

To all those

who made these journeys possible ...



Our Stories

Journeys of the Class of 1970

Paul T. Pitlick M.D., Editor

Acknowledgments

First of all, thank you to all who contributed. I had many good experiences with so many people during the years of medical school, and it was great to reconnect with all of you.

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Introduction

This small book contains the stories of twenty-nine members of the St. Louis University School of Medicine, Class of 1970.

They are stories of the choices we made, the chances we took and the impact our teachers had upon us, stories of our care for patients, our contributions to our profession and the trajectories of our professional lives, all perceived from the unique perspective of fifty years after graduation.

These stories did not occur in a vacuum. They have a context, one aspect of which is fifty years of transformational change in the delivery of healthcare.

Many of these changes were continuous—the incremental progression of conventional methodologies. Many others were discontinuous—upheavals sufficiently radical that they soon rendered obsolete the paradigms we had been taught.

To provide a perspective for the stories that follow, this introduction will describe samples of the changes we have encountered...

The basic science that underpins medical training and patient care changed exponentially:

• Our biochemistry classes were shaped by radioisotopes from WW II. For the first time, ¹⁴C atoms could trace basic metabolic pathways. Discoveries such as the Krebs oxidative phosphorylation cycle produced Nobel prizes...and our biochemistry exams.

- In the Sixties bioengineering combined medicine and microelectronics to examine tissue, cellular and molecular systems. Its increasingly sophisticated sensors and monitors enabled intensive care units and advances in anesthesiology.
- In the Seventies, advances in physics and computer science produced imaging by CT scans and then by MRIs, transforming clinical diagnosis.
- In the Eighties, basic research on the expanding HIV epidemic led to profound breakthroughs in virology, immunology, epidemiology and recombinant genetics.
- The Nineties saw the human genome sequenced. To our class, genetics had no medical applications. Now gene manipulation promises to transform medical practices in epidemiology, cancer care and treatment of inherited disorders.
- By 2000 Internet use and Web searches had become the norm. Medical libraries, hallowed repositories of acquired knowledge since the Middle Ages, soon withered as instantaneous search engines replaced library card files and global online access replaced dusty stacks of printed journals.

Basic science advances produced technological consequences:

Limited space allows naming only a few: immune system research led to transplants and targeted cancer therapies. Fiberoptics and video technology led to arthroscopy and endoscopy. More than half of all surgery is now "minimally invasive." Bioengineering introduced robotic and *in-utero* surgery. The simple contrast radiographs of 1970 progressed to interventional radiology, computerized transverse imagery, 3-D reconstructions, fMRIs, PET scans, and virtual remote imaging. The engineering sciences of biomechanics and materials

research produced internal fracture fixation, joint replacements and intelligent prostheses. Discoveries of the molecular mechanisms of cell regulation led to prospective drug design and continuous improvements in cancer survival. Nuclear physics produced a proton accelerator for cancer care on a nearby suburban campus.

These technologies transformed thinking as well as treating:

CTs and MRIs required radiologists to think transversely. Internists became interventionists. Operative endoscopy by video screen transformed traditional surgical hand-eye coordination. Book learning became continuous virtual education. "Captain-ofthe-ship" thinking changed into team cooperation.

Basic discoveries and advancing technologies needed enhanced communication:

- In the Seventies, digitalization began as rotary-dial telephones yielded to phones with numerical keypads.
- The Eighties brought mobile phones the size of a brick.
- The Nineties brought flip-phone cellular technology.
- In 2007 the smartphone began to revolutionize portable personal access to any information, anywhere, at any time. Currently my handheld smartphone contains more computer power and interconnectivity than the 1964 U.S. Department of Defense used to manage the Army, Navy, Air Force and Marines, its planes, tanks, ships, logistics, healthcare, personnel...and the Vietnam War.
- Faxes yielded to emails, then texting, then social networking and then Tweets. Six months after the onset of the Covid pandemic, Zoom virtual meetings had increased from ten million to three hundred million.

Exponential increases in the amount to be learned changed medical education:

In 1970 physicians in private practice donated their time at teaching hospitals, thereby becoming students' role models. Within ten years, research-oriented academicians replaced those physicians and that role model.



In 1970, the medical school tuition at St. Louis University was \$2,000/year. With financial support and moonlighting it was still common to graduate debt-free. By 2020, the medical school's tuition has reached \$57,260. Adding room, board, lab fees and miscellaneous expenses, the school's website estimates that a student's expenses now total \$81,399 annually.

In 2019 the American Association of Medical Schools posted that the average debt of medical school graduates nationally was \$201,490, not counting prior undergraduate debt.

In 1970, it was still possible to start practice after a rotating internship. Several of my colleagues did so. Beginning around 1974, the internship year disappeared, absorbed into residencies.

In 1970 cardiology and neurology were separate medical specialties, but 'Internal Medicine' still included patient populations—allergy, oncology endocrinology, gastroenterology, pulmonology, rheumatology, nephrology and geriatrics—that soon split into distinct specialties. Similar fragmentation occurred in general surgery and then within surgical specialties.

In 1970 post-residency fellowships in subspecialties were rare, in part because interventional techniques such as those in cardiology and radiology were just beginning. With the rise of subsub-specialization and research funding, fellowships became essential to obtain preferred employment, stretching post-graduate training and its attendant indebtedness to five or more years.

The society within which we delivered healthcare changed with equal velocity:

Among 110 students, the class of 1970 admitted thirteen women; the class before us admitted four. Since 2000, the increase of women physicians from less than 10% to greater



than 50% of healthcare teams profoundly influenced attitudes toward patient care and beliefs about patriarchal hierarchy.

By 1970 death had been medicalized. As the marvels of new technologies appeared, so did a culture of "preserve life at any cost" that required additional invasive tests, tertiary cancer chemotherapy, long-term ventilators and "perhaps one more" surgery. Hospice and end-of-life discussions were rejected as "giving up on the patient." Palliative care did not exist as a specialty or as a concept. Dying at home equaled neglect.

In 1970 emergency care was a patchwork. Hospital emergency rooms could be postage stamp-sized appendages staffed by a general practitioner. Emergency Medicine as a



separate specialty did not exist, nor did Medic-1 transport. Absent a countysupported first-responder EMT resource, patients with an emergency called their doctor, who ordered an ambulance (which sometimes doubled as the local hearse) to take the patient to the hospital where the doctor practiced. Stand-alone walk-in satellite emergency clinics were thirty years in the future.

In 1970 preventive care was commonly limited to public health departments and childhood immunizations. Our instructors smoked as they taught. Seat belts, air bags, children's car seats and bike helmets were unknown; DUI's could be casually dismissed. Racial disparities of care were ignored.



In 1970 family planning was marginal, as was sex education. Oral contraceptives were not legally available to unmarried women in all states until 1972. Fathers played little role in prenatal care or childbirth. Pregnant women smoked. Domestic violence and sexual abuse were concealed. ER physicians were just beginning to recognize battered babies.

Food labels with nutrition information and safety-sealed medication containers were yet to arrive, as were adult wellness concepts of diet, exercise, stress reduction, ergonomics, worker protection and preventive screening examinations. "Disruptive" children with learning disabilities were just starting to receive special educations. Fall prevention in the elderly went unaddressed. City environments were so polluted that from the top

of Desloge Hospital only the tip of Gateway Arch peeked above poisonous smog. In 1969 Cleveland's Cuyahoga River caught fire and burned—for the thirteenth time.



Exponential increases in information and data management fragmented healthcare and revolutionized its economics:

In 1970 I was offered an unusual elective in computer applications to medical education. In the 1980s the PC computerized medical offices. In the '90s practitioners had to adapt to networking. For current students, computer literacy is a given and coding skills are common...but artificial intelligence is coming.

Increasing access to information significantly diminished doctors' monopoly on medical knowledge, in turn diminishing the authoritarian one-up/one-down doctor-patient relationship that shaped our training. Patients can now know more about their condition than their doctor does. Patients became healthcare consumers and doctors became healthcare providers.

Currently the Internet provides extensive, easily-accessed information about specific diseases, health practices, treatment resources and support groups. The same Internet also provides disinformation, bogus claims, scam cures and invasive hacks.

The individualized bedside care we learned in 1970 became increasingly subject to outside review. By 1990, Jack Wennberg's macro-analysis of regional variations in care had led to critical pathways and best-practice metrics that truncated the autonomy of in-patient medical practice.

In 1970 we were trained to follow our patients. Family doctors followed an entire family and often delivered their babies. Surgeons evaluated, hospitalized, operated on, and followed patients throughout their course of care.

The need to master an explosion of medical information fragmented this continuity of care:

• Continuous follow-up became discontinuous delegation, from primary care physicians to specialists to hospitalists to

intensivists to rehab physiatrists to SNF geriatricians and palliative care providers. Patients asked, "Who is my doctor?"

- Primary care physicians ceased to manage their hospitalized patients or even round on them, depriving patients of a trusted link to unfamiliar in-patient care.
- Specialists referred to sub-sub-specialists, each of whom provided an ever-smaller segment of treatment; e.g., cancer care commonly involves teams of four doctors or more. Patients asked, "Who's in charge of my care?"
- Cost controls pushed delegation of care to progressively lessertrained providers—PAs to RNs to LPNs to nursing assistants to case workers and discharge planners. In 1970 obstetricians delivered babies, then ARNPs did, then midwives, then doulas.
- Lengths of stay shortened. In 1970, a fractured femur patient in skeletal traction might stay in the hospital for six weeks. Total hip replacements that once stayed for ten days are now discharged in two days or less. Shortened hospital stays limit caring nursing interactions. Patients ask, "Can I talk to you?"
- Hospitals fragmented. To gain market share, the not-for-profit hospital that in 1970 often anchored a community's care disappeared, replaced by silos of specialty care such as cancer hospitals, trauma hospitals, psychiatric hospitals, rehab hospitals, etc., all designed to capture patient populations.
- An estimated 60% of procedures performed in hospitals in 1970 are now done as outpatient procedures. The in-and-out nature of ambulatory surgery marginalized personal connectedness and reduced patients to processed numbers. Ambulatory surgery in turn produced ambulatory surgery centers followed by specialty-owned facilities, e.g., spine care or sports medicine centers, replete with ancillary services.

- Outpatient visits shortened. In 1975 the time allotted for a new patient office visit averaged 60 minutes and for a return visit 30 minutes. Large healthcare systems now average 12 minutes for a new patient and 7 minutes for a return visit.
- Covid's acceleration of telemedicine transformed many interactions with healthcare providers into virtual online relationships.

As a result of these depersonalizing trends, lay support groups, patient advocates and 'concierge' care proliferated to offer patients the trust and connectedness they could no longer find in a doctor's office or a hospital bed.

Healthcare charges and reimbursement rates changed accordingly:

At our matriculation in1966, the business model of private practice was for physicians to individually bill the region's "usual and customary" fee, commonly determined by the county medical society. Insurance policies reimbursed that bill, minus deductibles, a process often referred to as "the last of the cottage industries."

Implementation of the 1965 Medicare and Medicaid acts transformed reimbursement for the elderly and the indigent. Medicaid eliminated charity care in the large inner-city hospitals and charity write-offs by private practitioners. Medicare now reimburses about 20 cents on a dollar of retail charges.

The imposition in 1983 of prospective payment and diagnostic related groups (DRG's) radically transformed physicians' billing practices and hospitals' reimbursement risks. Controlling costs and watching profit margins ascended in priority.

Computerized billing now produces minutely itemized charges, down to individual dressings. Reimbursements changed

accordingly. In 1968 I was admitted to Desloge Hospital with a fever of unknown origin. After a two-day stay and a full university workup, my total bill was \$280. Baseline charges now average \$4,600 per day. Recently a friend underwent a cardiac ablation for which he stayed overnight in the ICU. Discharged the following day, his retail bill was \$144,091...not including physicians' fees.

In 1975 U.S. healthcare spending per person averaged \$550/year. It now averages above \$11,000/year. In 1970 healthcare consumed 7% of U.S. GDP. It now consumes 18%, a percentage that is still rising. One estimate by the Congressional Budget Office projects that absent legislative intervention, the Medicare trust fund will be exhausted by 2024.

In 1970 drug advertising to the public was prohibited. Drugs are now advertised constantly, usually with glowing claims.

In 1970, outpatient drug costs were generally not covered. Medicare Part D drug coverage began in 2006. For non-Medicare patients the current costs of recombinant drugs can be bankrupting. Gilead Sciences initially priced its twelve-week course of Harvoni, an oral drug taken to cure Hepatitis-C, at \$84,000.

The economic goals of the healthcare systems that emerged in the Nineties were those of big business: 'economies of scale' and 'market dominance.'

To achieve these goals, health systems aggregated into state-wide or even nation-wide behemoths. Stand-alone hospitals became economically nonviable. Forty-bed, doctor-owned Northgate Hospital where I began solo orthopaedic practice vanished into community-based Northwest Hospital, which in turn vanished into the state-subsidized University of Washington Healthcare system that extends throughout Western Washington. Similarly, solo practices became group practices, which in turn became city-wide specialty organizations, which in turn were bought by hospital systems or investor-owned funds whose financial objectives were far removed from patient care.

In 1970, few graduates thought of being employed in a healthcare system. Employed positions are now the norm; more than 85% of current graduates plan for salaried employment.

The former healthcare "cottage industry" has become the fourth largest sector of the U.S. economy, valued at \$1.13 trillion.

For practitioners struggling to survive in it, the magazine *Medical Economics* became a 'must-read.'

Meanwhile, "quality care" morphed into a corporate marketing tool.

As big data accumulated, care became subject to algorithmic search and scrutiny:

By 2000 cost controls and variation metrics increasingly regimented the individualized bedside care we learned. Physicians are disallowed time to listen. Surgeons must use standardized implants. Oncologist must follow specific cancer treatment protocols. Radiologists must meet volume expectations.

The meticulous medical histories we were taught to take became obsolete, reduced instead to yes/no intake questionnaires. The current electronic medical record is only one example of "personal data transmission" that must be digital, portable and billable. It is also depersonalizing and often clinically inaccurate.



Massive data sharing made medical science global. Immediate international transmission of preprint

postings now bypasses peer-reviewed print journals that previously required months to publish research breakthroughs. Search engines provide immediate access to relevant discoveries. Translation apps facilitate their global adoption.

Internet transmission of mega-data combined with AI modeling transformed global epidemiology and the preventive measures it advocates. In 2020, only ten days after the coronavirus appeared in Wuhan, China, scientists there had identified its genome and shared that information around the world. Within a month, multiple research institutes and pharmaceutical companies were working on vaccines and treatment candidates. Based on more than twenty years of mRNA research, twelve months after Covid's outbreak the nation received a 95% effective vaccine.

There has, however, been a price for these dramatic improvements in curing. Personal connectedness and the healing touch that goes with it are disappearing. The Washington State Medical Society reports that fifty percent of physicians over age fifty now suffer from burnout to the point of impaired patient care.

In 1982 Paul Starr published his landmark study, *The Social Transformation of American Medicine*. Over the past fifty years the trends he identified have accelerated. The healing profession in which we trained has been transformed into a transactional service industry.

The stories that follow took place in the context of that transformation.

What will come next?

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Faculty

In honor of the teachers and friends who shaped our stories...



Basic Science Faculty



Dr. Ronan O'Rahilly Chair, Anatomy





Dr. Branislav Vidic Director, Anatomy Laboratory

Dr. Kermit Christensen Histology





Dr. Leo Senay Chair, Physiology



Dr. Robert Olson Chair, Biochemistry

Dr. Paul Young Chair, Neuroanatomy



Dr. Frederick Germuth Chair, Pathology



Dr. Morton Weber Chair, Microbiology



Dr. Maurice Greene Director, Institute for Molecular Virology



Dr. Rene Wegria, Chair, Pharmacology

Clinical Faculty



Dr. Thomas Frawley Chair, Internal Medicine



Dr. William Knight Chief of Medicine, St. Mary's Hospital



Dr. Gerhard Muelheims Chief of Medicine, Unit 2, City Hospital



Dr. Robert Woolsey Neurology



Dr. Armand Brodeur Pediatric Radiology



Dr. Arthur McElfresh Chair, Pediatrics



Dr. Edward Auer Chair, Psychiatry



Dr. Dennis Cavanaugh Chair, Obstetrics/Gynecology



Dr. C. Rollins Hanlon Chair, Surgery (to 1969)



Dr. Vallee L. Willman Chair, Surgery (from 1969)



Dr. Eugene Lewis Pediatric Surgery



Dr. Theodore Dubuque Chief of Surgery St. Mary's Hospital



Dr. Kenneth Smith Neurosurgery

Deans



Dr. Donald W. Bussman Assistant Dean for Student Affairs

Dr. Robert H. Felix, M.D., MPH Dean, St. Louis University School of Medicine 1964-1975

Founding Director, National Institute of Mental Health Past President, American Psychiatric Association



Photo credits: Bill Gruber

Tom Barrett

As I think back on my career in medicine as a Radiologist, I realize that serendipity played a large role in the choices that were made by me.

In high school I never had a physician as a role model and as a result I never thought about a career in medicine. I was fascinated by automobiles and things mechanical. Just before I was to start my sophomore year of high school, I was hit by a car that resulted in a broken leg and arm. I did not start my sophomore year until the end of October. In my junior and senior year of high school I built a hot rod out of a 1931 Ford model A. I had to learn both acetylene and arc welding, and produced a hot rod with an Oldsmobile engine for power. After high school I entered a local University but with no clear goal in mind. After one semester I dropped out and joined the navy. In boot camp I learned that I was red-green color blind that limited my choices of billets. I was trained as a jet mechanic because color vision was not a requirement.

I subsequently served in fighter jet squadrons with both shore-based squadrons and on Aircraft Carriers.

While on a cruise to Japan, Hong Kong, and the Philippines I read "Arrowsmith" by Sinclair Lewis. The book was instrumental for me to consider a career in medicine.

After I completed my four-year enlistment in 1964, I returned to undergraduate school, this time with a career goal to become a physician.

In 1965 my girlfriend Jackie Boyle, and I were married, and, in that year, I began applying to medical schools for the fall term of 1966. I was accepted at 4 schools and due to my enjoyable interview experience at SLU, I made it my first choice, a choice I never regretted.

Medical School at Saint Louis University was an exciting time in our lives. Medical school was a challenge, and we were also expecting our first child in January of 1967. Our social life was limited by lack of time and money and revolved mostly around the other married couples. Because of the alphabetical order used at SLU we became better acquainted with students whose last names began with letters that were in the first half of the alphabet.

After graduation, my first post graduate year was in Internal Medicine with two electives in Radiology. Radiology emerged as my favorite rotation. I applied to Radiology programs for residency. Since we had two children and a third on the way we decided to return to Ohio where we had extended family.

My residency was in General Radiology with both Diagnostic and therapeutic rotations. I also did additional Radiation Therapy training at Ohio State University.

I was offered a position with one of the Radiology groups that made up the faculty of the newly opened medical school, Northeast Ohio University College of Medicine. I began my Radiology career in July of 1974. For the ten years from 1974-1984 I did Diagnostic Radiology for 9-10 months a year and covered for the Radiation Oncologist, who was U.K. trained for 4-6 weeks per year. Treatment of patients was done on a 6 MEV linear accelerator manufactured by Varian. From 1984 to 1996 I practiced exclusively as a Diagnostic Radiologist.

In 1996 I decided to work part time in Ohio, and I got licensed in Alaska, California, and Florida in addition to maintaining the Missouri license and the Ohio license. I began

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working as a Locum Tenens Radiologist in all the states I was licensed approximately 26 weeks a year, usually in the winter. The other weeks I spent sailing on the Great Lakes, The Chesapeake, and sailed my boat to Florida. In 2004 I quit traveling to work, and we moved to Venice, Florida. I worked from our home using teleradiology, and I completely retired in 2011.

I was incredibly lucky to have practiced when I did and especially as a Radiologist. Those years produced so many new and exciting imaging modalities, particularly MRI. I did become involved in hospital politics, serving as president of the medical staff and on the Board of Trustees. I did that for 10 years and that was more than enough.

We are now retired, and we live in a golf community in Venice, Florida. I have given up sail boating, and now try to play golf, Jackie is more successful than me. The past year has limited our travels as well as visits to see our kids and grandchildren. Hopefully 2021 will see an improvement for all and keep us all in good health.



St. Louis City Hospital



Cardinal Glennon Hospital for Children



John Cochran VA Hospital

Jonathan Davis

I really enjoyed being an MD and will always be thankful to SLU for giving me the training and credentials to do this. I hope today's medical students will remember that constant updating of your skills, compassion, and empathy will serve you well.

After I graduated, I married Barbara Shaw, a nurse who worked on the fourth floor at Desloge. When I say after graduation I mean immediately after. We graduated at noon and we were married at 5 pm. Since neither of us had any money, we took our honeymoon as far as a Gulf credit card would take us. For those who are interested, that took us to Gulfport, Florida and back since the card was good at Gulf service stations and Holiday Inns.

We returned to St Louis, picked up our things and moved to Zion, IL. We had an apartment which we furnished with wedding presents and hand-me downs from my parents and aunts. Interestingly, I was refused a Sears credit card because I hadn't yet had any phone history and I didn't have a local bank account. Nevertheless, after a few weeks of using snack tables as bedside tables and suitcases as drawers, we obtained bedroom furniture and I started my internship at Great Lakes Naval Hospital. It turned out to be a straight medicine residency (my choice) although two of the most influential people for me were surgeons, Drs. Hanlon and Willman. I guess City Hospital and Dr. Muelheims had more of an influence on me than I realized.

We eventually got Navy housing and moved to Halsey village where we had a very nice two-bedroom condo with a basement. We met wonderful neighbors whom we kept in contact with until they passed away a few years ago. Unfortunately, during my internship, my father had a massive stroke with me in the room. Needless to say, this greatly upset me and I was very relieved when a friend told me to get out of the room. This taught me the lesson of never taking care of your family and it was my first step in learning what I think is the key to being a good physician: compassion and empathy for your patients, and indeed everyone.

Unhappily, my father became totally disabled, and he was in and out of the ICU with the "locked-in syndrome." He eventually died $2^{-1/2}$ years later, about three weeks before I was to take my boards in Internal Medicine. Somehow, I passed.

I know the military is looked down upon in many places, but I was quite fortunate in the residency and had sub-specialists from all over the country. I learned there were many different ways to achieve the same result.

This was also about the time that PAs were coming into the services. The Navy employed a number who had been independent duty corpsmen and they were superb. I must put in a little of my own comment here. Talk about sexual harassment, these guys, for they were mostly men, took unbelievable grief from the senior nurses which were almost all women. Thankfully, things are much different now.

After my time at Great Lakes, I was transferred to Pensacola Naval Hospital which had a family practice program. After the residency I felt like I was on vacation. I did learn however there are some excellent FP's.

The most important thing, however, was we were able to adopt our first daughter. It was amazing. On my birthday we were notified to come in to look at a one-month-old little girl. We only had a pair of booties because the agency assured us that we were still months away from getting a child. We asked if we could come in the next day and they said ok. We immediately went to Wal-Mart and got everything we needed and were quite fortunate to have friends who had three girls, the youngest 3 years old, and they had baby clothes which they gave us. That is how Rebecca Elizabeth joined us. It's hard to believe she is now forty-five, married, and has her own five-year-old all living here in Oklahoma City.

Now you are all wondering how I got into endocrinology. I am not sure myself. I think during my residency I met an amazing endocrinologist from Tufts who influenced me. When I found out that the Navy had an endocrine fellowship in Oakland, I applied, flew out to Oakland, was accepted, bought a house, flew back to Pensacola, picked up my family, and left.

I'd like to think it was that simple, since I'd never been to the West Coast before, had to get orders, sell a house, arrange moving, and tell my father-in-law who said he would follow me from St. Louis to Oakland with my wife and 10-month-old daughter, while I drove my VW (yes, the same one I had in St Louis). Everything seemed to go along fine until we hit Elko, NV, when my wife had a breakdown! It seems during that time Becky seemed to decide it was time to have four teeth come in. Nothing like being in a car with your father and having a crying child for four days. As only a father can say, I'm glad I was in a different car with only my dog!

Oakland itself was an interesting community! Not to mention the drugs, ladies of questionable virtue, the guards at the malls carrying automatic rifles, the earthquakes and the brush fires, but we also had interesting neighbors. Across and down the street lived the widow of the superintendent of schools who been murdered, the star running back (and one of the nicest men in the world) for the Raiders (Clarence Davis), and a hall of fame second baseman for Cincinnati (Joe Morgan).

One of the biggest events that occurred while in Oakland was the adoption of our second daughter, Rachel Ann. The chaplain at the hospital knew we were interested in adopting another child. He had been contacted by an unmarried Wave who was interested in adoption. He contacted us, we said yes, and hired a lawyer. A few weeks later Rachel was born EXACTLY two years and one day after our first child. Everything went without a hitch, and six months from then it was made official. My only caution: there are many pitfalls to a direct adoption so be careful!

This was nothing until I went to work. One of the first people I met was Jack Gerich, fresh from UCSF, and he asked me which hormone I wanted to study. I then met the head of the program who was what is now called bipolar. He wanted me to do basic research on muscle uptake of glucose regulated by insulin. The next few months were hell. I was constantly pulled between Gerich and my program director. I was ready to quit and just let the Navy send me where they wanted. I was one of the worst officers in the Navy according to my director. Fortunately, I was talked out of quitting and a few months later I was fortunate enough to have a paper published in JAMA and a little later a paper on glucose uptake in the rat hind limb. Suddenly I became God's gift to humanity! I was then sent to UCSF for 6 months and enjoyed it immensely. I had the privilege to work under Peter Forsham who is one of the giants in endocrinology, and John Karam who I feel is one of the great teachers of endocrinology. By this time my fellowship was over, and I was sent to San Diego.

This sounded like a great situation. I was going to replace two endocrinologists who were getting out of the Navy, and I was going to join a friend that I had known since my internship. As usual things were too good to be true. I reported for duty and was immediately told I had been promoted to Chief of Endocrinology. It seems that my friend had enough time to show me around (the largest military hospital in the world), and then was taking terminal leave before going into private practice. To make matters worse I was visited by the senior resident who said I would be responsible for twelve lectures to the house staff. Considering I had just finished my fellowship and had no clinical lectures prepared, I really didn't know how it was going to work out with only a single endocrinologist.

I didn't realize at that time, but this is probably one of the best things that ever happened to me. I found I had four endocrine clinics a week, one pediatric endo clinic (for which one of the pediatric endocrinologists from UCSD came over), one nuclear medicine thyroid clinic run by the nuclear radiologists (they only asked me what I would do), and a Gestational diabetic clinic with the OB/GYN residents seeing the patients and then presenting to me. In between all of this I had time to read and outline every chapter in Williams Textbook of Endocrinology, find at least one review article in either NEJM or Annals of Internal Medicine, and prepare my lectures.

At the end of my first year, I was tired but quite pleased with myself. Indeed, at that time I looked back, and I realized I had seen in one year what most people would see in a lifetime. Indeed, I passed my endocrine boards easily. They were only offered every other year, and I now had residents every month, and once a week a fellow from UCSD. The crowning glory was when
I found out we were in the 90th percentile on the ABIM test of our residents.

Amazingly, my wife became pregnant. We were just about to leave on vacation to Mexico so I had the bright idea that we would just confirm it by measuring it with a serum HCG. I sent it to the lab but when I went to get the result, I was told that it was too high to measure. They would not have the final result until Monday, but we were leaving the next day. It did not matter since the results were too high, and I immediately called my wife. Needless to say, after ten years of trying and being told that it was unlikely she was ever going to get pregnant, she also became excited. Our son who was born eight months later became an international traveler as a fetus. It's hard to believe he is now forty and has two kids of his own.

Over the next five years we gained two and half endocrinologists. Not only that but we got a reputation for delivering timely, quality care in the community. It's here that I must say that my fellow endocrinologists and nurses were wonderful. They were always willing to work, to see just one more patient, and to be available for patients during their free time. The admiral in charge called me into his office and said I was doing a great job and what could he do to keep me in. I said just let me stay, and he told me "You've got it!" Since this was the man picked to become the next Surgeon General, I thought I had it made. I should have known better.

A year later an announcement was made that the surgeon general was stepping down after a year and half. We later learned that the Chief of Naval Operations was displeased with the readiness of the Medical Corps. Shortly after that my staff was placed on various teams and would suddenly call me up and tell me they were not going to be there the next day. They couldn't tell me where they were going or when they would be back. It reached a tipping-point when I was informed that I had been placed on the Rapid Defense Force. Knowing something about this I asked if I was going to be an internist. They said no. I then asked, knowing that there were only internists and surgeons on the team "What was I going to do?" They informed me that I was going to be on the triage team and because of my rank I would probably be the Chief of Triage. Needless to say, I was not qualified for this, and I would need additional training. They then proceeded to tell me the plans. I said that was inadequate and then I said some words to my commanding officer. With this he turned around and walked away. A few months later I left the Navy and landed in Oklahoma City.

I don't want to leave this subject without everybody understanding that for all of my ups and downs in the Navy, I am quite pleased with what the Navy provided for me and my family. If I were asked today if someone should consider joining, I would have to tell them to look at the pros and cons and make their own decision.

After some searching, I joined the Oklahoma City clinic as their third endocrinologist. Initially it was wonderful. I met my nurse who I worked with for twenty-five years and I can only say she was wonderful, resourceful and exceeding efficient. Indeed, I had some patients tell me that she was the reason they came to me.

The clinic kept expanding until we were over one hundred sub-specialists. Then suddenly we were sold to a "management firm" which decided we should go from a subspecialty clinic to a primary care clinic. Over a period of months we began losing doctors. Indeed, my two partners also left, and I thought that if I stayed, this would be a bonanza for me. Unhappily the administrators wanted me to do more primary care than endocrine so, with only about thirty docs left and almost fourteen years, I left to become a solo endocrinologist.

I was uncertain if this was the right thing for me to do but my faithful nurse came with me, and I became only the second endocrinologist in the South Oklahoma City area. I became quite busy and was seeing patients from the surrounding states. That might be because other physicians wouldn't see people with gender dysphoria, which was their loss, because a number were wonderful people---although some were absolutely nuts.

I kept saying I was going to retire at sixty-five but just continued to work, and developed an endocrine/diabetic clinic. I finally retired on my seventieth birthday.

Faye A. Eggerding

Entering the freshman class of Saint Louis University School of Medicine (SLUSM) in the fall of 1966 was the beginning of the fulfillment of my goal to become a physician-scientist. I chose this path following my mother's courageous battle with advanced, aggressive ovarian cancer when I was 12 to 15 years old. Her illness and death 3 weeks after we moved to San Francisco from St. Louis was a life changing experience that instilled in me a strong desire to focus on cancer research. In addition, my undergraduate biology courses at the University of California, Berkeley reinforced and stimulated my interest in understanding the biology of cancer.

My medical education and research experiences at SLUMS were the foundation for my future career. During my first two years of medical school I worked in the laboratory of Dr. James S. Nelson, the head of Neuropathology. It was my first laboratory experience and Dr. Nelson was so understanding of my inexperience in the lab. He taught me not only basic laboratory techniques but also how to apply scientific methods (observation, critical analysis, etc.) to the analysis and interpretation of new experiments. After the second year of medical school I took time off from medical school to work with Dr. Maurice Green at SLUMS Institute of Molecular Virology as part of an MD-PhD program. My project involved studying tumor virology and DNA replication in the adenovirus family of viruses. Instead of completing a PhD I returned to medical school after one year at the Molecular Virology Institute. During my senior year I did a research elective with Dr. Teresa Vietti, a pediatric oncologist at Washington University Medical School and Children's Hospital. Dr. Vietti was known for her pioneering research in childhood leukemia and for initiating a laboratory-based approach

to developing chemotherapeutic protocols. I worked on a clinical research project studying the effect of X-irradiation and 5-fluorouracil on survival of leukemic cells.

I graduated from SLUSM in the Class of 1971 since I had taken a year off to do research. After graduation I did an internship and residency in anatomic pathology at Washington University Medical School and Barnes Hospital (1971-1973). From 1974 to 1978 I remained in the Pathology Department and did research and course work leading to my PhD. My mentor was Heschel J. Raskas PhD; he had recently joined the Pathology Department from Dr. Maurice Green's lab and Virology Institute at SLUSM. My PhD thesis entitled, "Metabolism of Adenovirus Type 2 Early mRNA Sequences," involved analysis of the transcription and expression of adenovirus early genes and their regulation of the host cell metabolism. This was an exciting time in adenovirus molecular biology as RNA splicing was first discovered in adenovirus in 1977. The discovery that genes contain intervening sequences edited by RNA splicing fundamentally changed our understanding of genes and had implications for the genetic causes of cancer.

In 1978 after receiving my PhD in Molecular Biology from Washington University, I accepted a position as an assistant professor of Pathology at the University of California Los Angeles (UCLA) Medical School. As an assistant professor in the tenure track, I was actively engaged in teaching residents and students and in developing my own independent research program. I had a research program funded by NIH and other grants to study viral carcinogenesis and how adenovirus can transform cells as a result of the expression of RNAs and genes expressed early after infection. Adenovirus early genes are especially interesting because under appropriate circumstances they can stably transform cells by binding cellular tumor suppressor proteins (retinoblastoma and p53). I was the dissertation mentor for a graduate student who received his PhD in my lab studying adenovirus gene regulation (1981-1985). As part of my research I collaborated with scientists at Rockefeller University in studies of the mechanism of viral RNA transcription and processing.

I was very active in teaching at UCLA. From 1981-1984 I was the course chairperson of the Sophomore Pathology course for medical students (course included lectures, laboratory and tutorials). Running the course involved much effort, including writing a Manual and Study Guide of Pathology for students. Interacting with students was a very positive experience that I thoroughly enjoyed. I also enjoyed my interactions with residents in Anatomic Pathology and teaching molecular biology and molecular mechanisms of disease to graduate students. I was up for tenure in 1986. My NIH research grant had just been renewed in 1986 but my tenure was denied. This was an extremely disappointing setback in my career. However, in retrospect it provided the opportunity to redirect my career to Medical Genetics.

I was fortunate to spend 3 years as a post-doctoral fellow in Genetics with Dr. Charles J. Epstein. Dr. Epstein was the head of the Division of Genetics in the Department of Pediatrics at the University of California San Francisco medical school. He developed an exceptional program that integrated clinical genetics and basic research. I completed training in both Clinical Cytogenetics and Clinical Molecular Genetics and in 1993 I became board certified in both these specialties by the American Board of Medical Genetics and Genomics. Medical Genetics first became an accredited medical specialty in 1991 and, I believe, it still is the most recently established medical specialty.

I participated in several research studies in Dr. Epstein's lab. Dr. Epstein was interested in cellular and molecular aspects of genetic disorders. The case of a child with small stature and growth retardation was of particular interest. Instead of a normal pair of chromosome 7 homologues she had one chromosome with two 7p arms and another chromosome with two 7q arms (isochromosomes of 7p and 7q). By molecular analyses with polymorphic genetic markers (microsatellites loci) the isochromosomes of 7p and 7q were shown to be of paternal and maternal origin respectively. The results had important implications for the pathogenesis of genetic disorders because of genomic imprinting and possible inheritance of recessive genes in homozygous form. Another interesting project was developing research methods involving *in situ* mRNA hybridization to tissue sections to monitor gene expression.

At the time I completed my genetics fellowship (1993) Applied Biosystems Incorporated (ABI) was looking for a research geneticist to join their new Human Gene Analysis Division. In the early 1990s ABI was a pioneering biotechnology company located in the Bay Area (Foster City); it was originally founded by engineers from Hewlett Packard together with and based on technology developed by Leroy Hood, PhD of Caltech. ABI was a leading manufacturer of instruments and reagents for the polymerase chain reaction (PCR) and of semi-automated DNA sequencers using fluorescent dyes and the Sanger chain termination sequencing method. The ABI DNA sequencers were revolutionary at the time and were the instruments used by the Human Genome Project consortium to sequence the human genome (1990-2003).

The field of molecular diagnostics was expanding rapidly at this time and becoming increasingly important for clinical diagnosis and patient care. My goal at ABI was to develop diagnostic genetic tests that were specific and sensitive, had multiplex capacity and were reasonable in cost. Using PCR amplification and a method called oligonucleotide ligation I developed a test to detect single nucleotide substitutions and small deletions or insertions capable of probing multiple gene sequences in one reaction. In oligonucleotide ligation two oligonucleotide probes are hybridized to a gene target sequence such that the probes abut each other when hybridized. A DNA ligase enzyme covalently joins the two juxtaposed probes only if they are perfectly base-paired with the target at their junctions. One oligonucleotide probe is labeled with a fluorescent dye and the ligation products are analyzed on an ABI sequencer using Genescan software. This method was used to develop a diagnostic test for over 30 known cystic fibrosis mutations. The test was commercially available and was used for a long time by Quest Diagnostic Laboratories.

Analyses of mutations associated with cancer present complexity not encountered in studies of inherited mutations. The challenge is to identify mutations in tumor cells in a background of normal cells. Specific Ras oncogene mutations that lock the protein in a growth promoting form are biomarkers for pancreatic cancer. In this regard, I developed a one-step coupled amplification and oligonucleotide ligation procedure for multiplex genetic typing of Ras oncogene mutations. The assay can detect Ras mutation in tumor cells making up less than 5% of the sample cells. The test was used to identify pancreatic cancer patients with specific K-ras mutations for experimental therapies. I moved to Pasadena, California in 1995 to accept a position at Huntington Medical Research Institutes (HMRI), a small independent and private research institute in Pasadena. One of the reasons for coming to HMRI was the opportunity to set up a new laboratory and program in cancer genetics and molecular diagnostics. Since I was board certified in Clinical Molecular Genetics I was qualified to run a cancer genetic diagnostic lab. I was eager to initiate the clinical diagnostic lab because with diagnostics you can help patients in an immediate way. Genetic test results are translated into disease risk that has implications not only for the patient but also for family members. Although many cases do not involve direct interaction with the patient, the patient and the patient history always are critical when performing a diagnostic test. In all cases the patient's results were discussed and analyzed with a genetic counselor or physician.

At HMRI I initiated a program to provide a service to cancer patients in the form of genetic testing for accurate cancer diagnosis, identification of inherited cancer predisposition, cancer risk assessment and providing therapy targeted to a patient's tumor genetic fingerprint. The lab was a CLIA certified lab and participated in the College of American Pathologists interlaboratory proficiency-testing program. Testing for inherited colon cancer predisposition was a major focus including familial adenomatous polyposis coli (APC gene sequencing and rearrangement studies) and sequence analysis of DNA repair genes in hereditary nonpolyposis colon cancer (HNPCC) as well as microsatellite instability (MSI) testing and immunohistochemistry for DNA repair genes (MSH2, MSH6, MLH1, PMS2). The lab received referrals from university medical centers and managed health care organizations and was one of the first labs to use DNA full sequence analysis in identification of gene mutations.

Research would often end up on a backburner as new clinical cases piled up. However, a great advantage of working in clinical cancer genetics is that a patient's genetic findings can provide insight into new avenues to explore and in this way keep research focused in the right direction. Sometimes a new idea would emerge from patients who present with unusual patterns of inheritance. Through studies of such patients and their families we uncovered new findings about the regulatory role of non-coding RNA in gene expression and cancer susceptibility and biology.

Since I retired 5 years ago the field of cancer genetics has changed considerably. Sanger sequencing has been replaced by fully automated, massively parallel and computerized Next Generation sequencing that enables sequencing an entire human genome in one experiment. Rare somatic mutations in cancer subclones can now be easily detected by Next Gen sequencing. Sanger sequencing is still used for smaller research projects and for validation of Next Gen sequencing results.

The Human Genome Project uncovered some exciting surprises that challenge our traditional views about genes. Perhaps the most important outcome of the genome project is the revelation that protein coding genes comprise less than 2% of the human genome. The non-coding genomic DNA generates a myriad of nonprotein coding RNAs that have a regulatory function. They can cause gene silencing as seen in one of our patients and they have even been shown to reprogram adult cells to undifferentiated stem cells. Since protein coding genes make up only a small fraction of the human genome, this raises exciting future questions as to the function of the non-coding genome in normal and cancer cells. The functions of non-coding RNAs especially the long non-coding RNAs (lncRNA) are largely unexplored. Could they be functioning as regulatory epigenetic modifiers as suggested in our patient studies? Future understanding how non-coding RNA regulates gene function during cancer development and progression will uncover hidden secrets of cancer biology and hopefully lead to new and more effective ways to diagnose and treat cancer patients.

I look back with gratitude and deep appreciation to my exceptional mentors, colleagues and friends who supported me in my career. All phases of my career have been challenging and rewarding. I have been so fortunate that my career in molecular biology and genetics occurred at a time of exhilarating new discovery. I believe that in the upcoming decades we will surge ahead in our understanding of genes and genetic variation and the regulatory role of the non-coding genome. This will lead to many surprises and unpredicted benefits to medicine.

Addendum:

Before graduation I bought a new 1971 VW super beetle

from Gary Vincel Volkwagen (now out of business) for \$2100.00. The photo was taken recently after the car's last restoration. It looks just like the day I got it. Up



My First Car, SuperBug

until 2017 it was my only car! I have driven it over 1 million miles.

Through the years it has had 8 new engines, several transmissions and other repairs and restorations. I now have a compact SUV that I use for long drives and freeway driving but the bug is used for all other driving.

My First Patient, Mama Cass

Shortly after beginning residency pathology my at Barnes Hospital I was driving in my new bug on Highway 40 at night and suddenly a large animal ran directly into the path of my car and was thrown to the highway inside shoulder next to the divider. I reported the accident to a nearby Highway Patrol office and they warned me not to touch a hurt animal. Against advice I went back and



did touch the animal who quickly responded. I notified the Highway Patrol and they called the Humane Society in St. Louis to send an ambulance. The animal was a beautiful very young St. Bernard. The owner was located and said the dog, named **Mama Cass**, was a gift and had run away from home. The owner could not care for the dog so I officially adopted her. A wonderful veterinarian at the Humane Society, Dr. Garcia, took care of Mama Cass. She had 2 badly fractured front legs, one requiring metal plates and screws, and a broken back leg. Dr. Garcia said some vets felt that a large animal with 3 broken legs should be euthanized. I felt that she should be given a chance as she was a very spirited dog and Dr. Garcia agreed. I was so fortunate that she was able to stay in her own room at the medical school animal quarters while she recovered. The photo shows Mama Cass with me on one of our walks at the medical school. Eventually I was able to take her home. She was with me throughout my PhD work and I had hoped to take her with me to Los Angeles. However, she developed kidney disease and that was not possible. She lived to be over 7 years old and that is about average for a St. Bernard. She loved to ride in the bug and the back seat was just the right size for her. I wish I had a picture of her in the car but cell phones were not available at that time. Mama Cass left an imprint on my heart and life forever.

