Zimmerman. Caring for patients at Charity Hospital in New Orleans also introduced her to the disparities in health care that exist in the United States. Although she was not focused on public health at this time in her career, her experiences caring for poor patients would impact her for years to come.

Based on her positive interactions with Dr. Thom Zimmerman, the glaucoma faculty member at LSU Eye Center, and what appeared to be a frontier for greater research, Dr. Higginbotham decided on a career in glaucoma. She yearned to get back to doing research. A fellowship at Massachusetts Eye and Ear Infirmary provided her with the perfect mix of research and patient care.

Drs. Eve Higginbotham and her husband Frank Williams visiting Singapore in 2017.

It was also the first time she had the opportunity to work with an ophthalmologist of color, Dr. Tom Richardson. Spending two years in his laboratory and seeing patients with Dr. Richard Simmons were elements of the necessary preparation for a productive academic career. For those ophthalmologists who did not train during this era, it was a time when, at least in Boston, glaucoma specialists sometimes did full thickness filters. This procedure was often associated with complications, such as kissing choroidals, flat anterior chambers, and thin, leaky blebs. Thus, the first few years of her career in this field sometimes required sleepless nights and late evenings returning home, caring for patients who sometimes developed these complications.

Dr. Higginbotham's first position was at the University of Illinois. Although it was her only job offer, it was the best position for her. It is where she met me, and where we both were mentored by Dr. Morton Goldberg. Dr. Higginbotham often shared with me her positive experiences with Dr. Goldberg, whom she viewed as a highly inclusive leader, a generous intellectual sponsor, and clearly brilliant. He gave her a positive template for how best to lead a department, providing her with outstanding lessons that she would carry over to her own tenure as Chair and Dean, later on in her career.

After spending her first few years at the Illinois Eye and Ear Infirmary, she was recruited to join the faculty at the University of Michigan. Her time there was also well spent, serving in the role as Assistant Dean for Faculty Affairs and learning process improvement methodology. During this time, she also served on the Board of Trustees of the American Academy of Ophthalmology. She was among the first women to serve on the Academy's Board and the first woman of color to serve, an experience that further opened her eyes to the importance of good gov-

Eve J. Higginbotham, MD

ernance and policy. At both the University of Illinois and the University of Michigan, Dr. Higginbotham was active in National Eye Institute - supported clinical trials, the Fluorouracil Filtering Study, the Advanced Glaucoma Intervention Study, and the Ocular Hypertension Treatment Study (OHTS). OHTS emerged as a highlight of her career for the next 20 years, a study where she served as one of the Vice Chairs with Drs. Dale Heuer and Richard Parrish and also a member of the Endpoint Committee. Dr. Michael Kass, the Principal Investigator of OHTS and Dr. Mae Gordon, the Chair of the Coordinating Center, along with the Vice Chairs remain her friends and colleagues to this day.

University of Maryland Dean Donald Wilson appointed Dr. Higginbotham as the first university-based woman chair of ophthalmology. It is interesting that both Dr. Wilson, an internist, and Dr. Morton Goldberg had been classmates at Harvard University years earlier. The department that she inherited was small and challenged, having lost a number of its senior faculty and commercial patients. Leaning on her core values and lessons learned from previous leaders with whom she interacted during the first few years of her career, she recruited new faculty, consolidated the clinics, eliminating the two-tier system of care that had previously existed, and brought clinical trials into the department. She led the department for 12 years, after which she decided it was time for higher academic perches to impact the House of Medicine still further.

Dr. Higginbotham was hired by former Surgeon General Dr. David Satcher, the director of the Centers for Disease Control and Prevention, as dean of the Morehouse School of Medicine. After nearly four years, she was recruited to be the senior vice president of health sciences at Howard University, overseeing Howard University's hospital, clinics, and schools of medicine, nursing, and dental medicine. While there she elevated pharmacy to the level of a School of Pharmacy.

Drs. Frank Williams and Eve Higginbotham on the golf course at Torrey Pines, CA in 2010.

Dr. Eve Higginbotham is currently the inaugural Vice Dean for Inclusion and Diversity for the Perelman School of Medicine at the University of Pennsylvania, a position she assumed on August 1, 2013. Her work has already resulted in more than a 50% increase in the number of underrepresented faculty since arriving at Penn Medicine in 2013.

A practicing glaucoma specialist at the University of Pennsylvania, Dr. Higginbotham, has authored or co- authored over 160 peer-reviewed articles and co-edited four ophthalmology textbooks She continues to remain active in scholarship related to glaucoma, health policy, STEM, and patient care. She recently became more active in lecturing and writing about social justice, currently leading an institutional effort at Penn Medicine to address structural racism in the workplace and community.

The strategic initiative that she is leading entitled Action for Cultural Transformation (ACT) aims to make sustainable changes across all three missions of education, research and patient care. This grassroots effort spans six hospitals in the system and the Perelman School of Medicine, including over 170 focus groups and 5,000 voices in the process. The plan is to map the course of this work over the next five years, transforming Penn Medicine into a united, antiracist, inclusive and diverse community.

In her spare time, Dr. Higginbotham and her husband, Dr. Frank Williams, enjoy playing golf, Before the pandemic, they spent time playing golf, and traveling to locations around the world. Her husband enjoys working on his culinary skills, which of course, Dr. Higginbotham especially enjoys.

Dr. Higginbotham's multi-decade career in ophthalmology has taken her beyond the field to positions where she has impacted the care of patients across the country. She serves on the Board of Ascension, the second largest health system in the country with a clinical presence in 20 states and DC. The one thing that remains constant is her love for caring for patients with glaucoma and interacting with her ophthalmology colleagues. Although the arc of her career has been broad, it has remained grounded in her love of science, discovery, collaboration and service.

Our friendship remains at the core of both of our careers.

The Life of A. Edward Maumenee, MD

By Morton Goldberg, MD

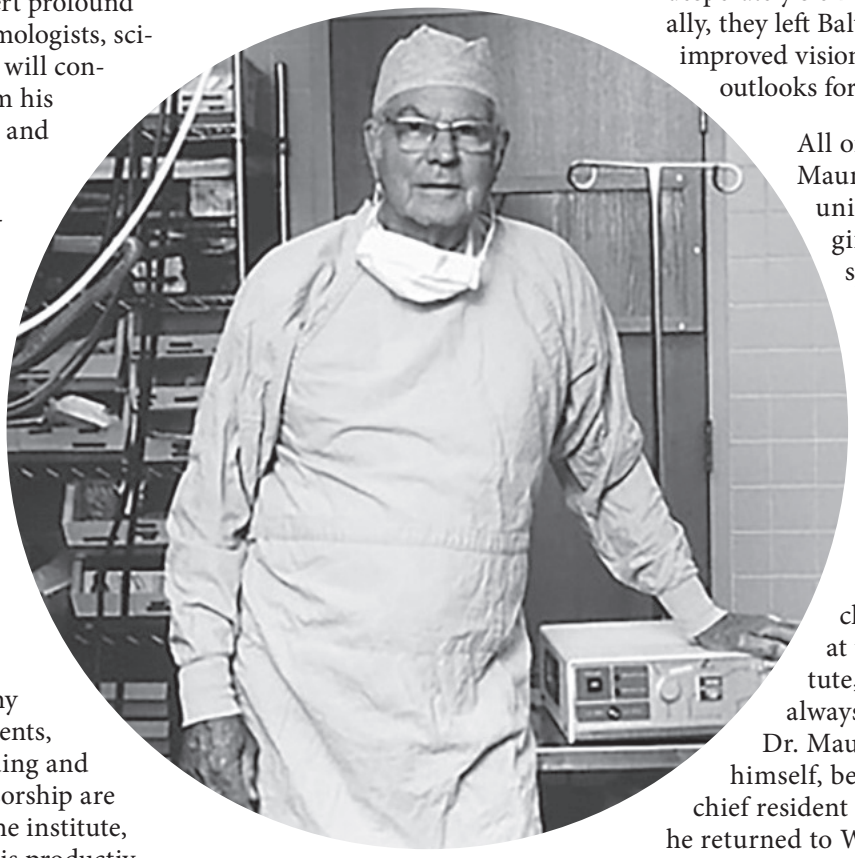
For a half-century, the forceful personality and creative intellect of Professor A. Edward Maumenee, MD, dominated U.S. and international ophthalmology. He was a star that illuminated ophthalmic practice, research, and teaching the world over.

