

**DAB Matula Thoughts June 7, 2019**

*Ga-ga then and now*

2149 words



[Above: Nesbit reception at 2019 AUA Annual Meeting in Chicago. Ice sculpture.]

**One.**

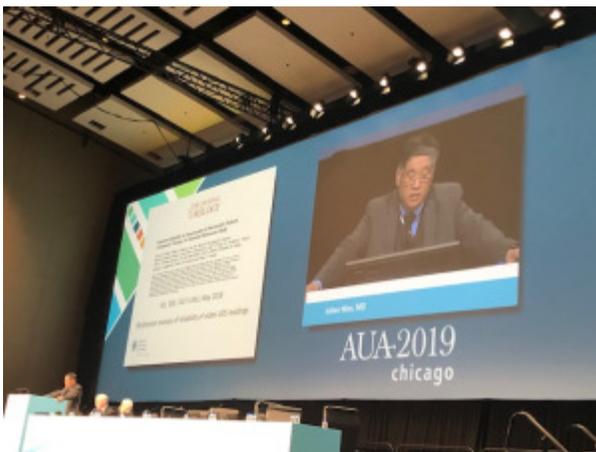
**Senior medical students** are getting ready this month for the next big stage in their lives and careers, just as I did in June of 1971 heading west from Buffalo to Los Angeles, to start nine years of training at UCLA. I don't recall much of the drive along the evolving interstate highway system, a vision of President Eisenhower only 20 years earlier, but the exhilaration of beginning something totally new with surgical residency under William P. Longmire certainly dominated

my thoughts on the road. The intellectual and conjoined physical capabilities of surgery as a profession excited me. The first day of internship, in line to check in, I met fellow intern Doug McConnell and quickly befriended John Cook, Erick Albert, Ed Pritchett, Ron Busuttil, Arnie Brody, John Kaswick, Dave Confer and the rest of our 18 at the bottom of the UCLA training pyramid. Over the five-year process, we learned the knowledge base, skills, and professionalism of surgery through experience, teaching, study, and role models. In the blink of an eye 1971 has become 2019 and, suddenly I'm near the end of my career. Reading *Arrowsmith* and the recent story of the Theranos debacle in John Carreyrou's *Bad Blood*, I saw those protagonists wanting to change the world. My hopes in 1971 were not so grand, I just wanted to find my own relevance and hoped to become good in my career. Most people similarly want to make their mark in one way or another, through job, family, art, or community. Some, however, actually intend to change the larger world, although their idea of "change" may be someone else's deformation.

Last month a large cohort of our residents, faculty, nurses, PAs, and staff met in Chicago at the annual AUA national meeting to learn, teach, exchange ideas, network, enjoy reunion, and circulate word of our new chair Ganesh Palapattu. The Michigan brand was strong with hundreds of presentations from our faculty, residents, and alumni. The MUSIC and Nesbit Alumni sessions were great gathering points. [Below: UM podium events with alumni Cheryl Lee, Jens Sønksen, Barry Kogan, and Julian Wan.]



Cheryl was just back in Ann Arbor as visiting professor this week.



A group of our residents and one incipient PGY1 were *ga-ga* at the AUA Museum booth.  
[Below in front: Juan Andino, Catherine Nam; back row: Adam Cole, Scott Hawken, Rita Jen, Ella Doerge, senior faculty member, Colton Walker, Matt Lee, Kyle Johnson, Udit Singhal.]



## Two.



**Surgery, the word**, derives from Greek, *kheirourgos*, for *working by hand* and the term moved through Latin, Old French, and Anglo-French to become *surgien* in the 13<sup>th</sup> century. The epicenter of that world was the doctor/patient duality, with an *essential transaction* as old as humanity with exchange of information, discovery of needs, and provision of remedies and skills. The knowledge base and tools are far better since Hippocratic times, but the professional ideals are much the same. It seemed pretty awesome to my 21-year-old self that I might one day be able to fix things with my hands like Drs. Longmire and Rick Fonkalsrud. History mattered to our UCLA professors who insisted that trainees know the back stories of each topic.