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Rocco Fiordelisi

My dad had a humble upbringing in Rockford, Illinois. He was the oldest of three children of Rocco and Carmela Fiordelisi, who owned a bar called Rocky's Tavern. Growing up, he, his younger brother, Gerry, and his younger sister, Linda, were often required to help out in the family business.

Papa (as he was known to his 15 grandchildren) attended Northern Illinois University where he played tackle on the 1951 undefeated and Hall of Fame football team.

Upon graduation, he was drafted into the U.S. Army and served his two years in Germany where he played football and was assigned to be a medic. It was then when he got his first taste and inspiration for medicine.

Once discharged from the Army, he returned to Rockford to run Rocky's Tavern. A few years later, at the age of 26, he met and fell in love with his future wife, his backbone, his support - my mom, Marie Cascio.

They got married in 1960, and soon started their family. Lisa was born in 1961, then Gina in 1962, and Tina in 1963. This was the year when he decided to go to medical school. But he didn't have all the science pre-requisites for medical school, so he went back to NIU to earn them. After three years , the birth of his first son (Rocco III) and graduating with a Masters in Science degree, he and my mom packed up their 4 children and headed to St, Louis, Missouri, where he attended St. Louis University's School of Medicine. He excelled as a student and continued to grow his family - my younger sister Mia was born in 1968. He graduated as President of his class in 1970, and had his 6th child and second son (Michael) in 1971.



Dr. Rocco Fiordelisi II, who received his Doctor of Medicine degree from St. Louis University last week, posed with his happy family. From left, in front, Gina Ann, 7; Rocco J. III, 4; Mrs. Fiordelisi; Mia Maria, 2; Tina Teresa 6. In back row, from left is Lísa Marie, 9. Dr. Fiordelisi, 37, who returned to school at the age of 33, will intern at the St. Louis University Hospitals.

Rocco completed his internship and a 5-year general surgery residency at SLUMC and began private practice in St. Louis in 1975. He was immediately popular and sought after in the larger St. Louis patient community. He ultimately had three private offices and staff membership at many county hospitals, including St. Mary's, St. Anthony's, St. Luke's, and St. Joseph in Kirkwood. He was chief of surgery at the latter. Rocco retired in 1999, after 24 years of successful and rewarding practice. He was later elected president of the St. Joseph Hospital Foundation.

Rocco was a bigger than life figure for his classmates entering medical school in 1966. It wasn't just his imposing size, which was impressive. Medical school demands discipline, deferred gratification, inordinate time commitment, a single focus, and physical energy - demands that can swamp the most vigorous 22-year-old. Rocco began this odyssey at age 33, with four children in tow. His previous lifetime experiences brought out a maturity and wisdom not common in medical students who had spent their entire life up to that point climbing a ladder but not looking around. He was humble by nature, with a jovial wit and openness. It is no wonder he was elected class president all four years.

Rocco and Marie remained in St. Louis, but spent time each year in Naples, Florida. Characteristically for Rocco, he was also



October, 2017: Wedding of Marie and Rocco's oldest grandchild, Ali Arends.

elected president of the home-owner's association.

Rocco died in January, 2018 of complications of chronic lymphocytic leukemia. A wonderful man who lived a memorable life.

Rocco J. Fiordelisi, III & Roger Thomas



Dr. Robert H. Felix, Dean of the School of Medicine, confers with senior class officers: Treasurer Edward Morgan, Jr., President Rocco J. Fiordelisí, and Vice-President John Dale. Absent: Secretary Lynne Moritz

Richard H. Fitzgerald

This is a brief reflection and homage to my time spent in formation at St. Louis University School of Medicine. Fifty years have transpired, so I will be brief. Every story has a beginning, a formative middle and some sort of resolution. The beginning for me was a post-World War II, working-class, Roman Catholic, largely Irish enclave in which every adult man had been in the military. Most worked one job all their lives. Most were married to their childhood sweetheart and did their best to provide for their families.

I was extremely fortunate to have gone to Boston College as an undergraduate. The discipline I had to learn there to survive academically is most appreciated. As was not uncommon in those days, I was a day student and went by MTA, hitchhiked or later by automobile to the campus. I was accepted and enrolled in St. Louis University Medical School, another Jesuit institution. Several of my classmates were also in the entering class. My freshman year was really the first time that I lived alone; or, as alone as one might in the now defunct Phi Chi fraternity house. Reflecting back many of us adopted classmates as confidants and study partners.

The stability and order I had come to expect as an adolescent was shattered by the happenings of the 60s. They included the death of Martin Luther King in 1968, by the Holy Week uprisings, the Stonewall riots, ghetto riots of the late 60s, Vietnam, the nationally-televised busing in my hometown of Boston, the sexual revolution, psychedelic music and the spinoff from Woodstock - all seemed discordant with my world view. Enter now the formative influences of my medical school years.

The stability, decorum and maturity of my teachers at all levels are still influencers today. From the nurses to the house staff, to the professors to the patients, I was fortunate to have mentors. I admired the work ethic and hierarchical structure. I came to respect the responsibility imparted to those in the healthcare profession. In that way, the stability and ritual I had grown up with, but had seen shattered by the social upheavals, was substituted by the traditions of clinical care and commitment by our medical school professors. I can only recall everyone being treated with personal dignity. I witnessed no harmful hazing. Criticism was constructive and pointed. I have not listed my favorite teachers, lest I omit someone dear to me. Certainly, there were differences of capability or kindness; but, the common thread of respect and decorum was, for the most part maintained.

I remember some specific formative experiences. My roommate, Marty O'Brien, and I lived on Caroline Street which may not now exist. We were adjacent to the medical school and experienced firsthand senseless violence after Martin Luther King was killed. I lived at St. Mary's Hospital for two years. That experience was very formative and personal to me. Living as I did in the hospital, during the night I could and did spend hours in the library; in conversation with house staff and attendings after hours. I hadn't appreciated it then, but those interactions allowed insight and somewhat a shared experience when things went sour or Emergency Room activities were successful. Living in the hospital allowed me the luxury of attending autopsies. I had true mentors for pathology, radiology, internal medicine, G.I. and pulmonary. I visited Mount St. Rose hospital and sanatorium. I did some moonlighting at Lutheran Hospital, St. Luke's Hospital, the county holding area for the jail - all this in addition to the required rotations at City 1, the Veterans Administration, Firmin Desloge Hospital, Cardinal Glennon, and St. Mary's.

Economics did not allow me to peel back the onion that was St. Louis. I remember the Hill, the Zoo, Forest Park and Frank's bar.

My career interest modulated from General Practice to Pulmonary Medicine. I was planning a Pulmonary fellowship, and was assigned to the back ward of a Veteran's Hospital where many people with lung cancer lay dying. That instilled an interest in Oncology. I subsequently was accepted to a fellowship in Medical Oncology at M.D. Anderson Hospital, a stint in the Navy at Balboa Naval Hospital, and a private practice endeavor in then rural Lynchburg Virginia. I came to appreciate the contribution of Radiation Therapy in my Oncology practice. At that time there was no Radiation Oncology for many miles. I envisioned an academic career and did another fellowship - this one in Radiation Oncology. My visions of academics in a large city morphed to private practice in the small charming city of Charleston, South Carolina.

As things happened, I have done a modest amount of Palliative Care and limited my boards to Medical Oncology, Radiation Oncology and Internal Medicine. I was certified in Pain Management. I've done a bit of teaching and mentoring. I like to think of myself as a General Practitioner who happens to use Radiation Oncology tools.

Eva was an administrative assistant for grants and publications for Drs. Frawley and Lee. She and I have been married 50 years. I have had the joy of 3 children, one who succumbed from the disease I had committed to treat, namely Acute Leukemia. The loss of my daughter was a life-changing event. My clinical and personal reflections are forever different. Now, surrounded by physicians with little skill at physical examination, paralysis without evidence-based guidelines, electronic records, hospitalists, shift work for physicians, advertising by physicians and clinics, hospital administrations and contracts, I often wax philosophical and I appreciate the clinical wisdom imparted by my mentors and teachers at St. Louis University. I don't pine for the "good old days," but appreciate how I got to where I am.

I look forward to spending time with my five granddaughters. I continue to do stints as a locum tenens in small departments that have limited staff and a need for time off. I am the volunteer physician for a Trappist monastery in South Carolina. Along the way I published a few papers and had a lot of fun. Circumstance and geography have not been conducive to camaraderie with classmates; but my affection is undying.

Thank you St. Louis University School of Medicine.

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R. Michael Gross

In 1966 I had a choice; I chose the path that led to the St. Louis University's Medical School, indeed it did: "*make all the difference*." ¹

St. Louis University held two alumni in the highest esteem: Edward A Doisy Ph.D. the 1943 Nobel Laureate in physiology and Thomas Anthony Dooley, III a rather poor student who was forced to repeat his final year in medical school before graduating in 1953. Large portraits of both individuals were displayed outside of the Dean's office. Doisy wore a scholarly academic robe while Tom Dooley wore a T-shirt while kneeling with a sick child in a Southeast Asian village. I have no doubt that the ever-present portrait of Dr. Dooley influenced my path in medicine.

<u>*Timing*</u>: the actual year that I entered medical school was a huge factor that had a significant effect on my medical career. Let me explain: the book "*Outliers*" ² by Malcolm Gladwell devotes a good deal of the text underscoring how success often is almost entirely a matter of timing! Steve Jobs and Bill Gates are presented as prime examples of how timing and success are frequently intertwined. In the case of Jobs and Gates both individuals were born in 1955 and came to their maturity at a perfect time to take advantage of the computer revolution. Clearly, their birth year was not entirely responsible for their success, but his contention is that if they were born a few years earlier the opportunity would not have been there and if born a few years later someone else might have already scooped up the opportunity. It is my contention that the class of 1970 had unusually good, if not "perfect timing" for entering medical school. Let me explain.

In <u>1965 Medicare and Medicaid</u> were established. Medical schools in big cities such as St. Louis, New Orleans, and Chicago provided much of the staffing in huge charity hospitals that historically provided great reservoirs of clinical experience for

medical students. At some point not long after the establishment of Medicare and Medicaid many of the charity patients that provided medical students with a huge reservoir of "clinical material" would be hospitalized in a private hospital. Consider our *St. Louis City Hospital* where I, like many St. Louis University medical students, spent so many clinical rotations learning valuable hands-on clinical skills. These large charity hospitals gradually became dinosaurs heading towards extinction. *St. Louis City* Is now not a hospital, but a retirement center. That huge reservoir of clinical experience available to us in 1969 and 70 would not have been there for us had we entered medical school just a few years later.

I am also grateful that we all had <u>internships</u>. What a fantastic experience that was. It was like being a "fifth year medical student" except with a great deal more responsibility. It also gave us more time to explore our interests and skill sets before choosing a subspecialty. My internship was not only one of the best years of my life, but it also opened doors that I doubt I would have ever found had it not been for that year! Once again, the timing for the class of 1970 was fantastic. We almost missed the experience of an internship! In 1974 orthopedics, and most, if not all specialties, phased out the internship as a separate year and simply incorporated it into the residency program.

Beyond good timing, my medical career was also blessed with some good fortune starting with my internship. Thank God <u>I</u> <u>did not</u> get my first match of internships, what I did get was by far my <u>best match</u>! I matched at *Harborview Medical Center* in Seattle Washington. Harborview once again was a public hospital in a big city, but Harborview was remarkably different from, for example, *St. Louis City*, and probably *Charity* in New Orleans, or *Cook County* in Chicago. Seattle, being such an attractive place to live, drew many physicians to the area so the staffing at Harborview was much more like a private hospital in the Midwest. The abundant faculty did not interfere noticeably with our level of responsibility, which was great, but what it did offer was an everpresent monitor of our decisions as well as ongoing hands-on bedside education. As an aside, it was a perfect time to live in Seattle. Boeing was experiencing hard times which made housing inexpensive and available, and a manageable cost-of-living tailored to an intern's "wages". It was an absolutely wonderful experience.

Also, like me, many of the class of 1970 also had a special greeting waiting at our internships. In my hospital mailbox was a letter from the U.S. government: "report for your physical!" This was a great example of how the timing of the class of 1970 was so perfect for me. Vietnam was still an active problem, and the draft was still in place, but just 2 years later, in January 1973 the draft was discontinued. The draft is a great example, maybe the best I can think of, of how it is not unusual for me to judge a situation as something bad or unappealing when it happens but with time, and a better look at the event in the "rearview mirror" of time, it turns out that my judgment was wrong. The event that "was such a disappointment" turned out not to be something bad but rather a wonderful opportunity. This certainly was the case with the draft. Again, let me explain, towards the end of my fourth year in medical school I was invited to have a cup of coffee and chat with an individual who served his military duty with the Public Health Service as a physician at an Indian Health Service (IHS) clinic in Alaska. The physician was a surgery resident at St. Mary's Hospital. He raved about his experience as an IHS family physician in Palmer, Alaska, a small community not far from Anchorage. Listening to him was like listening to an adventure tale. As exciting as his tale was, I did not give it a second thought until I saw that letter in my inbox at Harborview. It just so happened that Seattle was in the district of the Public Health Service that included Alaska. Also, fortunately there was a major public health hospital just South of Harborview. Along with my fellow interns, I showed up for the physical but once that was

done, I quickly visited the administrator at the Public Health Hospital and filled out an application for the IHS. I was offered an in-person interview in the lobby of the Olympic hotel in downtown Seattle with the director of the Northwest district of the PHS. I explained my desire to spend my two years of "public service" with the Indian Health Service and went on to state that my fiancé had a master's degree in Speech and Hearing as well as a teaching certificate, for both of which there was a great need in Alaska. I was thrilled when I received a letter stating that I was accepted and was assigned to an IHS family practice clinic in Juneau, Alaska.

The two years that I spent in Juneau were easily two of the most exciting, and interesting years of my life. The clinic was in a classic-looking, old, wood hospital on a hill across the street from a quaint Greek Orthodox Church in "downtown" Juneau, population 12,000. I can still hear the wooden floor creak as I walked into the clinic the first day. I barely had time to introduce myself when my new associate, Dr. Trevor Price, asked me to go upstairs and deliver a child. There was no obstetrician to hold my hand and no question as to my comfort nor level of competence, just do it. No time to discuss it, I simply had to reach back and rely on the clinical experience from St. Louis City and Harborview Medical Center and deliver the baby. My experience at St. Louis City Hospital in obstetrics was indispensable!

The final member of our small HIS clinic was Dr Jeff Ratner, a recent graduate of the University of Wisconsin. This was a non-uniform assignment and dealt with medicine problems as you might expect to find in a small rural town in the "lower 48." On the other hand, some of the IHS medical problems were anything but routine. Take, for example, the night I helped with an emergency evacuation of a sick child from a small town, Hoonah, located on Chichagof Island 60 miles West of Juneau. The entire community, mostly consisting of Tlingit Indians, showed up at the airstrip to light up the landing strip by shining their automobile headlights on the runway. Another evening I escorted a young Native American woman in status epilepticus on a cargo plane dispatched from Kodiak Island to a medical center with more appropriate care in Seattle. As we flew to Seattle, I sat with her in the cargo area periodically giving IV Valium to control her seizure. Our clinic was also responsible for the local Coast Guard. Late one day a Coast Guard Cutter took me out to a ship so I could render care for an injured seaman. The hospital emergency room also presented unpredictable problems which tested the limits of my capabilities. Take for example the evening that I found myself taking care of a serious laceration of a forearm, when a frantic mother arrived with her two-year-old child stating that she saw him stuff a marble up his nose! I looked carefully but could not see anything, all the while in the back of my mind, I thought: "even if I saw a marble how in the world would I get it out?" I asked her to wait while I finished with the laceration. Halfway through my repair she burst into the room where I was working with the child choking on the marble which had now fallen back onto the trachea! I immediately grabbed the child by his feet, held him upside down, and then asked the nurse to strike him sharply on the back. Mercifully, the marble flew across the room!! There was also the evening of the massive emergency that never made it to the hospital. Juneau was typically overcast, and the airstrip was tucked in close to mountains. One evening the entire staff of the Juneau Medical Center was called to the hospital in preparation to receive any survivors of a large passenger plane that struck a mountain as it approached the airstrip, there were no survivors. The two years that I spent in Juneau were two of the best years of my life personally and medically, and I am certain they would have never happened had I not faced the prospect of being drafted! Once again perfect timing.

Since Juneau had only a few specialists the medical community established a relationship with the University of

Washington and Harborview to provide specialists to occasionally visit and run clinics. As a Harborview rotating surgery intern, I had spent time on the orthopedic service so I knew the orthopedic surgeons that would be visiting and arranged my schedule so that I could work in the clinics with them - Dr. Kay Clawson and Dr. Ted Hansen. The experience reinforced my interest in orthopedics and provided mentors to guide me in my application. As much as I enjoyed my two years in Juneau, I applied and was accepted to an orthopedic residency at the Mayo Clinic in 1973. I was grateful for the acceptance, but I was apprehensive about how well I would manage the abrupt transition from the casual frontier environment of Juneau to the formal structured environment of the Mayo Clinic. This turned out to be one more example of an unwarranted concern. The Mayo Clinic was a marvelous experience. As an aside, I often wondered how an average medical student like me had landed a coveted residency at the Mayo Clinic. I later found out the residency director at the Mayo Clinic, PJ Kelly M.D., was a graduate of St. Louis University! Once again, St. Louis University seemed to have an active influence on the direction of my career.

My four years at the Mayo Clinic exceeded my expectations. It always remained interesting because there were so much variety. The staff at the Mayo Clinic were wonderful people and the adjustment was not difficult. The major adjustment of course was the transition from being the physician in charge to once again a student. Mayo was a large program, and it featured all the orthopedic subspecialties. The abrupt change from adult reconstructive, to oncology, then pediatrics or upper extremity made time fly by and always kept me on my toes. Late in the second year I was assigned to a trauma rotation in Duluth. I was there from January to April, and even coming from Alaska, I have never experienced winter like Duluth in January! Fortunately, my wife, Kathy, was an independent person and was comfortable with remaining in Rochester while I was in Duluth. The trauma rotation was critical to my education because the Mayo Clinic typically dealt with so many complicated problems that we rarely saw "bread-and-butter orthopedics" like a torn meniscus, acute ligamentous injuries to knees, or acute fractures. In Duluth I saw it all and since I was alone, I was able to just bury myself in the library most evenings to read up on each of these topics. I would have to say that it was the most effective period of my education. I became quite facile at reviewing the literature and educating myself. Shortly after finishing my rotation in Duluth, I was assigned to the basic science rotation which consisted of three months of didactic classroom work in biomechanics and bone physiology. I surprised myself by becoming somewhat hooked on hasic science research. I committed to а sophisticated biomechanics project which consisted of mapping the forearm muscles then re-creating the forearm as a set of vectors. The



project was completed by publishing my work and then writing and eventually defending a master's thesis. I doubt if there were many residency programs that allowed the degree of flexibility that the Mayo Clinic offered. My last rotation, pediatric

orthopedics, was an off-campus assignment in St. John's, Newfoundland Canada for six months. The timing was perfect for Kathy and me. Our first child, Carey Kathleen, was born in September just a few months before we packed up our house and moved to St. John's. Ironically, Carey was found to have a congenital dislocated hip and had to be put into a cast for six months. The Newfoundland winter was quite a different experience. St. John's had a lot of snow, but the snow and cold weather paled in the face of the howling North Atlantic Wind. It was a wonderful time for Kathy. She was perfectly content to spend day after day in our cozy little apartment with our baby girl, Carey.

In June we packed up our Jeep Wagoneer and left St. John's on a typical St. John's day: rain, drizzle, fog and 40°, to start the 3000-mile journey back to Omaha where I was planning on joining my father's orthopedic practice. In route we stopped to see Jeff Ratner in Bar Harbor, Maine. Jeff was my associate for 2 years in Juneau at the Indian Health Clinic. Back then the Academy of Family Practice Physicians looked so highly upon the Indian Health Family Practice Clinics experience that they considered it equivalent to a residency in family practice and allowed physicians like me to "sit for the family practice boards." Jeff did exactly that and was a family practice physician in Bar Harbor. I am so grateful that I stopped to say hello to Jeff and his wife Mary because just two years later Jeff unexpectedly died of a cerebral hemorrhage. The second stop was our nation's capital, Washington DC, where my brother Joe, who was a St. Louis University law school graduate, was working in the Justice Department. The third stop was to see Rick and Jani Rosen in Providence Rhode Island. It had been 11 years since I left Omaha for St. Louis University, and now I was returning with a wife and a child to what would be our permanent home. While in Newfound, Kathy and I purchased a house in Omaha sight unseen, just a few blocks from where I grew up as a child. Again, the timing was perfect for my children, no cell phones, no electronic games, just riding bikes, summer camps, sporting teams, swimming and hanging out with their friends in the neighborhood. My children were fortunate enough to catch the tail end of the era like my childhood. The freedom that my children experienced will likely not be available for my grandchildren.

Returning to Omaha I joined my father's four-man orthopedic practice in 1977 as a general orthopedist. At that time orthopedics was trending towards sub-specialization. Unfortunately outside of the disciplines for: hand, pediatrics, and oncology there were very few postgraduate programs. A more pressing issue was that arthroscopic "minimally invasive" surgery was finding its way into mainstream orthopedics, and arthroscopy was not featured in my Mayo Clinic residency. I enjoyed practicing with my father, and the variety that general orthopedics demanded was intellectually stimulating yet as Dr. Hanlon, our medical school professor, stated: "*medical education never ends*." Arthroscopic surgical skills were something I simply had to learn. I developed a relationship with possibly the most gifted arthroscopist in the country, Lanny Johnson in Lansing, Michigan. I was fortunate to have him as my "mentor" because he was not only skilled in knee arthroscopy but also in the embryonic field of shoulder arthroscopy.

Injuries that I suffered in the 70s fueled my interest in shoulder problems. While there was no available fellowship, through hard work and networking with individuals with a similar interest by the mid-80s I had developed a reputation as a capable shoulder surgeon. My interest in shoulder arthroscopy became more widely recognized when in the early in the 80s I pioneered an approach to stabilize shoulders arthroscopically. My procedure was

unique enough that it was granted a patent. I introduced the surgical technique with a video and an oral presentation at the orthopedic Academy. This attracted a good number of shoulder cases. However

United States Patent (19) Gross		
(14)	ARTHROSCOPIC SURGICAL INSTRUMENT	
[74]	Investor	R. Michael Grass, 1559 Woolworth Ave., Omaha, Note: 68105
1211	Appl. No.	544,885
824	Fiel.	Oct. 34, 1983

the complexity of some of these cases underscored my limitations; I needed to expand my skills. At that point I committed myself to becoming a <u>complete</u> shoulder surgeon.

One of the few well-known shoulder surgeons in America was Mel Post in Chicago. I heard him lecture in 1978 and read his textbook on shoulder disorders. He impressed me, so when I realized I had to expand my skills, I called Dr Post and asked if <u>I</u> could visit. He could not have been more welcoming. When I

visited, he was at a point where he could see that his career was winding down. In the past he had participated in orthopedic education at several Chicago hospitals, but those days were behind it. Professionally Mel seemed to be searching for someone to pass on the "*torch of his life's work*", but to whom? ... My timing was perfect.

That week was a bonding experience. I went to surgery with him, I followed him in the clinics, and chatted with him well into the night. His career covered the span of nearly the entire 20th century in terms of shoulder surgery. To some extent, he personally knew all the significant shoulder surgeons of that era save for Ernest Codman. He was a rare treasure. By the week's end, it was clear that we had "connected" and that I would be back. Over the course of the next 12 years, I visited him on several occasions. Sometimes I would be working on a paper and sought his opinion, other times I would be volunteering at the ANNA teaching center in Chicago and simply included him as part of the weekend. I cannot tell you what he taught me. What I do know is: that when I first met Mel my sophistication was minimal but as time passed my knowledge bank expanded as he kept gently adding to it. My visits evolved into a significant relationship that went beyond medicine in which I filled an important role in his life and he in mine. His wife, Elaine, recognized our connection and honored it by asking if I would give a eulogy at Mel's funeral in 2002.

By the early 2000's I had established the shoulder practice which was evenly balanced between major open surgery and arthroscopy. While I remained in private practice the University of Nebraska's orthopedic residents were assigned to my service for their arthroscopic shoulder training. I enjoyed that relationship and was pleased to see that several students eventually sought postgraduate fellowships in shoulder surgery for their career. In the early 2000's I focused on the problem of total shoulder arthroplasty durability. Historically the glenoid was the "weak link" in terms of shoulder durability. The glenoid cement



was at the heart of the issue. Postoperative films, immediately and almost certainly by one- or two-years following surgery, revealed "Lucent lines" which were evidence of separation of the cement from the cancellous bone. The problem seemed to be

one of physics, the glenoid vault is a "closed container" as this CT indicates. Since fluid cannot be compressed the cement cannot penetrate the cancellous bone without displacement of the blood in the vault bone.

I developed and *patented a vacuum technique*, *The Weep Hole Technique*, that facilitated displacement of the vault blood

through a connection that I established in the coracoid process. This led to better penetration of the cement into the glenoid vault bone. Zimmer adopted the technique and promoted it along with their total shoulder system for a few years until something better came along. My last significant contribution to the literature was publication in 2011 of a prospective random study of 100 total shoulders comparing my vacuum technique to conventional



cementing technique. The result of this study confirmed my hypothesis that *displacing* the blood from the vault was necessary for the cement to effectively penetrate the vault bone.

My private orthopedic practice had established a retirement age set at 70. I was grateful that the group extended my employment for two years, but there is nothing truer than the statement: "everything eventually ends", so on January 1, 2017, at the age of 72 I retired. Had it not been for the retirement age rule, I would not have retired. I thank God for the rule!! Retirement has been a pleasant surprise. I have found that, had I not retired I would have missed a very enjoyable phase of my life. While I enjoyed my medical career immensely, I have enjoyed the freedom and flexibility of retirement even more. Beyond that, my timing was perfect, with electronic records and large hospital systems purchasing our local hospitals made my retirement date perfect.

To completely describe my career, I need to return to 1986 when I began my "<u>parallel medical career</u>" in foreign medical work. No doubt St. Louis University's connection with Tom Dooley had an influence on me. From 1986 to 2017 I effectively had two parallel and simultaneous medical careers.

By 1986 Kathy and I had completed our family, adjusted to our new home, and my practice had stabilized. The portrait of Tom

Dooley was still alive in my memory, and I was fortunate to have a very flexible practice and independent wife who was comfortable with me leaving for a few weeks to go on my first



foreign medical trip to Honduras with the *Christian Medical Society (CMS)*. The trip had several medical providers: dentist, nurses, general surgeons, family practice physicians, and of course orthopedist, I was just a piece of a "puzzle". It was a great way to "stick my toe in the water" to see if outreach work was something that I wanted to pursue.

A healthy lesson that I learned from this trip was to <u>control</u> <u>my expectations</u>. I found that visiting a foreign country to practice medicine in some respects is like attending a *person's party*. It would not be my place to tell the host what games to play or what food to serve etc.; so, it is with foreign medical work. As a visiting physician I was, if you would, a tool for the community to use. If on any given day or at any time during my visit if they chose to simply "lean me against the wall," then in fact that is what I should do. It was an important lesson to learn. I tended to think my time and my skills were too important to waste, but as it turns out, that was not for me to decide. I needed to remember it was *their party*.



It was a few years, 1991, before I took my second trip by volunteering with *Health Volunteers Overseas* (HVO) to spend a <u>month in</u> <u>St. Lucia</u> in the Caribbean. This trip was a *solo trip* and a full *month long*, on the other hand, there was no language barrier, and it was not a "Third World" with extraordinary

problems to deal with nor were many vaccinations necessary. I scheduled the trip for December with hopes to have my family visit during my children's Christmas break. The trip had an inauspicious beginning with a violent winter storm hitting Nebraska that canceled my flight for 24 hours. The next day I was off heading to the only international Airport in St. Lucia which was located on the north end of the island. On arrival I caught an evening bus to take me over the mountainous central portion of St. Lucia through a rainforest down to the south end of the island. The HVO clinic was located in a World War II repurposed evacuation hospital. The housing was a large space with 2 bedrooms one on each side of a common area between the bedrooms. The other bedroom was occupied by a Canadian family physician and his three children. Kathy and our three kids Carey 15, Daniel 13, and Sabrina 7 planned to join me in mid-December. When my family arrived, it was a quaint set up with Kathy and I in one-bedroom, the Canadian couple the other bedroom, and all six children were in the common space between. Typically, I dealt with ordinary

trauma in the community where treatment was accessible in a relatively short period following the injury. The "signature injury" of the island were machete wounds, the weapon of choice to settle disputes in St. Lucia. One stressful memory occurred as I was repairing a fractured femur in a young Caribbean male. The bones on these young men were extremely thick. I was inserting an intramedullary rod to repair a femur and it "froze" in place!! I could not get it to move in nor out! In retrospect I should not have been so surprised, there was never any organization of the internal fixation devices available to fix fractures at any of the locations that I ever visited. It was frequently difficult to find an appropriate device for any given problem. Searching for the appropriate device was like looking for something in a "Fibber McGee Closet." Plates, rods, screws, and nails were all thrown into the closet with no organization. For example, there may be what seems to be an appropriate plate, but the screws may not be the right length or not match the holes in the plate. There usually were intramedullary rods, but quite a varied selection, some self-tapping while others needed to be reamed. If reaming was necessary would the proper reamer be present, was it sharp? What about the length or the strength of the rod? In the case of this young man, I picked an intramedullary rod that was slightly too thick. It was late in the day before I could get started. The operating room setting was almost idyllic. A large window framed the sun sinking into the Caribbean Sea. I only had one nurse for an assistant. The rod advanced about halfway down the shaft then it just "locked in place." I simply could not move it! What a hell of a problem! I considered splitting his upper femur to let it open slightly and release the rod, but before giving up and splitting the bone, I used a heavier mallet and repositioned myself. Somehow, I was able to advance the rod without bursting the femur. The fracture was stabilized, praise God!

It seemed like there was one individual at each location who stood out. In St. Lucia, <u>Gerald, a retired general</u> <u>surgeon, spent the entire winter with his</u> wife working at the hospital in St. Lucia. He was the only qualified general surgeon on the south side of that country. His wife referred to him as St. Gerald and I really could not argue with her "canonization." I loved working with him.



Gerald & me

As our stay wound down, I was able to rent a vehicle and slip off to an upscale resort on the east side of the island for a relaxing weekend. My family enjoyed the adventure. Kathy helped with secretarial type duties in the clinics and our children spent time in the pediatric ward with the patients. As with all trips there were lessons to be learned. My trip to St. Lucia taught me that in the future if a family member planned on accompanying me it was essential that there was a plan in place for the meaningful use of their time.

In August 1995 I planned another trip, I chose the HVO site in Kampala, Uganda, a true Third World location. This trip presented more challenges: there was a language barrier, a good



number of vaccinations were necessary, and I knew that I would be facing unusual and difficult orthopedic problems. The airplane

to Uganda landed in Entebbe which was 40 km

from Kampala. One could not help but to notice on the road from the airport to Kampala there were many small businesses <u>making coffins</u>. The


city itself welcomed me with a foreboding 4' x 6' sign on the main intersection in the middle of the town urging residents to see the doctors of "*Natural Medicine*" and to <u>stop all medicines</u> before visiting the Natural Doctors. It went on to state that they could cure a whole host of medical problems including HIV! As we drove on through the city, we passed <u>Crane Towers</u>, a residence building which had been made famous by Idi Amin who would force prisoners to jump from the top of this eight-story building to their death then report them as *suicides* in the newspaper the following day. It is one thing to read about atrocities but coming face-to-face is a powerful experience.

I was fortunate to choose Uganda as my first Third World rotation. I had no idea how important it would be to work with someone who is familiar with the local problems. In Kampala I met <u>Rod Belcher</u>, who like me was a Mayo Clinic trained orthopedic surgeon. Rod along with an

orthopedic surgeon in Hawaii had worked in cooperation with USA-AID to establish a true orthopedic residency program in Kampala. (Here I would like to point out that USA-AID is the organization that initially supported St. Louis University graduate

Dr. Tom Dooley in Laos and Vietnam) This was my most valuable outreach trip. Once I became immersed in Third World problems, <u>I realized that I was</u> starting a new "orthopedic training program, third world orthopedics." Many of the pediatric problems were new, in so far as I have only read about them, I had never seen them. I had never seen active polio, I had





Potts TB

never seen tuberculosis of the spine, I had never seen elbows that had been dislocated for three months, I had not seen a whole room full of complex hip and femoral shaft fractures all at least three to six weeks old. I had not seen six-year-olds with untreated clubfoot, babies with a vertical talus aka "rocker bottom foot", osteomyelitis so extensively in the



Chronic elbow dislocation

tibia that the entire tibia was dead and enclosed in an involucrum



Adolescent club feet

Deep infection

of new bone. I anticipated difficult problems, but I had no idea how difficult they would be and how helpful it would be to find somebody on-site that I could work with and learn from. This is where Rod became so essential in my training for me to become a useful member of the medical team. During that month Rod taught



me so much. Children with strong spines but paralyzed lower extremities could walk with braces if you could straighten out the hip and knee contractions. Little did I know how difficult it was to straighten those limbs. Rod showed me

that after cutting all the ligaments and releasing the entire posterior capsule of a contracted knee the joint still would not completely straighten! To gain that last needed 20 to 30° of extension for the child to use a long leg brace it was necessary to apply a long leg cast, wedge it about once a week and straightened the joint out maybe 5° at a time. Eventually the payoff was fantastic to see that child in a brace with a walker looking at the world upright eye to eye rather than from his/her hands and knees.



My trip to Uganda was absolutely an exhilarating monthlong experience in which I finally felt that I was meeting the goal of HVO that was to not only work with the local medical team but also share whatever knowledge that I had with the Ugandan residents so that my volunteer time could "live on" through the skills of those that I taught.

This story had a very tragic end. I was in my office in Omaha in March 1996 when a receptionist stepped in and said: "were you working in Uganda last August?" I said yes, she then pointed to an article in the Omaha World Herald newspaper stating that an American physician was murdered during the carjacking in Kampala. The physician was Rod Belcher! What a fantastic loss for Uganda, or more accurately all East Africa which included Tanzania and Kenya. Rod's Orthopedic Residency Program was the only program for the three-county region and now he was gone.

Fortunately, one of Dr. Belcher's graduates, Ed Nudumba, MD assumed Rod's position as the residency director so the program could survive this tragedy. In the *Congress of the United States* a tribute to him was read and it concluded with the line: "we saw what a difference this one American could make."

Despite the tragedy I wanted to support Dr. Belcher's dream, and I also thought that my



skills as a Third World orthopedic surgeon would have the greatest opportunity to grow in Uganda. I returned in 1996 and again in 1997 and had the good fortune of meeting a Canadian physician, Norgrove Penny, who had volunteered with а German organization, Christian Blind Medical Association (CBM) for a six-year period. Norgrove made a huge commitment by closing a high-end sports medicine practice in Victoria, British Columbia and moving with his wife and three daughters to Kampala to serve a six-year commitment. Norgrove and I developed a friendship, as he took the place of Dr Belcher as my mentor in the treatment of complex Third World orthopedic problems.

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we operated from early in the morning through dinner. Most of the cases were complex club foot problems or extensive osteomyelitis. Norgrove appreciated my help, but at the same time I was learning a great deal. Norgrove taught me that he could

successfully treat osteomyelitis infections mechanically rather than



with IV medicines which in effect was impossible in that environment. His approach was to allow the infection to progress to the point where there was a mature <u>shell called an involucrum</u> around the sequestered dead tibia bone. At that point he could operate and make a window in the

involucrum and remove the dead sequestered tibia and then rotate

the posterior calf muscles to cover the bone. It was critical to avoid fracturing the envelope of involucrum. He simply then casted the extremity and with time and cast changes the wound would heal, and the infection would resolve.





Power failures were common; Norgrove and I had one the middle of the in case. Fortunately, this problem was anticipated, and we continued to work using the light provided by a flashlight. It was an exhausting but an exhilarating four days.

I was impressed with some of the local orthopedists in Kampala. Take for example, Titus Byaza, he exhibited a level of initiative and ambition like few people I have ever met. He earned his medical degree at the Malago Medical Center in Uganda. Unfortunately, when he graduated there was no orthopedic residency in East Africa. Not to be discouraged, Titus applied and was accepted to an orthopedic residency in China! He learned Mandarin and spent several years in China completing his residency and eventually writing his master's thesis in Mandarin to achieve his ambition. *A breathtaking accomplishment*! Abdullah Shirazi also earned his medical degree in Uganda, he studied orthopedics in Russia then pursued postgraduate work in Cuba before returning to Kampala. Once again remarkable level of determination.

I try to visit the highpoints or world heritage sites in every

country that I worked in. In Uganda I visited Murchison Falls where the entire Nile River squeezes through a small opening and created a beautiful waterfall. The Oueen Elizabeth Game Park in the west central part of the country was beautiful. Unfortunately, many of the animals in all the parks have been lost during the wars that plagued the country. A highlight was to see the mountain



gorillas. There were two locations in Uganda that I visited. One site was the *Virunga National Park* the southwest portion of the country next to the neighboring country, Zaire back then but now it is called the Congo. The second site was in the southern portion of the country which borders Rwanda, the *Impenetrable Forest*. The Congo was an easy hike, but the *Impenetrable Forest* was an arduous seven-hour round-trip hacking our way through the forest to find the great apes. It was difficult but these unique animals were so majestic that it was clearly worth every drop of sweat it took to find them. Imagine looking eye to eye at a *silverback*, *with no bars between you and him!* One walked so close to me that I could have touched him, trust me I passed up the opportunity!

I volunteered at the HVO site in *Bhutan* twice, the first was December of 1998 the second in 2001. Bhutan is a tiny country nestled between northern India and Tibet. The country had been closed to tourist visits up to just a few years before my visit. The adventure began when the airplane entered the final approach to the only airstrip in Bhutan!! The captain of the <u>Druk Air</u> jet came on and announced "you may notice that mountains are close on both the left and the right side of the airplane as we descend. Do not be alarmed this is a routine landing."

Bhutan was an unspoiled part of the world bordered on the North by Tibetan China and the Himalayan Mountains and featured many virgin forests. There could not have been a mile of straight road in the entire country. It was so mountainous that the roads seem to be an elaborate array of switchbacks. The local housing caused my eyes to pop out! The homes were square with flat roofs held in place by large logs and many large stones which I assume provided protection from the wind.

The walls were white "canvases" with artistic paintings

devoted to Buddhism petitions for health, well-being, and <u>my</u> <u>favorite, "Fertility,"</u> which was depicted by massive penises ejaculating. One had to love the freedom and playfulness of the paintings, but I am sure that the "nuns at Catholic grade schools I attended" would have been mortified. We landed in Paro and then took a highway which parallelled a beautiful river on the 60 km road to the capital Thimphu, a relatively small town



Fertility

nestled among the Himalayan mountains 8000 feet above sea level.

In 1998 there were no televisions, no advertising signs, and almost all the natives wore traditional clothing, Goh or a Kera for men and Kira or a Toego for women. No one could enter a public building without traditional Bhutanese dress. My housing was like a hunting or a fishing cabin. It was a modest wood structure with a wood-burning stove in the main room and two bedrooms off the main room with lots of quilts to help with the cold. My accommodation, like others that I have stayed in, came with its own "wildlife." In Bhutan there was an occasional rat, and Honduras it was a tarantula, in St. Lucia red ants, and in Africa a black snake....it all was part of the adventure.

Bhutan was by no means a Third World country. Like St. Lucia, it was <u>undeveloped</u>. But the critical difference between St. Lucia and Bhutan was that St. Lucia was underdeveloped due to circumstances, while Bhutan chose to remain underdeveloped. I did not see poverty or neglect, but rather a healthy aversion to consumerism and the fierce ambition that lubricates our Western economies. This was a community, the likes of which I had never encountered. Bhutanese people seemed

like a massive extended family in which Buddhism, the national religion, was fabric woven through the of the community and the health of the nation was measured by its "Gross National Happiness." That certainly does not sound like 2020 in United States. The national sport is archery. Men on opposite ends of a 130 meter the field take turns shooting at 3' x 11" targets at the other end of the field. A match looked like the competing teams were shooting arrows at each other. One of my favorite photographs from that trip was my son,



<u>Daniel</u>, with his dreadlocks competing with the men all dressed in traditional clothing. I did see one tragic, yet somehow amusing, skull x-ray in the clinic. A lateral x-ray of the skull revealed, an arrowhead embedded deeply in the middle of a man's brain Ouch!! Clearly not an orthopedic problem.

The orthopedic problems that I dealt with were not unusual when they occurred, however they typically became complex due to the delay in seeking medical attention. For most individuals in Bhutan, it was impossible to access appropriate care quickly. Narrow winding roads and the rural nature of the community made delays the rule rather than the exception. Take for example, a gentleman who arrived for treatment of a compound dislocation of his wrist. Both the radius and the ulna bones were protruding from the wound for two days after he fell from his roof. Under those circumstances it is hard to expect a good outcome. Another was an unusual general surgery case. A farmer had the misfortune of startling a bear as he hiked through the forest. The bear lunged at his face, as he ducked the bear caught the top of his head and literally bit the scalped off! His crown was completely devoid of tissue down to the bone leaving a circular deficit 15 cm wide. The general

surgeon drilled small holes through the outer table of the skull to provoke an inflammatory response that he could later skin graft. My family joined me over the Christmas school break. Christmas morning could not have been simpler. We had a palm branch for a Christmas tree and a straightbacked wood chair by the with woodstove five small stockings" "Christmas hanging form the chair. In each stocking



was an identical ring that Kathy and I had made. The ring had a jade face and the *Dzongkha* word for *family*, the official language of Bhutan, and the Buddhist symbol for *unity* on the sides and the *Fire*



Dragon of Bhutan on the jade face. Later Christmas morning we left with friends to take a short tour of the countryside and cities east of Thimphu. Since our host was a Bhutanese citizen, he

was able to arrange a visit to a magnificent <u>"Dzong</u>," which serves as a fortress and a Buddhist monastery, on Christmas day. The monastery was like stepping back in history, or better walking through a museum, noticing items such as a shield made from the hide of a rhinoceros and a bowl that a monk was using formed from the skull of a deceased individual. Nighttime in Bhutan is pitch-dark, and the sky explodes with the constellations. We had a memorable night staying at a hostel with a traditional Bhutanese sauna that was heated with large hot rocks. After the tour we left Bhutan and went to Nepal visiting Kathmandu, the jungles in the South, and finally ending in Pokhara, the gateway city for Himalayan trekkers.