Many people considered Dr. Maumenee the most versatile and productive ophthalmologist of the 20th century. With his peaceful death on Jan. 18, 1998 at age 84, that star dimmed. Fortunately, it will never be completely extinguished, because his legacies will continue to exert profound influence. Ophthalmologists, scientists and patients will continue to benefit from his writings, teachings, and personal examples.

Idolized throughout the world, "the Prof" was no less a hero in his own institution, the Wilmer Eye, where his students and colleagues loved, admired, and respected him. He served as director of the Baltimore based institute from 1955 to 1979. In testimony to his accomplishments, an eight-story building and an endowed professorship are named for him at the institute, where so much of his productivity originated and where his portrait is prominently displayed.

Dr. Maumenee's interests were so diverse and his influence so pervasive that a 1979 "Festschrift" issue of the *American Journal of Ophthalmology* required eight specialists in various spheres of endeavor to adequately describe his accomplishments. These achievements included the following: initial description of the immunological nature of corneal graft rejection; discovery of new diseases, such as congenital corneal dystrophies; and enhanced methods of surgery for cataract, corneal transplantation, glaucoma filtration, strabismus, congenital glaucoma, congenital cataract, postoperative hypotony, epithelial invasion of the anterior chambers and numerous others.

Moreover, Dr. Maumenee was the first to popularize the clinical use of fluorescein angiography for macular disease, and clearly delineated the major types of macular degeneration well before anyone else considered this an important group of diseases. The number of his articles on these and other subjects exceeds 350, and they clearly have stood the test of time.



A.E. Maumenee, MD, after another successful eye operation at the Wilmer Eye Institute, approximately 1989.

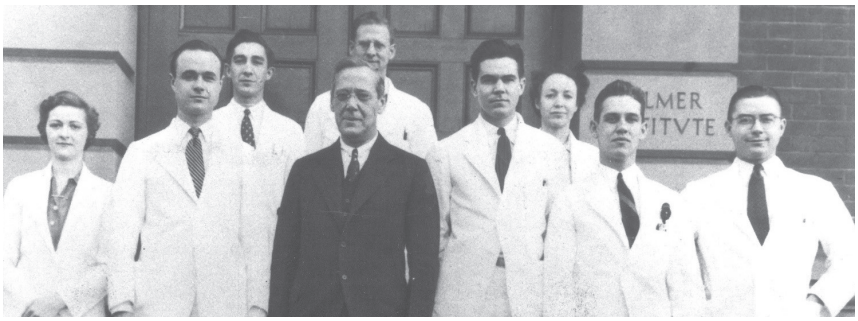
In addition to influencing both choice and technique of surgical intervention through his writings, lectures and teaching courses, Dr. Maumenee regularly welcomed visitors to the Wilmer Eye Institute to watch him operate and to learn at his side. He was a surgical virtuoso, with dazzling technical skills and a calm, confident, and controlled operating room personality.

Patients were referred to him from all over the world, and he invariably gave hope and confidence to even the most desperately sick individuals. Usually, they left Baltimore with improved vision and improved outlooks for the future.

All of us knew Dr. Maumenee was uniquely skilled and gifted. He was a splendid example of an excellent mentor, and he had the ability to bring out the best in his residents, becoming a father figure to many of us.

For complex clinical problems at the Wilmer Institute, we, as residents, always had recourse to Dr. Maumenee. He had, himself, been a resident and chief resident at Wilmer. When he returned to Wilmer after seven years as the Stanford chairman, he was appointed to the faculty as the only full professor of ophthalmology at Johns Hopkins (there are now well over sixty, most of them with endowed professorships). He served as Wilmer's third director, following Dr. Wilmer – the founder – and Dr. Alan Woods (a uveitis specialist).

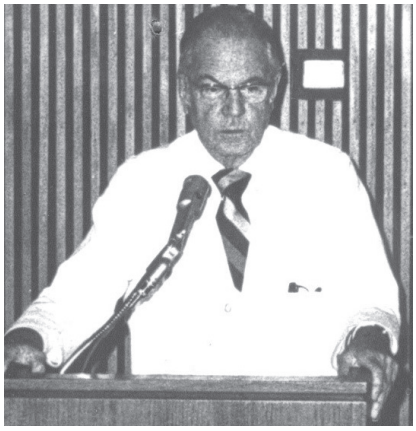
A. Edward Maumenee, MD



A.E. Maumenee, MD as a resident at the Wilmer Eye Institute. Dr. Maumenee, is pictured at the left side of then Director Dr. Alan Woods, in civilian clothes.

The Prof was the greatest! He knew everything and could do everything. He was brilliant at research, teaching, and all aspects of clinical care, including highly complex surgery. He was truly charismatic. He was also unfailingly polite, with typical southern charm, having grown up in Mobile, Ala. and graduated from the University of Alabama. His standard technique was to praise everyone and everything. He would invariably introduce a resident (it didn't matter which one) to a visitor or to a patient by saying, "This is the best resident I have ever known."

We never heard Dr. Maumenee say anything critical about Wilmer people, but if he were quiet during a conference, it generally meant he was displeased. He operated on almost every type of disease, and was particularly skilled at cataract extraction, corneal transplants, and goniotomies for children with glaucoma. He had invented several surgical instruments and operative techniques. He knew, more than anyone in the world, the subtleties of congenital glaucoma, epithelial ingrowths, corneal transplant rejections, and many others. He had done extensive personal research and had published definitive articles on these difficult problems. He was a great and multifaceted clinical scholar and, as noted earlier, a gifted technical surgeon, as well.



A.E. Maumenee, MD, at the podium of the Wilmer (now Patz) Lecture Hall, conducting weekly (Monday Mornings) Grand Rounds, approximately 1966.

As residents, we had two regular exposures to his fabulous teaching: the Monday morning outpatient conference of difficult and interesting cases, open to the entire staff and to community physicians; and his Thursday morning inpatient rounds for over 60 patients, with only the residents in attendance. These conferences were tours de force. We relished them. We learned an enormous amount from listening to the Prof and, later on, from caring for his patients and operating with him in the Wilmer OR. He was a great role model in virtually all respects. He even looked the part of the Johns Hopkins professor. He was tall, handsome, ingratiating, immaculate, and invariably polite. He always wore a starched, freshly laundered white coat. He never lost his cool … ever. He was naturally charming and gregarious. His highly honed social skills added to his mystique and to his success. All of us wanted to be just like him.

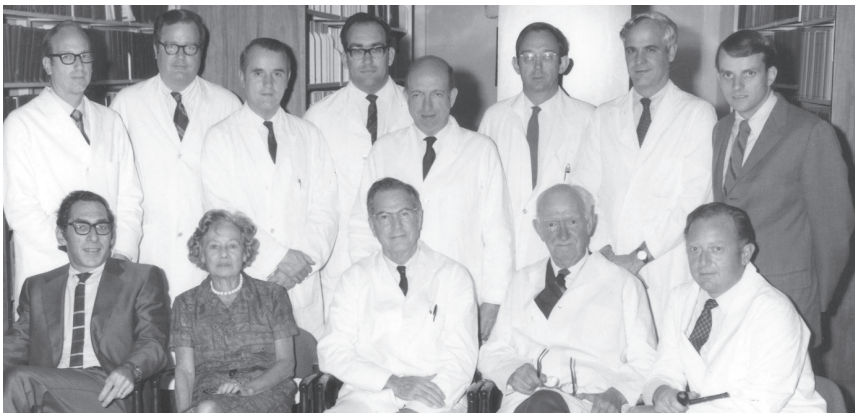
The Prof was a "work hard, play hard" guy, and so the residents emulated that life style. He liked to play highly competitive tennis and golf, and was an avid duck and goose hunter.