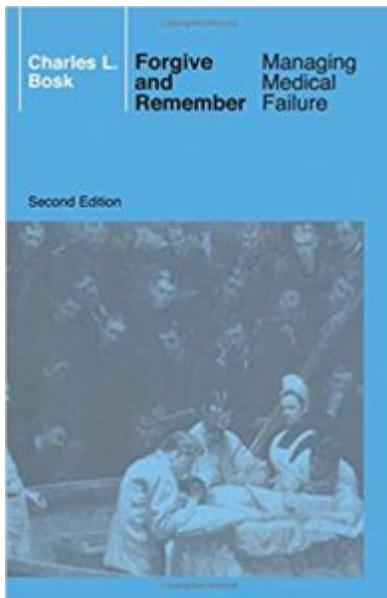
New interns arriving next month, called PGY1s for their postgraduate year status, may have parallel thoughts to those of mine 48 years ago as they start their journeys. Pyramidal training models no longer exist – PGY1s can reasonably expect to complete their programs. Their experiences will be replete with contemporary expectations, notably patient safety, value propositions, clinical outcome assessments, co-morbidities, social determinants of disease, personal well-being, attention to patient experience, and teamwork with diversity, equity, and inclusion. Acronyms have proliferated, tools are more numerous, and regulation grows more

burdensome. Nevertheless, *essential transactions* remain at the center of health care with needs of patients addressed by the knowledge, skills, and kindness of healthcare providers, one patient and one provider at a time.

While taking pride in the labels *doctor, physician, and surgeon*, we realize now that teams of providers with many types of expertise congregate around each single patient, either immediately physically as “bedside teams” (in clinics as well), sequentially, or virtually (with office staff, coders, laboratories, or electronically). Teams offer exquisitely specialized expertise and “wisdom of crowds,” although patients often find no single person in charge of their care.

### Three.

**Patient safety was a *given*** when I was a resident. It was wrapped up in regular Morbidity and Mortality conferences without explicit use of that phrase, *patient safety*. Around that time a young graduate student in sociology, Charles Bosk, embedded himself in an academic surgical team for 18 months to discover how surgery was learned, practiced, and lived at an unnamed “Pacific Hospital.” The result was his book in 1979, *Forgive and Remember: Managing Medical Failure*. Bob Bartlett, my friend and colleague in the Surgery Department, introduced me to it a few years later. A second edition in 2003 was reviewed by Williamson. [Williamson R. *J Royal Soc Med.* 97(3):147-148, 2004.]



Patient safety has grown since my internship from an obvious but unarticulated expectation to a distinct field of study modeled after other industries, notably aviation. Health care has learned much from other professions such as the concepts of safety culture, standardization of procedures, checklists, and so forth, although healthcare is more multidimensional and nuanced than those other worlds. Bosk recently reflected on the health care exceptionalism in

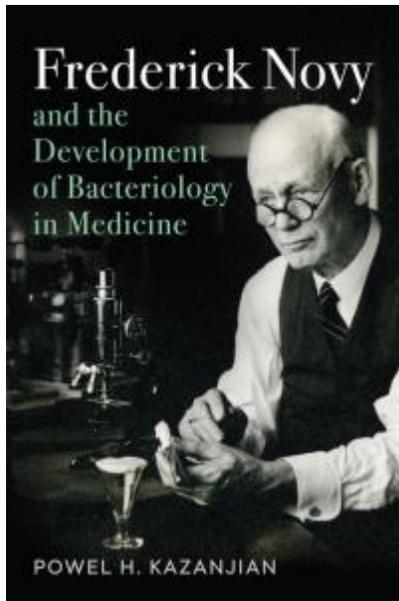
a *Lancet* article, “Blind spots in the science of safety,” written with Kirstine Pedersen, concluding:

“There is a science of safety to reduce preventable adverse outcomes. But health care also has an irreducibly relational, experiential, and normative element that remains opaque to safety science. The contribution of a kind and reassuring word; a well delivered and appropriately timed disclosure of a bad diagnosis; or an experience-based evaluation of a small but important change in a patient’s condition – all are difficult, if not impossible to capture in a performance metric. Accomplishing safety and avoiding harm depend on discretion, effective teamwork, and local knowledge of how things work in specific clinical settings. Finally, the successful practice of a science of safety presupposes in theory what is most difficult to achieve in practice: a stable functioning team capable of wisely adapting general guidelines to specific cases.” [Bosk CL, Pedersen KZ, “Blind spots in the science of safety.” *The Lancet* 393:978-979, 2019.]