In 2003 I spent a month at the *Black Lion Hospital* in Addis Ababa, Ethiopia. This is one site that really surprised me. My mental image of Ethiopia was one of dire poverty in a rundown city. Quite to the contrary it was a beautiful very progressive city where if there was poverty it was not visible on the streets. The people were attractive and had a brown not black complexion with features that favored more of a Middle East appearance. The hospital had a similar layout as other locations I visited but the upkeep was much better. There was a strong staff of orthopedic surgeons, both fully trained Ethiopian orthopedist as well as a residency program. An older British professor, Geoffrey Walker, was a non-operating orthopedic surgeon and an excellent teacher of non-operative orthopedics. Beyond the typical trauma that I saw everywhere there were some unusual local problems. One young man had an affliction that is caused by eating a certain rye bread made in his village. The grain used for the bread had the basic compound for the medication Pitocin, an obstetrics medication. The medication cause contraction of smooth muscle including the smooth muscle in arteries. As a result, he developed vascular insufficiency of both lower extremities and eventually lost both of his feet. Being bedridden, his hips and ankles were contracted in the same fashion as seen in polio. There had been plans for amputating his legs above the knees, but I suggested we treat it with the same contraction releases and wedging cast that we treat polio contractions with. This led to a happy outcome for this young man.

A challenging case was a young man who came to the hospital a year before with a large osteogenic sarcoma of his right proximal humerus. He was advised to have this arm amputated but refused and went home. Now he was back with a melon size tumor that was fungating



through the skin. This made him a pariah in his village and he was now more than ready to have an amputation. Unfortunately, the problem had grown to the extent that the only thing that would work was a forequarter amputation. While I was able to do it, it was an extraordinarily stressful operation to carry out <u>anywhere</u>, but especially at the *Black Lion Hospital*.

I took time to visit Lalibela, Ethiopia, the site of the famous monolithic Christian churches. There were 11 separate churches



each one carved inside and out from a single stone late in the 13th century. The most famous, <u>"House of St.</u> <u>George</u>," was created by hollowing out a modest stone hill to create the church of St. George inside the hill. A guide was leading me up a

granite slope - nothing was visible on the horizon, but as I arrived at the peak I found myself suddenly looking into a deep cavern with a magnificent cross-shaped monolithic church in the center.

Another wonderful place that I visited in Addis Ababa was an orphanage that was established by Mother Theresa's order the "*Missionaries of Charity*." The sister who received me allowed me to tour the orphanage but underscored that photographs were not allowed. The different rooms in which the children slept were defined by gender and in some cases their medical diagnosis. All the patients in any given room wore a specific color hospital gown that allowed the staff visually to immediately know where each child belongs. The residents, staff and children all had a smile and seemed to be quite happy. The cleanliness of the orphanage stood out. All the children's gowns were cleaned, the beds were all made, and it was just absolutely an uplifting experience to see the love and the care that these children were receiving. I was thrilled to have the opportunity to see firsthand the effect of this remarkable woman (now a Saint) on earth. Very few people that walk this earth leave their mark on it, but Mother Theresa has.

My youngest daughter Sabrina, an operating room nurse, joined me in 2010 on my final HVO assignment in Tanzania at the Kilimanjaro Christian Medical Center (KCMC). It was a massive

hospital with beautiful grounds on the outside, but inside it was almost a war zone. Thank God this was not my first volunteer assignment because there may not have been a second trip! There must have been 100 patients crammed into a ward. 60-bed The orthopedic floor had three main rooms; in each room the beds completely lined all the walls. There was also a line of beds down the center of each room. The



<u>hallway</u> was also completely lined with beds and in some places on both sides of the hall. Unfortunately, KCMC's operating room simply could not keep up with the volume of trauma that came in every day. The common mode of transportation was a motorbike. It was not unusual to see as many as four people somehow riding on a single cycle. Other motorbikes were hauling passengers and bunches of bananas while others may have crates of chickens on the way to market. Compound fractures were common. KCMC was a teaching hospital and had dozens of students. Most of them were from the region, while many were from a variety of European countries. No doubt there was an opportunity to learn, but often what the students were learning was not particularly good orthopedic care. Take for example a young man somewhere in his late 20s who had an external fixator on each leg because of compound fractures of both tibias from a motorbike mishap. I asked the resident to take the dressings off the wound. I was startled to see that the fractured tibias were both still protruding from the wounds! When asked what the plan was, the resident stated they were hoping that the bone would heal from behind. I assured him that that was not going to be the case! I could go on but that would simply be "piling on." This was not all a bad experience - Sabrina and I hiked up to the first base camp on Kilimanjaro and later took a short game drive on the Serengeti and spent a lovely weekend trip wading in the Indian Ocean on the beaches of Zanzibar.

It is a small world. While at KCMC I met a man who was a hospital administrator in a small hospital 50 km from KCMC. I was shocked to realize that his hospital was a sister hospital to the hospital that I worked in back in Omaha, Nebraska. The administrator, Bob Kasworm and I formed a friendly working relationship. Bob is a unique individual who now speaks fluent Swahili and has been living 9-10 months of the year at the Moshi Tanzania location for nine years. He commutes back to Omaha three or four times a year to visit his family. An orthopedic colleague, Bob Derkash and I have worked at Bob's hospital for short two-week commitments on three different occasions since 2014. Bob Kassworm does a nice job; his hospital is the cleanest, most well-organized and safest hospital I have visited in Africa. The orthopedic care at that hospital is excellent, due to the work of Kassworm as well as a dedicated Tanzanian orthopedic surgeon "Dr. John" who I enjoy working with.

In recent years, I have limited my outreach to just two-three weeks. I also now travel with a close orthopedic friend who has a

great deal of foreign medical experience Dr. Robert Derkash. Bob and I worked with a remarkable physician, <u>Lew</u> <u>Zirkle</u>. in Redmond, Washington, who has single-handedly changed the treatment of long



Lew Zirkle

bone fractures in Third World countries. He developed a locking intramedullary nail, the SIGN nail, that could repair long bone fractures without the use of a fluoroscope. As of this dictation Lew's website states that his nail, the SIGN Nail, has been used



Bob Derkash and me at SIGN Conference successfully in the treatment of 335,000 long bone fractures! **WOW!!** Maintaining the numerous SIGN sites can be difficult and expensive. Bob Derkash and I have provided outreach for Dr. Zirkle, and visited several "SIGN sites" providing oversight and support for the local physicians to ensure that the materials are being used as intended

These trips have been extremely enjoyable and interesting,

visiting countries such as Cambodia, Burma, Papua New Guinea, and Mongolia. We were on the cusp of leaving for Ethiopia when

martial law established there forced us to deviate to Turkey and Egypt.

In closing, the most common remark made to me when I returned from a trip is not what was it like, but rather "*I always wanted to do something like*." I am grateful that I chose the path that took me to *St. Louis Medical School* where I fell under the spell of Dr. Tom Dooley's portrait and made my dreams become my reality.

1. Frost, Robert, <u>Mountain interval</u>, p. 75. New York: Henry Holt and Company, 1920.

2. Gladwell, Malcolm (2008). *Outliers*. Little, Brown and Company.

Medical school teams were assigned alphabetically. The team of Gioannini, Gray, Gross, Gruber and Herzen worked together and grew together through four transformative years.



Internship Matching Day, March 16, 1970

Denny Gray D. 11/16/09 Carol Gioannini D. 03/03/94

William Gruber

Seattle, WA

This story responds to ten questions posed to our group.

Why did you go into medicine?

I went into medicine out of fascination with biology—life processes and living systems—that arose in college. That fascination persists. It has taken many forms—I almost went into marine ecology—but my original fascination is still with me.

I wished to be a clinician, not a researcher. I chose St. Louis University School of Medicine because of its diverse clinical opportunities. Desloge Hospital was the university's academic research facility. City Hospital cared for indigent patients. These, together with the John Cochran VA Hospital, Cardinal Glennon Memorial Hospital for Children, Wohl Mental Health Institute and private suburban hospitals such as St. Mary's provided diverse patient populations and a variety of healthcare settings that were difficult to find elsewhere.

What happened then?

Sophomore year produced restlessness and dissatisfaction, shaped by that year's rote classroom lectures, my impatience to begin clinical encounters and the enormous changes that pervaded our society from 1966 to 1970. Fifty years later, the upheavals of "The Sixties," especially 1968 are still difficult to fully appreciate.

Surrounded by societal change and caught up in complete rebuilding of its physical plant, the medical school was likewise undergoing profound change, transitioning from rigidly hierarchical patterns prevalent under prior deans to newer methods of medical education and healthcare delivery. That era of upheaval notwithstanding, my perspective after fifty years still reflects the values of bedside care and personal

compassion instilled in our clinical vears. The incredible advances in medical technology since our graduation benefitted my practice and enormously, my patients but in retrospect the depersonalization that commonly accompanies current technology has eroded the values of human interaction that we were taught.



What experience(s) at St Louis U Med School (SLUMS) affected either positively or negatively your career choice in medicine?

Junior year surgical rotations at Desloge, St. Mary's and the VA plus an elective experimental surgery course in the dog lab planted a growing awareness of surgical abilities, but I was aghast at so many years of additional training. By graduation, my vague inclination toward surgery still perceived no specific specialty.

This ambivalence prompted me to choose a rotating/surgical internship at the University of Utah. My first rotation there was orthopaedics under Dr. Sherman Coleman, an exacting clinician and surgeon who later became president of the American Orthopaedic Association. Because he impressed me with how intellectually exciting the specialty could be I considered orthopaedics as a career choice, but after only one six-week rotation I was not yet committed enough to apply to orthopaedic residencies just in order to obtain the Berry Plan's draft deferral.

How well did you feel prepared to be a doctor in internship,

residency and/or military or national service based upon the experience at SLUMS?

Our medical school's emphasis on thorough clinical examination and concern for the patient prepared me very well, instilling lifelong values that I still advocate in lectures I give to nursing students. I can still hear Dr. Gerhard Muelheims on City Hospital rounds insist in his German accent, "Forget za squiggly lines! (the EKG) Look at za patient!!!



My internship had no equivalent to the autonomy we knew at St. Louis City Hospital. Interns at the University of Utah Hospital had little direct responsibility for its patients' tertiary care.

That soon changed. After my internship year, I was drafted and sent to South Korea as a general medical officer. Assigned as surgeon to a Nike/Hercules air defense missile battalion, I abruptly became <u>the</u> doctor to eight hundred men stationed in six firing batteries dispersed throughout the South Korea peninsula. Because experienced warrant officer medics had all been sent to Vietnam, the front-line medics under me at the firing batteries were quicklytrained enlisted men, sometimes just out of high school. My only back-up was the 121st Evac Hospital in Seoul.

At the battalion's headquarters 60 miles south of the capitol I was immediately responsible for patient care, triage logistics, staff instruction and organizational responsibilities unimagined as an intern. I often reflected that at least this wasn't combat in Vietnam, but it wasn't benign either. Several missiles at each battery carried nuclear warheads. I was at a northern firing battery when a defecting enemy aircraft crossed the DMZ. The sight of

missiles rising vertically on their launch pads and green firing lights turning to red is an indelible memory.

Beyond caring for both American and Republic of Korea soldiers, several of us also volunteered to care for children at a nearby orphanage. There I saw the ravages of delayed treatment and childhood diseases that are undreamed of in American hospitals. SLU's emphasis on clinical skills instead of research was crucial in what became very rapid professional seasoning.

After thirteen months in Korea I was reassigned to Madigan Army Medical Center near Tacoma, Washington. Serendipitously, I was invited to join Madigan's orthopaedic department. While applying to civilian residencies, I extended my Madigan tour of duty until 1975. That experience clinched my decision to become an orthopaedic surgeon.

I am grateful that unlike most medical students, I chose a residency and my life's work based on already having provided orthopaedic care for almost two years. That experience in turn shaved a year and a half off my residency at Tufts/New England Medical Center in Boston.

Equally as significant, while at Madigan my wife Beverly and I became enraptured by the Pacific Northwest. After residency, we returned for good in 1978 to a home and private practice in the north end of Seattle.

How fulfilling was practice and why, and what changes in your life/family affected your career?

In 1978, private practice of general orthopaedics offered a balance between office examinations and surgical cases, a variety of surgical regions and a wide range of etiologies. Its surgical outcomes, usually of marked improvement in a patient's quality of life, were deeply fulfilling.

In that context, in 1999 I was devastated when an unexpected diagnosis of Hepatitis-C forced me to end my practice.

The absence of other risk factors meant that a needle stick had given me this disease while simply doing my job. In 1999 there was no effective treatment for my viral genome; I was told, "You'll just have to live with it."

In that era, Hepatitis-C was likely to be a gradually fatal disease—ten years or so of progressive fibrosis leading eventually to cirrhosis and liver failure. Because I in turn was potentially infectious to surgical patients, I lost not only a successful surgical practice but eventually my identity as a doctor as well.

I left practice in January, 2000, a year that became the pivot point in a turbulent life transition. In the course of my recovery I encountered two of the most remarkable people I have ever had the privilege to know. I know of no way in this short space to describe their impact. *Letting Go* is the memoir of how they helped me to heal that loss, at a depth that I could never have previously imagined.

https://www.amazon.com/Letting-Go-Memoir-William-Gruber/dp/0595292070/ref=sr 1 3?dchild=1&keywords=Letting+G 0%2C+a+Memoir&qid=1605822923&s=books&sr=1-3

For the next ten years I lived with Hep-C's prognosis. Liver biopsies in 2004 and 2009 confirmed progressive fibrosis. While working with hepatitis support groups, I visited patients dying from liver failure while anxiously awaiting a transplant.

In 2009 current oral medications were not yet available. The biopsies' relentless progression forced me to choose a yearlong chemotherapy protocol of injected Interferon and oral Ribovirin. As difficult as that year was, the treatment worked. I have been free of the virus ever since.

In the course of that journey I learned that curing is important but that <u>it alone is insufficient</u>. I have used subsequent years to refocus my medical experiences onto the nature and value of healing.

How did external changes in scientific and medical advances, medical organization and insurance reimbursement affect you and shape your career?

Advances in the Seventies and Eighties in fracture fixation, arthroscopy and joint replacement transformed orthopaedics. I thrived on the challenge of those surgical advances, but concurrent organizational stresses during the 1990s, especially the aggregation of hospitals into large business systems and private practices into large salaried groups left me completely burned out:

In 1978 I began solo practice at a small hospital in the north end of Seattle. The passage of DRG's in 1983 eliminated that hospital's business model and eventually the hospital itself.

By 1988, solo practice was no longer viable; I joined four other surgeons in Northwest Orthopaedic Clinic.

In 1993, Washington State passed a healthcare reform act that pushed managed care, single-payor reimbursement, capitation and vertical integration. Serving as Chief of Staff at Northwest Hospital from 1994-1996 plunged me into the drastic reorganization that this law mandated.

The Washington State law was eventually repealed, but by 1996 the world of private practice in which I had once delivered care was gone. In the preceding ten years, seven Seattle-area hospitals had been sold or closed, including the one at which I had started practice. Forty percent of the orthopaedists in the north end of the city had retired, relocated to another hospital or left town. Northwest Hospital, which by then controlled fifty percent of the medical staff, was attempting to form a vertically integrated physician-hospital organization whose structure relegated specialty surgeons to "the bottom of the food chain."

In 1996 I resigned all administrative duties and clinical research, choosing instead to focus only on caring for patients.

Would you do it all again?

Unequivocally yes.

We all would like to stay in our comfort zones. That's normal. But life has taught me that I only grew within when events shoved me outside of that comfort zone, sometimes pretty far outside of it. Looking back now, I have had an extraordinarily full life.

Throw in some great anecdotes that we can identify with.

The Sixties were a time of incredible political and cultural upheaval— riots, war, protests, and assassinations. My journal notes of 1966-1970, written as educational and national events unfolded, reveal that nothing in my quiet suburban upbringing prepared me for the intense years of our clinical experiences.

When we arrived, cephalosporin antibiotics were just appearing. Before them, only penicillin, tetracyclines, sulfanilamide and streptomycin were commonly available. Marty Cutler, my freshman-year roommate in a nearby walk-up apartment, contracted cavitary TB.

As sophomores, Mike Gross and I performed our first H&P on a 30-bed ward at City Hospital, dutifully using our small 'blue card' of proper questions to ask. Our patient, a felon

with the DTs, gave his rambling replies while handcuffed to the bed, with his nearby St. Louis cop watching us closely.

In psychiatry, antipsychotic drugs were freeing patients from long-term institutionalization, a horrific example of which we saw as sophomores when we volunteered to do gynecologic exams on psychotic women confined in the locked ward at the state mental hospital, a.k.a. "The Arsenal Street Lunatic Asylum."

During our four years, most of the classrooms and lab areas were rebuilt. Labs were held in makeshift facilities. Construction debris and constant noise were everywhere. The library was torn apart for most of sophomore year, its study tables covered with construction dust. Many of us studied elsewhere.



Cardiac technology by current standards was primitive. ICUs had only oscilloscope monitors. The machine that Dr. Bussman used to teach us EKGs was the size of a small

refrigerator.

One night I spotted Dr. Robert Olsen, Chairman of Biochemistry pacing impatiently outside the medical school. He was late for a meeting at the Union Club on the north campus and upset at his missing taxi, so I gave him a ride to his meeting...on the back of my motorcycle.

In the context of the current



coronavirus pandemic, Dr. Maurice Green gave us perhaps five lectures on virology. I recall no instruction in genetics at all.



By today's standards, the Desloge emergency room was tiny. As sophomores we overwhelmed its ER staff with a mass-casualty drill, arriving en-masse through the tunnel from the medical school garishly made up with fake

wounds for the staff doctors to triage. They flunked.

A student's best chance for autonomy was at City Hospital or the VA—"See one, do one, teach one." In contrast, our mentors at St. Mary's shaped private practice ambitions.

Surgical residencies were ferociously competitive. Many were still pyramidal: four residents started, only one became chief resident, and without being a chief, the others were not board eligible.

Smoking was normal on rounds and in patients' rooms. Radiologist Dr. Jim Martin taught us to see nuanced details of chest malignancies...while he was chain-smoking.



In the Sixties, the student drug scene was accelerating. We saw frightening violence in City Hospital's ER. After MLK's assassination in 1968, parts of St. Louis were in flames. National Guardsmen on street corners sat in jeeps armed with mounted machine guns. As the Vietnam War expanded, draft deferment began to inch upward on guys' list of decisions. Was there a specific person(s) or group that had a strong influence on you and how did that affect your career?

The single most influential person for me during medical school was Dean Robert Felix. He validated my ideas and supported my efforts at a time when medical education felt dry, empty and discouraging.

Like many students in those days, I came to the Dean's Office determined to change that world. During fall term of sophomore year we faced choosing junior-year electives but knew only a few of the clinical faculty. Dr. Felix supported having a faculty/student open house on the main campus where we could meet and mingle with clinical department representatives. As a distinguished psychiatrist, he supported the idea of me and Mike Gross using videotape—at the time a new and bulky technology—while interviewing patients so that we could see how we interacted

nonverbally. He supported creating the school's first student survey, using our opinions to provide feedback and improve the quality of our education. He arranged funding and an engineer friend's expertise to help me create the teaching machine that I presented at the senior year research day. The concepts in that machine evolved into what is now virtual learning.



Of far more lasting significance, it was in the Dean's Office that I met Bev, who worked for him. She had previously worked for Dr. Robert Corday, was friends with Dr. McElfresh and knew Dr. Hanlon personally. In 1972 Dr. Frawley and Dean Felix attended our wedding. Years later, Bev and I cherished having Dr. and Mrs. Felix to our house in Seattle for dinner.

Our life in Pacific the Northwest was multifaceted. While raising two daughters we boated for thirty years through the U.S. and Canadian islands, hiked extensively and skied hard, predominantly at Mt. Baker. I climbed, kayaked and built a garden. Bev capitalized on two years of formal culinary training in Boston to run a cooking school for ten years, organize and run the 1985 national convention of the International



Association of Cooking Professionals, and from its international contacts create Gormaytravel.com, through which she ran culinary tours to Italy for fifteen years. Those delicious memories are commemorated in the photo book, *Italia, a Place of the Heart*.

What did you tell your children, if any, about going into medicine, or what would you tell today's medical students?

Our two daughters never considered healthcare careers, so that discussion never took place.

This book's introduction describes the enormous transformations our class witnessed during our professional lifetimes. My advice to today's medical students would be: "Prepare for <u>exponential</u> disruptive change. You will spend most of your professional life in healthcare systems that will look nothing like what you experienced during your training."

In the lectures I currently give to third-year nursing students, I use their smartphones as just one example of this

exponential change: "In 1964, I was where you are, a third-year college student. Today you hold in your hand more computing power and interconnectivity than existed in 1964 in the entire United States Department of Defense."

Today's medical students can expect that amount of change and more.

How does a student prepare for that magnitude of change? I quote Wayne Gretsky: "Skate to where the puck is going to be."

What do you think the future of medicine will look like?

Where is the puck going to be?

Within the next forty years, i.e., the professional lifetimes of today's students, several current trends are likely to accelerate dramatically:

<u>Populations will grow</u>. In 2019, global population was estimated at 7.67 billion. By 2060 that estimate is 10.15 billion, a population density likely to further stretch resource allocations.

<u>Populations will continue to age</u>. In 2016 the U.S. population over age 85 was 6.4 million. By 2040 it will more than double, to 14.6 million. As this cohort expands, so will the number of afflictions that can be treated but not cured. Prevention, palliation and support will gain increasing relevance, exemplified by society's evolving attitude toward hospice and palliative care.

<u>The pressures to control healthcare costs will relentlessly</u> <u>worsen</u>. As the Medicare population expands, healthcare expenditures will rise. The rate of growth of U.S. healthcare spending from 1970's 7% of GDP to today's 18% is unsustainable.

Cost control pressures will <u>continue to shorten hospital</u> <u>stays</u>, further diminishing in-depth personal interaction. The rapid patient turnover in ambulatory surgery centers is a foretaste of this. To control costs, <u>delegation to progressively lesser-trained</u> <u>providers will increase</u>, e.g., PAs and ARNPs to RNs to LPNs to nursing assistants. Given increasing tuitions, the cost-to-benefit ratio of eight years of medical education will become prohibitive.

As artificial intelligence exponentially accelerates, <u>hospital</u> <u>bedside encounters will become increasingly automated</u>.

The current acceleration of telemedicine suggests that future healthcare <u>interactions will be increasingly online and</u> <u>virtual</u>. Intake evaluations already conducted by chatbots will determine appropriate triage of incoming calls and in time offer probable diagnoses. Providers will develop a 'webside' manner.

<u>Mega-data analysis will subject more healthcare sectors to</u> <u>algorithmic scrutiny and then to automated pathways.</u> In 2018 the Organization for Economic Cooperation and Development (OECD) estimated that globally more than forty percent of all healthcare jobs can be automated. Cancer protocols are a foretaste of clinical paths predetermined by aggregated data.

Future generations of the Fitbit and Apple Watch will remotely monitor more patient parameters, transmitting them to smartphones that will become <u>personal medical data hubs</u>. The combination of time-limited patient encounters, data downloading and the electronic medical record may reduce "taking a history" once the lynchpin of accurate diagnoses—to a lost art.

A reasonable case can be made that within the next forty years, <u>much of the human cognitive domain, i.e., the core of</u> <u>clinical decision-making, will be transferred to artificial</u> <u>intelligence.</u> The greater accuracy of chest films examined by AI algorithms vs. expert radiologists points to this outcome.

The power of <u>genetic manipulation</u> will accelerate. Labs can and will change the human genome. If Yuval Noah Harari is correct, *Homo sapiens* will evolve into *Homo Deus*. Medical ethicists will face the question, "To what end?"

The last fifty years of healthcare changes have been driven as much by societal trends as by medical technology. If social and economic inequality increases, healthcare <u>reimbursements</u> are increasingly likely to be nationalized.

Covid's impact indicates that <u>healthcare</u>, previously regional or at most national <u>will become globally interconnected</u>.

During the professional lifetimes of today's students climate change will globally alter resource allocations, constrain current care patterns, and threaten the health of entire populations.

If the above forecasts occur, and if physicians are to be anything more than conduits for digital information, performers in algorithmic patterns or surgical technicians, I assert that within current medical education a renewed emphasis on empathy, compassion and personal connectedness must occur. In his book *Deep Medicine*, Eric Topol, after extolling the future of artificial intelligence, concludes that "none of the advances in AI are the same as listening to, understanding, empathizing with, or simply holding the hand of someone who is sick. I don't know that deep learning or robots will ever be capable of reproducing the essence of human-to-human support."

Absent renewed connectedness, the current appalling rate of physician and nurse burnout is likely to worsen.

I feel fortunate to have had the opportunities that our era provided.

Now it is time to pass forward the beacon of adaptation.

Alexander Herzen

After internship at LA County General, two years in the Air Force and a threeyear ophthalmology residency at SLU, Alex joined an already established ophthalmologist in Rutland, Vermont.



Alex, Joe Haggerty, and Dr. Kalahastri Naidu, Gross Anatomy, Oct. 1966

His first patient on his first day was a farmer whose cow swished his tail hitting the poor man in the eye leaving him in agony. Alex quickly learned that cows have tiny barbs and hooks on their tail hairs, something SLU had omitted from his education. That was the beginning of his medical and surgical career in the Green Mountain State.

While living in Vermont, we took advantage of all the state had to offer, skiing, sailing on Lake Champlain and horseback riding. With his knowledge of ophthalmology, Alex helped our veterinarian in treating eye problems in horses. Veterinary ophthalmologists are few and far between even in big cities, so he was happy to volunteer his time helping our vet with these beautiful animals. Soon, he was helping cats and dogs too and as one of his patients complained, his dog could get an eye appointment sooner than he could.

After 29 years in practice, Alex retired in 2005. We moved to San Antonio, Texas to be near our daughter who married a Texan. In 2007 and again in 2009, we became grandparents to two lovely girls.

I'm writing this for Alex because in 2011, he was diagnosed with Alzheimer's disease. He now spends his time working in the yard, swimming in our community pool and walking our two dogs. On occasion, we drive further south to enjoy the warm waters of the Gulf of Mexico. It has been a very good life.

Stephanie Herzen

William Joseph Hopper

Peregrinations, including but not limited to my initial and still ongoing medical education, starting circa 1966-70 at St. Louis University School of Medicine

My first impression of St. Louis began when I drove Route 66 through and past East St. Louis. It was late August, 1966, rather hot and humid. H. Rap Brown had recently stirred up a lot of people in East St. Louis. People were shooting at cars passing through on that very route. Shots were said to be firing from the upper floors of high-rise buildings on both sides. I learned a few weeks later that someone from the school had seen a shooting. Plus there was that giant croquet hoop across the Mississippi. Welcome to the Gateway to the West.

I drove past the St. Louis Courthouse, complete with the staircase on which Dred Scott was sold. Welcome to a Southern Slave Chatoyance. Then I checked into the AKA House for lodging and a quick look at the SLUMS campus. I was back in the faith-based educational system.

College was my only deviation from a good old-fashioned Roman Catholic Educational Experience. First was St. Joseph's Academy in Kingston, NY. Across the street from the First Dutch Reformed Church, my paternal grandfather's original house of worship. Founded in the 17th century and rebuilt over the centuries it housed a resolute brand of anti-Roman Catholic sentiment. I still recall my 2nd grade teacher, Sister Mary Scarethebejezzus, during 2nd grade catechism extolling the benefits of baptism. Pointing out the window to the graveyard in front of the church where some of my paternal ancestors were buried, she told us in her best Bejeezus voice that those Protestants buried there were all roasting in hell and then we recited a rosary for their tormented souls. Those and many other catechismal and religious offerings were topped off by my Holy Confirmation by the now maligned Francis Cardinal Spellman as Kingston was in his diocese. I still have that picture. (He slapped a mean cheek.) My family, Irish/Dutch paternally, purely Polish maternally was thoroughly Roman Catholic.

We moved up the Hudson River to Albany in 1954 and next came the Vincentian Academy and on to the Vincentian Institute High School for many of Albany's Irish Catholics, offspring of the Erie Canal Irish labor recruitment. There was even one Polish guy but the Irish were the supermajority. We were, of course, gender segregated. The girls got the top floor, better ventilation and heat in the winter. Most grads went to college, almost all Catholic school, but a few of us chose otherwise. I entered Union College, an allmale school not quite Williams. I won a Med School lottery in 1966, just when the Vietnam War was gobbling some of my friends/classmates.

So I was back in the herd, with 4 or 5 Notre Dame grads, the ultimate Irish Catholic destination in the Midwest. There were a lot of them in the AKA House. And most were Catholics, but not all of my classmates. One of my classmates told me there were 5 of us Jews in our class. I admitted to my Catholicism and in college several of my classmates made similar assumptions, so it was not a new issue. (I reminded him of the conversation recently, which he does not recall). When I visited my home the next summer, I asked my mother, the Poles being the most likely source; she hemmed, hawed, and said well maybe, but a long time ago. I found a worn copy of a 1930s Crisco cookbook title {Recipes for a Jewish Household"} in our attic after she died. My DNA analysis reports 2- 3% Ashkenazy from 2 different companies. So it probably was a long time ago. Another bit of new information to process. I recently discovered via Ancestry, that my maternal grandfather emigrated from Stary Sacz, an ancient town in the Carpathian Foothills of Southeastern Poland. Prior to 1936 there were at least 15 synagogues there. I recently visited this small town to find that there were no more synagogues or Jews. But I did find a Polish-spelled named relative in one of the graveyards. Ellis Island offered him an Americanized spelling. Witowski became Vetoskie.

Well, St. Louis was warmer than upstate New York and the food I got used to.

On the first day of medical school I recall seated in an



auditorium and hearing that by the time we graduated everything that we had learned would be outdated. Much faster obsolescence now. Then came "Look to your right and look to your left only one of you will graduate four years". A line that Sr. Mary from St. Joseph's could have uttered.

We shuffled around the main building looking at the classrooms and labs and getting oriented. Entering the cadaver lab with overpowering appetite-suppressing formaldehyde fumes wafting from the

cadavers in their body bags, shades of my Comparative Anatomy class at Union, the exponentially amplified kind of smell that stayed
with you for a year, regardless of any and all suppressant tried. I remember one of our classmates, a former Boston Seminarian, commenting that none of these people were wearing clothes. It was always stressed to be respectful of these folks. We then went over to the hospital, the slender, almost anorectic-appearing Desloge hospital, dubbed Deathlodge by some.

I later heard a rumor of its construction, which occurred after the 1929 stock market crash. Desloge, a wealthy mining entrepreneur from Cape Girardeau had left the money, which back then was a lot of money until it wasn't. His bequest specified that it had to be the tallest building in town. At least that's the story that I heard in Upper Ladue, when I visited the Desloge Family compound. When I arrived the first time, an employee requested that I park in the upper lot as the area I used was for family. I was introduced to those folks through Dr Bill Knight Jr's son, Larry, who married one of the Desloge granddaughters. It's probably apocryphal but it makes for a good story. So there we were in the basement of Desloge, as I recall, where there were pools of formaldehyde and cadavers being prepared for next year's class.

The custodian pointed out a floating cadaver who had been a faculty member a few years back. Perhaps more apocrypha? The story definitely helped set the tone of entering medical school.

My friendship with the Knight family began with Bill Knight III at Union College. Both in the pre-med program and members of Kappa Alpha Society, the first social fraternity in the US, WAK III was in the house band with me and channeled Ray Charles on his electric Farfisa piano. I played tenor sax. I had contemplated a career in music until I studied with a talented heroin-addicted saxophonist. It took the wind out of a 16-year-old kid's sails. Goodbye Juilliard, where I had been tentatively accepted for my clarinet work. Anyway, that was an important part of how I got to park my car at the Desloge digs.

Introduced into the Upper Ladue social scene, I was selected to be an escort for the Veiled Prophet Ball that fall. At the time I didn't know that this organization was a cover for the KKK. My first time in formal, tails. Another unique St. Louis phenomenon to explore.

Dr. Knight remains a special person to me, as well as his late, kind wife. He was a demanding, sometimes infuriating, but always knowledgeable teacher. His father was a founder of an osteopathy school in Kirksville, MO, but Dr. Knight Jr. became an MD via the WWII era V-12 program. He graduated too late to go to the European theater and was sent instead to the Pacific theater where he developed the formulations to feed and revive liberated Japanese POW camp survivors. Many of the inhabitants died after eating the food the soldiers had available, most developed kwashiorkor, malabsorption, and parasites, and died after eating SPAM and K Rations. Dr Knight created various combinations of water, salts, fats, carbohydrates, protein, vitamin supplements that did not overwhelm these dysfunctional GI systems. I can't help but speculate about WAK, Jr. reviewing his notes from Dr. Doisy's classes searching for solutions. Gastroenterology was at one point a career path for me and remained an important part of my later medical career.

WAK Jr. was also an early adopter. In my sophomore year St. Mary's Hospital Medicine rotation, a demonstration of a new diagnostic marvel, the Olympus Gastrocamera, was announced and not to be missed. Katsumi Oneda, a non-English speaking Olympus instrument salesman, arrived in St. Louis with this device to demonstrate. WAK Jr held no postwar animosity to the Japanese, another admirable trait. I was used to the three-man team to hold the patient immobile while the GI doctor administered the swordswallowing maneuver, looking at a quarter-sized spot of red, said to be gastric mucosa. Oneda assembled his device, deferred patient restraint, and deftly advanced the scope into the patient's stomach, snapped pictures and withdrew the scope after about five to six minutes. Although it required some time to develop the film (these early devices were a miniature camera on a steerable flexible tube), anyone who witnessed rigid gastroscopy procedures appreciate the paradigm shift that we all experienced.

I encountered Mr. Oneda 25 years later at a Colonoscopy Congress in Miami Beach. He was the president of US Olympus instruments and was hosting a bar after the meeting. He remembered coming to St. Louis and Dr Knight. Someone knocked a glass off the table and he used a demo colonoscope to twist around the stem of the glass, on the other side of the table and retrieved it, with a wry smile. He was a person who knew how flexible endoscopes worked.

The social and political turmoil that was engulfing the US and the world in the late 1960s has embedded lasting memories and lessons. Many were linked to my clinical experiences at the VA Hospital. The Vietnam war, like prior wars, was an opportunity to develop and apply new and improved surgical technologies. The bite bar stifled the cries of the amputee during the Peloponnesian wars, the Crimean war, the professionalization of nurses, the American Civil War, the development of the syringe and host of other incredible surgical cutting tools. But the Vietnam War, characterized by Claymore mines and high velocity bullets that created wounds that severed blood vessels, exploded bone and muscle, and were more devastating than WWII and Korea War weaponry. This generation of military surgeons pioneered advances in vascular microsurgery, limb salvage and reattachment, and other anatomic disruptions heretofore considered fatal. These skills helped accelerate the most effective methods to repair vascular damage, successful more than not.

These survivors, after they were stabilized in a field hospital, were then evacuated to the larger military base hospitals. Repatriation followed as recovery and rehabilitation status improved. New protocols, devices, and facility staffing changed the hospital learning experience. There were wards of the young men and services needed unlike any other of my hospital rotations. Grim and necessary to experience, if only that you hope no one would ever have to trod those paths. I recall the St. Louis V.A.H. was a terminal node for those vets from those surrounding states, where, after more rehabilitation, they were transferred back to their homes or long term care for more than a few.

The VA Psychiatry service is similarly unique. From the start, the patient population was almost totally male. The sociocultural and racial proportions further altered the learning moments from the other hospital environments. Anti-war sentiment was rising daily, with demonstrations, racial equality and the Martin and Bobby assassinations, and were creating an exposure to these men who had been "in country" while I was here in St. Louis. These patients were also our peers, at least the Caucasian ones. I had several deep learning experiences in group sessions with the African American vets. It was one thing to read about racism but another thing altogether to hear its effects on those men. I had to rethink some lessons learned erroneously. But that is the whole point of education. There were several patients who had what we would now diagnose as PTSD. These patients retold their experiences, raking rice paddies with the .50 Cal machine guns in helicopters traveling

to or leaving a fire fight, taking their frustration, anger and fear out on the luckless people below. These were disturbed patients, more so than any other service I experienced; fragile, brittle, hypervigilant and paranoid. There were few effective medications during that time.

I became more interested in the humanistic developments of psychiatry and some of these group sessions were focused on selfesteem assessments and support. Huge heroin use was rampant amongst these patients. Marijuana and psychedelic drugs were also on the menu "In Country" and back in the states. I recall the cynicism and sarcasm of the doctors and the patients flowing freely as the consequences of this war bloomed. Another turning point for me, which I incorporated into my Conscientious Objector application. Another story.

It was rumored that one of the places to score heroin was in the St. Louis VA Hospital lobby. On the campus there were ODs, hallucinations, psychotic breaks and even a serial murderer who was diagnosed with Hansen's Disease acquired while stationed, illegally, in Cambodia. This vet was garroting older, debilitated wheelchair bound patients after taking them into a shower room in the early hours. An orderly hid and caught the fellow in the act. An attending neurologist arrived at that diagnosis. I forget his name but he sure made an impression. In retrospect I suspect this vet who spent over a year in Cambodia directing counterinsurgency had other conditions like PTSD that were more plausible. But those irresistible Zebra Hoofbeats made for a memorable story.

There were no evidence-based behavioral modification or treatment programs that I recall during this period of my learning opportunities Heroin use escalated everywhere, St. Louis and nationally, and abstinence didn't seem to have much attraction for people going through heroin withdrawal. In New York City Drs. Dole and Nyswander were achieving some reduction of opioid use via methadone. A notorious drug with a blighted Hermann Goring-Third Reich past, it was a drug seeking a marketable application, a phenomenon that persists to this day (ketamine for starters). There were also reported reductions in violent crimes that helped reduce the stigma of its Nazi origins. Intrigued by the literature touting its benefits, more social than medical, I interviewed at Bellevue Hospital where these clinics were situated. Soon after I got back from my residency interviews in New York City there was a story in the Post-Dispatch about two preteens who broke into a car and consumed a bottle of what turned out to be a month's worth of methadone. The clinic's dispensing protocols limited the enrollee to a 2-day supply, partly based on the drug's half-life and also its lethality. Someone in the Methadone Clinic was conned or, more likely, was a partner in a diversion network. The kids died. After a few weeks of news follow up, their deaths became last month's mortality numbers. My concern about the lethality of methadone as well as the difficulty of withdrawal told to me by my detoxing patients in my Addiction Medicine career have not changed my low opinion of the drug. But that career path came later.

Back at St Louis City Hospital #1 alcoholic patients would hallucinate, seize, vomit blood, lapse into hepatic coma and very often develop Korsakoff's Syndrome. And expire. A dreadful "Medical Rounds" recollection involved a withdrawing, tremulous, confused man who was thirsty and asked for some water. The resident handed him a full glass of water, but the patient was so tremulous that the water shook out onto the bed and him before he could get his glass to his lips. The resident knew what was coming and stepped back, high and dry. The resident's smirk was deplorable, contempt etched on his face. When some of my classmates asked why I had spent so much time with those alcoholics on the medicine ward, I replied that I had found several of them were musicians and had played with and were still playing with the likes of Ike and Tina Turner and BB King. I asked them how one would not want to learn about these peoples' life stories. Master musicians, some anyway. One of my attending "teachers" defined an alcoholic as "someone who drinks more than you do". My educational pathway to treating chemical dependence diverged from what I was seeing, hearing and learning at SLUMS.

I continued to be interested in a psychiatric career. Some of the 3rd and 4th year specialty rotation attendings did not become guiding role models. One exception after Dr Knight was Dr Armand Brodeur. He was another wonderful mentor and teacher. He assisted me in getting an NIH Grant for the study of A-mode sonography recently engineered for clinical applications. He arranged for me to have a loaner portable scanner which I lugged around in my convertible Porsche (bought with most of my senior year student loan; I had to do some typical doctor things). This instrument required a Polaroid camera to capture the screen. High tech in 1969. It was rather useless for most clinical applications. Nevertheless it was a leap into research with an NIH stipend. The goal was to determine the accuracy of A mode measurements to detect abdominal aortic aneurysms. I did not publish but I still have the faded Polaroids that I took of the cross-sections of cadaver abdominal aortas. In any event Dr. Brodeur was a gentleman and a mensch.

Another St. Louis grad that was important in my career development is Dr. Harry Owens. Harry's father was a 1940s

bandleader who wrote the song "Sweet Leilani." The profits from that popular Hawaiian-themed song funded Harry's trust fund and he used some of that money after he graduated to buy a mountain top in Alaska. Harry became a family physician and still is. He lives in Bend, Oregon. The last amazing thing I heard him do was spend a winter at the McMurdo base in Antarctica. It takes an incredibly brave and accomplished physician to be selected for that job and that was/is Harry. About 15 years ago I reconnected with Harry at a certification exam for the American College of Physician Executives. Harry was one of the senior faculty. He brought me up to speed with the fate of Dr Knight's sons, WAK III and Larry. Both had passed away. Both were too young to die.

Sophomore year I married a lively, gorgeous Texas belle I met during my 1967 summer vacation. when she transferred from Syracuse to Washington U. We lived in a hillbilly ghetto and she bought me a monkey for my 28th birthday. For senior



year, the Porsche was a suitable vehicle for the A-mode sonogram.

We were both unknowingly living out Adult Child of Alcoholic

scripts which led to our parting. later Years Ι began to learn about the effects that life of altering state. Before we left St. Louis we donated the monkey to the Lincoln Park Zoo



in Chicago, where we often visited Marcia's Dad. There was a herd of squirrel monkeys there.

The trip to San Francisco was flat and dull until New Mexico; the Grand Canyon and the Painted Desert were all new to me. We pulled into SF, checked into the temporary housing behind St. Mary's Hospital on Fell St. and drove to Chinatown for a real Chinese meal (real touristic of course) and then visited Ferlinghetti's City Lights bookstore. I had been to SF for my interviews and knew it was where I wanted to be. Looking for residencies, I visited NYC, Boston and Chicago. Paul Filipini had just finished a rotation in SF and recommended it highly. Paul and I had started an enterprise buying burned out sports cars that caught fire on route 66. He had several Porsche hulks which he bought at fire sale prices. I invested a few hundred bucks; the plan was to split the sale after these scorched 365s were rehabbed. After graduation Paul loaded them

into a large truck and took them to his MA home. He gave me back my investment. But I did several interviews in SF and after I returned, I scratched off every place not SF. St. Mary's had a reputation for selecting at least one SLU grad each year and I once again got a winning lottery. I did leave my heart in SF.