Dr. Maumenee was committed to meritocracy, regardless of others' race or religion. He appointed several Jewish doctors to the staff and named the first African American woman, Lois Young, MD, to a clinical fellowship, accomplishing a "first" for both gender and race at Hopkins. The Prof made sure that his all-white private patients had complete exposure to Dr. Young. We were really impressed that he would and could run counter to the prevailing culture in Maryland. He was completely fair in his dealings with other people. He was also the most justifiably self-confident person we have ever known.

The Prof once asked one of us to scrub with him and the chairman of otolaryngology to fix a VIP who had sustained a blow-out fracture of the orbit. Halfway through the case, the two chairmen realized that their resident assistant knew more about the technique, and because we had so much more recent per-

A.E. Maumenee, MD, at the operating microscope, Wilmer Eye Institute, approximately 1989.

A. Edward Maumenee, MD



A.E. Maumenee, MD, lower row, seated in middle, with full time faculty at the Wilmer Eye Institute, approximately 1964 (front row seated, L. to R., Arthur Silverstein, PhD, Louise Sloan, PhD, AEM, Frank Walsh, MD, Gunter von Noorden, MD; second row, standing, L. to R., Irvin Pollock, MD, W.R. Green, MD, Maurice Langham, PhD., Keith Green, PhD., Arnall Patz, MD, David Knox, MD, David Paton, MD, and John Dowling, MD, approximately 1967.

sonal experience with surgery for trauma than they did. They turned the case over to me, and I took great pleasure in quickly fixing the patient in front of these two world-famous Hopkins specialists.

Dr. Maumenee maintained a leadership role in numerous ophthalmic organizations. He was the first president of the Association of University Professors of Ophthalmology, president of the American Academy of Ophthalmology and Otolaryngology and the Pan-American Association of Ophthalmology, a trustee of the American Journal of Ophthalmology, the International Congress of Ophthalmology, the International Council of Ophthalmology and the American Ophthalmological Society. He became honorary life president of the International Council of Ophthalmology, an honor bestowed on only two other persons in history: Sir Stewart Duke-Elder of England and Professor Jules Francois of Belgium.

Dr. Maumenee received numerous awards honoring his outstanding contributions to ophthalmology, including the Howe Medal of the American Ophthalmological Society in 1969. He also received the Francis I. Proctor Research Medal (1972) for outstanding research in basic science as applied to ophthalmology, presented by the Association for Research in Vision and Ophthalmology.

In 1986, he received the International Duke-Elder Medal, an award bestowed by the International Council of Ophthalmology every four years to an ophthalmologist who, by his or her distinction, leadership and teaching, contributed most to the development of international relations and friendships between ophthalmologists. He was also the recipient of the Gonin Medal and the Pisart Vision Award. He received honorary fellowships or degrees from the Royal College of Surgeons in Edinburgh, Scotland; the University of Illinois; the University of Alabama; and the Technical University of Munich, Germany. Numerous other honors and distinctions are listed in the ophthalmology oral history series published by the American Academy of Ophthalmology.

His efforts in the development of new knowledge and improved quality of care, led to the creation or improvement of numerous organizations, including the Eye Bank Association of America, Tissue Banks International and the Association for Research in Vision and Ophthalmology. In a cooperative effort with Sen. Lister Hill and Jules Stein of Research to Prevent Blindness Inc., Dr. Maumenee was instrumental in the founding of the National Eye Institute at the National Institutes of Health.

When Ed Maumenee died peacefully in his sleep, within hours of enjoying his last game of golf, the world lost one of the most influential, productive and creative ophthalmologists of the 20th century. During the memorial service in his honor near Mobile, Ala., his childhood home, simultaneous eulogies occurred in more than 35 countries.

This uniquely inspirational giant of a man is no longer physically with us but will continue to live in our hearts.

This article was derived from obituaries written by Morton F. Goldberg, MD, Walter J. Stark, MD, and Robert B. Welch, MD.

Three consecutive directors of the Wilmer Eye Institute: A.E. Maumenee, MD, Arnall Patz, MD, and Morton F. Goldberg, MD, 1990.

Life in Retirement

By John R. Stechshulte, MD

Are you going to retire? Have you retired? An article in the spring edition of *Scope* introduced my goal to assist members who are planning to retire and members seeking greater joy in retirement. Finding fulfillment is the most neglected element of retirement planning. It may be the hardest component to establish and maintain in our retirement years. Fulfillment comes by way of our goals, aspirations, interests, hobbies, recreation, and dreams.

For that *Scope* article, I interviewed Dr. Alfredo Sadun, who stated that he will approach retirement much like the way he helps residents launch their ophthalmology career: by finding their passion. He said, "Joseph Campbell, the well-known Sarah Lawrence college professor (who inspired director George Lucas), would prescribe: 'follow your bliss.' Then, look about for unmet needs. The overlap in this Venn diagram is where you should plan to dedicate some of your post-retirement time."

In preparing to write these articles, I have interviewed numerous ophthalmologists. I've learned from them that there is not one exact definition of "retired". Many of our colleagues conclude their clinical care of patients but they stay involved by volunteering, teaching and doing research, usually part-time, in ophthalmology or medicine. We'll call this "retired from clinical care." Because they are retiring using multiple incremental transitions it is difficult for them to state that they retired in any one specific year. I'll use the term "fully retired" for the doctors that transition entirely away from medicine.

Of the doctors I interviewed I will share the answers to the following questions from two individuals who have retired recently:

When and why they retired?

What they retired to accomplish?

What has brought them fulfillment?

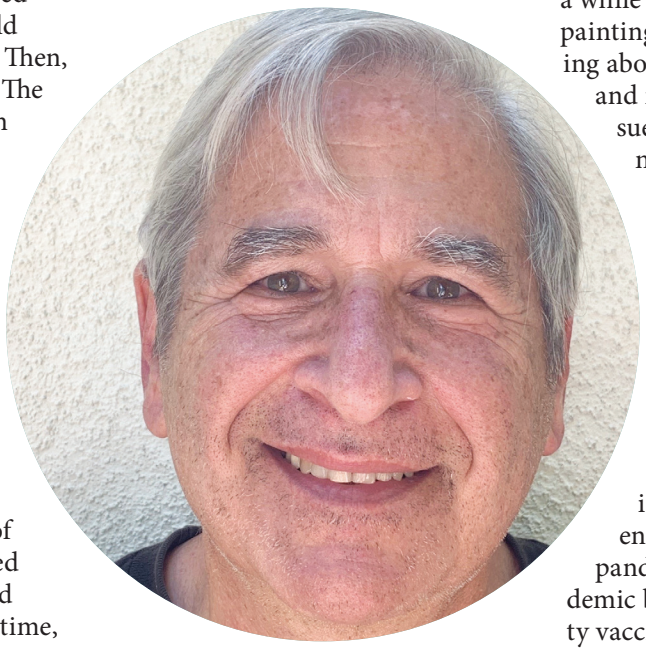
How have they fared?

What would they have done differently with the wisdom of hindsight?

What resources (books, guides, coaches) have they found helpful when retiring?

DR. RALPH LEVINSON, OF LOS ANGELES

I retired in 2019, just before turning 67. I had arbitrarily thought 70 sounded good for retiring, but knowing our bodies have a finite duration and not wanting to miss my oldest grandson's childhood years as he was approaching adolescence, I decided the time was right. You never know how much time you or your loved ones have. I had just finished a block of research, and I was starting to decide whether I wanted to commit to a new project.