#### **Four.**

**The Michigan Urology Centennial** is nearly here and the process of writing our departmental history has elicited many names and stories. Bookends demarcating any era may be discretionary choices and our starting point could easily be debated. Perhaps the first “urologic” procedure of Moses Gunn initiated this specialty at Michigan in the 1850s, or the first faculty appointments with the term *lecturer on genitourinary surgery*, held by Cyrenus Darling (1902) or *clinical professor of genitourinary surgery* by Ira Dean Loree (1907) might qualify. Unquestionably, though, the arrival of Hugh Cabot in the autumn of 1919 brought modern urology with its academic components to the University of Michigan. Cabot was the first to use the 20<sup>th</sup> century terminology, *urology*, at UM and he was Michigan’s celebrity in the field. He literally brought *Modern Urology* to Ann Arbor, as that was the name of his two-volume state-of-the-art textbook of 1918, repeated in a second edition in 1924. Cabot probably didn’t anticipate becoming Medical School dean when he left Boston two years earlier, but his advancement was hardly accidental. A number of other prominent faculty members were well-positioned to replace Dean Victor Vaughan, but Cabot played his political cards well and won the job.

Frederick George Novy (1864-1957) was the strongest competitor. Born and raised in Chicago, Novy obtained a B.S. in chemistry from the University of Michigan in 1886. His master’s thesis was “Cocaine and its derivatives” in 1887. Teaching bacteriology as an instructor, his Ph.D. thesis in 1890 was “The toxic products of the bacillus of hog cholera.” After an M.D. in 1891 he followed the footsteps of his teacher Victor Vaughan as assistant professor of hygiene and physiological chemistry. Visiting key European centers in 1894 and 1897, Novy brought state-of-the-art bacteriology to Ann Arbor, rising to full professor in 1904 and first chair of the Department of Bacteriology. His studies of trypanosomes and spirochetes, laboratory culture techniques, anaerobic organisms, and the tubercle bacillus were widely respected. Our colleague Powel Kazanjian wrote a first-rate book on Novy.



### Five.



**Paul de Kruif** (1890-1971), one of Novy's students, bears particular mention. [Above: de Kruif, courtesy Bentley Library.] de Kruif came from Zeeland, Michigan, to Ann Arbor for a bachelor's degree in 1912 and then a Ph.D. in 1916. He joined the U.S. Mexican Expedition ("the Pancho Villa Expedition") against Mexican revolutionary paramilitary forces in 1916 and 1917, then saw service in France with the Sanitary Corps, investigating the gas gangrene prevalent in the trenches of WWI. de Kruif returned to Michigan as assistant professor in 1919 working in Novy's laboratory, publishing a paper on streptococci and complement activation.

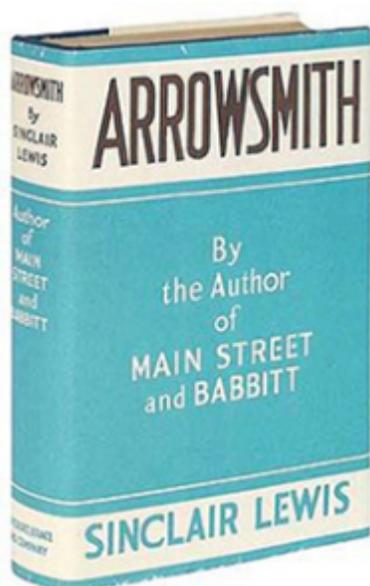
Novy helped de Kruif secure a prestigious position at the Rockefeller Institute in 1920, to study mechanisms of respiratory infection. While there de Kruif wrote an anonymous chapter on