Tom Rowley matched at Pacific Medical Center. I matched at St. Mary's Medical Center. The San Francisco Lottery. Dr. Gruber at it again with his camera. What was Tom smoking?



My late ex-wife, Marcia Gayle Guthridge Hopper graduated



Washington from University a few days before my graduation. Her step-mother, Ilse, is holding on to me tighter than Marcia. Another missed clue? Anyway, off to we were San Francisco via San Antonio. Her Texas cousins were brutal to Yankee boys.



And some musical remembrances, young and old...



There are many other tales that I am going to try to assemble in a longer screed than this. But for now I will bid adieu.

My thanks to my friend and classmate, Dr. Gena Pennington for mobilizing my writing catatonia.

PROFESSIONAL EXPERIENCE:

1971	Kaiser Permanente Hospital; Vallejo, CA; ER Physician
1971-74	Public Health Departments; City of San Francisco and
	Humboldt-Del Norte Counties, CA. U.S. Army
	Conscientious Objector assignments
1974-94	Private Practice, Family and Addiction Medicine;
	Forestville, CA.
1974-84	Azure Acres Center; Sebastopol, CA. Medical Director
1974-1996	Palm Drive Hospital; Sebastopol, CA; Chief of Staff,
	Board of Directors (1981-1983) Staff Member (1974-
	1996)
1976-85	Maralie Rehabilitation Hospital; Santa Rosa, CA;
	Medical Director
1982-86	Community Psychiatric Center of the Redwoods; Santa
	Rosa, CA; Medical Director, OPTIONS Dual
	Diagnosis Treatment Program
1992-97	North Coast Faculty Medical Group (Sutter
	Medical Group of the Redwoods); Santa Rosa, CA; VP
	and Medical Director, Managed Care and Group
	Services (1992-1997)
	Site Director, Forestville Care Center (1992-1995)
	Sutter/California Health Systems Activities (1993-1997)
1997-98	Northeast Permanente Medical Group; Latham, NY;
	Group Medical Director
1999-2000	MedTrust; Raleigh, NC; Chief Medical Officer; VP
	Medical Management
2000–2001	The Vancouver Clinic; Vancouver, WA; Medical
	Director

Pacificare Northwest; Lake Oswego, OR; Medical
Director 2002; Associate Medical Director 2001
HealthNet of California; Oakland, CA; Regional
Medical Director
Physicians Integrated Medical Group; San Francisco,
CA; Medical Consultant, Contract Review, Quality
Improvement
Lifelong Medical Care FQHC; Berkeley, CA; Chief
Medical Director
US Healthworks; San Leandro, CA; Clinic Medical
Director;
Northern California Urgent Care Clinical Mentor
Concentra; Addison, TX; National Medical Director,
Concentra Physician Review
MediCall; Pleasanton, CA and Manila, ROP; Chief
Medical Officer; VP Quality Management
Dane Street; Boston, MA; Chief Medical Officer; VP
Quality Management
Sutherland Global; Hyderabad, India; Consultant
West County Community Services; Guerneville, CA;
Board Member

Other professional experiences:

 1974-97 Sonoma County Medical Association; Santa Rosa, CA. Chair and Member:Educational Programs Committee, Credentials, Committee, Wellness Committee; member, Legislation Committee, Litigation Support Committee; Editorial Board Alternate Delegate; California Medical Association (1994-1996)

1988-93	Pacific Foundation for Medical Care; Santa Rosa, CA.
	Board of Directors; Treasurer (1995-1996); Chairman,
	Credential Committee (1990-1993)
1990-2007	Medical Board of California; Sacramento, CA; Expert
	Medical Reviewer
2007-2009	Western Occupational Medicine Association
	Member, Annual Meeting Program Development
	Committee; Presenter
2007-2010	Utilization Review Accreditation Commission:

Member: Pharmacy Benefit Management Standards Advisory Committee

Education:

- 1966 BS: Union College; Schenectady, NY
- 1970 MD: St. Louis University School of Medicine; St. Louis, MO
- 1970-71 Residency: St. Mary's Hospital and Medical Center; San Francisco, CA
- 1996 MBA: Golden Gate University; San Francisco, CA

Board Certifications

Diplomate of the National Board of Medical Examiners, 1971 Diplomate of the American Board of Family Practice; Recertified 1984, 1991, 1998, 2004

Fellow of the American Academy of Family Practice 1991 American Society of Addiction Medicine; 1985; Recertified 1994 American Board of Medical Management 2002; Certified Physician Executive, The Certifying Commission in Medical Management;

Professional Licensures: Active: California Inactive: Missouri, New York, North Carolina, Oregon, Washington

Academic appointments: Clinical Instructor: Sonoma State University Dept. of Psychology; Rohnert Park, CA 1981-1987 Clinical Instructor: UC Davis School of Medicine; Davis, CA 1984-1985 Assistant Clinical Professor of Medicine: UCSF School of Medicine; Santa Rosa, CA 1988-1998 Volunteer Faculty: University Of Washington Medical School, Seattle WA, and Oregon Health Sciences University; Portland, OR; 2002

Professional memberships: American Academy of Family Physicians California Academy of Family Physicians American Society of Addiction Medicine American College of Occupational and Environmental Medicine

Married Three Children Two Grandchildren

Walter Terrence (Terry) Meyer

Las Cruces, New Mexico

My earliest recollection of Saint Louis University School of Medicine was one of terror. Primarily, it was the fear of failure. My parents with limited income, having sacrificed most of their income for good educational experiences for both myself and two sisters had great expectations for me with minimal tolerance for failure. They were loving parents but the love

was conditional based on compliance with their rules and attaining success in life. The saving grace regarding conditional love is that it definitely breeds tenacity and a resilient spirit, both good characteristics for a physician. I had dreamed of being a physician since the 9th grade in high school.

I was not admitted to medical school the first year I applied. I was heart- broken but determined to be a success at whatever I was destined to become. No medical school admissions committee was to "waste" a year of my time. I was accepted into Graduate School

at my undergraduate university, University of Cincinnati. I worked days and evenings, and weekends in order to complete not only required academic courses but to complete a Master's thesis, mainly addressing the hypothalamicpituitary axis. Basically, I had completed 95% of all the requirements for a Master's degree in one year and attained a 3.7 GPA. I distinctly remember being



Lucius Quinctius Cincinnatus 519-430 BC Roman emperor; Cincinnati, author's home town and named after emperor.



interviewed by Dr. Doisey, Jr., the son of the Nobel Prize winner. He seemed to like the fact that I took a lot of chemistry courses in graduate school and did well; thus I was admitted to SLUMS. I finished the rest of my Master's degree requirements during Christmas vacation after completion of my first semester of medical school. I officially graduated with a Master of Science degree the summer of 1967 just after completing the first year of medical school in St. Louis.

The gross anatomy lab was a formidable experience for me. Remember all the beautiful colored chalk drawings our anatomy professor did on the board for us during every lecture? I always thought those drawings on the board were amazing and marveled at his drawing skills. I remember my pictures (notes) of his drawings looked like a three-year old's drawings. Another lesson I learned was that I would never donate my body for "research" to a medical school. The body next to our four-student group became infected with maggots and they had to change out the body a few weeks into our gross anatomy lab. The Anatomy Department was experimenting with different forms of preservatives. That poor soul's body must have been in the "control" group.

I remember Dr. Christianson, the Histology professor. He was absolutely enamored with the Hematoxylin and Eosinophiliccolored cells under the microscopic. He always described them with much enthusiasm and delight, equal to the delight of viewing a Monet or Renoir.

Dr. Robert Olsen, Biochemistry professor, was always determined to prove that the circulating serum cholesterol level was independent of dietary intake. He would start his lectures off with a few deceptively simple sentences but quickly progressed into complex explanations about various aggregates of benzene rings. He was brilliant! He loved to tell us that our Biochemistry tests were going to be a "learning experience". That's when you knew your upcoming "learning experience" was likely to be grim. Don't you just love "Oxidative Phosphorylation" and Professor Krebs!

Remember Dr. Somebody, a French name, long forgotten, Pharmacology? He was always afraid we would cheat on our exams so he lined us up in the hallways, required we all put our books and assorted material on the floor, and marched us into the classroom in alphabetical order on test days.

I think just about all of us agree that the last two years were a lot more interesting. We got to see "real" patients. I particularly enjoyed Internal Medicine although Dr. McElfresh, Pediatrics, was great at Cardinal Glennon. Who can forget rotations at the VA Hospital, Saint Louis City Hospital, or Firmin Desloge? Surgical rounds at 6:30 am were always a good way to start your morning. How about a terrified screaming Afro-American teenage woman just about to deliver her first baby without any pre-natal education/care! They all were extremely good educational experiences that I will never forget.

After medical school, I went to the University of Kansas Medical Center, Straight Internal Medicine Internship, and had a terrific experience. However, I also remember it to be the most difficult year in my medical career. I recall our Internship year was the last year of the military draft. I was fortunate to serve two years in the United States Public Health Service, Center for Disease Control. I was stationed in Fort Collins, Colorado, Foothills Campus, Colorado State University. I did a combination of basic laboratory Immunology research as well as some regular Clinical Epidemiology. Our group did some of the early work on Group B Streptococcal Neonatal Infection. I was fortunate to be included as an author on about five published articles in JAMA, Pediatrics, Journal of Molecular and Cellular Cardiology, etc.

After those two years, I thought I wanted to be a Pathologist. I completed a year of the program but the dead bodies

and autopsies (74 if anyone is counting) were not an experience I would wish on my worst enemy. I quit the program and found a position at New Mexico State University, Las Cruces, New Mexico, at the University Student Health Center. I enjoyed it but felt the itch to start my own private



Family Practice. At the time there were only about thirty-five physicians and one three-story hospital. One had to cover for one's own patients 24/7/365 or make arrangements for coverage, which was difficult to do.

During the early years of my private practice, my father became quite ill and lived with my former wife and myself for about a year before he died. He had a combination of regular smokingrelated emphysema but also occupational pneumoconiosis related to inhaling large amounts of Plaster of Paris dust performing his trade as a dental technician. He also suffered from significant depression related to the death of my mother who died about three years before Dad died. There was little support in the community to help with his care. However, he commonly refused my advice about home health agency care, or psychiatric care. After he died, and I had a chance to reflect on the experience, I decided there must be a better

way to care for patients near the end of life.

I teamed up with a wonderful small but dedicated group of nurses and became the volunteer Medical Director for the Mesilla Valley Hospice. Several of those nurses donated countless hours providing approximately 700 free home



Main Entrance, Mesilla Valley Hospice

visits to terminally ill patients. Medicare established the Medicare Hospice Benefit program in 1982. We incorporated our not-for-profit program that same year, and at least were able to generate some revenue to keep the program afloat. It has grown substantially over the years. There was a



Non-denominational hospice chapel

tremendous amount of community support and eventually land was donated and administrative offices and an in-patient hospice, as well



Family dining room

as a non-denominational chapel were built. All of this wonderful program for the community was clearly not just related to my efforts but a couple of very capable Executive Directors for the program who inspired a large number of community benefactors. I recall that over the years about \$7.6 million was donated to develop the current

physical plant. Another benefactor has endowed the program with approximately \$10 million, to ensure the program's sustainability

for vears to come. The program has now served approximately 30,000 terminally ill patients and their families and remains the only free-standing hospice in the state of New Mexico. I feel privileged to have been one of the Founders of the program



Nurses' station, La Posada



Patient room in hospice

and the experience has changed my life, in many ways, and forever. I've written a book "Safe Passage. History of Mesilla Valley Hospice, Las Cruces, New Mexico" (ISBN: 978-0-9892145-9-9) just in case you are curious about more details. Just e-mail me or call if you have

any interest in a copy of the book.

My private Family Practice was exciting and gratifying and I loved being my own boss. However, after about 13 years, I decided I wanted something with a little bit more organized hours that I could call my own. Also, the handwriting on the wall, Medicare

Assignment, strongly suggested that my solo private Family Practice was no longer going to be a viable Additionally, option. the alphabet soup of managed organizations care was surfacing. I decided I either needed to become an attorney to understand all the contracts



Mabel's Garden

I was about to be signing or I needed to try something else. I became Medical Director of the New Mexico State University Student



Chapel and Veteran's Memorial Garden

Health Center in 1988 and retired in 2009 from the university after 21 years of service. I continued on as parttime Assistant Medical Director of Mesilla Valley Hospice until March 2017. I am now fully retired.

More recently, I have put together a group of professionals, the Las Cruces Palliative Care Coalition which has been meeting regularly since February 2019. It is composed of physicians, nurses, nurse practitioners, a social worker, a chaplain and counselor, and a couple of healthcare administrators. They mostly represent several home health agencies and hospices within the community of Las Cruces. We are advocating for quality Palliative Care separate and distinct from Hospice care. Palliative Care provides an extra layer of interdisciplinary support for those patients with serious chronic illness but not yet ready for hospice and desirous of continuing with their cure-directed therapies. Please check the website: lascrucespalliativecare.org The organization has just completed a nice twenty-minute video which is included on the website. The Palliative Care national movement started with Dr. Diane Meier out of Mt. Sinai Hospital in New York. She created the Center to Advance Palliative Care (CAPC) which started approximately 2005.

One of my hobbies, over the past 30 years, has been writing poetry. I put together a book of poetry entitled: "Bits and Parcels. Lifetime Poetry and Prose. (ISBN: 978-0-9892145-6-8). Just e-mail me or call if you have any interest in the book. My wife and I also have enjoyed ballroom dancing for a number of years. All that ended with COVID We wait with great anticipation to start again sometime in 2021.



Dancing Tonight

Dancing in the evening embraces the spirit and frees it of thoughts of mundane chores; lets it wonder down untrodden paths, soothing the soul, reinvigorating and refreshing it. We are strengthened for tomorrow's inevitable tasks. So let us dance, dance, dance tonight with vigor, as though no one is watching and the dawn is far away. TM

Bits and Parcels, p.96

CONCLUSION:

I guess I'm old enough now that I can confess that I've commonly read only the "Conclusions" for a great number of medical articles. Therefore, for those of you whose eyes have already scanned down to the "Conclusion" before reading the previous pages, I include for you my short form:

Terry Meyer received his Bachelor of Science and Master of Science from the University of Cincinnati. He received his medical degree from Saint Louis University School of Medicine. He completed an Internal Medicine Internship at the University of Kansas Medical Center. He fulfilled his military obligation during the Viet Nam war era as a commissioned officer, Lieutenant Commander, United States Public Health Service, Center for Disease Control. He moved to Las Cruces, New Mexico and was in private Family Practice for thirteen years and then moved to New Mexico State University to become the Medical Director



of the Student Health Center. He retired from the university and then assumed a part-time position as Assistant Medical Director of the Mesilla Valley Hospice for a few more years. He currently serves as chairperson of the Las Cruces Palliative Care Coalition, a not-for-profit organization which he founded in 2018. He also was a founder of Mesilla Valley Hospice, a private, not-for-profit organization, and served as volunteer President of the Board of Directors as well as volunteer Medical Director. He is a fervent believer in the value of a holistic approach to the care of the patient, tending carefully to the psychological, socio-economic, spiritual, as well as the physical needs of the patient. He's authored two books, "Safe Passage. History of the Mesilla Valley Hospice, Las Cruces, New Mexico", and "Bits and Parcels. Lifetime Poetry and Prose," as well as several scientific articles during his career. He recently just completed a three-year term serving on the Vestry of Saint James Episcopal Church, Las Cruces.

"Thou hast made us for Thyself and our heart is restless until it finds repose in Thee." St.Augustine

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K. Lynne Moritz, M.D.

It was the time of Haight-Ashbury, flower children and the sexual revolution—but Jerry and I could not be bothered. We had spent the previous 4 years helping each other complete all the coursework we needed to qualify for medical school. Working and saving money, preparing for our first joint project—getting the 2 of us into the same medical school! We'd been told it might not be possible. It was the moment of truth—the applications were all in. When the acceptance came, we were overjoyed. Two previous letters had not accepted us both. We had one week to reply, and reply we did! We had never been to St Louis, but, hey, it was medical school! (Jerry was from New York, and I from California. Jerry had been a petty officer in the Navy, I'd been an undergrad at Duke.) We were melding a lot of things together, including blood, sweat, and tears.

Urban campus, a shotgun apartment on Blaine Avenue (walking distance to the school), knowing no one in a thousand miles, we were energized and getting what we wanted, worked for, prayed for.

MEDICAL SCHOOL*

One interesting aspect was that St Louis University School of Medicine had embarked on a change. There were 12 women in our class, I believe; the previous class had 4, and only 1 or 2 or none in years before. They weren't used to accepting women, and certainly we were the first married couple. Just as we were

^{*} I was asked to give some thought to my experience of being a woman in medical school.

adjusting to them, they were adjusting to us. I can honestly say that I myself was not aware of chauvinistic acts against us or

against me. One actual the evidence of medical school's growing pains, however, was the following: In my first clinical year, when was first on overnight T rotations, I discovered that I did not have a call room in which to sleep-all the call rooms were occupied by men. After considerable midnight



staff consternation and confusion, I was asked to sleep in the labor room on the OB-GYN service, along with actively laboring patients! My next call night, one call room had been designated for female house staff. I remember, too, that Jerry and I were told that we could adjust our call nights, if we wished, to maximize our time at home together.

I actually feel that the medical school was extremely sensitive to us as a married couple. Maybe this is the more



important comment to make: We were not asking for special treatment as a couple, and certainly I was not asking for special treatment as a woman. However, despite that, our fourth year and my residency experience were dramatically impacted by the fact that I was a woman:

1. In our fourth year, we were shocked to discover that I was pregnant. It was 9 months of clinical rotations, with all the indignities and joys of pregnancy, and our son was born just days after my senior services ended. This occasioned the first of a number of dramatic, uncommonly generous events: I was allowed to take the state licensure exam while I was still in the hospital for childbirth! I was in my hospital bed, a proctor was seated nearby, our newborn son was in the nursery--A pretty amazing adaptation of the "system" to a woman's problem. (It turned out that my OB was, or had been, the President of the Missouri State Medical Association, and I now believe that this fact must have facilitated this extraordinary favor.) I am forever in debt to Dr. Hugh Ritter, a SLU Med graduate and faculty member, and my admired OB.

2. Let it be said and left to your imagination that the next period of time was a struggle for me. I had fully expected to enter my pediatric internship with my baby at home with a live-in nanny. Imagine my shock when I found that my feelings refused to allow me to follow my plan. I found myself unwilling and finally unable to take call away from my baby every third night. On beginning my internship on July 1, I was assigned to a NICU, taking care of sick babies the same age as mine, who was at home with a nanny (who, by the way, quit after two weeks!) The force of my misery at being away from my child completely overwhelmed things. Could it be possible that one so single-minded all her life would resign from her internship? I have to say that I was offered every consideration: three months to be home with my baby before I would have to make up my mind. But 3 months did not change my mind. I resigned. It looked as if I was going to be a stay-at-home Mom. There were opportunities to talk with other program chiefs, but none seemed right to me--Not until Dr. Ed Auer, Chair of SLU's Department of Psychiatry, called me and asked to talk. In short, he was able to arrange a half-time residency in psychiatry with call every 17th night--This I could do. And this I did. Psychiatry had always been high on my list of possible choices. I will always be indebted to Dr. Auer for this understanding and this act of generosity.

3. BUT, bad luck was not through with us. In the 2nd year of my residency, I was again pregnant. This time, we had a second son, a full-term stillborn. This time I was not interested in a slowed down residency—work helped me. In another year later, our third son was born, a healthy, vigorous boy, very like his older brother.

Let me tell you, it was no picnic for Jerry and me. The stress and trauma of these years somehow changed us. Something basic between us was lost. In any case, we ended our marriage. Jerry was in a demanding ENT program; I was finishing my residency, then in psychoanalysis, setting up a small private practice, working part-time for the VA, and soon became a candidate to become an analyst myself. And I was raising 2 children.

So being a woman was part and parcel of those most consequential years of my life. I must say that my determination to become a physician was a powerful and strengthening idea then, and from a very early age. As a youngster, it was motivating; it entered into every decision that I made throughout my young years. Decisions were easy then—was this something that would further my goal or was it not? SLU helped me to achieve that end goal and also to change my life direction under stress. SLU became a central pillar for me for a lot of years.

TEACHING SLU SCHOOL OF MEDICINE

Teaching became important to me. I was appointed an instructor when I graduated from my residency, and I eventually rose to Clinical Professor of Psychiatry and Neurology at SLU. In addition to my practice, I taught courses and supervised psychiatric residents practically throughout my career. I also taught by invitation at other medical schools and programs.

ST LOUIS PSYCHOANALYTIC INSTITUTE

The St Louis Psychoanalytic Institute was another hub of learning and then teaching. It was natural for me to gravitate toward psychoanalysis when I had been trained in what was a firstclass psychiatric department, and trained by admired teachers who were psychoanalysts. Over time, I eventually became the Director of the Institute, after having served in nearly every professional role available. I taught aspiring candidates, psychotherapists of all professional persuasions, daycare workers, and the public through their Community Education program. I was also President of the St Louis Psychoanalytic Society, the sister professional corporation that served the needs of graduates.

WASHINGTON UNIVERSITY'S GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

Early on, I also became an Adjunct Associate Professor at George Warren Brown School of Social Work, participating in the psychotherapy training for a whole generation of social workers in St Louis.

Meanwhile, my boys were growing up. School, athletics, hockey practice at 5 am, PTAs, trips to see grandparents, trips that combined vacations with professional meetings—all the busy life of growing boys. And they grew into exemplary men. Men, by the way, who regard their family as the hub of their lives. Both Jerry and I remained in St Louis—after all, our sons were here. Although each of us established a new household and family, boys need both a father and mother.

A NEW CHAPTER

Medicine has been good to me. When my younger son went away to college, I felt myself free to explore a less homebound life. I looked outward to activities and offices that could pique my interests and fill the new vacuum in my life. I met John, who has fully shared and supported our lives together for more than 30 years. He's had to put up with a lot, but mostly he has come to accept and enter into the busy life we have lived.

My medical school classmates had elected me Secretary in our first year, and Rocco, John Dale, Ed Morgan and I were reaffirmed in those elected offices throughout our 4 years. (I don't remember a single consequential thing we did.) However, this more or less set a tone for me throughout my medical life. It seems that part of my role has been to act as a spokesperson—to say things that needed saying, but frequently got me into hot water. In addition, it was the beginning of my learning that I had a talent for leading organizations—and for winning elections!

I climbed the professional ladder in a natural way, keeping my fingers in an ever-widening pool. The truth is that organizations are always looking for willing workers, and skills and experience learned in one organization are invaluable for responding to the needs of another.

The following are the more consequential of the offices I have held.

Eastern Missouri Psychiatric Society (President)

American Psychiatric Association (Distinguished Life Fellow, Legislative Representative, Delegate to AMA)

St Louis Metropolitan Medical Association (President)

American Medical Association (House of Delegates, Legislative Representative)

Association for Child Psychoanalysis

American Psychoanalytic Association ((President)

International Psychoanalytical Association (House of Delegates, Board of Directors) - Asked to run for President.

POLITICS

Because of the changing times and significant challenges for mental health issues as well as conflicts within the scientific communities, and because of my offices in the psychiatric and psychoanalytic organizations that I served, over years I have had the opportunity to meet and form collegial relationships and friendships with psychiatrists and psychoanalysts throughout the United States, and later in Europe, North America, South America, Southeast Asia, and the Pacific rim.

These relationships were also instrumental in the collaborative work we did in testifying and lobbying at the Missouri state legislature (e.g., Managed Care, False Memory Syndrome, Parity for Mental Health, defeat of a bill which would have outlawed the practice of psychotherapy in Missouri, and others) and the work we did at the US Congress (lobbying for those same issues and many more). For the Missouri efforts, I was part of the creation of the Missouri Coalition of Mental Health Professionals. This organization was short lived, but highly effective at a crucial time. I feel about these people as if we have been to war together! And I learned the amazing lesson that one can actually succeed in changing some things for the better—better for colleagues, better for patients, better for people.

My work somehow has drifted toward interest in ethical issues, culminating in a 4-year appointment as Chair of the Ethics Committee of the International Psychoanalytical Association. I remain deeply involved in ethics teaching and ethics adjudication in a number of organizations. I am also interested in the establishment of new training centers for the deepening of understanding of the mind and the brain in countries which have little of this tradition. Had John not fallen ill, I likely would have agreed to run for President of the International Association, which had already provided me a chance to contribute in both these areas.

I consider myself to be enormously lucky. I have maintained a full practice of psychoanalysis and psychotherapy,

adults and children, for 50 years! I have had a good and exciting life with a very good man, I have had a chance to work very hard for causes that have been important to me. I have enjoyed it all—even (especially?) the ceremonial aspects of it. I have met, admired and loved many wonderful people. People have supported me and helped me when I have greatly needed it. I have earned much, but also I have been given much, especially opportunities, and I am lucky to have been able to give much back. These relationships and memories continue to be invaluable to my sense of fulfillment.

My favorites of the offices I have held are these:

President, American Psychoanalytic Association

Board of Directors, International Psychoanalytical Association

Chair, Ethics Committee, International Psychoanalytical Association

President, Eastern Missouri Psychiatric Association President, St Louis Metropolitan Medical Society Executive Councilor, Missouri State Medical Association

Meanwhile I have had the chance to travel all over the world with John, who has supported, participated and shared many adventures with me, and I with him, for decades. Unfortunately, he developed multiple myeloma some years ago, which continues its ugly progress.

At present, I am semi-retired, working about 10 hours per week with patients who are in the termination phase of their treatment. I still teach, especially the ethics courses for my institute, and I enjoy doing some administrative work. To that end, I still serve on the Ethics Committee of the American Psychoanalytic Association, and I chair the Election Committee and co-chair the North American Region (which, strange as it may be, includes China, Japan, Taiwan, South Korea, and Vermont!) of the International New Groups Committee of the International Psychoanalytical Association.

We are looking forward to more visits with children and grandchildren, now scattered around the country, when Covid permits.

FINALLY

I am deeply grateful for those who arranged the ZOOM reunion effort. It has been the occasion for many memories and fond feelings. And it has been a perfect antidote to the sense of isolation of these last many months!

I thank again the people who have helped me—and I thank the people I also helped along the way.

I miss the friends I've made around the world, many now deceased.

Maureen Nuccio

My journey to medical school started in grade school. I read the Cherry Ames nursing series and identified with the giving of orders to make sick people better rather than emptying bed pans. Little did I know at the time. I learned to appreciate nursing invaluable insights from being at the patient's bedside for 8-12 hours a day. I retired from Pulmonary and Critical Care Medicine in 2012 after 42 years. Some history of my experiences and the changes in practice follows, as I reflect on a challenging and fascinating career in medicine 50 years later.

The long educational process and the costs involved in medical training, \$1700/year tuition seems impossible now, were going to be a burden to my parents. Therefore, I stayed at home as a commuter for college at the University of Dayton. UD allowed completing a BS degree in 3 years because of their trimester system. Considering psychiatry as my ultimate goal, minors in psychology and philosophy with a premed major was a good choice.

After researching six medical schools, application to four resulted in acceptance at three. Interviewing at the University of Colorado, since they had a residency in psychoanalysis, was my favored choice. However, acceptance was unlikely as an out-ofstate student and my gender. They were not interested in training someone who was just going to decide to have babies and stay at home. Having never been challenged on my dreams of being a physician, I was ill-prepared for that attack and not surprised when I was not accepted.

St. Louis University (SLU) was a frequent choice of UD grads. While visiting SLU I also met with the admissions department at Washington University. The SLU teaching appeared oriented to the way students could learn best was from their
patients, reading about their symptoms and possible diagnoses, as well as collaborative study with classmates. Medicine should not be a competition to horde knowledge and one-up your classmate or colleague. You learn most from your experiences with patients you see as well as those shared with you. Washington University emphasis to me was on aggressive competition to ultimately achieve the best house-staff training position. A classmate of mine at UD ultimately chose Wash U. His complaint to me was the competitive atmosphere during his first year. No one shared lecture notes or had study groups. The academic competition and personal pressure he felt was tremendous. My relief at not making the wrong choice for medical school was confirmed.

Female students were rare at that time, representing 0-1% of an admitted class at SLU. My class of 1970 had 10% women. Now it is over 50%. I felt isolated my first year away from home. My parents wanted me in the dorm on main campus but that was undergrad chaos. I finally found an apartment share student at UD who was going to a Master's program in Sociology at SLU. She left many weekends to see her fiancé in Dayton. While a nice roommate, things went better rooming with fellow SLU classmates, Carol Gioannini and Karen Stronsky, during the last 3 years. They had roomed at the nursing dorm by Firmin Desloge Hospital and were looking for a less constrained/supervised experience. I would recommend having a fellow med student as a roommate.

Memories of SLU the first two years were of too much time spent with a smelly dead body and memorizing minutia for an exam with too little time on clinical medicine. I enjoyed physiology but struggled with biochemistry as did most of the class. Ethics was an inadequate single lecture class. I really enjoyed the forensic pathology lecture but as I had never learned how to use a binocular scope properly, it seemed unlikely that would be a good career choice. I finally did learn how to adjust the microscope from a microbiology technician who had a teaching head on his scope so we could review a slide together ten years later.

The last two years were the clinical years and were great. I enjoyed working on the surgical rotation at the VA, medicine at Desloge, OB at St. Louis City Hospital but Pediatrics at Cardinal Glennon was hard for me emotionally. It was very difficult seeing children brave oncology treatments and not being there when I returned the next day. I also managed to be sick with a lot of respiratory illnesses on that rotation. Dr. Patricia Monteleone was a favored attending at Glennon. She subsequently became Dean of the SLU Medical School and retired in 2008.

Senior electives at SLU were fun and informative. I chose electives that would improve my skills in airway management (Anesthesiology) at SLU both pediatric and adult. The weeks spent with Dr. John Schweiss were invaluable. Cardiology at St. Luke's Hospital with Dr. Paine was another good choice. Reading EKG's and listening to hearts and lungs became routine. I also arranged a psychiatric split clinical at Wohl for 6 weeks and another 6 weeks in Houston at Baylor University for psychiatric research. Both psychiatry experiences were eye-opening. Nondirective interview was time consuming and frustrating. The lack of improvement found in the charts of patients was discouraging. The psychiatric research experience was too far removed from clinical application plus had no contact with patients.

The drugs available for treating mental illness were in their infancy. Lithium was available in the 1940's. Neuroleptics like Thorazine and antidepressant tricyclics such as imipramine were released in the 1950's. The meds, diagnostics and procedures to change lives seemed more rewarding in internal medicine. However, one study has found that 70% of Internal Medicine employs psychological techniques. You have to be a good listener to diagnose accurately, convince compliance, and treat appropriately.

From the completion of sophomore year till graduation, remunerated work as a night surgical extern was available. I also performed weekend daytime psychiatry H&Ps at the Jewish Hospital for the bridging summer between end of sophomore year and first junior clinical rotation. Those opportunities provided some much-needed cash even at \$2/hour and a clinical exposure to other possibilities for my career. Subsequently I dropped psychiatry externship and instead externed just on the surgical services at St. Luke's Hospital and Jewish Hospital. Those experiences made me even more comfortable in being alone at night responsible to some degree for making clinical decisions. It also led to being able to sleep anywhere and wake/sleep quickly. My first OR experience in medical school was as an extern on a hip pinning for an elderly lady with a hip fracture at St. Luke's. The scrub room nurse taught me how to appropriately scrub for surgery.

The other benefit to working at St. Luke's at night was meeting my future husband, Paul Nuccio. Paul was on his senior elective with the Chief Cardiologist Dr. Paine. Dr. Paine's secretary let Paul know that I was matched to the same internship as his. Since I worked nights, he looked me up in the doctor's lounge one evening and offered to help me move into an apartment on arrival in Brooklyn, NY. He was a Queens native and attended SUNY Downstate Medical School in Brooklyn. He did help me move my belongings from a South Bronx warehouse (which at the time was a war zone with gangs) to my brownstone ground level apartment in Brooklyn. We married the following spring during our internship. Most of my straight medicine internship was spent at Kings County Hospital which was the largest hospital in the country at the time. Surviving the rigors of 110-hour work week and every third night on call was the intern experience. Staying for residency seemed an obvious choice. The demands were great but so was the education. The other benefit was interns did all of the scut. My experience on the clinical rotations at SLU as well as electives were very helpful in guiding me to my chosen specialty and surviving the intern year.

My favorite rotation during the house staff years was the Chest Building which held the tuberculosis wards for NYC, diagnostic chest medicine and thoracic surgery. As an intern assigned to the Chest ICU, I managed 5 different style of ventilators and was the ABG tech for a 2500 bed hospital. What a difference 1970 medicine was from now! The blood gas machine was identical to that used in a physiology lab - the Van Slyke

machine is not an automated device. Respiratory therapists did not exist so the house staff drew all blood gases and the ventilators. managed Bronchoscopy was performed with a rigid 18" long metal tube wielded by a thoracic surgeon anesthesia. under general Contrast that with the flexible fiberoptic scopes today under conscious sedation. The interns Chest service were the on required to do admission PFT's on a drum kymograph (invented in 1847). By morning rounds the intern was required to

Collins, water seal spirometer, circa 1965



calculate the volumes and flow rates, plate the sputum, stain/read the slides both for tubercle bacilli and routine bacteria as well as draw all blood work, then run the CBC, U/A, LP, and EKG's including mounting. When you drew a type & cross there was no courier or tube system. You had to personally carry the bloodwork to the Pathology building which housed the labs that was a block away on the Kings County Campus. Then you also had to go back for the blood when it was ready and only receive one unit at a time. I also spent 2 months learning about all of the various chest diseases as well as managing tuberculosis patients. Thankfully, I maintained a negative PPD throughout my career.

Many unusual cases presented at Kings County during the house staff years from 1970-73. I saw my first case of Kaposi's sarcoma (cause identified in 1990 as HHV-8) in a NY cab driver from a Middle Eastern country. Unlike the AIDs patients first reported in 1981, his Kaposi's sarcoma was seen mostly in older men of Eastern European, Mediterranean and Middle Eastern descent. Their cancer progresses slowly and typically causes few serious problems as opposed to the AIDs patients because of their immunodeficiency. A future AIDs complication was the topic of my second year (PGY3) residency lecture, pneumocystis carinii pneumonia. AIDs was not defined as an entity until almost 9 years later in 1981. Oxygen toxicity was another of my chosen lecture topics. Notice a developing interest for my future career choice?

Morning rounds while on the chest service included Xray review of all admitted cases with the Pulmonary Chief. Prior to the discovery of tuberculosis meds, treatment consisted of rest, nutritious food, isolation, and sunshine. Unknowingly at the time the sunshine was providing Vitamin D, which is now known for playing a key role in immunity. Tuberculosis patient films had very interesting findings. Cavitary tuberculous lung disease in the pre-drug era was treated with deliberate pneumothorax, lobectomy, wedge resection, and phrenic nerve crushing as a means of collapsing the cavities which were teaming with the organisms. Other collapse treatments included thoracoplasty and plombage with ping pong balls, paraffin wax forms, oil or wads of gauze. I saw at least one of each while on the pulmonary rotation. Drug treatment started in 1944 at the Mayo clinic with Streptomycin and then subsequently INH and PAS. By 1955 a triple drug regimen was standard for cavitary or far advanced disease. With the discovery of Rifampin, one year of INH for PPD conversion was replaced with six months of INH and two months of Rifampin.

In the 1960's the Northeast was considered to be the cultural and intellectual place to be, at least if you were from that area. No civilized life West of the Hudson River was a unique NYC opinion portrayed on the front of the New Yorker and still available in pictorial format. However, pulmonary and cardiology were making advances on the West Coast. I became interested in Seattle and the UW after visiting my cousin who was an engineer at Boeing. Seattle seen on a beautiful August day sealed the deal and sold us on our destination for fellowship. I still interviewed at OHSU in Portland and University of Colorado. The Seattle program won out since they had a position for both of us. We moved to Seattle to begin my Pulmonary fellowship at the University of Washington in 1973. My husband pursued an endocrinology fellowship with Dr. Paulsen at the Seattle Public Health Hospital.

Dr. Hudson, the physician who interviewed me for a fellowship at the Univ. of Colorado (still hoping to somehow make it to the city I had yearned to live in, since first seeing the snowcapped mountains when I was 4 years old), mentioned he hoped I was also interviewing at the UW. I indicated that was my next interview. He said that was good because it was a great program. We arrived together, Dr. Hudson assuming the role of

Chief of the Harborview Pulmonary service. With his arrival the future of Pulmonary medicine shifted emphasis becoming more clinical at the UW. As an example, shortly after starting the fellowship, the ICU at the University Hospital called me about a deteriorating patient on a busy weekend. I was called in to assess the patient. He required intubation by me and I placed him on a ventilator. Usually, anesthesia was called and managed all of this, but they were all in the OR. This prompted kudos from the Pulmonary Chief Dr. Butler the next day. He was surprised that I had no problem with intubation or vent setup. Dr. John Butler as the Division Chair of Pulmonary was a pulmonary physiologist primarily. Learning physiology of the lungs, exercise physiology and PFT's was his focus. Thank goodness for great airway management training from my SLU anesthesia elective with Dr. Schweiss and my house staff training in the Kings County Hospital ER and Chest ICU.

The second-year fellow in the same program as my husband subsequently became the Chair of Medicine at the UW and also the Dean of the Medical School, Dr. William Bremner. We were welcomed to our Seattle fellowships at Dr. Bremner's home for dinner in 1973 and discovered he had just taken his 6month-old on a wilderness backpacking trip with his wife. He felt that diapers were the only drawback to the experience since you had to pack them out. Baby food was not an issue as his wife was still breast feeding. Welcome to the Northwest! Go hiking!

Flexible fiberoptic bronchoscopy had just been introduced from Japan to the US in 1973. It was the first time that procedure took a significant role in pulmonary training at the UW. During fellowship I was called urgently to the OR to assist the thoracic surgeon as to the location of hemoptysis that his rigid bronchoscope could not find. I localized the tumor with the new fiberoptic bronchoscope, took biopsies and his comment was "he needed to learn this device". The bronchoscope has helped me retrieve theophylline pills (large ovoid tablets), hot dogs, and various other foreign bodies. It also assisted intubation of the massively obese patient before the fiberoptic intubation scopes were developed. 2001 saw the introduction of the Glide scope for anesthesiologists and ENT. I performed biopsies under fluoroscopic guidance of peripheral lung masses in the 70's and 80's primarily with a bronchoscope. CT scans were not available for whole body scanning until later in the 1980's and CT directed lung biopsy was not readily performed till the 1990's. In the last 30 years we've moved to placing endobronchial valves with the bronchoscope to treat isolated emphysematous bullae and transbronchial mediastinal biopsy of subcarinal lymph nodes. Both procedures were previously performed surgically.

The Vietnam War interrupted our lives as my husband had been deferred thru the Berry Plan until 1974. Mid-fellowship the Navy activated him and he was assigned to the Long Beach Naval Hospital. I finished my fellowship at UC Irvine in CA. I spent most of the next 2 years at the Long Beach VA Hospital (the largest VA in the country with 2000 beds) initially as a secondyear fellow and then as the Supervisor of the Chest Service until my husband completed his 2-year military obligation. We considered staying in SoCal as he preferred the sunshine every day. However, the cost of living and the property taxes led us back to the NW. We are currently paying property taxes on our house what we would have paid in 1976 at our preferred location in SoCal.

After researching the openings within the VA system in the NW, it was a decision between Portland VA and American Lake VA (ALVA). In 1976 ALVA was a large psychiatric facility that had just changed to a general med-surgical facility (still with 800 psychiatric beds and 75 med-surg beds plus a Respiratory Care

Unit). I would join a group of all internists and subspecialists including 2 cardiologists, a neurologist and a gastroenterologist. They needed a pulmonologist to run the Respiratory Care Unit and the deal was struck. We wished to have a family and did not see private practice as a viable option in my specialty with a physician husband choosing private practice.

Subsequently I worked full time doing both inpatient and outpatient pulmonary care. I shared night call with my colleagues for several years. I cared for my own patients while inpatient and consulted on all Pulmonary cases as well as ran the codes. The ICU we finally opened was an open ICU when the Respiratory Care Unit could no longer accommodate all the patients we accumulated. We had dedicated respiratory therapists who assisted me in bronchoscopy, ran PFT's and a sleep study program. The neurologist and I worked on research projects in sleep medicine and the impact of alcoholism on sleep apnea with the staff of the Alcohol Treatment Program. I was offered a teaching position with the UW and eventually became a Clinical Associate Professor of Medicine. Travelling to the UW twice a week for a half day clinic was valuable continuing education as well as an opportunity to interact with future stars in pulmonary like John Marini and Rick Albert who were both interns while I was their attending. Friday was a day to attend chest grand rounds with the Madigan Army MC pulmonary group in the morning. The volunteer teaching at the UW mostly at the University Hospital, Harborview and at Madigan helped to continue my own education just to keep up with the challenges of the house staff and fellows.

American Lake VA also developed a house staff training program and at its busiest had 2 internal medicine residency teams from Madigan Army MC. We served as attendings and relief admitters when their service was capped. I also received a pulmonary fellow from the UW to train who wished only one year and somehow added him to the mix of work assignments.

ACLS became a big part of my work once I came to the Seattle was the home of the 911 system and Medic One NW. response teams. After helping design and codirect the first WA State "Train the Trainers" ACLS program at American Lake VA, I became one of the required overseers by the AHA to supervise and teach the ACLS programs for the WA Heart Association. T particularly enjoyed this aspect of my career and met many dedicated firemen and nurses who were carrying on the lifesaving work statewide. I would encourage a continued effort to teach not only your patients but other health care providers. On more than one occasion I have had prior ACLS trainees say they remembered a lecture by me saying that was the first time they really understood why the algorithm for Ventricular Tachycardia is not that complex once you understand the physiology. Memorization without understanding the reason makes it hard to remember the details in a crisis situation. Staying current in your practice is helped by teaching.