Ralph Levinson, MD

I also wanted to retire while I was still pretty much on the top of my game and my career. The stresses of electronic medical records and dealing with health insurance companies didn't play a role in my decision, though it was easier knowing I was leaving these things behind. Although I was in a great job [as a clinical health sciences professor at UCLA] that fit me well, I wanted to explore life and consider who I was beyond the demanding role of a physician.

I retired to be more available to my family and pursue other things in life. A kind of intellectual and social freedom. I wanted to learn who I am besides being a doctor. I could explore and still be useful by doing volunteer work. I like trying different things out. I've never played a musical instrument, and I recently started taking piano lessons and studying music theory. I have also revisited old interests. For a while I went back to drawing and painting. I have long enjoyed reading about quantum field theory, and now I have the time to pursue it more deeply. I have a meditation practice that I can spend more time on now.

I found fulfillment easily while auditing courses at UCLA, volunteering at the California Science Center, the Los Angeles Natural History Museum (the environment and science education are important to me), which ended when the COVID-19 pandemic began. After the pandemic began, I served at LA County vaccination sites. I help food insecure students with my board duties at a nonprofit organization called "Swipe Out Hunger." I am still in contact with some patients, including most recently a lady with limited vision who teaches cooking to the blind over Zoom. Rather than become highly specialized as I was in my career, I have become a generalist in retirement. Unlike me, other retirees do well pursuing a second career or hobby

in only one field. Now, for me, there is so much I want to explore; perhaps later I will specialize.

I have fared well in retirement. Of course, it has only been two years, and there has been the pandemic to deal with. It helped that I was not tied to my identity as a doctor, which may not be typical of other Academy retirees. My intellectual curiosity and flexibility have made it fun. Liberating. I've liked reinventing myself.

What would I have done differently — not much. Maybe I should have started to arrange my new volunteer assignments well before I retired, as on-boarding took some time.

DR. CYNTHIA PARLATO, OF NEW HARTFORD, N.Y.

I retired in March 2019, just after celebrating my 35th residency reunion from Wills Eye Hospital and the day after my 65th birthday. Purposefully, I avoided the Ides of March.

My decision to retire was multifactorial, and I was interested in pursuing a new path.

To ease the transition for our practice, I became an employee instead of a managing partner. I gave up performing major surgery and focused on medical ophthalmology, minor surgery and non-refractive laser procedures. This gradual change was beneficial in preparing the office and our patients but was especially helpful to me in saying goodbye to my life's work.

My plan for the next chapter of my life was to keep active, continue to learn and to "give back" to others while maintaining and enriching my relationships with family and friends. Fortunately, I had a year of retirement before the pandemic when many of us learned, all too abruptly, the effects of social isolation and the "freedom" of doing nothing.

I found fulfillment by attending daily classes at the Mohawk Valley Institute for Learning in Retirement (MVILR). I took classes in art history, music, philosophy, literature and theology for three semesters before the pandemic. Attending classes also provided an orientation to my days and enabled me to see and interact with people of all ages at one of our beautiful local college campuses.

My major volunteer commitment for over 20 years continues at the Central Association for the Blind and Visually Impaired (CABVI). The CABVI has served and created employment opportunities for the blind and visually impaired for over 90 years, currently serving in 34 counties and 11 states. As a member of the board of directors and chair of the rehabilitation committee, I was recently involved in the establishment of our new 23,000-square-foot Vision Health and Wellness Center.

Cynthia Parlato, MD

Fortunately, my husband and I live in a beautiful area of Central New York near the Adirondack Mountains with many lakes and waterfalls and opportunities for outdoor activities which we do year-round. We are involved in our local community, supporting the arts, museums and educational institutions. In our retirement, we plan to remain in our hometown but hope to visit our children and grandchild more often and for longer periods of time.

We utilized Zoom and Facetime extensively during the pandemic for meetings, education, church services and connecting with friends and family. On Zoom, I completed a 30-week course on the Book of John with a bible study group in California. On Skype, I facilitated an English-language intensive for students at a private school in Switzerland.

Gardening, reading, cooking, listening to music and playing the piano have always sustained me and now can be enjoyed at a more leisurely pace. I even have time for "Jeopardy" and streaming movies.

I have fared well in these two years since my retirement with my supportive and loving husband of 41 years by my side.

What would I have done differently with the wisdom of hindsight? I would have worried less and valued time more. The revelation of my retirement is that I do not regret my decision. I certainly miss my patients and the satisfaction of helping a patient see well again but I am content. I am enjoying my newfound freedom. I am still a work in progress.

I greatly appreciate Dr. Ralph Levinson's and Dr. Cynthia Parlato's willingness to share their stories. In future articles, we will share responses from doctors who retired about 10 years ago. Even if you have not yet retired, what are your answers to these questions?

The Year That Arkansas Lost the Innovative Push for Patient Safety

By Laurie Gray Barber, MD

Most of us have blazed our way through college and medical school so that we could compete for a treasured spot in an excellent ophthalmology residency program. We then concentrated on studying the ophthalmic system and the relationship of the eye to the brain and remainder of the body. We absorbed medical knowledge and refined our surgical skills. We assisted our esteemed faculty as they operated on and around the eye, then learned how to handle the tiny instruments under the microscope as faculty held their breath beside us, calmly recommending (maybe not always calmly!) another step or reverse course. We always prioritized our patients' eye health.

Yet, as practicing or retired physicians, many of us have become silent even as patient safety is risked and our profession is minimized. Only 10% (or less) of ophthalmologists actively advocate for our patients by educating legislators, contributing to OPHTHPAC® or Surgical Scope Fund, or actively fighting dangerous scope issues in their states.

This kind of advocacy is critical when our profession is under threat as it was in March 2020. That year Arkansas became the fifth state to succumb to optometrists' strong political influence with a law that allows optometrists (ODs) to perform YAG capsulotomies, SLTs, ALTs and eyelid surgeries with anesthesia and scalpel. The usual playbook was run; bringing an OD from another state that insisted that none of the procedures were really invasive to the eye and that risks were minimal.

They wheeled a YAG machine into the state capital and encouraged all the legislators to sit down and fire laser at a piece of paper, insisting that anyone with a 30-hour weekend course could do the eye procedure. Legislators, unduly influenced by those that contributed time and money to their campaigns, failed to protect patients.

Left to right - Laurie Gray Barber, MD, Ted Penick, MD, and Hal Capps, MD, pictured at the Arkansas State Capitol.

My patients were astounded that optometrists without medical or surgical training would be allowed to operate on the eye and eyelid. Patients were frightened about families' and friends' eye health and wanted to turn around a legislative mistake. Fortunately, we thought, Arkansas' constitution allows citizens to pass a referendum to reverse unfortunate legislation.

The Arkansas Ophthalmological Society discussed the possibility of gathering a record number of petition signatures in a short time frame to allow the referendum to be placed on the Arkansas official ballot in November 2020.

In short order, the Safe Surgery Arkansas Ballot Question Committee was formed and a petition company hired. Arkansas ophthalmologists raised over $675,000, and petitioners obtained a record 84,000 signatures in 6 weeks making the deadline in time to put the dangerous OD scope law into abeyance, disallowing OD surgery until a public vote in November 2020.

Then the legal battle began. The ODs and their lawyers, as well as high-ranking partisan office holders began to try to take the referendum down with a "death by a thousand lawsuits."

One after another, the lawsuits were won by Safe Surgery Arkansas. The upshot of an expensive legal fight was that the Arkansas Secretary of State was ordered to count the petitioned signatures. After another attempt to throw the referendum off in December 2019, a circuit judge told the Secretary of State to certify the votes. The referendum met the criteria to be on the ballot November 2020.