modern medicine for Harold Sterns's *Civilization* in 1922. The 34 chapters were mainly written by prominent authors, including H.L. Mencken, Ring Lardner, and Lewis Mumford, so how de Kruif, a young bacteriologist (and non-physician), came to be included in this compilation is a mystery. de Kruif's 14-page chapter, however, caused the biggest stir, skewering contemporary medical practice and doctors for "a mélange of religious ritual, more or less accurate folk-lore, and commercial cunning." de Kruif viewed medical practice as unscientific "medical Ga-Ga-ism," but his article was sophomoric at best.

Once de Kruif was revealed as author the Rockefeller Institute fired him in September, 1922. The newly unemployed bacteriologist came in contact with a newly prominent author, Sinclair Lewis (1885-1951), praised for *Main Street* (1920) and *Babbitt* (1922). Lewis was ready for his next novel and two friends, Morris Fishbein and H.L. Mencken, persuaded him to focus on medical research. Lewis, son and grandson of physicians, knew little of medical research, so Fishbein, editor of *JAMA*, connected Lewis to de Kruif. A bond and collaboration ensued for *Arrowsmith* (1925) in which a central character, Max Gottlieb, was modelled around Novy. Lewis gave de Kruif 25% of the royalties for the collaboration, but held back on sharing authorship, claiming that it might hurt sales. At the time de Kruif thought his share generous, but later became somewhat embittered as book sales soared with Lewis as sole author. [Henig RM. *The life and legacy of Paul de Kruif*. Alicia Patterson Foundation.]

*Arrowsmith* was selected for the 1926 Pulitzer Prize, but Lewis refused the \$1,000 award, explaining his refusal in a letter to the Pulitzer Committee:

"... I invite other writers to consider the fact that by accepting the prizes and approval of these vague institutions we are admitting their authority, publicly confirming them as the final judges of literary excellence, and I inquire whether any prize is worth that subservience."



Four years later, however, Lewis accepted the \$46,350 Nobel Prize. His Nobel lecture was “The American Fear of Literature.”

Leaving lab behind, de Kruif became a full-time science writer, the first in that new genre of journalism. His *Microbe Hunters*, published in 1926, became a classic and inspired me when I read it as an early teenager, unaware of the controversies around it. [Chernin E. “Paul de Kruif’s *Microbe Hunters* and an outraged Ronald Ross.” *Rev Infec Dis*. 10(3):661-667, 1988.] *Arrowsmith* was re-published in 2001 by Classics of Medicine Library and Michigan’s Howard Markel provided the introduction. [Markel H. “Prescribing *Arrowsmith*.”]

### Ga-ga notes

de Kruif’s adjective *ga ga* for American medicine in the 1920s intended to mean *foolish, infatuated, or wildly enthusiastic*. It can also denote someone no longer in possession of full mental faculties or a *dotard*. (Dotard recently came into play in the peculiar rhetoric of the North Korean and American leaders.) The *ga ga* origin may be from early 20<sup>th</sup> century French for a senile person based on *gâteaux*, variant of *gâteau* and hospital slang for “bed-wetter.” *Gâteau*, of course, is also French for “cake” and *gateux* is the plural. de Kruif himself was negatively *ga-ga* with his criticism of medical specialism. Lady Gaga brings the term to a new level of consciousness and a new generation.

The past week was big on three continents for those who go *ga-ga* over anniversaries. Three hundred years ago, on 31 May 1819, Walt Whitman was born on Long Island. His *Leaves of Grass*, among much else, had the intriguing phrase “I am large, I contain multitudes,” a prescient reminder of our cellular basis, microbiome, or the plethora of information that leads to TMI (“too much information”) or burnout. Seventy-five years ago, on 4 June 1944, Operation Overlord at Normandy, France, initiated the Allied invasion of Nazi-occupied Europe. Thirty years ago, on 4 June 1989, protests in a large city square between the Forbidden City and the Mausoleum of Mao Zedong turned violent and are now referred to as the *June Fourth Incident* in the People’s Republic of China.

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