Our lives suddenly became even more complex in 1978 with the arrival of our first daughter. I cut back my hours to work daily from 8am-2pm with a home caregiver who returned to her home when I came home. She didn't drive so my husband came home for lunch and took her home on his way back to his office since he was in private practice. My colleagues and I were no longer doing in-house night call but served as a backup attending from home for the house staff and moonlighting UW fellows. I was still the night resource to manage difficult intubation and emergent bronchoscopy. My infant daughter was handed off to a nurse since my husband was frequently gone admitting a patient to his service in another hospital in Tacoma. I also was the attending that the respiratory therapists or nurses would call when they felt the inhouse doc needed critical care advice.

Two more children arrived in 1981 and 1982 respectively. Three in diapers and three with chicken pox all at the same time was a handful. Wish we had the chicken pox vaccine but it had not yet been developed. Thank goodness my parents moved to Tacoma after my father developed cancer. He died several months later. My mother was a good cook and loving but strict disciplinarian. She lived close in her own apartment. She arrived to fix dinner and as the children matured met them at our home after school and left after preparing and sharing dinner with us. You can practice pulmonary/critical care medicine with a physician spouse who has a private practice but it takes fortitude and the help of wonderful people like my mother.

I went back to full time practice from ³/₄ time after all the children were in grade school and finished 25 years with the VA in 1999. We had two in college at the UW at that point and the last one graduating from high school in 2000 wanted to go to Santa Clara University in CA. Retiring from the VA meant I would start receiving a Civil Service Retirement pension that would cover most of her expenses. We bought a condo and housed the other two children at the UW to make some of this outlay a real estate investment. But where was I going to practice?

My next practice move was to a hospitalist position at the Franciscan hospitals in the Tacoma area which was building a hospitalist program. An ICU nurse who had worked at the VA and ACLS with me for years alerted me that this was a great opportunity to segue from my do everything VA practice to an inpatient only practice. This meant going back to a 110-hour a week practice and every third night on call in-house at age 54. I could do anything for a week was my thought, even a 110-hour week, since the next 2 weeks would be free of work.

I added the responsibility of being the Associate Director of the team after several years and then Medical Director when the Director who hired me resigned. I saw needs in the daily flow of work that could be facilitated with organization of charting, billing and night call duties. Change was needed to cut down on wasted time and energy for a rounding physician. There were also likeminded individuals in care management, pharmacy and nursing who were eager to partner with someone to make a difference and leverage a team approach to managing rapid inpatient flow with good post discharge planning.

Adding teaching was another of my goals for our hospitalists. Subsequently, a partnership with Western School of Osteopathy from Pomona, CA to offer clinical rotations for their students was developed. That added another Clinical Professor position to my resume. The podiatry surgical residency requested the hospitalists provide education on recognizing medical issues and how they might impact their providing surgery to patients.

I have enjoyed inpatient and outpatient medicine as well as teaching and the added responsibility of being a manager. My father was a traveling salesman and evidently passed on the ability to sell change with short term pain but long-term improvement.

I finally retired in 2012 after 12 years of hospitalist practice. During that time, we grew from 3 hospitals to 5 by building a new hospital and taking over a rural hospital. The demand for hospitalists in our system grew tremendously from eleven to over 120 when I retired. We also employed 30 advanced care practitioners-PA's and ARNP's. They functioned as primary caregivers for lower acuity cases with a hospitalist paired supervision.

Traditional practice in primary care (internal medicine or family practice) has changed dramatically since I graduated from

SLU in 1970. I chose the VA since it fit with having a family and still practicing in my chosen field. In the mid 90's most primary care physicians (PCP) were being encouraged to not see their own patients while hospitalized. Hospitals encouraged this change in practice based on average length of stay (ALOS) data showing dramatic decreases in favor of hospitalists. Specialists were the last to support that change but finally also expected hospitalists to admit their complicated patients and serve as their primary caregiver.

The choice for new medical school graduates today who want to practice internal medicine is now even more complicated. Either you choose to do outpatient medicine as a PCP in a private versus group practice, become a hospitalist which you already feel you know everything about since that is your most concentrated experience as a medical student, traditional practice of inpatient and outpatient care of your patients, or take a fellowship with more years of training. Office practice is now more efficient and so is hospital care with hospitalists. There are challenges to this type of managing a patient. Handoff between the hospitalist and an outpatient doctor are not always smooth or timely. Rarely does a hospitalist receive a call from the PCP as most admissions are funneled through the emergency department. Only direct admits are handled via PCP to hospitalist calls. Calling the PCP is frustratingly a problem as both doctors are very busy and are in situations where some other patient's care is interrupted. discharge summary that is succinct is difficult for many hospitalists such that the PCP can easily read the most important final diagnosis and treatment plan. Calling the PCP facts: frequently results in their staff saying just send over your discharge summary which happens most of the time but then is delayed by transcription or the FAX machine is turned off at end of business each day. Even the handwritten discharge synopsis was not a solution. The electronic medical record may help improve

transmission of hospital care to the PCP if they allow the internet in their office.

An area of medical care in 2020 that needs more emphasis is palliative care and hospice. That is a difficult conversation to have with an unfamiliar clinician instead of your PCP. When I retired in 2012 most patients died within 3 days of hospice initiation. Now 35% die within one week of hospice start and 50% within 3 weeks. It takes time to discuss how a patient wants to handle the inevitable as their condition ceases to be amenable to active attempts at cure. The need for having the discussion about end-of-life care should involve family as well. Outpatient PCPs and specialists are involved in the process of providing continued health care maintenance, active treatment and hope. When a patient receives a pacemaker, placed on dialysis, has a myocardial infarction or receives a cancer diagnosis is the time to introduce the concepts of palliative care and hospice. Patients want cure but also want comfort at home if cure is not possible. Outpatient physicians should provide the education and make referrals to palliative care. They should recommend hospice for a steadily declining patient they think is likely to die within 6 months. Repeated hospitalization with an ever-declining post discharge level of function does not deliver best care. The PCP through use of the Physician Ordered Life Sustaining Treatment (referred to as the POLST) form and a discussion about palliative care can assure that appropriate care will be delivered. Patients need education that cardiac resuscitation likely will not help. That is a very hard discussion to have with a patient who does not know the physician hospitalist arriving at their bedside. "Why didn't my PCP talk this over with me?" is their first question. This discussion should be addressed with patients and their caregiver/families by the patient's PCP as a patient ages or develops a chronic illness. Hospice and palliative care are becoming more accepted but, in some areas, are still regarded as a death sentence. You just want to get rid of me.

I would envision local medical societies and physicians encouraging patients to implement a POLST form for presentation on admission to the hospital or to the paramedics if someone calls 911. The discussion engendered would alleviate the concern that only those facing immediate death are appropriate for this decision-making process. We cannot sustain the costs of providing inappropriate medical care to our patients at the current escalating rate. Medical care represented 6.9% of the US GDP in 1970. In 2016 it was 17.9%. Nor is it fair to the patient as unnecessary suffering results. Those are the kind of issues that medical school should be addressing with an expanded ethics educational presence in the curriculum.

In conclusion I found two thoughts about medical school for the entering students from Dr. Monteleone in 2007 when interviewed about her imminent retirement as Dean of the Medical School at SLU:

The approach now is to prepare medical students to be active lifelong learners, rather than just giving them information to cram in. In medicine you have to constantly read and keep learning, because things change by the day.

You must be able to ask for help with a patient when you don't know all the answers. Nobody's going to have all the answers, so you've got to be able to look at other disciplines or specialties to help with a patient's care.

Maureen Nuccio, MD, FCCP

Marty O'Brien

PROFESSIONAL:

I enlisted in the Navy during medical school and as a result, after my internship year at the University of Pittsburgh, was committed to serve 3 years in the Navy after the internship. Bob Stein mentioned he was in the same program during the virtual reunion.

I was assigned to the naval hospital at NAS Jax in Jacksonville, Florida. It was an excellent assignment. The hospital was relatively new and featured a Family Practice residency. As a General Medical Officer, I worked in the ED and walk-in outpatient clinic for my entire enlistment.

During that time, I decided I wanted to work full time as an ED physician. Emergency Medicine was in its infancy and there were not a great many programs or residency slots available. I interviewed at the University of Louisville and the University of Cincinnati and accepted an offer from Louisville. I believe having 3 years of experience in the Navy was beneficial in my being accepted, as two others in my residency class had also served in the Navy. Another benefit was that I was eligible for supplemental income from the GI Bill during my residency. Our oldest daughter was born in Jacksonville and the second in Louisville.

Jacksonville had one of the earliest EMS systems in the country, beginning in 1967. At one time, Jacksonville advertised itself as the safest city in America to have a heart attack. Louisville was not as advanced in 1974 and the Louisville EMS consisted of a police officer with first aid training and IV capability placing a patient in the back of a station wagon and then drive rapidly to the nearest hospital. I had 4 patients in full arrest that arrived in the back

of a station wagon on my first night shift and second day of my residency, none of whom were successfully resuscitated. Driving home that morning, I recall thinking that it could be a very long residency. Fortunately, the pre-hospital system advanced rapidly during my second year.

A fellow resident and good friend had finished 3 months before me and began working at Swedish Medical Center in Englewood, Colorado. I had interviewed at Chattanooga and Asheville, N.C. when he called and said there was an opening at Swedish and a new group was being set up. My wife had spent time in Colorado and after a trip and interview, I accepted an offer and we moved to Colorado in July, 1976.

Once again, I felt fortunate to have ended up where I did. The group was new, we were all around the same age, and everyone was residency trained in Emergency Medicine.

Swedish Medical Center opened in 1910 as a TB sanatorium and became a community hospital in 1957. It was very progressive and has remained so to this day. The hospital had one of the first head CT scanners in Colorado. Initially the ED physician had to consult with the neurosurgeon and the neuro-radiologist before ordering one. Swedish later became one of the first Level1 Trauma Centers in the state during my time there.

A paramedic training program was started at Swedish and I served as the Medical Director for 15 years. Later I took the deep dive into hospital politics and became the ED Medical Director.

Some things that changed during my career and made life easier included the sophistication of the pre-hospital system and expertise of the paramedics. The radiologists were always an asset and even more so as radiology imaging capability advanced with CTs, MRls, ultrasound and the interventionists. The advent of the hospitalist in having a go-to person for admitting patients facilitated ED patient flow, while omitting time-consuming negotiation with the specialists regarding who would be the admitting versus the consulting physician.

A quote I remember from my time at SLU, and I shared at times, was something that I attribute to hearing from Dr. Willman; "The patient is always the most important person in the room."

When 1 left the ED group, I volunteered once a week at a free clinic in Denver for several years. That ended 2 years ago and I am now fully retired.

PERSONAL:

I met my wife freshman year. Barbara was then a junior at Fontbonne College. After graduating, she trained as a medical technologist at St John's Hospital and then worked in the lab at St. Mary's. We were married my senior year and will celebrate our 52nd anniversary in August, 2021. By virtue of participating in the Ensign 1915 program, I was paid an ensign's salary my senior year and able to get married.

We have 3 daughters and 6 grandchildren, 4 girls and 2 boys, ranging from 5 to 20 years old. Our oldest daughter and her husband adopted a three year-old girl from Hungary. They had to live there for 6 weeks so Barbara and I spent 10 days in Budapest, getting to know our new granddaughter and helping with the transition. Our youngest daughter has twins who were premature and spent weeks in the NICU. They are now nine and healthy, with a five year-old sister, and they live a mile away. I worked with some incredible nurses in the ED and the NICU nurses who cared for the twins were right there with the best of them. A third daughter lives in Durango, CO, about 350 miles from Denver. Her daughter, and our oldest granddaughter, is a sophomore at the University of Montana and our grandson in Durango is a high school senior.

We moved to Colorado in 1976 and are fortunate to live in such a wonderful place. Years ago, I saw a bumper sticker that read, "I'm not a native but I got here as fast as I could". That sums up my feelings.

When our daughters were in middle and high school, we as a family developed an interest in bicycling. Every summer, we would register for "Ride the Rockies," a week-long supported bike trip through different parts of Colorado. We tent camped at night and the next day rode on to the next town. Over the years, we have traveled most of the state on our bikes and cycled up and over many of the major mountain passes. All three daughters are still avid cyclists and we are glad to have introduced them to something they continue to enjoy.

Two daughters now live in Colorado, one in Durango and the other nearby. The third lives in Tacoma, WA, where she went to college.

I have more than enough interests to make retirement enjoyable and last year volunteered as a math tutor at a community college until Covid changed all of our lives. I would like to do something like that again when it is safe.

We were in St. Louis for the ten-year reunion and were planning to attend the 50th. I hope someday to be able to visit the campus again. The pictures and descriptions of the campus are very impressive.

Gena Pennington A Medical Melodrama

After graduation, I took a rotating internship at Kaiser in Oakland - only a few miles from the University of California Berkeley. The seventies were wild in California, and especially at U.C. Berkeley: Women's' Lib, Gay Pride (pre-HIV), Viet Nam War protests, "free" sex, environmental protest and activism, marijuana, etc.

After I completed my internship, still wondering what I wanted to do medically, I visited my sister at Humboldt State



University in a small far-northern California town, Arcata,

population 6,000. The county seat, Eureka, had about 30,000 people, and the population of the whole county was about 135,000.

The local industries were and still are: logging (as in clear cutting), commercial fishing and the college.

While my sister was in class, I wandered into a decrepit 100-year-old building housing a "community" clinic. The women there went nuts when they found out I was a doctor. I was the second woman doctor in the whole county. I stumbled into my first (very low-paying) job and found what I love to do medically - non-surgical gynecology and OB. Let someone else do surgery. In fact, I considered it my job to keep my patients away from unnecessary hysterectomies and C-sections.

At the time, Mao Tse-Tung and his boring little Red Book were popular with activists. The biggest bully at the clinic had us all sitting around in endless meetings, theoretically all participating in running the clinic. I still cringe when I hear of Mao.

We women formed a "Women's Health Collective" that flourished, thanks to a Family Planning Grant from the state of California. My income improved when the male doctor there shared his job at the local Public Health Department with me - in a family planning and a sexually-transmitted disease clinic.

I was just now reminded by a friend that I used to wear blue jeans, hiking boots (until I found out that they left marks on the floor that were hard for the janitors to remove) and a flannel shirt to work. It was wonderful not having to figure out what to wear or fuss over clothes when I was so busy.

A male medic from the Viet Nam War started a home birth program at the clinic, and I started doing home and hospital births. Fortunately for my patients, I did a 2-week stint at Los Angeles County Hospital Ob service, and it was an amazing experience. For example, the standard was 4 minutes from the Emergency Room to the initial C-Section incision for a footling breech baby.

Most of the local practitioners didn't take MediCal, so lowincome people were stuck with a huge bill or ended up in the ER at the last minute - for them, the clinic was a godsend.

One of my heroes (whom I never met) is a man whose wife was in labor, and he wanted to support her. The local hospital refused to let him into the labor room, so he chained himself to his wife and swallowed the key!

The head of the local Medical Society summoned me to his office to bawl me out for doing home births, and his first words to me were "You know, I don't think women should be doctors." At that point he lost my attention! It didn't occur to me then to tell him that it took just as long to call a physician in to attend a birth as it took me to bring in a woman when it became clear that she needed to be in the hospital.

The clinic applied for and obtained a family planning grant from the state of California, overseen by the Public Health Department.

One of the crazier things we did (not my idea), with the philosophy that all parts of all women's bodies are beautiful and women should feel good about their bodies, was to have a 3-table exam room and three undressed patients in there at the same time. A program nurse from the State came into the 3-naked-patients exam room at the community clinic to make sure that we were delivering adequate medical care. Whenever she visited us, she raked us over the coals. When she visited the Health Department where I also worked, she disappeared into the office with the nursing supervisor where they smoked a cigarette, not even once observing in the clinic. We were delighted to hear that she visited a clinic in San Diego that took the "all naked bodies are beautiful" philosophy a step further--the practitioners also took their clothes off for the exams! They told the state nurse, "Fine, you can observe, but you have to take your clothes off also." I still get a chuckle thinking of it.

In 1977, the state of California created a category of Physician's Assistant called Womens' Healthcare Specialist. The Physician Assistant in our clinic got wind of this, and she decided to develop our own program to teach the curriculum. In the first year we accepted 6 students, and we thought things were running smoothly. However, the state had some questions about our competence and required that our students spend 2 weeks in the main program in Torrance, which is a suburb of Los Angeles, really several worlds away. When our students went to Los Angeles, they were so well-prepared that they were done with the program in Torrance after one week. We then ran our program for three more years. One of our graduates in the course of her career went on to deliver more than 3,000 babies in the wilds of Humboldt County, which is about as remote as one can get in the Continental United States. The remainder of our graduates worked as Physicians' Assistants in women's health care until they retired.

The Women's Health Collective became aggravated with the Health Department's oversight and told them to take back their grant. Silly us - we didn't realize that the whole clinic was living off the grant.

Soon after, we broke off from the rest of the now very aggravated clinic and started our own. We had the help of many awesome women and some awesome men. We practitioners no longer had to deal with finances and other distractions such as Mao Tse-Tung.

Our first administrator was a full-blooded Yurok Indian woman, who, at the same time she was dealing with the Womens' Clinic start-up, legalities, the board of directors, etc. etc., she was also Tribal Chair of the Yurok Tribe, and started one of the first Indian Casinos in California. While she was doing all this, she completed her college degree!

The Womens' Clinic (we also saw partners and sons) flourished for years, and the other clinic managed to survive our stupidity. Both are still around. We ended up part of the same clinic network, and it now has the second highest payroll in our county.

I continued working at the Womens' Clinic and the Health Department for years, and started supervising at Planned Parenthood. I travelled several times a month to outlying clinics in the mountains and another clinic - a long beautiful drive through the redwoods - near the Oregon border.

When I started fantasizing about my right hand being cut off, I realized that 18 years of the stress of being on call and worrying about making a mistake and losing a baby or a mother was getting serious. So, I stopped the OB part of my practice. The only thing I missed, and still do, is being able to walk in our small town up to a parent of a newborn and ask to hold the baby. I am still gaga over newborns---the smaller the better. I'm so sick I love preemies. My smallest baby was 1lb 15 oz, and survived just fine without all the currently available technology.

When I was 62, I cut way back on my jobs and went backpacking in the Sierra Mountains all summer. I still keep my license and CME up to date, with only about 6 patients, as in a friend whose doctor won't give her Armour thyroid: T3 and T4. He will only give her T3 or T4, neither of which works for her without the other, and a nurse friend who was afraid to ask her doctor for 10 narcotic pills per year.

In my private life, I never got married, and never had to go through an unpleasant or costly divorce. After a wild and crazy few years (fortunately pre-AIDS), I settled into 2 long-time relationships. The 1st man died, and now I'm in the 24th year of the current one. We don't live together, which keeps me out of prison on murder charges!

Two of my favorite activities are dancing to live music (no live music with Covid-19) and backpacking. There was no backpacking during fire season last year, and horrendous fires ate up the coastal range near me this year, plus lots of the Sierras. Also, it is hard to travel when most of the mountain roads are closed due to fires.

What will happen next????????

Paul T. Pitlick

C ROLLINS HANLON was the Chair of Surgery at St. Louis University School of Medicine for our first 3 years, and he then became President of the American College of Surgeons. He was great on



Figure 1. C. Rollins Hanlon

rounds with medical students, and his last formal role at SLU was keynote speaker for the class ahead of us. The title of his talk was "After Medical Education, Then What?" His answer was that medical education never ends – the practice of medicine is a continual learning experience. Fifty years later, that was certainly my experience. There were several reasons for that, the major one of which was that you had to teach yourself, just to provide state-of-the-art care for your patients. But the self-education was also intrinsically interesting. Eventually you realize that the purpose of medical education was not just to teach you all those details of biochemistry or anatomy - the purpose was to teach you how to continually educate yourself.

When I started medical school, I thought that I might want to be a General Practitioner. However, I soon realized that I would never be able to keep all this information straight - I needed to stick with one organ system. I was an engineer, and the heart was the organ which had the most solid basis in math and physics at the time. So, ... Cardiology? Cardiac Surgery? Pediatric Cardiology? Congenital cardiac problems were the most interesting to study, and I became a Pediatric Cardiologist, although the knowledge in all three fields subsequently expanded enormously, and all were interesting in their own ways.

At some point I think most of us look back on our lives. Our parents and grandparents could reflect that they went from horses and wagons in their childhoods to men on the moon in 1969. While that was a large, dramatic program, only 24 men travelled near the moon, and only 12 (white) men actually stepped on it. It also didn't happen overnight: science was required, such as knowledge of orbital mechanics. Also rockets and spacecraft that would protect humans in the vacuum of space had to be developed. Then all the components needed testing, sub-orbital and orbital flights needed to be done, and trips around the moon, while measuring and refining all parameters. And then, after all

that, no one has returned for almost 50 years. However, we all derived benefits from the microelectronics which were a spin-off of the space program, as they gave us the ability to put more information into smaller spaces with faster access. More than a million of the computers on the Apollo lunar missions would "fit" inside an iPhone today, but there were many incremental



steps from the Apollo computer, through mainframe computers, until we arrived at the iPhone. In medical sciences, the increased computer capacity and speed helped us move along the many incremental steps of the double helix of DNA that was "cracked" by Watson and Crick in 1953, through the \$1 billion and 10 years of the Human Genome project of the 1990s, to 23AndMe, which costs \$50, uses a few cc's of saliva, and takes 6 weeks.

Incrementalism was also the story of my career. When we think of human activity, we can divide it into categories of People, Places, and Things. I'll start with a "Person" - Dr. Hanlon. He was one of the Founding Fathers of surgery for babies born with a congenital cardiac defect. For a "Place," he was at Johns Hopkins University. The "Thing," is one of the many kinds of congenital cardiac malformations, D-Transposition of the Great Arteries (we'll just call it "Transposition"). I chose this defect because the Blalock-Hanlon procedure was the first palliative operation for babies born with Transposition. In the normal heart, systemic venous blood (blue) goes through the right heart to the lungs, and



Figure 3. Normal circulation.

pulmonary venous blood (red) goes through the left heart to the

aorta. With Transposition, the heart develops normally, i.e. the blue blood goes from the venae cavae through the right atrium and tricuspid valve into the right ventricle; the red blood goes through the left atrium and mitral valve into the left



ventricle. However, the aorta and pulmonary artery develop abnormally - the aorta arises from the right ventricle, and the pulmonary artery arises from the left ventricle. Thus in babies with Transposition, the blue blood gets pumped back to the body, and the red blood gets pumped back to the lungs. With this circulation, there need to be additional defect(s) for the baby to survive, and I show an atrial septal defect in the illustration, with blood shunting in both directions. Transposition was first identified in 1797, and for the next 150 years nothing could be done about it. Alfred Blalock was the original pediatric cardiac surgeon, and Dr. Hanlon was a resident at Hopkins at the time. In the mid-1940s, Blalock and Hanlon knew that babies who were born with only Transposition lived only a few weeks or months. It was counterintuitive, but babies who were born with Transposition and additional defects in the atrial and/or ventricular septae actually lived longer, sometimes into their teens. They reasoned that the more blue blood that finds its way into the pulmonary artery and the red blood that finds its way into the aorta, the better. Thus, there needs to be some communication inside the heart to allow this mixing to occur. Cardiopulmonary bypass had not been invented yet, so they wouldn't be able to get into the ventricles, but Vivien Thomas was a brilliant technician in Blalock's animal laboratory, and he figured out a way to surgically create a hole in the atrial septum with the heart beating, with minimal blood loss, and with low operative mortality. Thomas was African-American, and he devised the procedure in the animal laboratory, but the surgeons took the credit. The Blalock-Hanlon procedure added only a few years to a baby's life in the 1940s, but it was a small step. However, for the baby born in 1955, those 3 years counted, because cardiopulmonary bypass became available in the early

1950s, and the next increment in care for babies with Transposition occurred in the late-1950s to early-60s. Åke Senning in Sweden

and William Mustard in Toronto developed procedures to re-route venous blood inside the atria, whereby the blue blood was routed to the left ventricle and the pulmonary artery, and the red blood went to the right ventricle and aorta. From the point of view of the



Figure 5. Post Mustard/ Senning

lungs and the body, the Mustard/Senning procedures straightened out the circulation, but the anatomic right ventricle became the systemic pumping chamber. Initially, the procedure couldn't be performed in babies, so it became the 2nd stage at 2 or 3 years of age, as the Blalock-Hanlon procedure was the first stage as a newborn.

Another increment began in 1969, when Brian Barret-Boyes in New Zealand began performing intracardiac surgery in younger and younger children, thus obviating a palliative procedure as the first stage. By the mid-late 1970s in many centers the Mustard procedure was performed in neonates. Into the 1980s, things looked good for the Mustard patients. However, as they got into their late-teens and early adulthood, their right ventricles, which were pumping at systemic pressures, did not hold up as well as true left ventricles.

In babies with Transposition, the coronary arteries arise from the aorta, and they need to be perfused by blood at systemic pressure. Originally, the Mustard procedure became popular because if the great arteries were switched to the appropriate ventricle, the surgeons couldn't think of a way to mobilize the ostia of the coronary arteries. The final increment in operative care began in 1975, when Adib Jatene in Sao Paolo devised a way to do that, but 6 of his first 7 patients died, and his technique was not adopted initially.



Figure 6 Arterial Switch Operation

However, as the older Mustard patients began to develop right ventricular failure in the early 1980s, Yves Lecompte in Paris and Aldo Castañeda in Boston successfully modified Jatene's technique to move the coronary ostia in neonates, and by the late 1980s their technique began to replace the Senning/Mustard approach. Currently the Arterial Switch Operation in neonates is state of the art. These children have been doing well, into adulthood.

The above focused on surgery and what happened when the baby went to the Operating Room. In the "Things" category, a (very) small incremental step was the introduction of Prostaglandin E_1 in the late 1970s. Maintaining patency of the ductus arteriosus

is not routine in babies with Transposition, but there are occasions when it helps to provide another site for mixing of the 2 circulations.

Many cardiac conditions can cause cyanosis in newborns. Until something could be done about them, the accuracy of the clinical diagnosis wasn't very important - they lived however long they lived. But if you take a baby to the Operating Room for a certain procedure, you really don't want to find that the diagnosis was wrong after you open up the chest. "Things" also includes diagnostic procedures - how we arrive at the diagnosis. Assessment also has had an evolution. In the 1940s, EKGs and chest films were available to supplement the clinician's findings on History and Physical Examination. In 1929, Werner Forssmann, a urology resident in Berlin, performed the first catheterization of a heart (his own). Eventually, the field was developed further by Radiologists and Cardiologists, such as André Cournand and Dickinson Richards in the 1950s. These 3 men won the Nobel Prize in Physiology or Medicine in 1956. Pressures, flows, and pulmonary resistance can be measured in the Cardiac Catheterization Laboratory, and selective injection to visualize the cardiac chambers can be performed. This was a major increment in the advancement of the understanding of cardiac pathophysiology, both for groups of patients when investigating the effects of specific cardiac pathologies, and for individual patients. Also, access to the heart with a catheter opened up other opportunities for new kinds of intervention. In the mid-late 1960s, Bill Rashkind in Philadelphia developed a balloon catheter which could be inserted into the femoral vein and advanced across the atrial septum into the left atrium. After balloon inflation, the catheter would be pulled back to rupture the atrial septum; then the

balloon was deflated and the catheter withdrawn. For babies with Transposition this became a quicker, safer and equally effective alternative to the Blalock-Hanlon procedure to enlarge the foramen ovale / atrial septal defect. This was another incremental step, and the beginning of Interventional Cardiology.

But cardiac catheterization is not without risks. Starting in the early 1970s, ultrasound became another "Thing" as it was developed for assessment of various body parts. Early-on, cardiologists learned how to use ultrasound to examine the heart, and it is a great non-invasive tool to assess anatomy and to help understand cardiac physiology and pathophysiology, in both groups of patients and individual patients. The initial studies were with a single crystal, and an "ice-pick" view of the heart was This was a small incremental step, because obtained. interpretation of these studies required a lot of skill and experience, as the wavy lines looked like noise to most observers. However, by the late 1970's-early 1980s, the engineers developed ultrasound imaging in a plane, and 2-dimensional images were much more intuitive. This was a large increment, as the whole medical team could appreciate the anatomy. But the images alone threw out important information. Most of us took physics in college as a prerequisite for medical school, so most of us were exposed to the Doppler equation. But most of us probably said "I'm glad I never have to think about that again," which means that we would have missed the Doppler shift that occurs when the ultrasound beam hits moving blood. But the engineers did think about it, and mapped the Doppler shift into a color pattern so that we can visualize blood flow in the heart. And the Doppler equation can be used to calculate pressure drops, so we can non-invasively measure a

pressure gradient across a stenotic valve, which is another significant incremental advancement.

Advances in imaging continue, with the latest "Things" being CT and MRI. While the technologies are very different, both techniques acquire digital images in 3-dimensional space and time. And modern software produces amazing images and physiological information. This is a great source of information to manage patients, for teaching, and for research. The images are also useful to show parents what is wrong with their baby's heart - you can show them what a normal heart looks like, move it around, look inside, etc., and then show them what their baby's heart looks like.

For more focus on "People," let's return to the surgeons. To this day, Cardiac Surgery still falls within Thoracic Surgery, which came into being as a specialty in the late 1940s. When Dr. Hanlon trained, Cardiac Surgery and Thoracic Surgery were included in Surgery. When Dr. Hanlon left St. Louis to become director of the American College of Surgeons, Vallee Willman did most of the cardiac surgery, on both children and adults, which was the model most used in the US for many years. With time, it became obvious that there is very little overlap in cardiac surgical indications in children and adults, and an important incremental change in the US was that in the 1980's Castañeda at Boston Children's Hospital operated only on children. This model has become more wide-spread in the US (it was already common in Europe and Latin America), especially because many cities and University Medical Centers now have free-standing Childrens' Hospitals, rather than pediatric services within general hospitals.

There has also been an evolution in "Places." Let's consider the Intensive Care Unit (ICU). In 1969, in St. Louis City

Hospital #1, a side-room off a ward of 30 beds had a monitor and a ventilator, which was as close as we came to an ICU. As a resident the Neonatal Intensive Care Unit (NICU) was a large part of our training, and there was a less-developed Pediatric Intensive Care Unit. When I started at Stanford in 1976, Norman Shumway was doing the congenital cardiac surgery. While he was best known as



Figure 7 St. Louis City Hospital

the developer of heart transplantation, he was also a very good congenital heart surgeon. Post-operative babies were cared for in the NICU, but older children were cared for in the (adult) ICU, which meant adult-oriented nurses and general surgical residents supervising - the senior cardiac surgeons were usually in the Operating Rooms. The ICU was a long way from the pediatric units. As the first increment, Dr. Shumway was able to establish Cardio-Thoracic as a department separate from Surgery, including a separate Cardiac Surgical ICU, where children were cared for after surgery. However, it was still a long way from Pediatrics. Eventually Dr Shumway stopped operating, and Vaughn Starnes, who had trained in Cardiac Surgery at Stanford and then spent a year with Marc de Leval at the Great Ormond Street Hospital for Sick Children in London, returned to Stanford. He moved the children to the Pediatric ICU, where he worked very closely with the Pediatric Intensivists. After Vaughn left, the most recent increment was that Frank Hanley was recruited to do pediatric cardiac surgery, and the patients are now cared for in the Pediatric

Cardiovascular Care Unit, where the attendings are fully-trained in Pediatrics, Pediatric Intensive Care and Pediatric Cardiology.

In the early days of cardiac surgery, the emphasis seemed to be on the surgeon, and the above doesn't include evolutions in anesthesia, medications, respiratory care, pain management, nursing, physical therapy, etc. - indeed in all fields. However, as the care became more complex, the emphasis needed to be on the whole team - many people have roles to play, across department lines. As you saw above, many individuals in many institutions in many different countries contributed. Some of the cardiac defects have had simpler evolutions than transposition (ventricular septal defects), and some evolutions have been more-complex (single ventricle, heart transplant).

I was born in Pasadena, CA, in the middle of the 2nd year of World War II, the 2nd of 4 children. My father was literally born on his parents' farm in the center of South Dakota, where they were basically subsistence farmers. He found his way to Rush Medical School, where he met my mother who was a scrub nurse. He did an anesthesia residency at Los Angeles County Hospital, and after they discovered that it was 70° and sunny on New Year's Day plus a football game in Pasadena, they never looked back. I spent 3 summers in high school on the farm – it was before the Rural Electrification Association hit South Dakota, which meant a wood-burning stove in the kitchen, kerosene lanterns, outhouse, and water from a well pumped by a windmill. We took a bath on Saturday night whether we needed it or not. It wasn't quite horseand-buggy, but only a small step up.

In college, the Humanities were not my thing, and I majored in Engineering Science at Notre Dame, which was
followed by a Master's degree at Stanford. The course work was interesting, but after graduation the jobs were impersonal. I decided to go to medical school (rote memory), which was different than engineering in those days (equations). There is probably no other way to learn anatomy, and you just have to remember all the steps of the Krebs cycle, but I think there is more science in physiology now than we learned then. And the smokeddrums for the frog-muscle twitch experiments probably have been replaced by modern recorders, but it was useful to see how

scientific findings came into being. even with primitive instruments. I spent a lot of time in the library those first 2 years, and in my 2nd year I began working for Camillus L. Witzbleben, clinical pathologist at Glennon Hospital. He and his wife were very kind to me they invited me over for dinner with some regularity, and I their 5 babysat daughters



Figure 8. Camillus Witzleben

occasionally. I was actually house-sitting for them the day the US landed the first man on the moon, and they had a TV set!

The work in the first 2 years paid off when we began our clinical clerkships in the 3rd and 4th years. We split our time between the University Hospital and City Hospital #1. The University Hospital had normal staffing and a normal cross-section of patients. City #1 was in an African-American part of the city, and the patients were predominantly African American. The city hospitals had been segregated until the passage of the Civil Rights

Act in 1964, so this was now "de facto" segregation, rather than "de jure," but it was still segregation. Staffing was a problem, both nursing and house officers, but it was a great learning experience to have to learn how to teach yourself, and we did the best we could for the patients. Many of the Obstetric patients were children having children - 12- or 13- year old girls with their 1st babies, and 14-year old girls with their 2nd.

I think that the single best educational experience I had in my whole career was an hour with Dr. Arthur McElfresh at Cardinal Glennon Children's Hospital. He was Chair of the Department of Pediatrics, and he did weekly rounds with medical students. The session I remember was that we looked at normal childhood development. We started in the newborn nursery, and worked our way up, as the floors were divided by age. We didn't talk much about what was wrong with the children that brought them to the hospital, but rather what was right. In particular, we saw how a child picks up small objects, like cheerios. At 6 months they use their fingers like a rake, and trap the Cheerio against the palm of their hand; at 9 months they can use their index finger and thumb in a "pincer." He asked some of the older kids to draw a person, and we saw that the older the child, the more-complex the person they drew. Dr. McElfresh also led a daily conference at 4 pm with the faculty, residents, and students; admissions from the day before were discussed, and he was a fount of knowledge. There were also 2 Pediatric Neurologists (whose names I have forgotten) who were masters at carrying on 3 separate conversations simultaneously - talking with and examining the patient, conversing with the parent(s), and teaching the student(s). And there was a head-nurse on one of the Pediatric Units who used blankets to gently restrain a child for a blood draw or iv start - I have not met anyone else who could do that as well as she could.

For internship I went to the University of California at San Diego. The University had just taken over the County Hospital, and was in the process of beefing up programs. Also, medical science was making rapid progress. In the Intensive Care Nursery in my first year, one night we had to care for a complicated baby, and the nurses were using 8.5" x 11" charting paper to keep notes, vital signs, etc. This baby was too complicated to fit on one page, so we had to tape 2 pages together. The next morning, the head nurse thought this was a good idea, so she made a few modifications, and had more printed up. These became part of the That month, 14 premature babies died of Respiratory charting. Distress Syndrome (one was 1750 grams), as we were just learning how to ventilate babies. The next year, Continuous Positive Airway Pressure had been developed, and only 2 babies died that month; a 1750 gram baby easily survived. I saw only one Blalock-Hanlon procedure, as balloon catheters had become available for babies with transposition. On the ward there were occasional children with H. Flu. meningitis, and I still remember the name of a 2-year old boy with ALL and a lovely family - he lived 4 more months. We have made more than "incremental" progress in preventing infectious diseases and treating other diseases like leukemia.

After 2 years of Pediatric residency, I stayed at UCSD for 4 more years of Pediatric Cardiology training. At the end of my fellowship, I really liked San Diego, but there wasn't a good way to stay. I returned to Stanford in 1976 - the 3rd Pediatric Cardiologist, and 25th Pediatric faculty person. Most pediatric divisions had 1 or 2 faculty, and most of their main interests were in research. There was lip-service to patient care, but not a real institutional focus. So there was an opportunity to fill a vacuum, although the effort was under-appreciated. Dr. Shumway was best known for development of heart transplantation, but his favorite procedures were congenital cardiac problems, and he was very good. He was at the University of Minnesota when they developed cardio-pulmonary bypass, and he was proud that in his early days he repaired the hearts of 65 children with Tetralogy of Fallot before his first fatality - results unheard-of at the time. Jim French, one of the other Cardiologists, had access to prototype ultrasound machines, so we pushed the technology in that field. And when Prostaglandin E_1 came along, we were able to become part of the experimental protocol before it became clinically available. Similarly interventional cardiology, imaging, electrophysiology, heart transplants - continuing advances that all needed to be understood and embraced.

In 1995, Rodion Nahapetov, a Russian movie star and director, and his wife, Natasha Shliapnikoff, approached a nurse at Stanford about organizing a team to go to Kazan, Russia to help them develop cardiac care at a new Children's Hospital. There were about 20 of us - surgeons, pump technicians, cardiologists, anesthesiologists, an intensivist, nurses, and an electrical engineer. It was only a few years after the breakup of the Soviet Union, and I expected Russia to be more-developed than it was. The Operating Room reminded me of St. Louis City Hospital in 1968 - a sparse table in the center of the room, with empty cabinets where there should have been supplies. Fortunately, the woman who led the medical team had previous experience in St. Petersburg - she said that if we thought we might need something, we needed to bring it with us, so in addition to the people we brought 100 large boxes of

donated supplies. What we didn't use, we left. Although the Soviet Union was ahead of the US for a while in the space race, and they built good rockets, airplanes and ships, they had virtually no consumer economy. Thus refrigerators, stoves, and medical supplies needed to be imported, and they didn't have much hard currency. The physicians were smart and knew a lot on paper, but their practice was also 25 years behind standards in the west. At first there was some tension, but after the first operation, they realized that we could teach them some things. It was an eyeopening experience, in many ways. Before we went to Russia, because they were raised under very different conditions than my upbringing, I thought that their values would be completely different. However, after that trip I realized that I have more in common with most Russians, at least in the medical community, than I do with most American Republicans.

I retired from full-time practice in 2002. I worked for a company as an independent contractor in a locum tenens capacity. For about 10 years, I worked 1 week/month at the University of New Mexico. The standard of care was very similar to Stanford, so I just showed up and went to work. About 40% of New Mexicans are native Spanish speakers (many of my California patients were also), and about 10% of them were Native American, which was new to me. In one of my early trips, a 2-month old boy came in with pneumonia, and also had an underlying heart problem which was previously unrecognized. The pneumonia needed to be treated, of course, but eventually he would benefit from cardiac surgery. I had a nice conversation with his parents, a young Native American couple, and they seemed to understand the problem and my recommendations. But then they had 2 requests - could I repeat the conversation with her mother, and could we arrange a

Navajo interpreter? Of course. Later I found out from the New Mexicans that in the American legal system the first conversation was important for us to get parental consent, but in the Navajo culture the maternal grandmother is <u>very</u> important to help make those decisions.

Concerning the future, I discussed progress in the science and practice of pediatric cardiology, as a discipline, and as a reflection of "Medicine," above. However, I didn't talk about problems that developed during this era. In my early career the finances of medicine were easy - physicians billed for their services, and insurance companies reimbursed what physicians billed. When I was an intern, a patient's family brought in the bill they received, as they thought the charges excessive. I had no idea what the charges should be, so we went to our billing office and we asked how the billers decided what to charge. She said "We bill what insurance companies pay." That seemed curious – our costs weren't put into it, only what we expected them to pay us.

Obviously that process could be exploited, and eventually insurance companies caught on. In the mid-1980s they responded by simply paying what <u>they</u> felt the effort was worth, which was usually less than the physician billed, but the patient may have to pay the remainder. Gradually this evolved into a process where the insurance companies contracted with hospitals and physicians for their services. Bill Gruber mentioned a bill in his Introduction (\$140,000 for a one-day inpatient stay for a relatively minor procedure) - it was mine. The follow-up is that Medicare paid about \$20,000, my private insurer paid \$1,000, and I paid \$35. The hospital accepted that. Obviously, \$140,000 isn't real money if you have good medical insurance, like Medicare. However, if I didn't have insurance I would have been responsible for the entire bill, no discount. That's not a sustainable system.

The second problem with the system is the physician interface with the medical record. We went from handwritten notes which could be easily lost, to a massive computer system, where things now get lost because you don't know where to look for them. Medical records arose from the business end of the hospitals, as insurance companies and hospitals needed to figure out where the money went, and that drove the system. Progress Notes, Laboratory Reports, etc., were add-ons. In our current system, I was proud of the notes I could write on my patients. In addition to the usual History, Physical Exam, etc., you can easily copy images of the x-rays, rhythm strips from the bedside monitor (which often get lost, otherwise), growth charts, intake and output over the last few days or weeks, labs, whatever. Thus, all these can easily be found in your progress note, all in one place. However writing that note took more time than taking care of the patient, and I couldn't bill for it.

A third area is the Health Insurance Portability and Accountability Act (HIPAA). In the 1990s Newt Gingrich realized that with medical records in a computer format, there were few layers to protect the confidentiality of this information. HIPAA came into being in 1996. It started as a law, and later Health and Human Services drew up the rules. While the concept is certainly valid, the bureaucracy it engendered was substantial.

I bring these things forward because I think they are real issues, and even my best nostalgia doesn't cast him into a good light. In each case "Medicine" lost control of the situation, and we were forced into compliance. My sense is that we are entering an age when Artificial Intelligence (AI) will become progressively more important. I think the challenge will be whether "Medicine" will have any influence on how AI is used. Will it help us get through the jungle of costs, charting, and HIPAA? My fear is that AI will be co-opted by bigger business interests, and physicians will again be left to pick up the pieces. Or another way to look at it is that there is a real opportunity for physicians to direct the development of the technology, rather than sitting idly on the sidelines bemoaning our fate. It could actually be a very good time to be in medicine, if we put our minds to it.