Laurie Gray Barber, MD

Arkansas is the first and only state in the nation to place a public referendum reversing any medical scope expansion allowed by legislative decree rather than training or skill. The road to the referendum was long and convoluted. Ophthalmologists were the first medical doctors of any specialty to fight to protect patient surgical eye safety by putting it to a vote by citizens.

With $125,000 from the Arkansas Ophthalmological Society, help from Executive Director Laura Hawkins, our hard-working lawyers and team and a handful of Arkansas ophthalmologists, the Safe Surgery Arkansas campaign drive raised several hundred thousand dollars for the legal fight and future campaign advertisements.

The Arkansas Medical Society gave $250,000 and support to send requests to all medical doctors in the state. The American Medical Association contributed $125,000. The AAO gave $100,000, with specific requirements for spending. The real heroes were the 90% of Arkansas ophthalmologists that gave at an average of $15,000 each.

Physicians throughout the state and nation realized that this brave and innovative attempt to derail an unsafe surgical bill was critical. A resounding win would take the message to other states' legislators that constituents want surgery limited to medical school trained physicians with surgical residencies.

Sadly, 2020 brought another flurry of baseless lawsuits along with the physical constraints of the pandemic. One of Safe Surgery Arkansas' lawyers was accused of a crime by the ODs, although the charge was later dismissed. The petitioners were accused of felonies. The ODs claimed that the procedures did not "cut the eye, but only nudged it." The push was on to throw out several petitioners' signatures based on them "acquiring" a background check, rather than "passing the background check" as per a recently passed law. Finally, signatures were ordered removed because we had not obtained petitioner federal background checks through the state police, which is not done by the Arkansas State Police.

The Arkansas Supreme Court circled and scheduled a special hearing. After a week of tense days in court, the special hearing judge declared that 1) There is no possible way to obtain federal background checks for the petitioners through the Arkansas State Police, as we had been stating for months and unfortunately, 2) the Ballot Question Committee should have stated that the petitioners had "passed" their background checks (which they had) rather than just stating that they obtained background checks.

So, the judges of the Arkansas Supreme Court opted to throw out the majority of Arkansans' signatures on a one-word technicality. The upshot being that the referendum was on the ballot but the votes would not count.

Early this spring, 2021, an Arkansas Circuit Court judge found in favor of the referendum and the impossibility of "passing federal background checks through the Arkansas State Police." The Supreme Court changed their minds and agreed. But by then, it was too late. The November 2020 vote was passed.

What lessons can be learned from our experience in Arkansas? Most importantly, ophthalmologists need to be advocates for our patients legislatively as well as clinically and surgically. Residents should be actively educated by their residency programs, as optometrists are trained to be legislative advocates while in optometry school. We should be involved with campaigns for legislators that are patient safety advocates, both with our time and with our treasures.

Those of us with lighter schedules as we approach our golden years can offer to write to, call and meet with candidates for office and with legislators after the election. Senior ophthalmologists could volunteer to be spokespersons at legislative and community events and stand up to those who desire surgical privileges without surgical training.

Many young, practicing ophthalmologists fear reprisal from referral sources, so those of us with no OD referrals or established patient populations have less to lose, yet everything to gain for quality patient care.

To prevent further incursions by nonmedical school trained surgeons, continue to support your state ophthalmology societies. They are the warriors in the trenches for scope of practice battles. If you do not have the time or prefer not to spend the hours it takes to be an advocate, you can financially support the critical programs; state medical and ophthalmology societies, state political action committees, American Medical Association, OPHTHPAC and Surgical Scope Fund.

Preventing bad laws from passing is much preferred and vastly cheaper than trying to throw out a law. Had more ophthalmologists nurtured better relations with our legislators, perhaps giving a few hours here and there, they may have been out some clinic hours rather than $15,000.

As chair of Safe Surgery Arkansas, I have replayed the past fraught year and would do it again. Step up for your patients as an advocate, just as you have stepped up with excellence following extensive surgical and clinical training.

Ophthalmologists and Optometrists also share a history of working well with each other, on many levels. There are many mutual benefits when the professions cooperate. Unfortunately, there is also a history of Scope of Practice battles, usually at the state level, that are detrimental to patient safety, so affect that process. Let us hope that patient safety remains the driving priority.

The Way We Were: Bart Mondino, MD

By Alfredo A. Sadun, MD, PhD

Editor's note: My predecessor, M. Bruce Shields, MD, launched a wonderful series titled "What We are Doing Today." I'm very happy to extend that series of descriptions of senior ophthalmologists (SOs) who have interesting hobbies and vocations that may serve as their destination so that they can retire to instead of from something.

But I'd also like to start a new series. I thought of calling it "What We Were Once Doing" but went with the catchier "The Way We Were" instead. Each issue will have an interview with a distinguished SO with a story of how different things once were.

I wish I had started this decades ago. I've been privileged to have been included in a circle of very colorful as well as famous figures who sometimes, under the influence of intellectual lubricants, told fantastic stories of crazy things that used to happen in academic departments. I used to think of this as the wild west of ophthalmology in the sense that it was a time before law and order arrived. I wish I had a tape recorder in the days when Drs. Steve Ryan, Ron Smith and Ed Maumenee would tell these riveting stories around the dinner table.

Well, I have a recorder now. And in this series, I'll try and capture some of the narratives of "The Way We Were." This time, I interview Bart Mondino, MD, chairman of ophthalmology at the Stein and Doheny Eye institutes at UCLA.

Dr. Sadun: Let's start with a short foundation of where you grew up and went to school. And how you got interested in medicine or ophthalmology.

Dr. Mondino: I was born and raised in Sacramento, Calif. I received my bachelor's degree, went to medical school and did my internship at Stanford University. I was used to the Bay Area. In fact, I wasn't familiar with winter clothes. I had taken some electives in ophthalmology at Stanford and decided, in the fall of my senior year of medical school to apply to ophthalmology. This was late in 1970 and the war in Vietnam dominated all of our plans. I thought I was a reasonably strong applicant on paper.

Bart Mondino, MD

My United States Medical Licensing Examination scores were high, and I had earned honors grades, etc. Yet, I was very disappointed that I didn't receive any response for an interview from any of the 10 or 20 residency programs to which I applied. In fact, I got one rejection. It was a letter from Wilmer that [Dr.] Ed Maumenee signed personally and explained why they wouldn't interview me. [Dr.] Maumenee had been at Stanford and knew my references who had written my support letters, so I guess he might have wanted the chance to explain. He gave two reasons: I had not served in the military and had not gotten a Berry Plan [deferment of military service until after residency] which I wasn't yet eligible for until the end of my senior year, so they didn't want to invest in me when I couldn't control what would happen. House staff were being pulled out of programs at the time to serve in Vietnam.

Time was going by, and I wasn't getting any interviews. It wasn't going well as I didn't have a single offer for an interview. Then, one day, I got a phone call from [New York University] where they offered me an interview in New York. I asked why because I hadn't served in the military and did not have the Berry Plan. She wasn't so worried about the draft and even suggested they could get a congressman to help. So, I said sure. But since I was going to New York, I called Manhattan Eye and Ear and also Cornell to see if I couldn't get more interviews on the same trip, and they gladly agreed. I arranged to have two interviews one day, and one the next. I asked why they didn't offer me interviews on their own. They replied you have to call for one which I didn't know.

Dr. Sadun: So, you flew to New York?

Dr. Mondino: I took a red-eye and arrived at Kennedy Airport with little sleep and in casual clothes. I changed into a suit in the airport lavatory.

Dr. Sadun: That's funny. I had a similar situation when I was a

resident applicant. I flew to Boston and arrived at Mass Eye and Ear in wrinkled clothes and no sleep. And in a sour mood. I'm still amazed that they took me. It was hard for us before the match. Resident interviews could be wildly disorganized on both sides.

Dr. Mondino: From the airport I took a cab and went straight to my first interview at Manhattan Eye and Ear. But when I got there, a woman apologized to me and said that the slot had already been taken. She stopped me at the front desk, and I couldn't even get into the department offices. But she also told me that Cornell was looking seriously at my application. Cornell was related to Manhattan Eye and Ear for resident applications because they had the same chair. I was disappointed, having flown across the country.

So, I walked outside and trudged, by foot, to my next interview about five blocks away at Cornell. It had snowed, and I didn't have boots. But the sun pierced through the clouds highlighting the white tower of Cornell and I took that as a positive sign or omen. I got to interview a few of their faculty, including Stuart Brown, Donald Shafer and Harvey Lincoff.

Stuart Brown would play a major role in my career development and life. At the end of the afternoon, as I was getting ready to leave, I was approached by an administrative secretary who offered me the residency slot on the spot! There were only two resident positions (per year), and I was offered one. But there was a catch. I had to tell them yes or no immediately. I couldn't even sleep on it. I ended up saying yes, of course, since I had nothing else. I was very favorable in thinking about Cornell because a previous college roommate was a medical student there and spoke highly of Cornell.

New York City and especially the Upper East Side was a great place for a single young man and seemed like a fun adventure. Manhattan Eye and Ear had filled its spot on a few hours' notice so I couldn't take any chances. But I didn't like that I had to make such a big decision and only five minutes to make it. The rest of my career would be the consequence.

Then I found a phone and called NYU to tell them that I wouldn't be interviewing with them the following day. To my surprise, she was very upset with me and gave me a hard time. But what could I do? I had just given Cornell my word.

So, I walked outside and trudged, by foot, to my next interview about five blocks away at Cornell. It had snowed, and I didn't have boots.

Dr. Sadun: But you didn't have the Berry Plan. Wasn't Cornell worried? Weren't you?

Dr. Mondino:: Cornell didn't seem concerned, and ultimately, I got the Berry Plan and was secure in knowing I wasn't going to be drafted to Vietnam during my residency.

I was on the Upper East Side, and it's nice. And I walked around until I found a local diner on First Avenue. I remember eating shrimp there. I felt very good about things and how the situation had worked out. I even found an earlier flight back to California, and I took a cab back to the airport that evening. And Cornell was generous with its house staff. They took good care of you. They gave me a salary about four times what I would get from Stanford for an internship. And they provided a great furnished apartment with subsidized deductible rent across the street from the hospital. And living in Manhattan on the Upper East Side was a lot of fun.

Dr. Sadun: So, serendipity decided where you went for residency.

Dr. Mondino: Serendipity. Just so. I was very influenced by Stuart Brown at Cornell. Then I followed him to do my fellowship at Pittsburgh and stayed there awhile. So much of my influences, my career and my choices were dictated by how things transpired that one winter day at Cornell.

Dr. Sadun: So, things are better now that we have the residency match?

Dr. Mondino: Absolutely. It wasn't good back then. Not at all. The programs had all the power. The randomness of it was crazy. And I enjoyed having a lot to do with changing that. At the [Association of University Professors of Ophthalmology (AUPO)],* I was in a position to help organize and run the San Francisco residency match for ophthalmology. Later, through the Fellowship Compliance Committee (FCC) and the Central Application System (CAS), again organized through the AUPO, we were able to help fellows avoid the crazy process of applying to each program individually and helped eliminate "sweatshops."

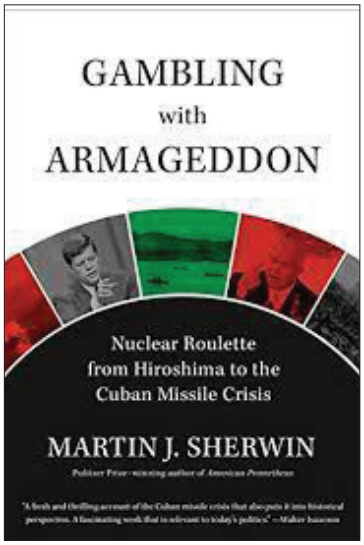
Look at what I went through. When people apply at different times, and institutions accept you at different times, and you have to make decisions one at a time, it's just so disorganized and unfair. The new match systems are at least fair and sane. I don't think that current residents and fellows can imagine the pressure of applying to and accepting an offer before the match came into existence. Now, having these matches for residents and fellows, the situation has improved immeasurably.

*Dr. Mondino served for 10 years as executive vice president of the AUPO after being on its board of trustees for six years.

What We're Reading This Summer 2021

Book Review Editor, Thomas S. Harbin, MD, MBA

Senior ophthalmologists share the best of what they're reading this summer. Share what you're reading and send your review to scope@aao.org.



Gambling with Armageddon: Nuclear Roulette from Hiroshima to the Cuban Missile Crisis
By Martin J. Sherwin
Reviewed by Samuel Masket, MD

Fascination with the administration of President John F. Kennedy continues today despite the fact that it is more than 60 years since his inauguration.

We can consider his persona, looks and "breeding," Jackie Kennedy's captivating charm, their adorable children and certainly his cataclysmic assassination for much of the ongoing interest. But the Cuban missile crisis and Kennedy's credit for managing it successfully remains center stage as the outcome impacted nearly everyone on earth. As our youngest elected president, he came under scrutiny for his early failures, notably the Bay of Pigs debacle and his diplomatic "manhandling" by Russian Premier Nikita Khrushchev during their first meeting in Vienna in 1961.

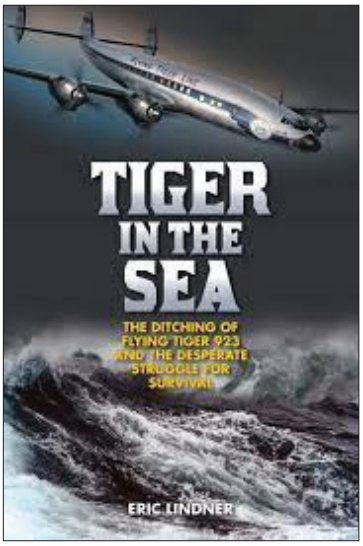
However, as we come to learn from the author's remarkable research, the Bay of Pigs invasion was the brainchild of the prior Eisenhower administration and very consistent with the covert actions of his intelligence team; President Dwight D. Eisenhower was every bit a hawk, although this may not have been apparent to the public. Indeed, the nuclear arms race between the U.S. and the Soviet Union was due in great part to Eisenhower's policies, according to the author.

Although much of this saga represents well-known history, the author's detailed research, garnering notes and audiotapes brings a clear picture to the actual events.

The missile crisis was brought about by the alliance between Khrushchev and Fidel Castro in Cuba. Surreptitiously, in 1962 launch pads for nuclear war head missiles were being constructed in Cuba by Russian engineers with the purpose of pressuring the U.S. and changing the balance of global nuclear power, as the U.S. had nuclear weapons on the ready in Turkey and elsewhere in Europe. Once construction was observed and photo documented the crisis was underway. Although much of this saga represents well-known history, the author's detailed research, garnering notes and audiotapes brings a clear picture to the actual events. These documents only became available when declassified in the 1990s.

What is most remarkable about the book is that the reader surely knows the outcome and the actions of many of the players, yet the writing is so suspenseful in style and the knowledge gained so vast, that the book commands one to keep turning the pages as though reading a spy thriller. Although Fidel Castro cajoled Khrushchev to attack and military leaders and other advisors egged on Kennedy in similar fashion, neither of the principal players wanted a nuclear holocaust and wisdom prevailed. That said, however, there were other heroes and a good bit of serendipity on both sides, allowing for a negotiated settlement.

I so appreciate the education gained from good nonfiction writing and I genuinely recommend this book for what the reader will learn while being entertained.