Concerning domestic life, on July 1, 1976, I put my few possessions into a U-Haul and drove to Palo Alto to start working at Stanford. One year later a couple I knew at UCSD also moved to the Bay Area for positions at Stanford, and a year after that, another of their friends moved to the Bay Area. Jan grew up in central Michigan, and knew as a child that she wanted to move somewhere else. After high school, she went to a local junior college for an LPN degree, and she eventually found her way to San Diego, where she attained an AA degree in Nursing, and an RN. In 1978, she moved to the Bay Area to attend Sonoma State University's RN to BSN program. We were married in 1981, and she graduated 4 months later. A few months after that, she started working in the Clinical Studies Unit at Syntex. Part of her job was to collect blood from normal controls - they were employees, who volunteered to be test subjects. Some had unusual WBCs - these were soon recognized as early AIDS patients.

About 2 years later, Jan became pregnant, and she stopped working (outside the home) about 2 months before our daughter, Helen, was born. Two years later we welcomed a son, Carl. When he started 1st grade, Jan started working from 9 am - 3 pm, and took summers off. When I retired from Stanford, she began working full time, at several different pharmaceutical companies.

Helen went to Bates College in Maine and majored in Russian Studies. She then earned a Master of Communications at the University of Washington, and is now in Seattle, doing Social Media for the Blood Bank. Carl went to Alaska Pacific University in Anchorage, AK, and



Figure 9. Halloween

majored in Psychology. He is now in Eugene, OR, working with homeless people. I don't know why they wanted to go to cold places!

It was an amazing time to be in medicine. It was kind of like I was sitting in the ocean when a surfboard fell out of the sky. I was lucky enough to figure out how to get on board, and then the wave was endless. As Bill Gruber described in the introduction, the 1960s were a time of tremendous social unrest. Living in the Bay Area, it was hard to avoid the "pill"/Sexual Revolution, the Civil Rights movement, and, increasingly, the Anti-War protests. In St. Louis the "vibrations" weren't quite the same, although there were occasional opportunities for activism, for example when Mike Gross and I marched after Martin Luther King was assassinated. Eventually, I became a Conscientious Objector to military service. Much of the music also made a person think. The words of Nobel Laureate Bob Dylan still resonate, particularly when applied to medicine:

"... he not busy being born ... is busy dying ..." From: "It's alright, Ma (I'm only bleeding)."

Finally, thank you to Bill Gruber for the photographs of Drs. Hanlon and Witzeleben, and of the St. Louis City Hospital.

Reference: BLALOCK A, HANLON CR. The surgical treatment of complete transposition of the aorta and the pulmonary artery. Surg Gynecol Obstet. 1950 Jan; 90(1):1-15



Figure 10 At Seattle Troll

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Ken Rongey

I, Elaine Rongey, am writing this in honor and memory of my dear husband, Kenneth Rongey. He passed away on May 29, 2018, one week shy of our 49th wedding anniversary. He was a very humble, loving and caring physician and husband.

During the summer of 1968, between sophomore and junior year of medical school, Ken participated as a Fellow in the Medical School Preceptorship Program under the leadership of John Schweiss, M.D., head of anesthesiology at SLU. Dr. Schweiss's mentoring influenced Ken in pursuing a career in anesthesiology. Ken spent much of his time at Cardinal Glennon Memorial Hospital for Children. He took notice of a petite R.N. working in the operating room wearing a green scrub dress, mask and bonnet, the typical attire in those days, who became his wife in 1969. There wasn't a honeymoon, the Dean of the Medical School would not let him have time off, even though the head of the rotation that Ken was on said it would be all right.

Ken did a Rotating Internship with the Saint Louis University Group of Hospitals, spending much of his time at City Hospital, now torn down. During his rotation at Cardinal Glennon, he caught chickenpox from a child patient. He was miserable, having never had chickenpox as a child.

Residency in Anesthesiology (1971-1973) was spent at UCLA, under Chairmen John B. Dillon, M.D. and Ronald Katz, M.D. Ken had the honor of being a Chief Resident in his senior year. I worked in the operating room until the birth of our son, Eric.

The Navy came calling after residency and moved us to Camp Lejeune, North Carolina for two years. Ken had time to start an acupuncture clinic after learning about the techniques at UCLA. He enjoyed gardening and grew many vegetables since the growing season was conducive to it. A fun pastime was to go surf fishing. The beach was out the back gate of the Naval base, and Eric and I would go along and play in the sand and collect seashells. Ken left the Navy as a Lieutenant Commander, after two enjoyable years.

Dr. Schweiss encouraged Ken to return to SLU School of Medicine and Ken became a Clinical Instructor and Assistant Professor at Cardinal Glennon Memorial Hospital for Children. Ken truly loved taking care of children and became quite an expert at it, but worked long hours every day. After our daughter, Andrea, was born, he realized that things needed to change.

We moved to East Grand Rapids, Michigan, at the end of October in 1979, after an invitation from a close friend and family whom we met in the Navy, to join a private anesthesia group needing a pediatric specialist. And the hospital, Blodgett Memorial Medical Center, was less than a mile from the house we purchased. Ken was the eighth anesthesiologist in the group, and over the years it grew to 25. After merging with another hospital to become Spectrum Health it has well over 100 anesthesiologists now. He served as Chief of the Anesthesia Department and Chief of Staff.

Ken was not a traveler but in the spring of 1985 he accepted an invitation to participate in a Citizen Ambassador Program of People to People Anesthesiology Delegation to the People's Republic of China and Japan. The group represented various aspects of anesthesiology in technical and professional exchanges with their Chinese and Japanese colleagues. I was invited to go along. We were gone three weeks, having never before left our children for any length of time. What an adventure for us and our children left at home with childcare providers! Ken remained working at various facilities of Spectrum Health until January 2005, when he retired at age $59-1/_2$ after being diagnosed with Parkinson's Disease. He ethically felt he could not continue giving anesthesia. His retirement gift from his group was an airplane ride in a vintage WW2 P51 Mustang. He loved it! He considered it one of the highlights of his life.

In 2008 Ken was an honoree inducted into the Distinguished Physician Society at Spectrum Health. It pays tribute to physicians who have made extraordinary contributions to the institution and to the quality of care to their patients and families.

After retirement he focused on learning about Parkinson's Disease, and we joined a support group which was very beneficial. We built a barrier-free home three houses from our home. Our daughter and her husband, Tim Dudley, and children bought our house since they were in the process of moving back to Grand Rapids. Ken enjoyed having our two grandchildren, Hayes $(10^{-1}/_2)$ and Cora (9), down the street from us. He saw them often and loved them dearly. We would have family dinner together on Sunday evenings. Our son lives less than a mile from us and would join us.

Ken enjoyed fishing, but the fish were never threatened by his presence. A builder of beautiful bamboo fly rods and a master of tying fishing flies, he enjoyed spending time as a member of a fishing club on the Little Manistee River, north of Grand Rapids. This was his "go to" place. He loved being on the river, being in nature, seeing and hearing the wildlife, and catching and releasing fish.

Ken wrote a family history, including pictures, of growing up. He has no siblings or relatives on his Mother's side. A good friend of his published it on archival paper. Ken would say that needed to be checked off his list before he passed. He did it and it's a treasure which the family is so thankful to have.

Ken was able to stay in our home and I eventually had help come in. He was at peace at the time of his passing and always would say "I'm not afraid to die, it's just getting there." He knew where he was going. He lived a good and faithful life.

I know that he enjoyed many of your friendships in medical school.

I'll leave you with Ken's words of wisdom or life tenets. He enjoyed vetting ideas and making decisions as to which wisdom would be included. He found these tenets telling and funny, a way to sum up life's complexity with wit.

- 1. You're never at your best when you're at your worst.
- 2. Things are never as bad as you think they are.
- 3. Things are never as good as you want them to be.
- 4. Sometimes people are no damn good.
- 5. It's always something.

6. It's better to want something you don't have than to have something you don't want.

Enjoy life and your loved ones. Blessings, Elaine Rongey



Student doctors on our first day to the hospital, 1968. Left to right: Ken Rongey, Rick Rosen, Paul Pitlick, Julio Royo



Richard (Rick) Rosen

I had just turned 17 three months before starting my freshman year at CCNY. It was the age of Sputnik and the space race. I selected a track in physics which was linked to calculus. I had some academic difficulties when I started college. I worked my way through the first semester with only a 'C' in calculus. In the spring semester I followed up with the next physics course and another semester of calculus, but I wasn't focused and wound up with a 'D.' But I was done with calculus and when my sophomore year started I signed up for the next physics course, Orbital Mechanics, and its sister course, Advanced Differential Equations. I was not really engaged with either course and I dropped out of one and got a 'D' in the other. I realized that there were other students bringing in their homework assignments on green-bar paper from a computer lab and that they were far above me in their efforts. I went to see the guidance counselor and took an aptitude test that showed strength in personal communication and science. He suggested that I consider being a scientific product salesman, but upon discussing this with my folks, those two strengths were compatible with medicine. I pursued chemistry and biology and became a straight 'A' student. The Dean of St. Louis University Medical School spoke at the college Caduceus Society meeting. A friend of mine asked me to come with him to that talk. The dean asked why there hadn't been an applicant from CCNY to St, Louis U med in over 20 years. I didn't need a second invitation. I succeeded in getting accepted to both St. Louis University School of Medicine and The Medical School at Downstate, now called SUNY Downstate Health Sciences University. I opted to go to St. Louis. My mom always wanted me to be a doctor. We grew up with several doctor models in the

Bronx—those who were personable and available with some daytime and evening hours; those who could make a house call to see a sick child. I think she was very happy that I eventually changed my college major and course of study and pursued medicine.

I came to St. Louis University Medical School, never having been west of the Mississippi. Living in the Phi Beta Pi medical fraternity house for two years was a rich experience for me. I got to have the support and camaraderie of 20 other freshmen and 2 upperclassmen to help me organize my study time and activities. With meals served there and housekeeping taken care of, we could efficiently use our evenings and weekends for poring over the texts and class notes and the exam archives. I had only been exposed to general practitioners for my own medical exams and immunizations and I had a cousin who was the only other doctor in my family who was a general practitioner. I thought about what field would suit me best as I enjoyed the lectures and labs and clinical rotations. I recall our psych professor, Dr. Corday, explaining to us how he got into that field. He was enlisted in the military and they lined up all the doctors and had them count off 1 to 4. They told all the 1's they were generalists, the 2's were assigned to surgery. The 3's were internists and the 4's were psychiatrists. He was a 4. I was offered to enroll in the MD-PhD program as I did well in biochemistry, but I didn't accept that as I wanted to be a hands-on doctor. Bit by bit, I eliminated several specialties due to the prolonged training and taxing hours. Deliveries occurred at all times of the day and night, so OB-GYN was out. I recall the Chief Surgical Resident, Dr. Bardenheier making rounds with us at 6 AM each day with big bags under his eyes from lack of sleep. Surgery was out, although I did enjoy learning a lot about wound closure at the City Hospital on Friday nights when Tom Rowley and I volunteered there to sew up wounds, often without any Novocain needed as the victims were so numbed by alcohol. Our rotation to the VA Hospital for psychiatry was depressing, so I crossed that off the list. I really did enjoy the pediatric rotation at Cardinal Glennon Hospital for Children. The spirit of the staff was so energizing—Dr. Art McElfresh and Dr. George Comerci, the chiefs of the services, were very involved with the medical students. Pedi residents Gary and Sarah were so nice to work with to pick up pearls. The daily 4 PM conferences were enlightening. The only sad part was seeing children with severe injuries, potentially fatal diseases and the frightening part of being in the hospital with strangers in a difficult situation. I steered away from Pediatrics as we were told that Pediatricians were the least respected of the specialties and the lowest earners.

Jani and I were married in June of 1969, between my junior and senior years. We honeymooned briefly for a 2-day weekend at Lake Wappapello and did some fishing. It was so hot that weekend that the hotel experienced an electrical brown-out and there was no air-conditioning in the rooms. They kept the outdoor pool open until midnight to keep cool. Jani got a position teaching elementary school while I was completing my senior year.

I contemplated an elective studying medicine outside of the US. It would separate us as newlyweds for a few months. I was given the opportunity to go to San Jose, Costa Rica to do a fellowship at the International Center for Medical Research and Training (ICMRT). I got my passport ready, updated my polio immunization, packed my bags and bid farewell to my newlywed wife Jani and left for my first stop in New Orleans with Dr. J.C. Schwartzwelder, the Professor of Tropical Medicine at Louisiana State University. After our meeting, I flew to Costa Rica. Dr. Pena Echevarria and his driver met me at the airport and whisked me through immigration and customs. They drove me to a pension, the equivalent of our bed-and-breakfast inns and told me to be ready to be picked up the next morning at 8:30 AM. I registered at the desk, was led upstairs to my room and given a menu in Spanish for breakfast that would be served at 7 AM. I was exhausted and quickly fell asleep, waking at 6:30 AM to get ready for my first big day. I quickly learned the Spanish words for the breakfast items and everything was fresh and tasty. The driver picked me up right on time and took me to Dr. Pena's office at the ICMRT office. He told me about the local polio epidemic that was affecting 100 children in the country and how they were completing oral polio vaccination. He also explained some of the studies that were being done for Chagas disease and intestinal parasitic conditions. He took me on rounds in both the San Juan de Dios adult wards and through the Hospital de Ninos pediatric wards. He made a few introductions, showed me the medical library, and from there I was on my own to explore. I stayed at the pension for only a few days until I was offered room and board with a family. That turned out to be another opportunity for learning Spanish and the culture.

Every day I started my rounds by visiting the laboratory to look at stool specimen slides under the microscope with the lab techs, studying them to identify intestinal parasites, of which there were often more than one type present. Based on the findings, a specific treatment was prescribed. I would visit many of the patients in the wards and I found that the men with various fungal rashes were interesting to evaluate as many of them has lesions for years that were slow-growing. Treatment was also slow and methodical. There was a young woman of about 18 years who had lost most of her nasal cartilage due to a parasitic infection and had somewhat of a disturbing appearance. There was an interesting assortment of patients there, including many of the polio victims who were in the paralytic phase of the infection and required respirator assistance to breathe as their diaphragms were paralyzed by the polio. I saw a newborn baby with tetanus from the home delivery and having his umbilical cord tied with a dirty thread. There was a young man with seizures due to the after effects of a measles infection. A chubby-faced girl was always walking around and saying "El medico no habla Espanol," (The doctor doesn't speak Spanish). She was on steroids to control her poststreptococcal kidney inflammation nephritis. Protein-calorie malnutrition was a major pediatric problem in Costa Rica. I saw children with the effects of malnutrition several times on the wards. They were small and thin and often had skin findings compatible with various vitamin deficiencies. It was a multidimensional problem and was addressed with a multi-pronged approach that included education, social support and dietary supplementation. They were trying to use high-protein fish-derived additives to the tortilla flour and also powdered milk to add to the diet.

During the three months that I was in Costa Rica, we made visits to remote villages to evaluate and treat residents. We collected blood and stool samples for lab analysis. There was a visit to the leprosarium where patients with leprosy were treated and lived isolated from bigger populations. There was a serpentarium that housed venomous snakes that were used for providing venom to be purified, injected into horses and then harvesting their serum to make antivenom. We participated in oral polio vaccination to children in small villages.

There was an amateur radio station in the lower level of the ICMRT that was used to communicate with Louisiana State

University. Since I was a licensed ham, I was allowed to use the station periodically in the evenings. I would seek a "phone-patch" with a ham in the states who could call Jani on the phone and then Jani and I could speak briefly to each other. International calling was far too costly. She arranged to take her December vacation and fly to Costa Rica and we spent a wonderful 10 day together. WeI even got a chance to fly to Panama for a few days to visit my classmate, Julio Royo who was home for the December holidays with his family.

I wasn't sure of a specialty when I was selecting my internship matches. It just seemed that an Internal Medicine internship would give me a year's credit in any future field I pursued. I spoke to Dr. Frawley and he connected me with Dr. Harold Jeghers, the Chief of Medicine at the Tufts Service at Boston City Hospital. I was matched there and we moved to Watertown, MA, and my wife Jani got a teaching position in Newton, MA. It was a pretty grueling year as interns because we had to draw our own blood samples, do much of the testing, plate our cultures, and test urines of the hospitalized patients, as we were their primary physicians. We even had to transport our own patients to the wards from the emergency room, pushing the gurney stretchers. Sometimes we had to transport our patients to radiology. This was a unique experience as we would often take the outside courtyard route to another building. For many weeks in the summer and fall, there was a cow tied up in the courtyard, grazing on the grass. We were told that the animal had undergone placement of a mechanical cardiac assist device. We had some excellent attending docs and I learned a lot about doing procedures, the course of diseases and what was rarely curable in adults as almost everything we saw was chronic in nature. At least 50% of everything at the hospital was

alcohol related: DT's, GI bleeds, chronic liver failure, ascites, bleeding varices and various neuropathies. I felt very prepared for the clinical aspects of the internship based on our med school experiences. History and physicals were routine. Starting IVs, drawing bloods, lumbar punctures, doing lab work, and running an occasional resuscitation. I considered doing a second year in Medicine, then two years in Pediatrics and becoming triple-boarded in both, as well as Family Practice. But that seemed quite impractical. The dilemma was solved with a letter from the Selective Service that I was being drafted into the military as a physician, as the Vietnam War was still raging. I called the SS office and explained that I was caring for patients in an underserved inner-city setting and would seek a deferment. While we were speaking, the staffer asked me if I wanted to join the Army or the Air Force if I didn't get my deferment. I thought I'd look better in blue, so I said, "Air Force." I did not get a deferment and told the SS office that I was ready to serve. They sent me papers to complete, get a physical, and fill out a "dream sheet," requesting a geographically desirable assignment. I selected Southwest US. The next thing I knew, I was asked to report to Sheppard AFB in Texas for 2 weeks of Officers' Basic Medical Training in Mid-October, and I would be assigned to Reese AFB in Lubbock, TX.

I drove to Lubbock when OBMT was over and went to the home of my assigned "Big Brother," Major Milt Schwarz. He would take me to the base to officially sign in and told me then that I was assigned to Pediatrics. He had just finished his chief residency in Peds at Johns Hopkins and arrived at Reese AFB 3 months prior. He gave me a quick tour of the base hospital and clinic and then explained he would be going away for 2 weeks to a course on managing allergies. He handed me the Pedi pager and told me that they might page me to come to the operating room to attend a Csection and perform any infant resuscitation if needed. I spent the next few days studying the Textbook of Pediatrics to be sure I could manage what was being thrown my way. When Milt returned I debriefed him on what I had managed in the office, nursery and wards, and he told me that I would be a great pediatrician. During the next two years that we shared an office and patients, I experienced what a pediatric residency would be like. Milt connected me with a contact at Children's Hospital in Boston and I wound up with a position at Massachusetts General Hospital. It was a fascinating 2 years as we had referrals from all over New England and from Countries in South America and the Middle-East. I was exposed to conditions from the mundane to the esoteric. Upon leaving MGH, I was ready for anything.

But the world was not ready for me as it was 1975 and there was an oil embargo that shut down a lot of the transportation and economy. The birth rate was down, practices were not looking for new partners and after some failed attempts at joining an existing practice, I applied for a Family Practice position at Rhode Island Group Health. I interviewed there and they explained that they had just hired for that advertised position but they were seeking another pediatrician. Since I was board eligible in peds, I told them that I could fill that slot.

I interviewed with the Chief of Pediatrics at Rhode Island Hospital. I wanted to be an attending physician and care for my patients that needed to be hospitalized. I was an attending physician on the wards, PICU and NICU for a month a year at each setting. I couldn't write orders, but I could discuss issues with the residents and facilitate care and continuity. I was able to work with the residents and fellows to manage my patients in the Pediatric ICU and in the Nursery ICU. Little by little, we were zoned out of those positions as the hospital hired full-time faculty and the only thing that we could do was see what was going on and discuss with the family.

CAT scans were being introduced as I was doing my residency. MRIs were also being installed in regional centers that had to apply for a Certificate of Need as the thought was that if there were expensive MRIs installed everywhere that they would be overutilized and run up medical and insurance costs.

We saw the development of surfactant and it was used as an aerosol on babies with Respiratory Distress Syndrome in the NICU at Massachusetts General Hospital. One of the anesthesia fellows used a pressure transducer and plotted the improved lung elasticity after the procedure. I witnessed the use of prenatal steroids, neonatal respirators, positive-end-expiratory pressure, high frequency, and other strategies for the management of hyaline membrane disease of premature infants.

Pregnancies are now screened with blood tests, Group B strep testing, ultrasounds with high resolution, and even amniocentesis for the prenatal diagnosis and the baby's health. Genetic and metabolic testing is being done from maternal peripheral blood and chorionic villus sampling. Gene therapies and enzyme replacement therapies are now available for rare diseases. Techniques for intrauterine treatment and even fetal surgery have been developed for successful management of potentially fatal conditions and congenital anomalies. Cardiac congenital anomalies that were once considered fatal are now being managed with staged and multiple surgeries with long-term survival. Newborn blood screening can now detect up to 50 diseases and inborn errors of metabolism. Those affected with cystic fibrosis have better screening, early detection and management for improved quality and prolongation of life. There now is universal congenital heart disease screening with limb O₂ saturation monitoring. Patent ductus management continues to change from suturing to surgical clipping to the use of indomethacin, then ibuprofen, now acetaminophen or minimally invasive endovascular occlusion. All newborns are tested with hearing screening and special hearing aid devices and cochlear implants are available now. Early intervention programs have made great strides in the management and treatment of special needs children.

Changes in the management of fever in infants now mandates a full culture workup and double antibiotic coverage. Antibiotic resistance has increased and it requires careful choice of antibiotic coverage. When I was rotating in OB-GYN at St. Louis City Hospital, we were using the newly formulated cephalosporin Keflex for pelvic inflammatory disease. Now we have multiple generations of that drug family.

I recall the type of treatment that was available for children with cancer and leukemia when I was a med student and resident. Most of it was palliative. Now with new drugs and bone marrow transplant regimens, we have the ability for a very high percentage of long-term remission and essential cure of many childhood cancers and leukemias.

Vaccines have been developed for Varicella, H. Flu, Hepatitis B, HPV (human papillomavirus), rotavirus, and RSV prevention with Synagis (palivizumab). When the Varicella vaccine became available, we got 60 doses to administer and almost all of them were claimed by staff for their children, despite the added preand post- blood samples that were needed to monitor antibody response. Hemophilus influenza B Infections such as meningitis and epiglottitis have virtually disappeared due to these new vaccines. The alarms about HIV infections have diminished due to better education of patients and the public, preventive strategies, testing and medications.

There is a greater awareness of Tourette's Syndrome and a wide variety of treatments and support groups for affected persons and their families. I was exposed to my first case while doing my residency. A few years later at an American Academy of Pediatrics meeting I stopped at the Tourette's Syndrome Association booth and filled out a questionnaire asking if I ever saw a case, treated a case and would accept referrals for suspected cases. I was one of two pediatricians in Rhode Island who saw and treated many children and adults with Tourette's and I also facilitated a local support group. Along the same lines, RI was the home of the diagnostic evaluation of Attention Deficit Hyperactivity Disorder. The Bradley Hospital was the first neuropsychiatric children's hospital in the early 1930's. Dr. Charles Bradley noted the effects of Benzedrine on children with typical symptoms. In the 1950's the issue was documented in the APA's DSM. Ritalin became available and by the 1990's the evaluation and treatment continued to grow with increasing numbers of cases identified. Today there are a host of medical and non-medical therapies for the condition. My practice witnessed this trend. Autism Spectrum Disorder has replaced a common use of mental retardation. Asperger's Syndrome is a milder form in the spectrum. I recall having patients with both conditions; however at the time, these nomenclatures were not popularized.

Pediatric specialties continued to grow, and patients with anything other than common conditions were being referred to specialists. I prided myself in heeding the words of our pediatric chief, Dr. Art McElfresh, "We trained you to manage all types of pediatric conditions. Take care of them in your offices and don't refer everything back to us." I took care of patients with neurologic conditions, endocrine problems, gastrointestinal issues, rashes, allergies, behavioral issues and urologic and gynecologic needs. I sewed lacerations, casted minor fractures, and reduced dislocations. I drew bloods, often did my own gram stains and read the slides, did lumbar punctures and started IVs and gave IV therapies. I recall using the white mice for the diagnosis of pneumococcal pneumonia when we were medical students at St. Louis City Hospital. We would inject a small amount of patient sputum into the abdominal area of the mouse and then put some gentian violet marker of the head or ear to identify the case. If the mouse died in a day and the swab of the peritoneum was gram positive cocci, we had the diagnosis. I was still using the tried-and-true Novocain injection followed with the needle and thread or Steri-Strips when appropriate. In my last year of office practice, I recall that the use of medical grade cyanoacrylate glue was approved for skin closure of lacerations.

In 1981, I was invited to be part of a conference sponsored by the National Committee for Quality Assurance, a fledgling group that was initiated by HMOs, consumer groups and healthcare professionals. I was trained as a surveyor and with another experienced HMO physician, we did several site visits to various HMOs to review their operations, quality and utilization management programs, and member complaints, appeals and satisfaction. It was a break from the office and certainly fascinating to see how other organizations were managing care. When Dr. Don Berwick set up seminars for quality management in health care, I was an active participant. I participated in Medical Quality Management conferences and headed up quality improvement projects at my group. HMO and managed care organizations grew and there were many mergers, with practices bought or absorbed by hospitals. As these changes occurred, many primary doctors decided to retire. Harvard-Pilgrim Healthcare was a merger of two HMOs in Massachusetts and they also bought Rhode Island Group Health. But the governor of MA saw that HCHP was spending \$10 million a year in RI to keep the plan afloat. The handwriting was on the wall and I started to look for a new position, having seen just about everything in my first 25 years of clinical practice.



Jani & Rick Rosen and their 4 children on the occasion of their 50th wedding anniversary.

I accepted a position as Mid-Atlantic Regional Quality Management Medical Director with the newly merged Aetna USHealthcare organization. With 4 million medical members, there was fertile ground for improving preventive health screenings, immunizations and disease management care. For me, it was a whole new experience in a huge corporate setting and there were so many areas that needed attention that I was busy from the early mornings until late in the evening. One of my medical director colleagues answered his phone when I called him at 5:30 PM. I remarked that it was great to be able to chat with him when the business of the day settled down. He remarked that after 5 PM was when the fun began. Call, emails and collaboration on cases and projects to enhance patient care.

Within a few years, challenged by the chief medical director, under my leadership, all the markets in the Mid-Atlantic region achieved Excellent accreditation status from NCQA. I continued to be a speaker for NCQA at their accreditation educational conferences and at several managed care organizations under the auspices of the Pfizer Speakers Bureau. We began to see the adoption of electronic medical records, automation of appointment scheduling and greater access for acute medical issues. Initially the newly developed walk-in clinics were called, "Doc-in-the-box." Today we have free-standing emergency and walk-in clinics almost everywhere. They appear to have filled a great need for acute care access. At the same time, physician practices like mine, where I attended my own hospitalized patients and ran a busy office were changing. New generations of hospitalists were trained to manage in-patients, alleviating travel and stress on office-based physicians, and improving the care of those in the hospital with coverage by doctors who were readily available throughout the facility. An unintended consequence was some discontinuity of care, but there have been several improvements to assure proper transfer of patient information and follow-up care.

NCQA established Healthcare Effectiveness Data and Information Set (HEDIS) measures for managed care organizations.

HEDIS is a comprehensive set of standardized performance measures designed to provide purchasers and consumers with the information they need for reliable comparison of health plan performance. We began to see Hospitals purchase practices and have more physicians on a salary. Coupled with this, insurers began to offer incentives and reimbursement bonuses based upon various medical quality performance parameters. Healthcare organizations began to recognize the advantages of organizational efficiency and use of common medical records so that specialists could have access to the patients' information and in turn, the primary care doctors could have timely feedback from the specialists. Care coordination reduced waiting times and duplication of testing, and improved facilitation of health care needs and patient outcomes. Once upon a time when I was an intern in internal medicine at Boston City Hospital, a person with a myocardial infarction was hospitalized for almost 3 weeks. Today, that has been reduced to less than a week in-patient, includes use of clot-busting drugs, intra-arterial stents, new and better medications, and followed by out-patient cardiac rehab.

After 6 years as the Regional Quality medical director, I became a Utilization Management medical director. Using well-documented guidelines, we authorized coverage of certain procedures, hospital stays, and made level of care reimbursement determinations. There was always ongoing research into the outcomes of various programs and procedures, new drugs and treatments so that we could apply the best information to our determinations. There was the availability of peer-to-peer consultation, appeals and third-party determinations. Each of these provided an additional layer of quality management and feedback for the utilization determinations. In time, as electronic data and

internet security improved, many of the staff moved to work-athome, another efficiency and cost improvement. I completed the last two years of my role as a UM medical director and accepted the retirement package offered to us in 2012.

Consolidation of healthcare organizations will likely continue. CVS acquired Aetna in 2018 after almost a year of antitrust court hearings. It is clear that there will continue to be quality improvements in all areas of medical care. All medical personnel will need to work toward greater patient care coordination, adoption of medication and medical techniques developed in research, and achieve greater accountability for population health and care outcomes.

Our own children were all capable and bright students. My wife, Jani, was an elementary school teacher. Although we often discussed what paths they would pursue, none of them seemed interested in becoming a doctor. One of my sons commented, "It's too much of a responsibility for another person's life." My nephew did pursue the medical track, and I am proud to say that he has become a research neonatologist and completed a research fellowship, focusing on lung issues. He said that he was attracted to pediatrics because of my influence and experience. There are also several of our friends' children who have pursued medical careers, and I encouraged them, explaining that we always need bright, motivated and inquisitive minds to care for all of us. For me, all phases of my career were challenging, exciting and rewarding. I am proud of the contributions that I made to the lives of my patients and for the quality improvements that my staff teams and I facilitated.

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JULIO C. ROYO

"Dr. Royo, so far you are not setting any blazing trails in this Medical School." Those were the words of Dr. Robert Felix, Dean of the Medical School, during the counseling session upon completion of the first two years at SLUMS. Not inspirational words, but a motivational message that stayed with me all of these years, since I graduated in 1970.

Upon graduating from SLU, I enrolled in the internship program at Gorgas Army Medical Center in the Panama Canal Zone and had the benefit of traveling back to my country aboard the SS Cristobal, one of the three ships that historically crossed the Panama Canal in 1914. Traveling from New Orleans to Panama, I met part of the interns and residents and nurses that were starting their training in Panama. It was a crazy bunch but all of them were excellent physicians. I felt fortunate to have attended SLUMS for I soon realized that I possessed excellent medical training and skills as a clinician that allowed me to successfully complete this part of training.

After my internship year, I stayed on board at Gorgas and did my Pediatric Residency which I completed in 1974. In Panama, in order to have a license to practice medicine, one is required to complete two years of internship with the government, one year in the city and one year in a rural area. The government accepted my year of internship at Gorgas as the city requirement and then assigned me to a brand new hospital in a city called Puerto Armuelles (near the Costa Rican border) with the compromise to set up a pediatric ward, nursery and clinic at the new hospital and I had as my support other doctors who were completing their year of rural internship so it was an exciting task and a wonderful experience as the founder of the Dionisio Arrocha pediatrics department. I could have stayed there, but politics interfered so I transferred back to the U.S. Army civilian program first as Chief of Pediatrics at the Coco Solo Army Hospital on the Atlantic side from 1975 to 1980 and then back to Gorgas Army Hospital as part of the pediatric staff.

I became board certified by the American Board of Pediatrics in 1983 and joined as a member of the AAP in 1985.

Because of the mandates to implement public law 94-142 and the Department of Defense Letter of Instruction 1342.12 the Consultant to the Army Surgeon General based on merits and because of the need to promote the programs for children and families with special needs offered me the opportunity to complete training at Fitzsimons Army Medical Center in Denver and at Brooke Army Medical Center in Ft. Sam Houston in San Antonio on Developmental Pediatrics (a subspecialty little known in the 80's). Since then I have devoted my pediatric practice to what was called the Exceptional Family Member Program (EFMP) as the Developmental Pediatrician with the Department of Defense Schools doing assessments for special needs children and in implementing IEP (individual educational plans). I was the Chief of the EFMP and had as support a full and great staff of three physical therapists, three occupational therapists, two speech and language therapists, two psychologists and one pediatric neurologist. It was a wonderful experience with its share of professional enrichment. I got to travel to meetings in Continental U.S. and Europe where programs were being implemented and later on I had to also participate in the downsizing after the fall in 1989 of the Berlin Wall which I got to visit including Checkpoint Charlie.

I voluntarily retired from the Army Program with an early retirement option in 1995 and was given the medal for Meritorious Civilian Service by the U.S. Government and then I set up private practice as a developmental pediatrician in the City of Panama. My clients were infants and children with special needs and were referred by other general pediatricians, parents, and mostly from the private schools in Panama. I was the one and only developmental pediatrician in the Republic of Panama.

I remained in practice until 2017 when I finally decided to retire from private practice and other endeavors completely. I was tired of "setting blazing trails" but I thank God for giving me the opportunity to pursue new experiences for professional growth.

During the years from 1995 to 2017 I also kept busy with other opportunities. I was a consultant in Adolescent Health for the United Nations Population Fund from 1997 until 1999 and then continued as a consultant with the United Nations in charge of a national project in Adolescent Health until 2003 creating a total of 5 Adolescent Social and Health Care Facilities in the Republic of Panama. These centers have continued to function over the years
providing services to adolescents in areas of need. I was a consultant with the United Nations Population Fund for a total of 6 years.

I kept very busy, and I also took on the job as a Special Education Advisor to the Oxford School, a British school in Panama, from 2001 until 2010. Once the UNFPA project finished in 2003 I devoted my time to the Developmental Pediatrics practice both in private clinics on an appointment basis and at the Oxford School three days a week as the Special Education Advisor where I was called Teacher Royo. At the school I interacted with teachers, students and got referrals for assessment of children with special needs and with the Special Education Multidisciplinary Team developed IEP. During those nine years I acquired a lot of expertise on the diagnosis and management of children with the autism spectrum disorder.

After 2010 and until I retired completely in 2017, I continued to function as the Special Education Advisor to the Oxford School but no longer based at the school, but on a referral basis to my private clinic near the school.

Did I find time for personal life and enjoyment? Yes I did.

I married a wonderful woman in 1971 and we hopefully will see our Golden wedding anniversary in 2021. Deyita has been my support all these years and has kept me in line. She was a student of Journalism but due to the strict call schedules it was hard for her to take care of the home and the kids that soon arrived, so she did not get to complete her Bachelor's degree but got a Doctorate in Motherhood and Housekeeping. She is 7 years younger than I am, but I am now her executive secretary trying to help her with chores

at home and taking care of her health. She at times gets frustrated to have to depend on me, but we are an exceptional team and she needs me as much as I need her. We had three kids, may I say that none of them wanted to be



physicians. They did not want to be "on call" and work 32 hours at a time and get home so exhausted that all one wants is bed. I had a room with total blackouts which I called my "uterus". My kids did not like the uterus. All three turned out to be biologists.

My son Alex, is now 48 and has a Ph. D. in Biology with a specialty in ecology and he is living and working in Pennsylvania.



He is working as a Research Ecologist, specializing in Sustaining Forests in a Changing Environment. He is a prolific researcher and writer, and has research projects in the U.S., Canada and Central America. From his first marriage we have one grandson, Ian, now 23, and he is into arts as a composer and musician. He also does his own recordings. His mother passed away and my son remarried; from his second marriage we have one granddaughter, Adriana, who is in elementary school and excels in dramatic arts and ice skating.

My daughter Melissa is 46, is a Marine Biologist from Texas A & M. She worked at NASA for a while and then returned to Panama, and worked developing projects to combat white spot syndrome in shrimp both locally and in Ecuador. She worked as a Biology professor at an American school here in Panama and now she is dedicated to her four boys and the dramatic arts. She married a Jewish man and converted to Judaism. She is happily married, lives here in Panama, and is the only one living near us. She has four boys: Carlos 15, Maayan 13, Danny 11 and Itamar 8. Carlos had his bar mitzvah two years ago in Israel, which we attended and it was a wonderful experience. Maayan also had his bar mitzvah two weeks ago, but he did not get to travel to Israel because of the travel restrictions due to Covid 19. Two more left to go.

My youngest son, Carlos, is 44 and graduated as a Marine Biologist from Texas A & M and earned a second degree in Marine Science. Upon graduation he was recruited by Exxon to work aboard ships with SeaRiver Maritime and there he worked for 15 years going from shipmate to Captain. He retired from SeaRiver two years ago and now is a member of the Aransas-Corpus Christi Pilots Association where he is a pilot. He has two kids from his marriage, Carlos Reid who is 21 working part time attending college in Dallas and Ava who is 18 and will graduate in June 2021.

That is my family. My wife and I have a home in Panama City, but 16 years ago we invested in a Beach Resort residential project and we have a home there also, Decameron or Costa Blanca



Beach and Golf Villas. I don't play golf, but this is where we spend most of our time, relaxing, relating to and nature, periodically we come to the hustle and bustle of the city. Our days of traveling abroad. raising family and going to work are now over, especially with this pandemic. My

wife and I are very happy to enjoy life, have each other and also a wonderful family.

I really think I did what God had intended for me to do, not Dr. Felix's "blazing trails." I am happy with my accomplishments and just hope to continue with good health to enjoy my next 24 years. Why 24? As an anecdote, two years ago in Corpus Christi I went to church and during the communion the priest stopped giving communion, looked at me and said "You will get to be 100". I felt overwhelmed. I hope it is true.

Colleagues, this is my life. Blessings to you all.

Ronald L. Ruecker

When I entered SLU in the fall of 1966, I had been married for 2 years and had a one-year-old son. In addition, I was a St. Louis native with family, so even though I had been gone for 4 years for undergraduate school at Illinois Wesleyan University, this was not new turf for me. As such, I had very little social life or interaction with my classmates outside the classroom or clinic or hospital. The exception was a group of guys who lived at the Coronado Hotel: Fulton Saier, Walt Williams, Bill Swancerik, and Alex Herzen. I would journey to their place from time to time to study and commiserate.

I considered several Midwest locations for internship, residency and fellowship but ultimately stayed at SLU because it just made more sense. I passed my Internal Medicine Boards on the first try and was boarded in 1973. I did the first clinical GI fellowship at SLU in 1973-74 prior to this all the GI fellowships had been with Dr. Knight at St. Mary's.

In July of 1974 I moved our family of 4 (our daughter was born as one of the last babies at Desloge on December 2, 1970) to Decatur, Illinois to join a small clinic. I chose this because it was midway between Chicago and St. Louis and our respective parents but also because I was the first sub-specialty trained Internist to come to the community of any sort and the closest GI person was 50 miles away. It was a chance to write on a blank canvas and define the specialty. My influence still exists to this day.

My first 5 years, however, were mainly practicing IM while I established the GI practice. After 5 years I left the clinic and went into solo practice. Two years later (1981) I recruited the first cardiologist in Decatur to join me, and our practice "Internal Medicine Subspecialty Associates" was born. For 10 years I was the only GI in town until I recruited a 3rd associate. Ultimately our subspecialty group was 3 gastroenterologists and 2 cardiologists. In 1997 the cardiology guys joined a bigger regional group and we became a 4 person GI group. I practiced full-time until 2007. After that I volunteered at a local FQCA for several more years. Fortunately I was able to devote my full efforts to being my wife Bonnie's caregiver from 2012 until her death in 2020 from Amyloidosis AL involving the heart and lungs.

Along the way, I got involved in organized medicine first through the Illinois Society of IM ultimately becoming it's president, and then elected to the board of the American Society of IM (now merged with ACP) and served from 1989 to 1996 in that capacity. In addition, I got involved with the Illinois State Medical Society and served on the board for about 12 years being President from 2001-2002 and Chairman of the board from 2002-2004. I represented the ISMS to the AMA for about 23 years, retiring as the chair of the delegation and served on many AMA committees.

Honors along the way were AOA at SLU and being elected as a fellow in both the ACP and ACG.

Just to spice things up, I went back to Purdue University and earned a masters degree in management (MBA) in 1995. My work in organized medicine and running a group practice made the need for more formal education in business discipline apparent to me. I considered career changes on 3 separate occasions, but remained in Decatur where I reside today.

Practicing primary care and subspecialty care in a community of 100,000 was very rewarding. I was fortunate to make a difference in the lives of many patients and their families. The

rewards of a practice where you become aware of their life style and family dynamics goes beyond the monetary compensation you derive.

My involvement in organized Medicine was very rewarding. First, it was the colleagues you interact with from all around the country. Second, you are impacting patient care not just one patient at a time, but for a population of patients. You realize that you are giving back to the profession and patients.

My marriage of almost 56 years created 2 children and 4 grandchildren ... probably the best thing I will leave to posterity. I enjoy golf, woodworking and woodturning. As COVID winds down I look forward to traveling once again. We have a condo in Naples, FL (since 2002) and I hope to winter there once again the year 2020 was lost to COVID and a broken arm just before Christmas that resulted in my first surgery in 77 years. I am back playing golf, woodworking and learning to live alone. I expect that in the not too distant future I will return to my roots in the St. Louis area now that the job I came to Decatur for 47 years ago is done and I don't have family here.

My motto when I was President of the Illinois State Medical Society sums up my feeling about our responsibility to society as physicians. I believe that St. Louis University helped instill this value. I stole the motto from another St. Louis University alum Dr. Tom Dooley:

"Dedicate some of your life to others. Your dedication will not be a sacrifice. It will be an exhilarating experience because it is an intense effort applied toward a meaningful end."



The Saier Family

Fulton Saier

On the morning of June 6th, 1970, Fulton graduated from St. Louis University School of Medicine. That very same evening Fulton married the love of his life, Kathy Martini.

Fulton and Kathy lived in St. Louis during Fulton's one-year internship and three-year OB-GYN residency. Their first child, Todd, was born in 1972, followed by son Kevin, in 1974. Shortly after Kevin's birth, Fulton finished his residency and began active duty in the US Air Force at March Air Force Base in Riverside, California. During his two years in the Air Force, Fulton delivered babies and performed gynecologic surgery for military families.

In 1976, Fulton and Kathy permanently settled in Portland, Oregon. Fulton started the OB-GYN Department for the multispecialty Portland Clinic. Fulton spent 23 years at the Portland Clinic before retiring in October 1999.