Tiger in the Sea: The Ditching of Tiger 923 and the Desperate Struggle for Survival
By Eric Lindner
Reviewed by J. Kemper Campbell, MD

Seldom does a book's content match the hype of a cover designed to attract the attention of potential buyers. However, in the case of "Tiger in the Sea" by Eric Lindner, the abject terror of a passenger plane's night-time plunge into the frigid North Atlantic not far from the Titanic's watery grave is mirrored by the prose within. The striking cover illustrates the hopelessness of the situation.

What We're Reading

In 1962, flight Tiger 923, a Lockheed four-propeller Super Constellation aircraft with 76 people on board crashed into stormy seas 500 miles off the coast of Ireland. Miraculously, 48 people survived despite having to cling to a capsized raft meant to accommodate only 20 while resisting the battering by 30-foot-high waves.

The book, which is meticulously documented by author Lindner from official records, memoirs and personal interviews with remaining survivors, describes the events leading to the crash, the massive rescue efforts, and the subsequent investigation of the causes. Lindner's efforts were hampered by the government's desire to conceal safety concerns of Flying Tiger Lines, a civilian subcontractor hired to fly military personnel.

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Two of the airline's Super Constellations had already crashed in 1962 and most commercial carriers had switched to the more effective Boeing jet engines. Nevertheless, Flying Tiger remained the Pentagon's largest civilian contractor during the sixties by ferrying troops to and from South Vietnam. Also complicating the investigation was the cold war consideration of explaining the presence of members of the 82nd Airborne paratroopers bound for Germany on board.

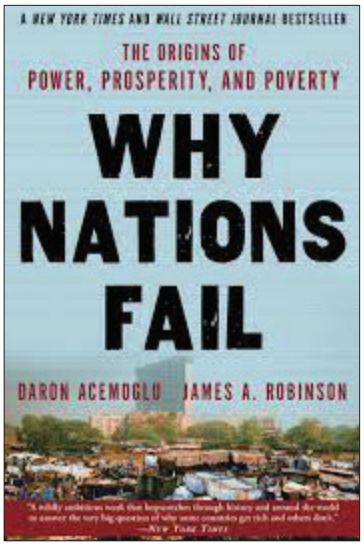
Somehow the official Civil Aeronautics Board inquiry was conveniently "lost" by the U.S. National Archives, despite considerable national publicity including the personal attention of President John F. Kennedy. Lindner's persistence in overcoming these obstacles is understandable. He was motivated by the fact that the heroic pilot of the doomed aircraft, Capt. John Murray, was his father-in-law.

Although the harrowing tale of the crash and rescue efforts is riveting, the greatest strength of the book is the detailed descriptions of how the survivors used their "borrowed time" throughout the remainder of their lives. Rescue efforts were difficult because of the violent storm, the lack of communications other than a single flashlight, and the loss of the other four life rafts attached to the sinking plane. Obviously, the experience left an indelible imprint upon both survivors and rescuers. Some were left with life-long PTSD, feelings of "survivor guilt" and fear of flying.

However, one passenger, Maj. Dick Elander, who was the ophthalmologist at West Point, prevailed and became a prominent physician in California. His son, Troy, also an ophthalmologist, has flown around the world providing free eye care and training in third world countries on the Orbis Flying Eye Hospital. Ironically, FedEx provided the plane after acquiring the Flying Tiger Line in 1989.

Capt. Murray continued to pursue his illustrious flying career until his tragic demise in a 1966 swimming accident.

This book is an example of the ability of the human spirit to overcome even the direst circumstances. The bravery and cooperation of the international, multiethnic and racially diverse victims and rescuers is truly inspirational.



Why Nations Fail: The Origins of Power, Prosperity, and Poverty
By Daron Acemoglu and James A. Robinson
Reviewed by Alfredo A. Sadun, MD, PhD

Nogales is a small town in Southern Arizona and in Northern Mexico in the state of Sonora.

It sits on the border and has a fence separating the two halves. It had two post offices, two police stations and, more importantly, two public school systems. There is a lot of cross-border movement. However, there are remarkable differences between the north and south sides of town. Those on the north live more than a decade longer than

The most powerful point I learned is that good economics does not mean good politics, and politicians choose poor economic policies on purpose as it serves their needs.

What We're Reading

those on the south. And those on the north make, on average, three times as much as those on the south.

Why? It isn't because of ethnic differences; they are pretty much the same on both sides of the border. And, of course, the climate, terrain and geography are all one. One would have to conclude that the quality of the institutions is very different and that matters.

Economist Daron Acemoglu and political scientist James A. Robinson study these two cities as well as many countries in societies, past and present and considered their economic, health and other factors to consider why some failed and others succeeded at what we consider important.

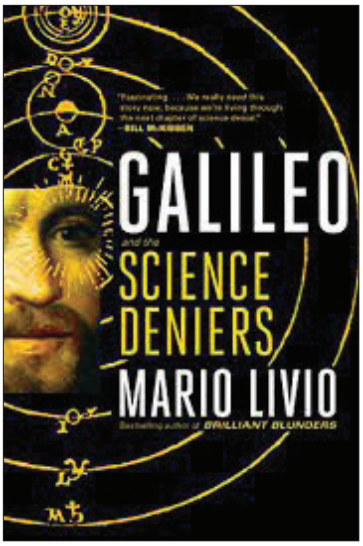
In Africa, Somali is a failed state, but Botswana is not. Climate, natural resources and geography are only a small part of the problem and solution. What the authors found most important were the politics and cultures of each nation.

The most powerful point I learned is that good economics does not mean good politics, and politicians choose poor economic policies on purpose as it serves their needs. A king or authority chooses to allocate his resources to appease his constituents, well aware that this comes at a great general economic cost.

In the U.S. we are told, "It's the economy, stupid." But which economy? Some might want unemployment to be low and average income up. But others may prefer a low tax rate and highs in the stock market. Societies that are based on powerful (extractive) interests will likely indulge these interests over the health of the general economy.

It's also clear that economic markets work best when there is trust in leaders, in institutions, in our fellow human and in the future. I have traveled and heard it said that corruption without obvious victim is no big deal. But it is, for corruption removes trust in people and institutions. So political leadership matters a great deal. Furthermore, inclusive, non-extractive societies allow for power-sharing that will maximize the economy for most, whereas extractive societies will choose policies that only benefit their elite.

Look at a satellite nighttime map of East Asia and you can clearly delineate the border between North and South Korea. On one side of the border the people live over a decade longer and are 10 times richer than the other. Politics, norms, culture and institutions matter.

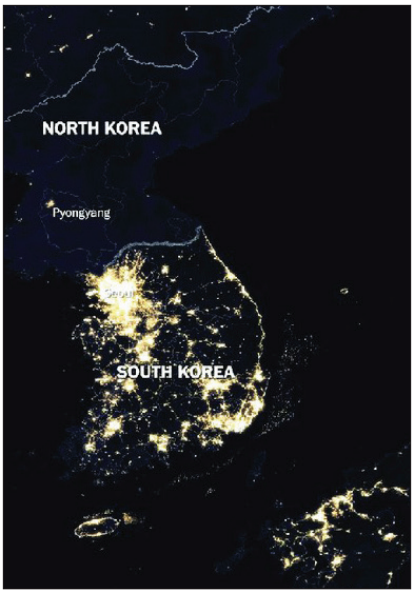


Galileo: And the Science Deniers
By Mario Livio
Reviewed by Alfredo A. Sadun, MD, PhD

Why a new biography of Galileo in 2020? There have been plenty before.

It's because Livio's story is not so much about Galileo as about the Galileo affair. This affair was about the church's denial that the earth moved, and that controversy mirrors the modern versions of science denial. Livio wrote this as an allegory of how, now, politics drives many powerful people to deny global warming.

But as I read the book, I thought it applied to the anti-science sentiments of anti-vaxxers. Why



do one-third of Americans plan to avoid the COVID-19 vaccine even after abundant evidence that it is relatively safe? I kept asking myself that question, and this book had some answers.

Galileo, with formal application of the scientific method, mathematics and his telescope, was able to demonstrate convincingly that the Copernicus model

Why do one-third of Americans plan to avoid the COVID-19 vaccine even after abundant evidence that it is relatively safe? I kept asking myself that question, and this book had some answers.

of the sun in the center of the solar system was correct, and therefore the earth was neither central nor stationary. But these thoughts were vehemently challenged by the Roman Catholic Church.

What We're Reading

In 1616, the Inquisition declared his claims of heliocentrism to be "formally heretical." One interesting insight is that the pope and the cardinals were not fools. As individuals, they had tried his new telescopes and seen for themselves

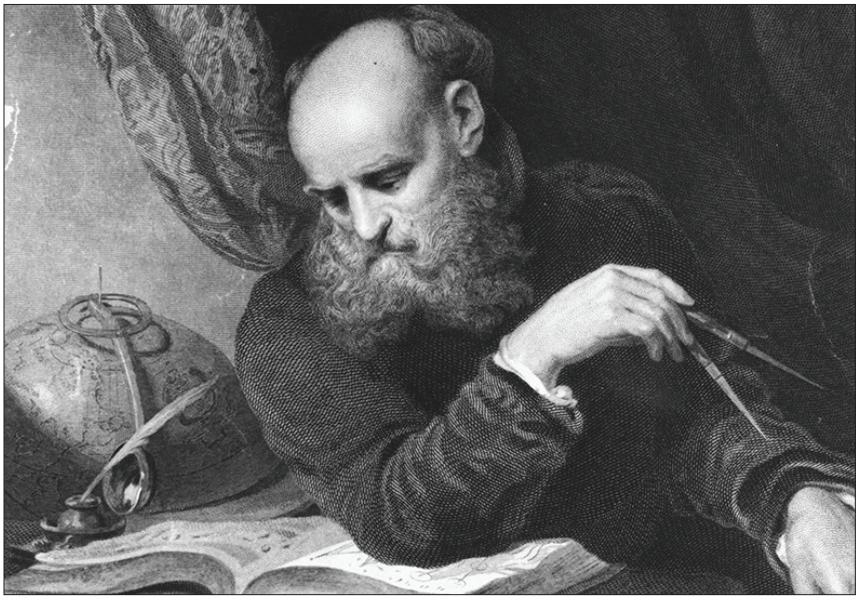
As individuals, they had tried his new telescopes and seen for themselves that the moon was a planet with mountains and craters and that Jupiter had moons that circled about it. They had studied Galileo's works and understood the science.

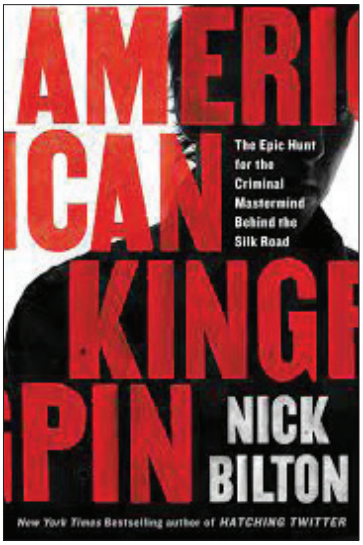
that the moon was a planet with mountains and craters and that Jupiter had moons that circled about it. They had studied Galileo's works and understood the science. Galileo had initially succeeded in convincing most of them.

Further, they agreed that as long as Galileo limited himself to science they would limit themselves to interpreting scripture. But as a political body under pressure (this was shortly after the Protestant Reformation), they backed away from this compromise and doubled down on the broader claim that scripture also taught physics. Then, as now, the science was nuanced and complicated. Science can't be absolute. It keeps approaching the truth with new evidence and subtle revision. How can that compete with simple conviction? Then, as now, there were those that used science to embarrass their political foes.

Predictably, those in power, so humiliated, pushed back. And they can find resonance in the general fear of science by the ignorant and the specific fear by many intelligent people that science undermines their claim that the future is politically malleable. Science deniers in Italy in the early 17th century and today as well resented that science may seem to arrogantly set the agenda.

Those of us who believe in science like to think it solves problems. Galileo was astounded that his inventions, including the telescope, weren't perceived as useful to mankind. Despite his genius, he failed to appreciate the distrust of or even the threat of knowledge and reason to people in power. Science is again under attack by leaders, who in rejecting scientific claims, consolidate their political power. How can we avoid the same conflicts and mistakes?





American Kingpin: The Epic Hunt for the Criminal Mastermind Behind the Silk Road
By Nick Bilton
Reviewed by Thomas Harbin, MD, MBA

Remember the Silk Road? Not the one that connected the West with China and the East, but the online black marketplace.

It flourished between 2011 and 2013, initially selling relatively harmless illegal drugs but expanding to arms, weapons, every kind of illegal drug and even body parts. Buyers and sellers lived all over the globe.

Ross Ulbricht, an aimless but brilliant young libertarian who felt that the government should not control what someone put in their bodies, started the website in 2011. It rapidly expanded to a multi-million enterprise and Ulbricht became the target of law enforcement agencies. They hunted him in vain for two years, finally catching him and shutting the site down. By then, Ulbricht had accumulated close to a billion dollars in Bitcoin.

The book provides amazing personal details on Ulbricht as well as the FBI and other agents who hunted him. A tad long and a bit wordy, but fascinating.

News from the Foundation

By Gregory L. Skuta, MD, Chair, Foundation Advisory Board

It is with deep appreciation for your amazing generosity to the Academy Foundation that we provide you with this quarterly update. As our country continues to battle the pandemic, we are especially honored that you continued your support while understanding the Academy's ongoing needs during a challenging time for all of us. We look forward to AAO 2021 in New Orleans and thanking you in person!

CELEBRATE TOGETHER AT THE ORBITAL GALA MASQUERADE

Reconnect with your colleagues at the 18th annual Orbital Gala fundraiser at the House of Blues in New Orleans. On Nov. 14 from 6–8 p.m., you'll swap stories at the cocktail party and bid on one-of-a-kind auction treasures to support the Academy's vital educational programs. We'll also celebrate David J. Noonan, former Academy deputy executive vice president, for his numerous contributions to our profession. Can't attend? Join us virtually.

Purchase tickets for the live event or register for the virtual event.

Honor Mr. Noonan.

PAY TRIBUTE TO SOMEONE IMPORTANT THROUGH THE NEW HONOR A MENTOR CAMPAIGN

Now you have the opportunity to honor someone special who has made a positive professional impact on your life with a tribute gift to the Foundation. Tell us what this mentor or colleague has meant to you, and you and your mentor will be published on our website.

WE ARE THANKFUL FOR RETINA RESEARCH FOUNDATION SUPPORT

Under the leadership of Retina Research Foundation President Alice R. McPherson, MD, since 1993, the foundation has been supporting ophthalmic education through grants to the Academy Foundation. The Academy leadership is thankful for this committed partnership, which has enabled us to develop high-quality resources that advance ophthalmic education and enhance patient care worldwide. Study cases about a homeless man who needed new glasses and a mild infection turned intractable; and launch a learning plan on improving vision after retinal detachment repair. (All three are CME credit eligible.)

MUSEUM OF THE EYE NOW OPEN

After three years in the making, you can now visit the new Truhlsen-Marmor Museum of the Eye® in person on a Wednesday, Thursday or Friday. Next time you're in San Francisco, visit the world's only free, public museum dedicated to the fascinating science of sight.

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Discover the ease of opening a donor advised fund. Receive federal income tax deductions and decide which charities to support.

As always, thank you for your support of the Academy's many innovative programs. I wish you a wonderful, healthy and safe remainder of the summer. Feel free to contact me any time at gskuta@aao.org.

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