Besides working at the clinic, Fulton enjoyed volunteer activities with his wife. Together they headed the preschool religion program at their church, coached Little League Baseball, and were Cub Scout leaders. Fulton's favorite hobby was photography. He took many beautiful pictures and developed and printed much of his own black and white photography.

In October 1999, at the age of 56, Fulton was diagnosed with advanced prostate cancer. Upon diagnosis, the cancer had already

spread too far for surgery or radiation treatment. Fulton was given a few years to live. Fulton treated himself with diet, exercise, herbs, and other supplements and lived an additional 18 active years beyond his cancer diagnosis. During those 'retirement' years Fulton and Kathy were able to travel extensively, support their aging parents, provide counsel to innumerable prostate cancer patients, and welcome five grandchildren.

Fulton passed away on August 9th, 2017, at 74 years of age.

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Phil Santora

Good God! Where did 55 years go? I did not even know what a Billiken was upon my arrival in St. Louis in 1966. I had never been west of Buffalo and I had never lived for any period of time in a city the size of St. Louis before. I grew up in a small town in upstate New York called Oneida, famous for Native Americans of the same name, silverware, and not much else. I was the younger of two sons with a brother, Tom, who was 5 years older. My father worked in a munitions plant, then later at the silverware plant. My mother was a Registered Nurse where she worked at our local hospital. Earlier in her career, she worked at Bellevue in NYC. I guess I knew at a young age that I was interested in a medical career, having heard many of her stories about hospital work. For two summers in high school, I worked at the Madison County Lab at our city hospital, learning how to perform lab testing and blood draws. I did not know it at the time, but I was also learning about scientific disciplines and performing tasks with precision. I did blood draws on both inpatients and outpatients daily under supervision. I also had the experience of assisting at autopsies under the direction of Dr. Russell Lindauer MD, the County Medical Examiner. Both he and the medical technologists I worked under were great teachers and I learned a lot from them. My brother and I both went to a small Jesuit College in Syracuse named Lemoyne College where we both got good grades. He majored in history, and I in Pre-med with a minor in history. I loved history, and at the time, I had the thought that I would be a history teacher if I did not make it into medical school. I also boasted to my older brother that my History grades at Lemoyne were better than his. Mr. Jackson, chair of the History department, said he thought I would be a great history teacher, but that "you'll make a better doctor." Maybe so, but in my second year at Lemoyne,

I had to take Integral Calculus twice to pass it.

The Jesuits at Lemoyne were a liberal thinking group of excellent teachers and I learned much from them. Father Daniel Mulhauser SJ was the campus chaplain, and he spoke very highly of St. Louis University. Not only because it was a Jesuit school, but also and especially, for its patient-centered traditions and values. I had applied to SLU and to several other medical schools, but my interviews at SLU felt like a better fit than the others. After I got accepted to St. Louis University Medical School, or SLUMS, I told my family physician Dr. Joseph Zaia MD, and he was quite happy for me. He said they are "Good teachers and mentors, no nonsense." Before I had realized it, he was another mentor for me in many ways. In addition to his family practice, he made house calls at night and on weekends, and had a great bedside manner. He took care of my father and helped get him through three surgeries for colon cancer before my father became terminally ill. Dr. Zaia died at 103, and at the time of his death, he was the longest practicing physician in all of New York State. I looked up to him as a role model for a long time.

While I was a student at Lemoyne, I also had met a fellow student there, the young woman who later would become my wife. Karen was studying to be a researcher in the Biological Sciences. 53 years and 2 sons later, I have no idea how or why she still puts up with me!

When I first got to St. Louis, while I felt a mix of excitement and apprehension, I also felt alone. I was embarking on a long and arduous journey. I thought to myself, "What if I screw it up?" I had the privilege and good fortune to be a part of PHI BETA PI medical fraternity. It was great to have the support and good fellowship of all the frat brothers and that of John Alexander, who was resident upperclassman and house director/advisor. He helped many of us, me included, to find a balance between academics and down time. And then there were our other two favorite residents of the house, Dr. Falstaff and Dr. Budweiser. We had fun, but we had to do our share of house chores and do our best to all get along with each other, all while staying out of trouble. I guess John succeeded, most of the time. I never got the chance to thank him for all he did for us.

In first year, I felt overwhelmed by the physical and mental pace of the daily grind, and as I suspect, so did we all. Sometime in January, I gradually came to realize that I was not going to get kicked out from the medical school and from that point on, the classwork seemed to get easier. In second year, I became even more encouraged, noting that if I could better understand genetics, I could handle the rest. Karen and I had been engaged and as the year ended, she graduated from Lemoyne. We got married in the summer of 1968. After our honeymoon, we left for St. Louis in our Volkswagen. We found a nice apartment in Laclede Town, not far from the medical school campus. We were pleased to finally be together. I started third year at Firmin Desloge Hospital with my clerkship in Internal Medicine, while she secured a job as a laboratory assistant to Dr. Bose in the microbiology department. Dr. Subir K. Bose was a professor of microbiology at the medical school. He and his wife were very special people and were always very kind to both of us. Karen enjoyed her work there and had a lot of respect for him. We were saddened to hear of his recent passing. We will always feel indebted to him and his family.

Karen and I were both working hard. I was beginning to feel more confident with hospital work and she loved her job. Once we found our first place to live together, we truly felt "at home." In contrast, the world outside had felt like it was tearing itself apart. It was 1968 and the big cities were like powder kegs. The Vietnam War was raging, and we would hear about so many senseless deaths every day. We lost John F. Kennedy, Robert F. Kennedy, and Martin Luther King Jr., and many others. Our attempts to move forward as a country, as a people, and as a world seemed to be exacting too high a cost to our very souls. However, I do feel that times like that, in some ways, did help bring us together. I felt that about our classmates, our teachers, our families, and the university community as a whole. 1968 will always feel like a watershed year to me.

The third year felt like it went so fast, it was a blur. The rotations at Desloge in Internal Medicine, Pediatrics at Cardinal Glennon, and Obstetrics at City Hospital were all so different, it got confusing. Different instructors and residents to learn from, different populations to serve, a plethora of different skills to see, learn and do, all the while trying to figure out what I enjoyed and what I was talented at.

In my fourth year, during my rotation at St. Mary's hospital in Clayton, I had the privilege of working with two remarkable doctors who were role models, mentors, and fine clinicians. Dr. Knight and Dr. Flores. They reminded me of the three "A's" of a physician: Ability, Affability and Availability. During my third and fourth years, I saw this in action every day. As I think back, this was a hallmark of both my clinical years at SLUMS in all my rotations.

As my memory "walks the halls" of Schwitalla Hall and all the hospitals, names and faces come to mind. Vidic, Young, Olsen, Christenson, Willman, Hanlon, Frawley, Grossberg, Brodeur, Shopper, Knight, and McElfresh to name only a few. And of course, there was Dr. Felix, the Dean. I recall the night before graduation when he had dinner with us and reminded us of what was most important. "If all we have taught you is Krebs cycles and syndromes, then we have failed. For this is not the end of your journey, but the beginning. We hope you have learned 'how to learn' and keep learning for your patients, your colleagues, and for yourselves. Good luck to you all and remember us." How could we forget!

At graduation, I was not sure how prepared I was to start my internship, but as I look back, I believe I was quite prepared. I was simply too anxious to feel that confident, with all that lay before us. My plan was to do a rotating internship because I had no idea of what specific specialty I was drawn to. I had met Dr. Harry Owens MD, a SLUMS alumni, who had worked at San Joaquin County Hospital, and after several discussions I had decided to go there. By this time, I was comfortable working with most populations. The hospital was just starting an affiliation with University of California Davis, and I was excited to be a part of it. Both Karen and I had always wanted to see California and we were both excited about going there. Well, that did it. We made the decision to go to San Joaquin and I felt much better after the decision was made. At San Joaquin, all the interns and residents lived on the hospital grounds, which helped both the doctors and spouses to get to know each other as individuals and bond as a group. Karen and I loved it as we made some lifetime friends there. At work, I observed and performed some minor surgeries, delivered babies including one in the elevator, and had rotations in internal medicine, public health, ER, family practice, and pediatrics. The hospital treated the medical needs of the nearby population of migrant workers, as well as residents of the city of Stockton. During our time there, Karen and I saw San Francisco, Lake Tahoe, Big Sur, Carmel, and Yosemite among other places and met some fine people. I got bit by the chief resident's dog, a St. Bernard, and survived. We also went to wine tastings, campgrounds, saw the monarch butterflies in Pacific

Grove, and enjoyed Chinese pizza in Rio Vista!

At the end of the year, I had signed up for two years in the US Public Health Service, as part of the Berry Plan deferment. I was assigned to Washington D.C. at St. Elizabeth's Hospital as one of six doctors who were also Berry plan doctors. We cared for severely mentally ill patients, providing them with general medical and mental health care under the supervision of three senior psychiatrists. It was the largest mental health hospital in the country at the time. It felt like a 'baptism of fire' in some ways, but it opened my eyes to how underserved the mental health needs of patients were, in those days. It was there that I felt a real need to learn more about mental illness, especially mental illness that needed medical treatment. It was there that I decided to do a psychiatric residency of three years at George Washington University Hospital in Washington DC.

In the second year at GWU Hospital, President Reagan was hospitalized there. I recall having to go to that same floor, where the President was recovering, to perform a psychiatric consult (Not the President himself, but someone else on that floor). A year later, I would learn that John Hinckley was incarcerated to the unit where I had served during my PHS years. In 1980, I was boarded by the American Board of Psychiatry and Neurology, and I am now a Life Member of the American Psychiatric Association.

After my residency, I worked at two psychiatric outpatient clinics and two hospitals, Arlington Hospital, and Dominion Hospital Psychiatric Treatment Center where I eventually became Chief of Psychiatric staff. By then, Karen and I had been blessed with two boys, and we stayed there until 1989. The 'rat race' of a fast-growing area with impossible commutes was getting to us both, and we wanted to raise the boys in a smaller, less congested area. Both sets of parents were now in bad health and we both felt the 'pull' of returning to the Northeast to be closer to them. I had met John Docherty MD, an academic psychiatrist from Yale at the APA annual convention who was starting a new psychiatric hospital in Nashua New Hampshire called Brookside Hospital. We made the decision to move to New Hampshire, 40 miles northwest of Boston and I started work on the inpatient units at Brookside.

Since moving here 30 years ago, I have had the challenge and the opportunity of working in both New Hampshire and Massachusetts, at one private psychiatric hospital, three community hospitals, two private medical groups, and two mental health centers. I worked on psychiatric and substance dependency units doing detox treatments and 'dual diagnosis' units. I conducted psychiatric consults on medical and surgical units to help with psychiatric management of medically ill patients, and I worked on 2 geriatric medicine units working with delirium and dementia patients. For a few years, I was on the clinical teaching faculty at Tufts Medical School, and I eventually became Assistant Medical Director at Brookside Hospital. For several years, I coordinated the CME conferences for the NH Psychiatric Society.

Karen has had the opportunity to work as an environmental researcher. She supervised projects monitoring the health of marine life species in the Hudson River estuary and in waters near the nuclear power plant in Seabrook, NH. She found these projects to be very fulfilling which made me very happy for her. She and I are true soul mates, and we have two fine sons who are both married to remarkable women. Our eldest son, Chris, works at a company that helps make medical safety equipment including PPE. The younger son, Matthew, has worked for several companies that manufacture defibrillators, ventilators, and other medical equipment, and is a 'Wiz' with computers. They have been doing their part to help all of us get through this COVID nightmare. We are immensely proud of them.

I have had the opportunity to practice general adult, geriatric, and adolescent psychiatry. It has been quite fulfilling to treat patients for mental illness and allow them to return to their homes, jobs, and families with better mental and physical health. I have seen psychiatry, psychology, and behavioral health morph into more comprehensive interdisciplinary treatments. Like so much in all medical practices, there have been seismic changes we have all seen. Not only in the care itself, but in the revolutionary new ways of delivering, the affordability, and availability of that care. PET, SPECT, Brain mapping, TMS, DBS, and new forms of ECT are already in use. We have new frontiers of treatment with Ketamine and Psilocybin, and a host of new meds already in the pipeline. We have been doing clozapine therapy, lab monitoring of serum levels of meds, and have been using LAI antipsychotics for years with positive benefits. As I compose this, even fluoxetine is getting some research as a promising treatment component for COVID. Telemedicine and ZOOM are both here to stay. It is an exciting time to be a psychiatrist, to be the head of a team with many different areas of expertise, and to work closely with our medical and surgical colleagues in more comprehensive treatment planning to help our patients and their families. I have had the good fortune to know and work with many fine medical and non-medical professionals over the years. Many of these relationships continue to be good friends and colleagues, but I will always have a special place in my heart for my SLUMS classmates and mentors.

We all start medical school with the goal of helping people, but as the years go by, we can get caught up in our day-to-day work and routines. This "storybooks" effort has been a great help to reflect on my career and my life. My days have added up to decades, and when you begin to reflect, it can be more than a little unnerving, especially in how fast it has gone. I am most humbled by my wife and our sons for the sacrifices they have made along the way. I am most grateful to have been a part of the SLUMS community and a proud member of the medical profession. The opportunity to help the sick, distressed, troubled patients, and their families has been a privilege and an honor.



Old Courthouse, National Park Service site at Gateway Arch National Park. "The Olympic Runner" statue is in the foreground.

Photo credit: Bill Gruber

Elizabeth Danker Mann Sapala

On this Golden Anniversary of my graduation from St. Louis University School of Medicine I thank all the helping people who promoted me from Girl to M.D.

My family is steeped in the Christian heritage with many teachers and preachers but no M.D.s. The architecture and art of St. Louis University are comforting reminders of Jesus the Healer.

In 1948 my father was sent as the first missionary from the Lutheran Church Missouri Synod after WWll to Tokyo, Japan from West Chicago, IL. On our return to the USA In 1955 on the streets of Bombay India, I saw people sick, crippled and begging. The dead carted away.

I decided to be a nurse.

My parents William J. and Elizabeth nee Miller Danker, my brother Billy - 9, and sister Debbie - 18 months were completing a circumnavigation of the globe returning to the USA after living in Tokyo, Japan. What a memorable life changing education to take three months to see peoples and wonders of the world before we would arrive in Chicago. While in Tokyo, I lived through a deadly stampede on Emperor Hirohito's birthday, the biggest earthquake since the 1920s, and falling waist-high into a sewer (later treated for amebiasis). I went to military base schools until the American School in Japan reopened after the war with students of twenty-eight different nationalities.

It hadn't occurred to me to become a doctor of medicine until my St. Louis Lutheran High School physics teacher Mr. Daenzer stated, 'You should be a doctor.' I was concerned about undertaking this financial obligation. Halfway through training at Lutheran Hospital School of Nursing in St. Louis, an anesthesiologist Dr. Freiheit said, 'You should be a doctor.' Right then I committed to this goal.

After graduation in 1964, I used my nursing license in Valparaiso, Indiana where I received my B.A. from Valparaiso University in August 1966. With three small scholarships, student and family loans I resolved to complete training. My pre-med advisor Dr. Hanson kept me on track. Over a holiday, I wanted to go south and help register voters. 'You might not come back.' Much later I understood those words of warning. After a year at Missouri University Medical School, I became engaged. My fiancé could not leave his postgraduate training at Concordia Seminary in St. Louis.

I was fortunate that St. Louis University Medical School assistant Dean Bussmann and the Missouri University Medical School assistant Dean Colwill arranged my transfer from Columbia, MO to St. Louis. I felt welcomed by my classmates.

I took advantage of St. Louis University student health counseling to balance the stress of a new marriage with medical school. This is the same St. Louis University that gave safe harbor



to my father, forty-four out of fifty professors, and the majority of the student body from St. Louis Concordia Seminary in the 1970s after a very difficult time of political turmoil in the Lutheran Church Missouri Synod - all chronicled in Time magazine and books.

Evelyn Woods Reading Dynamics helped me deal with the

voluminous reading and note taking.

The selfless dedicated basic science and attending physicians gave me a comprehensive medical education enabling me to acquire the prerequisite skills and confidence to be a physician.

As a medical student assisting neurosurgeon Ken Smith, I was gently retracting the brain stem when I *sneezed*!

Dr. Smith said a quick quiet, 'Check vital signs.'

Somehow my hands did not move.

There was no change in vital signs or in Dr. Smith's demeanor.

The OR was tense. Cardio-thoracic surgeon Dr. Vallee Willman was operating,

Dr. Richard Barner was assisting.

Anesthesiologist John Schweiss directed a few quick quiet remarks to the woman operating the heart-lung machine.

Next in a casual tone, he announced, 'Calling home to check on the pool temperature.' All this to let us know the crisis was over.

I took the lesson with me.

Psychiatrist Dr. Dermot Smith, my assigned advisor for internship application, recommended straight medicine at the St. Louis Jewish Hospital – 'It's a Sleeper.' I matched the straight medicine program with the Director Dr. Stan Wessler at Jewish Hospital. I applied the skills to my patients that I'd been taught at St. Louis University Medical School of proper history taking and of the physical examination.

During this period:

The Chief Surgical Resident invited me to his home on Lindell Blvd to meet with the Black Panthers who were organizing free clinics and feeding programs with Head Start.

I saw a patient with Kaposi's sarcoma.

The problem-oriented method of charting was especially useful during ICU duty. One woman required resuscitation with shock 13 times in a week. We slept in the on-call room next to the nurses' station. She recovered completely. Sadly, she was killed by a bus.

A complex patient with pancreatitis wouldn't stop smoking. I was visibly pregnant. 'Make your fingers useful. Knit my baby a sweater.' He delivered a knitted white sweater with a blue ribbon and I delivered a beautiful baby girl!

I referred multiple patients to the Psychiatry Department with good results.

I was accepted into Dr. Nathan Simon's psychiatry residency program at Jewish Hospital for fall 1972. This program was eclectic and well located across the street from the biologically inclined Washington University Psychiatry program and next door to the Psychoanalytic Institute.

Dr. Simon recommended me for one of the twenty-five places for the American Psychiatric Association Falk Fellowship. I appreciated the work of the APA Board during frequent trips to Washington DC from 1973 to 1975 and their attention to the health of the organization.

In the ER of Malcolm Bliss Psychiatric Hospital as a psychiatric resident, when overwhelmed and needing a break, I dialed the prayer line on the interview room wall. Police brought patients in restraints on gurneys. Patients walked in tired of waiting at the City Hospital ER to our ER. Thanks to strong physical diagnosis training, I diagnosed a person with bromism and a person with a parasitic liver cyst, etc. One evening around dusk I went out the door into the chain linked enclosed parking lot. The door locked behind me. My purse and car keys were on the other side!! It was getting darker and colder. Thank God, after 45 minutes, I finally convinced someone on the sidewalk to go into the main entrance to tell them of my plight. I had a little taste of what it felt like to be ignored and not believed.

The seasoned nursing staff radiated competence. We were assigned to ECT duty on the wards. I pushed the noisy cart with the ECT machine down wide hallways in the quiet morning. A slim 5month pregnant woman lay on the gurney. The nurse anesthetist, the floor nurse, the patient, fetus and I all survived her treatment!

Back at Jewish Hospital an elderly man was curled up. He would not eat or drink. The family was planning his funeral. With six ECT treatments he was 'cured.' Several months later he and his wife brought the staff home baked cookies. He had put up the screens for the spring.

Early one morning the Surgical Chief Resident Charlie Park was in the elevator, heard the emergency page for surgical staff to psychiatry, stepped out of the elevator, crossed the hall and took charge. The patient had transected his own airway and a great vessel. The man survived to become an outpatient. I am partial to psychiatry being in a general hospital. I went to Medicine Grand Rounds for years. My visible presence as a psychiatrist and continued learning advanced my role in consultation psychiatry.

These were intense years for my family; the country was in turmoil over the Vietnam conflict. My church body was in political turmoil. My husband and I purchased our first home. He was ministering to a historic parish in a changing neighborhood. My private practice was full. In order to be visible and informed I joined the local and National American Psychiatric Association, I had clinical appointments at St. Louis University and Washington University, and I was on medical staffs at four hospitals. I consulted at the Webster Grove College Student Health and two alcohol treatment programs. Sadly his ministerial career and our marriage did not survive the times. This was a painful time.

Four years after my divorce, I met my second husband, a widower with a 12-year-old daughter. Joseph Sepala, M.D. was a St. Louis University-appointed Anatomic and Forensic Pathologist and a ten-year naval flight surgeon. He had already accepted a position as Medical Examiner of the 14th Judicial Circuit in Panama City, FL. We married in 1981. I closed my practice in the St. Louis area and opened a private practice in Panama City, FL.

It was a successful but difficult time as featured in <u>People</u> magazine, his autopsy findings set off alarms. Joseph accepted a position with the AL Department of Forensic Sciences in Montgomery, AL.

During the seven years we lived in Montgomery AL, I adjusted my practice to family needs. I had a private practice, then a staff position at Tuskegee VA Hospital with an adjunctive appointment with the University, and finally was Clinical Director of a 44-bed acute state facility Greil Hospital in Montgomery. Interesting aside - I was not successful in banning smoking in the hospital but I was successful in banning smoking at the statewide clinical directors' meetings. I placed a clear pink water pistol on the conference table and vowed to shoot out any lit cigarette. My clever nuclear engineer-brother taught me this successful ploy. Sometime after I moved to IL, the hospital did ban smoking. My last position was a unique opportunity to prepare for JCAHO inspections and to comply with the Federal oversight requirements subsequent to the Wyatt vs. Stickney lawsuit. All patients were court-committed. We had our own assigned city policemen. They knew how to talk with patients when they were reluctant to return from a pass home. There were no shootings.

Joseph switched to the VA Hospital for a time and then accepted a position in northern IL to do coroners' cases. I resigned from my position at Greil Hospital to facilitate his work in IL.

Both daughters had graduated from high school and were in college. In IL we were closer to aging parents. In 1998 we partially retired to Gulf Shores, AL. but retained a northern condo while responding to court cases generated by years of autopsies. We also would be easily available to one daughter in IL and another daughter in AL.

Looking back over my sixty years in health care and with the field of psychiatry as a backdrop, there is a standout memory. In 1963 at The State 'San' on Arsenal Street a white-tiled room with rows of large white tubs told me the stark cold story of pain and progress. Patients had been wrapped in iced sheets for sedation. In the 1930s and 1940s insulin shock, ECT, and psychosurgery were practiced in psychiatry. Phenothiazine in the fifties transformed the field. For three months I had lived, learned, and labored on the grounds of The State Sanitorium on Arsenal Street St. Louis, MO. As a senior nursing student we observed the enrichments of psychodrama, art, music therapy and occupation therapy. Patients worked on the grounds and kitchen. When these large institutions closed, sufficient funds did not follow the seriously mentally ill patients. Now our jails are mental institutions.

There were **times of frustration and fear** for me. While in AL, there was an anonymous phone threat to my family. I was punched in the arm; I was tackled in the ER at Malcolm Bliss. I interviewed three different murderers. Going through security in St. Louis and in Selma AL and then being locked in a cell is unsettling.

I prepared myself to testify with forensic texts, tapes and had the benefit of watching my husband testify many times.

We both joined the Army Reserve. I completed Basic Training at Ft Hood, TX in the heat of summer. I marched behind the 'water buffalo.' Rappelling did not bother me as much as crawling on gravel under barbed wire with live fire overhead. While on duty at Camp Blanding in FL, we received a reservist who had been hit by lightning.

The future of medical training is bright if:

It remains focused on the Patient -- the whole patient.

History taking and Physical Diagnosis are taught.

Fairness and respect are valued.

Our students come with critical thinking skills from a fact based honest comprehensive education.

Artificial Intelligence will continue to sort and assist us with the increasing data.

An honest person accepts responsibility for a decision.

The physician will not become obsolete.

There is always more to learn and hope for.

I am thankful to St. Louis University for the opportunity and education to receive my M.D.

I am proud of my St. Louis University Medical School classmates of 1970.

God Bless us all everyone.

Robert T. Stein

When asked to write an accounting of memories of my years at St Louis University Medical School (SLUMS) in the late '60s, I deliberated as to where to begin since I knew that my life had been significantly transformed by the opportunities provided by SLUMS. So I decided to preface my remarks with some personal history. I had a legacy at SLUMS since my paternal great-uncle and my father were both graduates of SLUMS. After my matriculation and graduation, I proudly proclaim that my daughter also followed our path graduating in 2002. She is now a board certified practicing pediatrician in Oregon. Furthermore, my background education was through Jesuit high school, followed by my college experience at St Louis Univ and Creighton Univ before I was admitted to the SLUMS.

Returning home to St Louis, I was labeled "a townie" as compared to most of our classmates from all over the country and beyond. Living at home and off-campus, I missed out on some of the great experiences of the students who lived in fraternity houses or apartments near the school. This also excluded me from some of the "all-nighters" in the med school library or laboratories. I do recall many long hours in the cadaver labs performing dissections and also histologically cruising along "The Turnpike of the Loop of Henle" with Dr Christensen. Then of course, there were the post-exam libations of fishbowls at Rigazi's on The Hill!

Another experience during my basic science years was being recruited as a subject for Dr Senay and his body temperature regulation experiments in the "hot box." Student subjects were in a dry heat at 115-120 degrees with an every two hour prescribed work exercise followed by frequent vital signs including "core" temperature readings. A stipend of \$75-100 was paid to those who were able to last 10-12 hours overnight in the black box. Great \$\$\$ in those days for starving med students.

Initially our summers were open though we were expected to spend them in academic clerkships. Freshmen summer I spent as an OR tech in Pediatric Surgery at Glennon quite an eye opening time—experiencing what surgeries Drs Lewis and Danis could perform on such small patients. My sophomore summer was spent with the wonderful Pediatric Radiologist, Dr Armand Brodeur. Utilizing magic tricks as an accomplished magician and along with the Dr. Seuss and Batman/Robin décor in the exam rooms, the young patients' anxieties of the scary X-ray equipment and procedures were alleviated.

Clinical years were typically spent as long days and nights on busy rotations through Internal Medicine, Surgery, OB-GYN, Out-Patient clinic, Psychiatry, and best of all for me, Pediatrics at Cardinal Glennon Childrens' Hospital. It was while I was on service in Pediatrics that my wife, Ann, observed that I was the happiest and least stressed compared to other disciplines—leading eventually to my choice of specialty.

My Neonatology interests were stimulated during internship in the Glennon NICU with Dr Paul Byrne, our attending, and by an infant with IRDS. During evening checkout rounds on my call night. Dr Byrne said that the state of the art in 1970-71 had no good cure for this baby's disease. The baby's prognosis was thought to be guarded and most likely terminal. He further stated that if I wanted to learn firsthand about pulmonary physiology and how to manipulate a ventilator, I could use this infant and his disease process to learn from overnight—though he thought the outcome would inevitably be the same. Spurred on by this frustrating "inevitability", I worked tirelessly throughout the night and with the help of God weaned the baby off the ventilator by morning—to live on! A remarkable and transforming event for me. Those were the days before Betamethasone, surfactant, CPAP, infant ventilators and so many other advances we now have access to in 2021 for infants drastically more fragile than my patient.

I left SLU campus for a Pediatric residency with the Navy, followed by a Neonatal-Perinatal Fellowship at the Univ of Michigan, then onto an academic appointment at the Univ of Kansas Medical Center. I retired in 2015 after 37 years of private practice Pediatrics/Neonatology in the Kansas City area. After retirement I did occasional stints of locum tenens work in Massachusetts working in level 2 NICUs affiliated with Mass General Hospital. I still reside in the Kansas City area with my wife of 53 years. We raised 5 great kids who live all around the country giving us the opportunity to travel and visit. We have eleven wonderful grandchildren, aged 2yr-19yr that keep us active.

As all of us are well aware, Medicine has made tremendous advances over these past fifty plus years. Diseases we treated in our professional infancy (Rh iso-immunization, H. flu meningitis, lympho-blastic leukemia, Rheumatic fever, etc.) no longer exist. We are now faced with novel and ever changing challenges. I feel that the solid bases of medicine that were instilled in us during our formative graduate training as physicians prepared us well to continue to learn and to further improve the care we were honored to give to those entrusted to us for treatment. We were also given the challenge to continue to face and accept the newer frontiers of this ever changing world of medicine.

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Roger Thomas

Professional:

Medical internship: 1970-71 at Harbor General Hospital, Torrance California (with John Dale)
Residency: Diagnostic Radiology UC San Diego 1971-74
NIH Fellowship UCSD 1974-75, Angiography and Ultrasound
Private practice: 1975-2021 Hoag Hospital Newport Beach, Ca.

When I began med school with all of you, I just knew that I was the second coming of William Osler. Fortunately for the medical world, I had a 6-week elective with Jim Martin, head of radiology at SLU. I had presumed up to that point that radiologists were glorified physicists. Jim was a renaissance man. I watched with admiration and surprise as he went head-to-head with Tom Frawley and Vallee Willman at grand rounds.

A career shifting experience for me was the 12 week experimental surgery program at SLU. That exposure confirmed that I wasn't surgical material but whetted my interest in a more aggressive approach to my subsequent specialty. Radiology exploded in the mid 70s with the introduction of two-dimensional imaging. This created IR. I was there for the first successful angioplasties at my hospital. Our equipment then was of museum quality compared to the incredibly thin and flexible guidewires and catheters used today. It was more technically challenging then and definitely more fraught with complications. Angiographic occlusions in trauma cases, GI bleeders, tumors and treating surgical complications led to percutaneous drainages, biopsies, chest tube placements, nephrostomies, and lung, thyroid and prostate biopsies. All in all, a wonderful career.

I now work part time for my group, basically vacation coverage. I still enjoy it and welcome the slower pace. I have passed my "use by date" in IR and have partners doing incredible things I never dreamed of on a daily basis

I have worked internationally in New Zealand on two separate trips, 2017and 2019. These experiences were memorable on so many levels. The opportunity to daily inhale another culture, philosophy of life and medical practice in the NHS was mind expanding. I was president of the California Radiology Society, a baptism of fire in the politics of medicine, and board of directors of RADPAC, the fund-raising arm of the ACR as well as delegate to the House of Radiology. I was also awarded fellowship, FACR, a while back. Currently I interpret pro bono all OB ultrasound exams for Obria, a growing chain of prolife women's health centers.

Personal:

My wife JoLane and I were married 1 month before I enrolled at SLU. Not a honeymoon I would recommend for a beautiful new wife. Somehow, she has persisted with me despite advice of many friends and casual



onlookers. Now married 55 years. She was the president of the Dames Club at SLU. When I first travelled to New Zealand, I had to supply many certificates. I proudly included her PHT (Putting Hubby Through) certificate that she received at our graduation. When our last child left for college, she enrolled at Pepperdine

University and received her MFT (marriage and family therapy). I have often suggested to her that I receive a cut of her earnings as she has survived demanding and often frustrating personal relationship experiences that helped create the superb therapist she is today. So far, no response.

Family:

Three beautiful daughters (all who were forced to become competitive athletes because their father could not figure out how to have a boy child). My claim to fame is that I coached all 3 of them to championship seasons in AYSO soccer, and I was assistant director of the league and head referee where I recruited the first female referees in our area. Allyson, our eldest was born our senior year at SLU. Her middle name, Marie, was in honor of Marie Fiordelisi.

We are now with 5 grandchildren ages 11 to 21 and 4 grand dogs. So interesting how life repeats itself.

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Fig. 1. Photo sent home to show the folks how hard I was working!

Thomas A. Tomsick, MD

Why medicine? Why me? I can't answer the latter question: it's been a lot of luck and being in the right place at the right time. The answer to the former question is clearer to me. At age 5 an acute inflammatory condition with fever, muscle and joint aches was diagnosed as rheumatic fever. I was in bed for weeks, followed by numerous physician office visits, EKGs, and subsequent monthly penicillin injections into my early teens. I can only surmise that this long connection to medical practice was the nidus that crystallized my enthusiasm for medicine as a career. I even envisioned being an Army or Navy doctor because the education could be free. But time and high school dissuaded me from that scenario. Education could be won elsewhere, if one put one's mind to it.

No disability or complications associated with rheumatic fever occurred through my youth (a misdiagnosis?). I developed a love for sports, especially baseball, and became good enough (not great!) to envision a possible two-career future, as did thousands of other boys. After all, Bobby Brown of the New York Yankees 1946-54 became a doctor while playing. So two parallel paths continued for me: dutifully following the station-to-station, one-foot-after-theother plodding path of education at St. Ignatius High School, then pre-med at John Carroll University on a Cleveland Police Scholarship Fund full ride, all while playing summer baseball on the Cleveland sandlots. The latter led to a position as a barely-18-yearold bullpen and batting practice catcher for the Cleveland Indians' strikeout-record-setting pitching staff in 1964, after my first year at JCU, combining college and the bullpen until the '66 season.

Then the two paths converged. I had made applications for early med school entrance in 1966 at Western Reserve and St. Louis Universities. Rejected by WRU, and late into the summer with no word from SLU, I was resigned to finish the 1966 Indians' season and go on to senior year at JCU, likely to continue with the Indians for the '67 season. However, in July, '66 a late letter of early acceptance to the SLU class of 1970 arrived, to begin classes in September, living at the Phi Beta Pi house at 3501 Lafayette Ave. (Fig. 1, 2).



Fig. 2: Phi Beta Pi House, 3501 Lafayette Ave, opposite Lafayette Park. Upper right: 3rd floor windows of a room shared with Rick Shaw and Bob Yanity.

Between first and second-year classes, the Indians did offer a position for July, 1967, either back with the club in the bullpen, or on their Florida Instructional League team as a pitcher. Med school duties didn't allow much "spring training", with nothing more than some throwing with Charley Bock in Lafayette Park, but not enough to really matter. I thought I could play a bit and get into shape upon getting home to Cleveland in early June. During my first "practice" game back in Cleveland, a foul ball directed back and downward collided with my unmentionables, leaving me in pain on the ground. After a delay and walking it off, the next pitch was a foul ball as well, back and into my carelessly unprotected right hand, breaking my middle finger. And that was it: 4 or more weeks for fracture healing and rehab made practicing and pitching in July impossible. Time to hang up the uniform. There was only one path now: but one I would never regret. Probably would not have made it in baseball, anyway.

But things did turn out pretty well. As one of the youngest members of the SLUMS class of '70, I did ok in 1st and 2nd years, but quite well in clinical rotations. The latter gave me the scope of the various practice possibilities in medicine. Internal Medicine? No, as a baseball catcher, I liked action. Chairman Tom Frawley stating in clinical conference that he 'could feel the thyroid gland hyperactivity' seemed a bit hyperbolic. Surgery? There's action, but as I told Dr. Vallee Willman (Chairman with "VW" on his Volkswagen bug wheel covers), I didn't like standing and bending over the table on my feet for hours on end to accommodate surgeons a foot shorter than myself. Ob-Gyn? Rotation on the service at City Hospital (where the chief medical resident carried a revolver in his Lilly Pharmaceutical-donated bag) did nothing to encourage that choice. Bob Woolsey did engender some interest in Neurology as an intellectual possibility, but with little action, and a lot of chronic problems for which there were no cures. Neurosurgery? Too many

hydrocephalus shunt catheters at Cardinal Glennon Hospital, disc surgery successful in 70% of cases, with little exposure to anything else, certainly offering no vision of the future in cerebrovascular navigation. Emergency Medicine? With no specific training programs, not yet the specialty it is now, but a real possibility for seeing acute problems and a wide variety of acute disorders, many of which require quick thinking and quick action. Psychiatry? I'm too visual. As in baseball, you can't hit what you can't see.

Quo vadis? A short rotation at SLUH in Radiology with Dr. Jim Martin determined my life. He had been an internist, then turned to Radiology. He knew more about everything than most attending staff I had known. The x-ray was a visual puzzle...and he could solve the puzzle. The Mercedes-Benz sign of gas fissures in gallstones as the Case of the Week? How visual can it get? I was the son of a detective, a solver of mysteries. Martin was a detective, the solver of maladies, and the inspiration for my career. Contact with Armand Brodeur at Glennon and John Shields at the VAH also pulled me toward Radiology. Friendly and outgoing, a bit irreverent. Martin was truly the doctor's doctor! During the Radiology rotation I read a book on chest radiography by one of the world's most famous radiologists, Ben Felson of Cincinnati. A picture of his impish, smiling face was on an introductory page. He was visual, factual, and entertaining. This was the career for me! I was selected to begin residency July, 1971, after internship at Cincinnati General Hospital. But... the Viet Nam war was on. Doctors were drafted to enter service after internship if they didn't obtain an armed services Berry Plan deferment, which allowed delayed service induction to finish training. On the other hand, the war seemed to be winding down. So I "went bare," took my chances, didn't apply for the Berry plan. When winding down didn't

happen fast enough, I applied to the Air Force Reserves at Clinton County, OH, Air Force Base, and even took my physical. However, the reserve program there was terminated prior to my joining. I was subsequently given draft orders, entering the Army Jan. 15, 1972, having completed six months of residency.

Inducted as a 3306C (partially trained radiologist), my wife Judy, newborn daughter Lisa, and I spent 2 years at Fort Leonard Wood Missouri Army Hospital, just 120 miles from St. Louis. No one could have hoped for a better assignment. Working daily there with 5 fully-trained young Berry Plan radiologists and about 50 other physicians gave me a mature perspective on, and approach to, practice. It even allowed moonlighting as a radiologist in St. Louis at the County Hospital under Dr. Sam Merenda, as well as in Rolla, Joplin, and Springfield. Publishing two manuscripts based on never-before reported observations gave me the academic bug. I returned to Cincinnati, finished 2 years of residency, and became a neuroradiology fellow in my third residency year, acceleration allowed at that time based on Army experience. Judy and I had a second child, Scott, in 1974, now an MSK radiologist in Denver.

Neuroradiology gave the opportunity for patient contact, diagnosing and treating serious disorders, and action. Diagnostic testing has certainly changed over the years. During fellowship in 1976 we performed the last pneumoencephelogram at the Cincinnati General Hospital. The newly installed CT scanner quickly rendered invasive and uncomfortable PEGs obsolete. We initially CT-scanned and interpreted one slice every 4 minutes, one patient per hour, 12 hours per day. Now we scan a patient every 15 minutes, 24 hours per day, on 5 CT scanners.

We performed 5-6 diagnostic cerebral angiograms per day. Initially, many were as retrograde brachial artery or direct carotid punctures, but practice quickly evolved to catheter angiography. Now we do 20-30 minimally-invasive diagnostic CT or MR angiograms per day.

I accepted a neuroradiology faculty position in Cincinnati beginning July, 1976. Diagnostic angiography was becoming the basis for a new arm of neuroradiology: neurovascular intervention. Particulate agents, including gelfoam and polyvinyl alcohol sponge (PVA), cut to size according to vessel size and catheter tolerance, already used for transcatheter arterial occlusion in various organ systems, were used to treat epistaxis, some brain AVMs and fistulae, and embolize some tumors prior to surgery. Early-on I assisted my director and mentor Bob Lukin with an intraarterial transcatheter silicone bead embolization of a brain AVM (Fig. 3). Dr. Alfred Luessenop at Georgetown first began to perform this procedure in



the Figure 3a. Brain AVM treated in 1977.Figure 3b. Following treatment with 75 silicone beads.

1960's. AVMs were seldom cured by such embolization methods, but they could be a useful adjunct to surgery or radiotherapy.

Enjoying the challenge of forging a career in a new field, we developed the therapeutic interventional neuroradiology program, conversing, corresponding, collaborating, and co-operating with colleagues around the world, when no fellowships or specific training was yet available. Serbinenko in the Soviet Union in 1971 and Gerard Debrun in Paris in 1975 described methods for latex detachable balloon production and use, chiefly for aneurysm largevessel parent occlusion and carotid-cavernous fistula (CCF) occlusion.¹ Debrun lectured in Cincinnati in 1976, and I was taken by the possibilities of a new level of therapeutic vascular navigation. We ordered some balloons from Ingenor in Paris, and began practicing tying the balloons using thin latex threads onto 0.6 mm. microcatheters, detaching the balloons with a push-pull maneuver by passing an outer coaxial catheter over the microcatheter against the balloon base (Fig. 4). Nothing was more deflating than collapse of the balloons after detachment. We persisted, and ultimately developed a reliable method to achieve balloon inflation filled with contrast media. A Neurosurgery resident created several canine carotid-jugular fistulae, and we were able to confirm proof of



Figure 4. Debrun balloons

principle of the applicability of the technique. We obtained the first US investigational device exemption to study the effectiveness and safety of the Debrun balloon for CCF and parent vessel occlusion for aneurysms in 1978. Figure 4 shows Debrun latex balloons of variable volumes, with a balloon tied with thin latex threads onto the catheter inflated below.



Figure 5. First CCF patient treated with detachable latex balloons in 1977. 17 y/o unresponsive following head injury, with pseudomonas ophthalmitis threatening vision due to proptosis, chemosis, and venous engorgement.

Left: Internal carotid artery (ICA) contrast injection with opacification of ICA and enlarged cavernous sinus simultaneously.

Center: Four contrast media-filled balloons detached in the cavernous sinus.

Right: ICA injection showing CCF closure and patent ICA.

In the early-mid 70's, the University Hospital was not the major clinical referral hospital for cerebrovascular disease in Cincinnati, however. The Good Samaritan and Christ Hospitals, affiliated with the Mayfield Neurologic Institute, had more members, and enjoyed greater volume of Neurosurgical material. In order to augment salary and to work with the most active cerebrovascular neurosurgeons, my colleagues Bob Lukin and Alan Chambers were working performing and interpreting angiograms, doing myelograms, and interpreting CT's at GSH, about a mile away from UC. I began working there in 1977, including performing therapeutic interventions, there, performing more interventions at GSH in the private sector than at UC. The field flipped when

neurosurgeon John Tew was recruited from GSH to take the neurosurgery chair position at UC, and the majority of interventional work moved to UC, allowing greater national visibility there for cerebrovascular disease. We also began reading scans in the near-by office of the largest private Neurology group in the city in 1978, until 2011. I continued to work at GSH in the private sector until 2012, relishing the town-and-gown experience it had provided, dispelling the adage that "those who can do, do; those who can't, teach." The camaraderie with my University and private practice colleagues remains a highlight of my career.

Osmotically-responsive silicone balloons with a mitre valve base that merely slipped onto catheters for pull-detachment were developed subsequently by Dr. Grant Hieshima in Los Angeles. No balloon was ever subsequently cleared for use by FDA in the US due to lack of proof of shelf-life duration! They have been replaced for treatment of CCF or aneurysms with parent artery occlusion in part by metallic pushable or detachable coils, hundreds to thousands of cm. total length and tens of thousands of dollars cost for coils alone for some cases, taking hours to deploy, when one or several \$500 balloons placed within an hour would frequently suffice!

N-Butyl-cyanoacrylate (NBCA) liquid adhesive became available soon thereafter, also obtained from France, shipped through Canada, for use in treatment of brain arteriovenous malformations and smaller intracranial fistulae. ² Dr. Chuck Kerber designed pliable silicone flow-directed calibrated-leak catheters for nbca injection, coiled in a 20-cc. glass syringe and propelled with manual saline flush into guide catheters. It was an honor to be principal investigator of the first randomized clinical trial to ultimately win FDA approval of a neurovascular device in 2002 based on equivalency of nbca to standard treatment with coils and various particulates in brain AVM treatment.³

Electronically-detached platinum coils were introduced by Guido Guglielmi in 1991 for treatment of intracranial aneurysms. We were one of twenty US centers that investigated their use in an equivalency trial comparing them to historical control (Figure. 6). Intracranial stents and flow-diverters now treat difficult aneurysms generally with necks too wide for successful coiling.



Figure. 6. Left: 4 mm. The first basilar tip aneurysm subarachnoid hemorrhage patient treated in Cincinnati in 1993. Center: Postplacement of 26 cm of Guglielmi Detachable Coils (GDC). Right: 4-year followup magnetic resonance arteriogram shows no aneurysm remnant or recurrence.

Simple, flow directed, 2-atmosphere inflation, compliant microballooon catheters were introduced to treat vasospasm after SAH as well. Papaverine was also used, replaced now by new longer-acting vasodilators such as verapamil.

Intravenous fibrinolysis became the first big ischemic stroke vascular intervention in 1995 with the NINDS Stroke Trial, following a Pilot Trial 1987-89.⁴ Neurologist Tom Brott, the principal investigator, was a colleague at UC. More patients were treated in Cincinnati than in any of the other trial center.⁵ Working

contemporaneously with the NINDS Trial, we completed the first randomized trial of intraarterial thrombolysis with intravenous rtPA vs. saline infusion, followed by arteriography and IA rtPA thrombolysis, the Emergency Management of Stroke Trial in 1995. ⁶ Another contemporaneous randomized study, the Pro-urokinase in Acute Cerebral Thrombolysis (PROACT II) trial gave positive results for middle cerebral artery occlusion, but, again, Pro-UK was nevertheless not cleared for use. I designed a clot removal device in 1993, and disclosed it to industry, including Target Therapeutics, Cordis, and Microinterventional Systems (Fig. 7). A similar device was eventually cleared by FDA for treatment based on results compared to medical therapy in 2005.



Fig. 7. Left: Drawing of a corkscrew retrieval and fragmenting wire taken to industry in 1993. Right: A method for MCA clot retrieval.

But failure has been encountered along the way as well. The Interventional Management of Stroke Study III (IMS III), a \$22 million NIH-sponsored international trial, could not show IV + IA rtPA fibrinolysis or clot removal superior to IV rtPA alone in a relatively non-selected population.⁷ Stent retriever clot removal devices, in conjunction with better imaging-related entrance criteria predisposing the trial for success, finally achieved several positive stent retriever-based studies in 2013, leading to the current recommendation for thrombectomy for ischemic stroke by the American Heart Association.

A Golden Era of Neuroradiology! Even robot-assisted diagnostic and therapeutic catheter procedures are now being investigated. The field broadened to include has more Neurosurgeons, and, with "curing" ischemic stroke a reality, to Neurologists as well. The largest, busiest centers have 4 or 5 I devoted approximately 50% of my time to interventionists. neurointerventional practice and/or research until 2013 (standing for hours on end, bending over the procedure table, while wearing a lead apron!), and continue to do diagnostic neuro, teaching, and research until the present time, currently at 0.4 FTE. With 8 residents and 1-3 fellows/yr., I've continued to give approximately 40-50 lectures yearly, in addition to teaching at the PACS station during study interpretation. Covid has interrupted the teaching mission, where isolation in a separate work-station room for interpretation with remote resident/fellow Microsoft Teams contact has been adopted due to ongoing Covid risks. Two more interventional stroke treatment research projects are in progress, with plans to complete them prior to hanging up my white coat.

Yes, things certainly have changed. Reading room consultation, pulling films from film jackets for review, has been replaced by electronic computer image interpretation with remote simultaneous "collaborate" sharing mode review available with clinicians. All clinicians have remote image review capability. I can't remember the last time a clinician came into the reading room. At FLW, we wrote almost all reports out long hand. Handdevelopment of film was still practiced at the time. Today, voice recognition is the standard. Now it's digitized images interpreted on computer work stations, received on mobile iPhones, with some form of automated intelligence interpretation in the future.

1966....my first year of medical school and the first year for Medicare... to 2021... a Medicare member myself. Fifty-five years of progress and change. What does the future hold? While visual perception was key to my specialty choice, vision of the distant future has never been my strong suit. In the past, recognizing that better methods of treating might indeed be available tomorrow, has led me to be conservative in approaching some non-emergent cerebrovascular problems. There is some truth in what General Montgomery once said: don't get yourself into a position from which you cannot advance, but more importantly, don't get yourself into a position from which you cannot retreat. One thing is certain: better methods there will be. As the Delphic oracle said and Socrates reiterated: "Gnotheis auton", or..., "Know thyself". I've expanded the maxim to "Know when you don't know!" for the purpose of treating patients with new or investigational methods. Carrying the philosophy further yet, "No, when you don't know!" may avoid the third Delphic admonition that "Surety brings ruin."

Interventional neuroradiology, or Neurointerventional Surgery as we began to call our Society in 2001 while preparing to rename our society (SNIS), initiate our own journal, and establish a foundation to assure viability, is still a most appealing specialty with a bright future. Day-by-day new and improved patient selection, devices, and methods are devised. Diagnostic neuroradiology offers the same prospect. Advances in cerebrovascular diagnosis, brain mapping, functional imaging, spectroscopy, and more, are made daily. Yet some very elemental things, such as the effect of different contrast media on infarct hemorrhage functional outcome, remain unresolved.

Did St. Louis University prepare me for practice? No question! Rotations spent and responsibilities assumed at the City and Firmin Desloge Hospitals constructed a solid foundation of experience and knowledge that conferred competence and confidence in clinical practice. As an intern, I believe my skills matched those of anyone else in the program. Residency among the best and brightest elevates the game. I had opportunities for other practice positions over the years, but have chosen to stay in Cincinnati to enjoy a satisfying career spanning 6 decades. The grass isn't always greener elsewhere.

My views are derived from a relatively narrow scope of activity where I was able to carve out a unique clinical, teaching, and research identity in a small subspecialty area within a larger specialty within a major academic medical center. I've avoided major administrative duties that would remove from practice, teaching, and research, and healthy enough to continue these jobs. The department chairman is no longer the powerful figure in determining practice, as were my mentors. Men in suits, not white coats, chiefly direct the major decisions, and chairs guaranty implementation of the marching orders. The administrative suites can be a revolving door for a cast of characters whose names are barely recognizable year-to-year.

Asked to pause and reflect on this now, years later, after the whirlwind of education, practice, research, and teaching have

calmed, and whatever few unpleasant episodes blurred, I find myself more appreciative of SLU. In 2010 I suggested one should not take things for granted, but rather pay attention to things going on around you.⁸ Subject events to scrutiny and analysis, and share things you've come to realize have value, as I'm doing here. Lou Gehrig, one of baseball's greatest stars, diagnosed with amyotrophic lateral sclerosis, said July 4, 1939: "Today, I'm the luckiest man on the face of the earth." I do believe my personal life with my wonderful wife, Judy, my 2 children and 4 grandchildren, in conjunction with a remarkable career, allow me to say the same today.

² Tomsick TA: Cerebrovascular Intervention: Brain Arteriovenous Malformations. Syllabus 2000: Categorical Course in Diagnostic Radiology: Neuroradiology. Smirnitopolis JG, Ed., RSNA, 2000, Oak Brook, IL

³ Tomsick TA, NBCA Working Group: NBCA embolization of cerebral arteriovenous malformations: Results of prospective, randomized, multi-center trial. AJNR 2002; 23:748-755.

⁴ Tomsick TA: 2006: A Stroke Odyssey. AJNR 2006; 27:2019-21

¹ Tomsick TA: Type A CCF: Transarterial balloon occlusion. In: Tomsick T, ed. <u>Carotid Cavernous Fistula</u>. Cincinnati, OH: Digital Educational Publishing, 1997 pp. 115-143.

⁵ National Institute of Neurologic Disorders and Stroke rt-TPA Stroke Study Group: *Tissue plasminogen activator for acute ischemic stroke*, NEJM 333:1581-1587, 1995.

⁶ Lewandowski C, Frankel M, Brott T, Tomsick T, et al.: Intraarterial vs. combined intravenous and intraarterial tPA for the treatment of acute stroke. Stroke 30: 2598-2605, 1999.

⁷ Broderick JP, Palesch YY, Demchuk AM, Yeatts, SD, Khatri P, Tomsick T, et al: Endovascular Therapy after Intravenous t-PA versus t-PA Alone for Stroke. NEJM 2013; 368:893.

⁸ Tomsick TA: <u>STRIKE THREE! My Years in the 'Pen!</u>. Cincinnati Book Publishers, Cincinnati, OH, 2010

WAKEFIELD, LYNN

CAREER:

The first year in med school was challenging but also fun and fascinating. In retrospect, the idea to aim for an MD/PhD was an unfortunate decision, which I regretted. Although I passed the written and oral Ph.D. exams, that goal was no longer attractive, so I skipped the dissertation and resumed clinical rotations in 1970. The time spent with groups of 6 or so, previously unknown students with whom I had no common experience, rotating every 6 or 8 weeks, was a pretty lonely adventure. The time we (Class of '70) all spent with each other in the anatomy lab, the library, the frat houses, at parties, etc., created lots of camaraderie, bonding experiences and shared memories. I have really missed you folks!

Not everyone rotating through the VA found it as meaningful as I did. My experience there, together with the fact that my brother/best friend, John, was at that time (1966-69) serving in Viet Nam, prompted my decision to sign up for a Psych residency at SLU...and, partly in response to Lynne Moritz's valuable input, to choose a career at the VA, where I joined the Psychiatric Consultation/Liaison Service at John Cochran.

The services assigned to me were: Wash U Neurosurgery, SLU G/U and Internal Medicine, Respiratory ICU, and the newly formed HIV Clinic (which was euphemistically called the "Special Care" Clinic in those politically sensitive days). From time to time, our division was also called upon to broker internecine warfare between the nurses and aides or to help cool down racial tensions among the staff. It was interesting and rewarding work. One of the benefits was the opportunity to meet physicians from other specialties, some of whom have become long-term friends. All of us in C&L covered the ER which was especially interesting and sometimes harrowing when the police delivered drug-addled or seriously intoxicated veterans. All of us at one time or another were grateful for the prompt effect of haloperidol.

After retiring from the VA, I was recruited by a neighbor to work as a consultant for his company, Selection Research International. My role was to assess high level executives at international corporations (including meeting with their families) in order to determine the families' suitability and adaptability for transfer to subsidiaries around the world. The assessments focused on character traits, such as leadership qualities, empathy, emotional intelligence, honesty, stress tolerance, responsibility, adaptability, respect for the views of others, etc. The reports generated were provided (written and/or presented in person) to the corporations' Personnel Chiefs . It was actually quite fascinating to learn the insand-outs of management in these multinationals. I retired from this position in 2019.

<u>EVERYTHING ELSE (THE WORLD AND IT'S</u> <u>FASCINATIONS):</u>

My first overseas adventure was a Safari to Tanzania with my brother John. Arusha was sad; so much poverty. Kilimanjaro, the highest mountain in Africa and the highest single freestanding mountain in the world (19,341 ft above sea level) was out in all its glory. Our first destination was a trip to a Maasai Village. Wonderful people. We had the opportunity to visit one of the schools supported by the tour company, which is a short walk away from the cliff that demarcates the eastern edge of the Great Rift Valley. Amazing wildlife! Everywhere! Including a huge female elephant that stopped our jeep right in its tracks (we remained very still and quiet until she decided to meander off, as she was just 15 ft. away). Our tent camp one night was set up within walking distance of the precipice above the Olduvai Gorge, which we had visited earlier that day. The Gorge is one of the most important paleoanthropological sites in the world and has proven invaluable in furthering understanding of early human evolution. We sat on the rim, looking down at the site where Mary and Louis Leakey discovered fossil evidence of tool makers, *Homo habilis*, probably the first early human species. They had occupied Olduvai Gorge approximately 1.9 million years ago; to then look up and see a satellite cross the clear dark sky... the immensity of time takes one's breath away.

The next adventure was to shape the rest of my nonprofessional life. I am forever grateful to Gena Pennington, who introduced me to the joys of living and playing in Nature: hiking and backpacking in the Sierra Nevada, the awesome beauty of Giant Redwood forests, and environmental politics. She also introduced me to her sister, Paula (a California State Park Ranger) & brotherin-law, Jim (an air traffic controller). These three folks have contributed enormously to the most adventurous and memorable experiences of my life: backpacking in the Sierra; visiting Yosemite with Gena, rafting the Colorado River through the Grand Canyon (3 times), the Main and the Middle Fork of the Salmon in Idaho (twice), and the Rogue River in Oregon (once).

Paula, a friend of hers and I headed to Nepal one fine fall. We spent a few days in Kathmandu, where hundreds / maybe thousands of huge (~12" long) bats were hanging from tree limbs everywhere. Our first view of this historic city! Katmandu was filled with temples & stupas, prayer flags, banners, shops for any- and everything, from singing bowls and incense holders to bicycles and trekking gear. It was a riot of color, teeming with locals, trekkers and animals. While wandering around, we came upon the Presidential Palace, built at the edge of a small lagoon with a nice looking Cabin Cruiser moored in front, which Paula took to be the Royal Nepalese Navy. Eventually we took off for Pokhara (in one of those crazily overloaded and dangerously driven little buses... no wonder they are all festooned with prayer flags!) where we started our 6 day adventure into the Annapurna Range.

The trek was absolutely stunning. Somewhere along the trail, maybe around 8-9000 ft., there was a small stone building serving trekkers. We climbed the ladder to the roof, threw down our sleeping bags and went to sleep under a brilliant starlit sky. It was an amazing experience. It was also all uphill!

On route we had encountered a hole-ridden, rickety, fragile, rope-and-wood bridge across the gorge of the Kali Gandaki river (among the deepest gorges in the world); a natural hot spring pool (yes!!!); and the amazing 200 year-old Muktinath Temple at 12,800 ft., a highly venerated World Pilgrimage site sacred to both Hindus and Buddhists. The Temple is still in use and visitors are welcome.

We got as high as $\sim 14,500$ ft where we spent the night with 3 other people in an unheated wooden hut. It was v-e-r-y cold. After dinner the six of us crowded around the only source of heat available, a single Coleman lantern hanging from the ceiling. Awesome views every day! Going further was not an option, though, as the pass at 17,700 ft. had just closed due to a major snowstorm. (Just as well, I whispered to myself, with half the oxygen available at sea level.)

MO boasts many, though less dramatic but also a bit tricky, canoeing and kayaking opportunities, particularly our "go-to"

favorite, the Eleven Point River, named for the 11 natural springs that feed it (a 3-day trip). "Just for fun" one year, 4 of us decided to float the Eleven-Point on New Year's Eve. It was brutally cold, but we stayed up until midnight around the biggest, hottest campfire we could build. The sky was crystal clear, the moon brilliant, but we pulled our frozen tushes out the next day and headed for heated cars. Highly memorable!

Dry land fun stuff: my very good friend Jeff and I had, for years, amused ourselves in MO & IL with a variety of rock climbing adventures and in 1989 summited Mt. Rainier together. Prior to that, with 3 other folks I had attempted Mt. St. Helen's, the year before she blew her top. Too much scree for me and I don't recall whether the other 3 made the summit or not. But, that night, we did get a brief show by the Northern Lights.

<u>The Great Misadventure:</u> In May '08 I took a week-long Mountaineering Medicine Course in Santa Fe. Brother John and his wife, Nancy live in the mountains near Conifer, 45 min. southwest of Denver, so, of course I stopped there, both coming and going. The house sits on a huge granite monolith overlooking a state park and is accessible from a county road east of the property. The northeast face of the rock is rough, and has workable hand- and footholds, so, of course, I had repeatedly climbed it up and around the house to get to the northwest-facing deck. One fine day, John, Nancy and I slid down through the steep, forested hillside, hiked across the grassy valley and up the opposite slope. Long story a little shorter: on the return trip I decided to climb the NW face of their rock. WRONG.



Fell about 20 ft., acquiring a closed head injury, compound L tib/fib fx and a smashed, dislocated left ankle. Twentysix Search and Rescue guys showed up, dropped ropes, scrambled down the slope, loaded me in a wire stretcherthingy and hauled me up the rock face. John took a photo as Definitive Proof that his sister was, in fact, a Basket Case. ride Ambulance the up mountain to the fire lookout and, from there, a helicopter trip to St. Anthony's in Denver, where I spent the next month,

basically in the OR for five procedures. The surgeon was outstanding!! Excellent repair job.

Later (once able to walk again) the travel-bug sent me abroad twice in pursuit of total solar eclipses: one in Eastern Turkey near Lake Van and one in Western Egypt near the Libyan border; two exceptional experiences!



Getting Lynn up the mountain

Thank You Search & Rescue!







What a long, strange trip it was!

TURKEY: I toured Istanbul on my own for 5 days before joining the Eclipse Tour. To be in the heart of the former Ottoman Empire, see the "Agatha Christie Room" in the Pera Palace Hotel (terminus of her "Murder on the Orient Express"), visit the Blue Mosque, Topkapi Palace, Hippodrome, Grand Bazaar markets, underground caves (one containing a class A restaurant) and, of course, carpet shops was fascinating. Unfortunately, the Aya Sophia was closed for repairs. Following the eclipse, the tour included a bus ride down the Aegean Coast from Troy to Bodrum: more amazing ancient architecture and history... Troy; Ephesus; Pamukkale; Cappadocia; the putative home of the Virgin Mary; Roman ruins, the strangest of which featured an upscale open air public latrine (long marble benches with up to 20 holes chiseled in the stone and individual little water hoses for rinsing: a perfect setting for political discourse!); Ankara; Izmir; Kasidusi; and Marmaris. The beauty is indescribable; only photos can give a reasonable idea of these marvels.

EGYPT: Before joining the 2nd Eclipse tour I wandered around Cairo on my own. It was founded in 2,000 BC and ruled by King Menes who united Upper and Lower Egypt. In the 1st century, the Romans built the Babylon fortress on the Nile, the oldest structure in the city. The high point in Cairo was the Egyptian Museum (held by many as the greatest museum in the world.) What an amazing treasure trove of artifacts, some around 6000 years old. Upon entering, one encounters massive works in stone & marble, statues, silver jewelry, swords, crowns; so much gold! So many precious gems! (Fortunately, these treasures survived the 2011 Uprising). A special gallery displays the sarcophagus and mummy of King Tut, who became Pharaoh at age six and died at age 18, apparently of malaria. Other mummies are of Ramesses II, Seti and Hatshepsut, Egypt's only Queen (reigned c.1503–1482 BC following the death of her husband, Tuthmosis II).

Off the beaten path and a train ride away is Old Cairo, which includes both Coptic and Islamic sections. (It was strange being the only westerner and one of just three women... the only one without head or face covering... on this standing-room-only 45-minute trip.) Coptic Cairo contains an array of medieval structures: the Babylon Fortress; the Coptic Museum; the Hanging Church (named for having been built on the southern gate of a Roman fortress, it sports a wooden roof in the shape of Noah's Ark); the Babylon Fortress and the Greek Church of St. George. Another, the Church of St. Sergius and St. Bacchus is traditionally believed to have been built on the spot where the Holy Family rested at the end of their journey into Egypt. Coptic Cairo was a stronghold for Christianity in Egypt. Islamic Cairo is a maze of narrow walkways and artisan bazaars. Wandering its erratic cobblestone streets until well after dark was an amazing, otherworldly experience.

At the hostel I had met a woman who strongly suggested visiting Siwa Oasis, located in northwestern Egypt about 350 miles west/southwest of Cairo and 50 mi. east of the Libyan border. The oasis is a deep depression that reaches to about 62 ft. below sea level. It is known to have been settled since at least the 10th millennium BCE. Its fame lies primarily in its ancient role as the home to the Oracle of Amnon, which gave the Oasis its ancient name: Oasis of Amun Ra, the ruins of which are a popular tourist attraction.

Upon arrival, after a l-o-o-o-n-g, very hot trip across the desert, the local government rep, as usual, met the bus. He was extraordinarily helpful and absolutely made the visit, helping me

find attractive accommodations and good eats, as well as being my volunteer tour guide to local archeological ruins. Also on the docket were: a trip to a major saltwater lake, with proper British tea service, Jeep dune rides and dinner at a Bedoin tent camp in the desert. In the evenings we'd sit on his balcony sharing stories and to this day we are Facebook friends. The visit lasted 5 days. For such a remote location, Siwa is remarkably well developed and a favorite destination for adventurous Europeans travelers.

Back to Cairo: the official Nile tour began with a flight south to Aswan on the border between Egypt and Sudan. There sits the world's largest embankment dam, the massive Aswan Dam, built across the Nile between 1960 and 1970. The dam had been controversial right from its conception. The project was hit by financial controversies when the US, the UK and the World Bank backed out of their decision to partially fund the project. Their decision created tension between various countries and contributed to the Cold War when Egypt decided to fund the project by nationalizing the Suez Canal and accepting funding from the Soviet Union. Sailing down the Nile is to immerse oneself in a rich tapestry of story, intrigue, and the development of human civilization. It's a cruise that can take you from the 'gateway to the afterlife' that is the Valley of the Kings to the vibrancy of modern-day Cairo and its Egyptian museum –

From Aswan we boarded a small boat and travelled north, stopping at the unbelievably magnificent architectural wonders of Ancient Egypt.

1. The Abu Simbel Temples: thanks to UNESCO these magnificent temples, built by Ramses II in 13th century BCE, were rescued from the flooding of the lands that took place to build the Aswan Dam and Lake Nasser in 1960s. They relocated these

massive structures to Abu Simbel, and placed them on the rock face by tunneling into the hillside.. They are Immense...Spectacular!

2. Kom Ombo and Edfu are Ptomelaic (late Egyptian) temples, which were dedicated to Horus, the falcon headed god, and Sobek the crocodile god, whose symbols can be seen everywhere, especially in Nubian homes.

3. Temple of Luxor at Ancient Arcadia on the East Bank is a modern but French influenced town, also home to Luxor's museum.

4. Valley of the Kings is a treasure trove of archaeological wonders, containing dozens of tombs filled with art and hieroglyphics. The major draw is King Tutankhamun's tomb—the most famous sight in the valley—and the temples of the sons of Ramses II and of Amenhotep III and of others. One can only marvel at these 33 centuries' old art and artifacts.

Next up was our arrival at Giza to stand in awe of the Pyramids and the Sphynx. (Energetic travelers can climb a steep stone staircase high up inside the largest pyramid and look out through a small window near the top.) Also on site is a climate-controlled glass museum containing a burial boat. Boats were an essential part of early Egyptian religion; all known boats have been found on the eastern banks of the Nile, their prows facing west. These hand carved vessels, some of which are ~140 ft. long by 20 ft. wide. are fundamental to this ancient religion. Royal funerary practices were related to the belief that the sun-god Ra traveled by boat through the sky by day and the netherworld by night in cycles of regeneration. Boats were buried near a king's tomb so that in death he, too, could achieve endless renewal.

About boats: In October 2000, a number of 5000 yearold, 75-ft long wooden boats were found at Abydos, 300 miles south of Cairo, where the earliest pharaohs known to history were buried, long before the pyramids at Giza or the tombs in the Valley of Kings. These boats represent a dramatic improvement in construction techniques. Earlier boats had been made by scraping the insides of logs. These boats were constructed using a mortise and tenon technique, allowing the boats to be dis-assembled for travel over sand, then reassembled for water travel.

Post-trip I spent 4 days in Sharm-el-Sheikeh, a city on the southern tip of the Sinai Peninsula on the Red Sea. Very cosmopolitan and the best belly dancing I've ever seen.

That pretty much covers the active years. The Golden years haven't been to bad either; my two travel buddies and I have been to New Zealand, Patagonia, India, Dubai, England, Ireland, Scotland, Norway, and Iceland.

Well folks, "that's all the news from Lake Woebegone"!

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Dr. Webb is an ordained minister in the Lutheran Church -Missouri Synod and also a retired emergency room physician. He retired from Munson Urgent Care in January of 2008. He is currently assistant pastor and former medical missionary of Trinity Lutheran Church & School, Traverse City, Michigan, a 2000member LCMS congregation.

Pastor Webb has been assistant pastor at Trinity since 2008 and continues to serve there as of this date, August 2021. He currently sees all the shut-ins, preaches occasionally and teaches. He has taught Biblical Greek to the 8th graders for the last two years.

He has also mentored Dan Dockery, a retired Luther school principal, as an SMP (special ministry pastor) who serves as full time pastor at Bethlehem Lutheran Church in Glen Arbor, MI. Pastor Webb preached there every other Sunday and administered communion. UPDATE: Dan was ordained in 2016 and Pastor Webb is now back at Trinity doing shut-ins, teaching, preaching, and helping with the liturgy. He was reinstated into the ministry in December 2005 after serving as an emergency room physician and family practitioner for 35 years. He was called as Missionary-at-Large at Trinity Lutheran Church (LCMS), Traverse City, Michigan, and installed at Trinity on January 8, 2006. He has been to Nairobi twice and Guatemala five times on medical mission trips.

He has served churches in Rensselaer and in Goodland, Indiana and was also assistant pastor at Grace Lutheran Church, English District, while serving as a first-year surgery resident at Butterworth Hospital, Grand Rapids, Michigan.

He was trained in emergency medicine at Butterworth Hospital, Grand Rapids and worked at Blodgett Hospital in Grand Rapids as an ER physician. He has also done emergency room work in Holland, Flint, Saginaw, Owosso and Traverse City (all Michigan cities), and in Las Vegas, Nevada. (1971-2008)

He worked for ERDA (the Energy Research and Development Administration) at the Nevada nuclear test site, near Las Vegas, Nevada, as an industrial physician. This is the former Atomic Energy Commission. The site is north of Las Vegas and was where many nuclear tests took place during the "cold war". Most of the work done while he was there was study on the effects of radiation. No nuclear tests are held there anymore.

Patricia K. Webb, his wife, has a BA degree from Aquinas College in Grand Rapids and is a CMA (Certified Medical Assistant) who helped start the program at Baker College, Owosso, MI. She taught CMA students at Baker for several years while managing Dr. Webb's office. Baker is a large community college (the largest in Michigan) with multiple campuses throughout Michigan. Their home campus is in Flint, MI. Pat also has an AA from Concordia College, Ft. Wayne, which is where we met. Pat also has an LPN from Clark County Community College in Las Vegas, NV. Dr. Webb and Patricia (acting as nurse and office manager) ran a family practice in Owosso, Michigan from 1978 until 1996 where he did full-time family practice and parttime emergency medicine at Owosso Memorial Hospital, and also ER work at St. Mary's Medical Center in Saginaw, MI (about 40 hours a month), and briefly worked in the ER at Hurley Hospital in Flint, Michigan. He has delivered hundreds of babies and has seen a wide number of cases as an emergency physician and family doc.

He is founder of the Family Practice Department at the Memorial Hospital in Owosso (1985).

He has three children: Donna, a professional harpist, who lives in Milan, Michigan, and who now has a Master's in special education and is teaching special ed. In Ann Arbor; Craig, a trained accountant who was Chief Financial Officer of Airlift Company in Lansing, Michigan for over ten years, has now moved to Traverse City and spearheaded the development of bicycling and skiing venues in the area; and Jenny, a zoologist and medical assistant who now has an RN and worked as a recovery nurse at Elkhorn Hospital, Elkhorn, WI, and now works at the surgery center in Burlington, MI.

He is an educator and held an appointment as Clinical Instructor, Department of Family Practice, College of Human Medicine, Michigan State University, Lansing, Michigan while in Owosso, MI at the Memorial Hospital and set up a continuing medical education program through Michigan State for staff physicians and oversaw and extern program at that hospital. He also held a clinical appointment through Michigan State College of Human Medicine while at Munson Medical Center, Traverse City, MI, where he taught in the Family Practice residency at Munson. He has taught and directed Advanced Cardiac Life Support courses and Pediatric Advanced Life Support courses for the American Heart Association throughout Michigan, was on the AHA Michigan Chapter board for several years, and at one point worked for a group that did ACLS and PALS courses throughout the country, including in New York, Atlanta, GA, and California. He has also taught at Lansing Community College, Lansing, MI, Ford Hospital, Detroit, MI, and the University of Michigan, Ann Arbor, MI. He also taught Advanced Trauma Life Support courses, a program developed by the American College of Surgeons, for the surgery department at Michigan State University, Lansing, MI.

He is the author of numerous sermons and articles, both medical and non-medical in addition to many lectures for residents and paramedics and one book, "ACLS Gems". He has written a medical mission manual to prepare participants for working as medical missionaries abroad.

He became interested in the anatomy and physiology of crucifixion as depicted in the Gospels and has developed a PowerPoint lecture entitled, "The Physical Death of Christ". He has given this lecture at a number of churches over the past 10 years. The thrust of the lecture is to impart a sense of the effects of crucifixion medically and why it was such a cruel form of torturedeath.

He attended Concordia High School and College in Ft. Wayne, Indiana, from 1950-1956, and hold an AA degree from there. We were the ministerial division at Concordia with classes of 20 or so students. The regular CHS was on the corner of Maumee and Anthony and is an office building now, I believe. Anyway, we were the last class to go through that program. It was phased out to make room for the Senior College which has now become Concordia Theological Seminary (the Springfield seminary was moved there as you will recall. Now my old school is Indiana Tech!

He is a graduate of Concordia Theological Seminary, Springfield, Illinois (which has since been moved to Ft. Wayne, Indiana) with a Bachelor of Theology degree (B.Th.). He holds a Bachelor of Science (BS) from St. Joseph's College, Rensselaer, Indiana (1966), and an MD from St. Louis University School of Medicine, St. Louis, Missouri (1970). He was boarded in Emergency Medicine (by test) for about 20 years (American Board of Emergency Medicine) but relinquished that on retirement. He was formerly a Fellow of the American College of Emergency Medicine (FACEP) and holds a lifetime fellowship in Family Practice (FAAFP - Fellow of the American Academy of Family Physicians – obtained by test).

He has served on many boards including six years of service as an elected board member for the Michigan College of Emergency Physicians, which is based in Lansing, Michigan and is the local chapter of the American College of Emergency Physicians. He was also the editor of their newsletter, "News & Views," for seven years. He developed the seal for the Michigan College of Emergency Physicians which, among other places, appears on the opening screen of MCEP's website, www.mcep.org.

He is involved in medical mission work in Guatemala and went there on five different occasions: first to Puerto Barrios at a small Lutheran church on the Caribbean coast, then to Chajabal (a small Mayan village near Xela). In September 2006, he led a group of nine nurse participants from Trinity Lutheran Church in Traverse City, Michigan to an established mission at the city dump in Guatemala City, "El Corazon del Servidor" (The Servant's Heart). He and his wife Pat, a nurse, remained in Antigua, Guatemala four weeks longer to study Spanish. He also went to Nairobi with a group from The Lutheran Church – Missouri Synod's World Relief/Human Care commission in October of 2006 and again in 2007. A new clinic was built in Nairobi at the edge of the dump as an addition to "Springs of Life Lutheran Church" there (a congregation of about 100) in 2007 and his group inaugurated that in October of that year. Tragically, that clinic was burned in the riots that broke out over the national elections in Kenya in January of 2008. Later in October of 2007, he led a group of 12 medical personnel to Guatemala where they served four different clinic sites, supplying medical services and spreading the Gospel of Christ's love and salvation. One of those sites, Amatitlan, near Guatemala City, was inaugurated by his group and is an ongoing, five-day a week clinic.

In February of 2006, he served as chaplain for the Lutherans in Medical Missions (LIMM) forum in St. Louis, MO. The group helps supply medical personnel to various medical missions around the world. In April of the same year, he served on a Medical Round Table with Rev. Matthew Harrison, director of LCMS World Relief/Human Care in St. Louis (and now president of Synod, by the way) with a group of physicians and doctors developing a global medical mission program for The Lutheran Church-Missouri Synod. Later that month he sat on the Advisory Panel, Disaster Response Plan, at Synod's headquarters in St. Louis. The group discussed the multiple issues of world relief and tried to produce a global program for an LCMS response to disasters such as devastating hurricanes and tsunamis and the like.

He sat on Trinity Lutheran Church's 125th anniversary committee, Traverse City, MI, planning its year-long celebration of

the event in March of 2008.

He is now "semi-retired", serving as part-time assistant at Trinity Lutheran Church and School in Traverse City, MI, officiating at Sunday services, doing an occasional wedding or funeral and visiting 14 shut-ins monthly for Trinity. He also fills in for circuit pastors on vacations.

Respectfully Rev. Dr. Charles W. Webb, BS B.Th. MD FAAFP 15565 Birch Drive, Traverse City, MI, 49686.


Rounds

Photo credit: Bill Gruber

Rick Winters

Let's start at the beginning. Do you remember the first meeting we had at SLUM? They wanted to start us with a patient presentation on our first day. At the end of the presentation, in the Q&A portion, one of us asked why they wanted get the patient "worked up" before the exam. What would be the purpose of aggravating the patient? I, like the person asking the question, had no idea what a "work up" was. We were all as green as we could be regarding medicine.

Most of us were accustomed to a competitive frame of mind in our educational pursuits - a.k.a. gunners. For the most part, we were forced into that attitude. You were not accepted to medical school with a mediocre GPA. I remember my first day of college at Northwestern. There were about 2000 of us gathered in auditorium. The speaker said, "Look to your right. Now look to your left. One of you won't be here next year." I was sitting against the wall. I guess that's why I made it through. You get my point.

It seemed that one of the main points of that first meeting was that things are different now. They pointed out that what it was an imperative that every single one of us complete the course and graduate. Each one of us was irreplaceable from the point of view of the Med School. Any loss would mean one less doctor in the world. It took a while to sink in, but that academic pressure began to fade. This reminds me of one of my greatest disappointments of that first year – the loss of Bob Yannity. Who doesn't remember the infamous 'Bone of the Month'?

Those first two years were taxing at times but they slipped into the past without a great deal of fanfare. Then, from my point of view, we started the enjoyable part of med school - the clinical years. During these years we started to feel like doctors, though a bit prematurely. It was during these two years that most of us began narrowing down the specialty that we would pursue. For me it was surgery. I remember the chief resident on my first surgery rotation note that, "surgery is a body contact sport." I was more inclined to that type of work than I was the intellectual pursuits of internal medicine. My hands are better than my brain.

My first idol in medicine was Vallee Willman. Because of him my first inclination was pediatric cardiovascular surgery. It was several years later that I would drift away from that aspiration. The main reason I gave up that idea was my fear that I couldn't deal with the death and dying part of that specialty. I take my hat off to those of us who pursued pediatrics at all levels. Those that look after the little ones are the true saints of our profession.

After completing the last two years, the only hump left to get over was the dreaded National Boards. But that too passed. I, however, will see that demon again in my future. More about that later.

The next step separated most of us forever - internship. I took a straight surgery internship at the University of Chicago. It was a great place if you liked trauma surgery. There was a glitch that I and my eleven fellow interns didn't know about. The chairman of the surgery department had been voted out by his attending staff. The department was in flux with a new chairman who brought in many of his own people and terminated others. Nine of the twelve interns left. I was a newlywed and opted to work ERs and pay some debts. I worked for a company that flew docs across Illinois working 24hour shifts. I learned a great deal of primary care medicine in the next two years. During those years I paid a lot of bills and debts and made enough money in the silver commodity market to return to a general surgery residency.

Next stop - Augusta, Georgia - where I would complete my last three years of general surgery in preparation for a plastic surgery residency. I arrived in the deep South driving a Lamborghini Miura with Illinois plates. I was originally looked down upon as a Yankee brat from Chicago despite the fact I was born in Charlotte, North Carolina. That passed quickly and I made a lot of rebel friends. I completed the course and qualified for both general and vascular surgery boards.

Again, I had a lot of bills to pay so returned to ER work for a wild and woolly three years. Great fun - ER work is a real team effort and the entire team tight, but I had not completed my plan. It was off to residency again.

I sold the Lamborghini (BIG MISTAKE) and headed off to Columbia, Missouri in a Volkswagen to join the plastic surgery department at the University of Missouri with Dr. Puckett. I was on call every other night for the next five years. Five years you might question. What? Am I a slow learner? Plastic surgery residency is usually two years. I'm sure I am a slow learner but actually, the last three years were as a junior attending. For anyone who doesn't know, a junior attending is nothing more than a super resident. My forte there was hand and microvascular surgery – replants and freetissue transfers.

The surgery department at the University of Missouri was peppered with Duke grads. My chairman, the chairmen of general surgery and cardiovascular surgery were all Dukies and all worked as a single department. It was there that the axiom "plastic surgery is surgery of the skin and its contents" was at times a reality. On occasions the surgery department would be overrun with emergencies. On two such occasions our team operated on ruptured abdominal aortic aneurysms. University of Missouri was a great experience but Dr. Puckett was a slave driver. In his defense, he was the most talented, hard-working surgeon that I ever had the pleasure to work with. We referred to him behind his back as Mother Puckett. I liked the academic practice, but I didn't think I could take that pace forever.

It was finally time to be a private practicing physician. In retrospect, there was a price to pay. No more plastic surgeries to consult with, no more residents and students to teach, and no business experience whatsoever.

I had some connections in Florida and in order to get a license in Florida you had to have passed National Boards in the last ten years; it had been 15 years for me. After a lot of review and sweat, I passed. I think it's a tribute to our basic science experience at SLUM. I didn't ace it but I did pass the beast. Ironically, I took the test in St. Louis. As it turns out it was unnecessary. I ended up going to New Bern, North Carolina which accepted reciprocity with Illinois and Missouri licenses.

I was back home in the South. I took over the practice of Clifford Kiehn who had a retirement practice. Clifford was one of the true grandfathers of plastic surgery having been the chairman of plastic surgery at the Cleveland Clinic for many years.

New Bern is a small town at the confluence of the Trent and Neuse rivers, thirty miles from the Outer Banks. The hospital is superb with 150 physicians - half of whom were from academic backgrounds. I was a solo practitioner. The vast majority of my practice was reconstructive but, sadly, very little hand surgery and no replants. Many of my surgeries were six to twelve hours and that took a toll on my back. After struggling for several years, I finally relented to back surgery. Postop the back was no better. I continued for another hard two years but finally had to have a second surgery then retire. The next year was the worst ever. Nothing to do except miss what you once did.

A year into retirement I was approached by the hospital to join a group that would review active charts and coach the physicians on proper documentation. Well, if I'm going to advise positions of all specialties, I'm going to have to return to the books. You can't just advise a cardiologist to distinguish a Type I MI from a Type II or III; I had to know something about it.

This job was only part-time. I still had idle time – this changed when I was approached by a group of nurses to join them as their hospice medical director. Remember - I shied away from pediatric surgery because of the death and dying issue. However, this turned out to be the most rewarding of my many medical adventures. This got me back to direct patient care. What comes next is a mystery.

A few more waxes about SLUM. I clearly had a multifaceted medical career which would not have been possible without a solid foundation. I thank SLUM for that. I also got my surgery inspiration there. And most importantly, it was at SLUM that I fell in love with medicine.

Rick Winters <r2w2@yahoo.com>





Cheap eats in town: bars, buffets and pizza joints





Photos courtesy of Bill Gruber

John Wyllie

The Unexpected Road

Immediately, at the 3 PM bell, I bolted from my desk and ran the half-mile to Cincinnati Country Club where the Caddy Master would dispatch me to the 3rd or 4th hole where I would take the bag of a regular Thurs./Fri. player. After their round, they would sit on the terrace enjoying a gin and tonic and each other's company. I later learned that this was a group of doctors and that this was their standard schedule. I appreciated their style and believed that this was an ideal way to spend an afternoon and thus decided that I would become a doctor. For a 7th grader, that was a monumental decision; admittedly somewhat naïve and shortsighted! The fact that my mother was an RN who thought very highly of doctors may have always influenced my thoughts.

I actually did decide that I wanted to be a physician while in grade school and thus future plans and decisions were channeled accordingly. It was also why I could never understand why so many of my HS & college classmates continued to ponder their futures while for me it was so simple. I attended Walnut Hills HS, the public college prep in Cincinnati (it was free and thus affordable). My next choice was where to go for premed; I chose Notre Dame as it was a reasonable distance from our home. My mother was a widow so if needed at home, I could always hitchhike home - it was a safer means of inexpensive transportation in the 60's. The fact that the rate of acceptance into medical school from ND was double the national average also influenced the decision. It was a sound decision but what I took from ND was more than academic preparation. I had a student job my last 3 years with the non-varsity sports department and participated in the boxing program from my freshman year through graduation. Losing a championship on a split decision was a bit shattering, but it taught me resilience, as well as time management, values clarification and the meaningfulness of friendships, character and integrity.

The letter of acceptance into SLU Medical School was one of the true highlights of my life. Delivering our daughter, Margaret Mary, AKA "Grupper" was another; thank you Dr. Comas, our OB who sprung that opportunity on me as we stood outside of the delivery room. I had been moonlighting 2 nights a week at Homer G. Philips on OB for the previous year and thus was comfortable around a delivery table; admittedly Mary was a bit startled, "aren't you at the wrong end of the table?" It went well; I don't know if there has been any other moment as exciting in my life to which to compare. As to the acceptance, it was as if I had been granted my MD as I rationalized that they would not have selected me if they didn't believe that I wasn't capable of successfully completing the course of study and becoming a productive member of the profession. Then, "pow" - I received one of the 5 lowest grades on our first Biochemistry exam and my world was a bit shattered! "Maybe I don't really belong here, maybe I'm not the "right stuff" ". With a bit of determination (AKA - studied a bit harder) I received the second highest grade on the next one; a sigh of relief could be heard as far away as Joplin! The transition from our first 2 years of pure academic studies to our clinical years was exciting and eye opening - how little medicine I really did know and the vastness of knowledge yet to be "mastered" to become a competent physician. I also remember Rick Winters and a few others who were the contributing architects and engineers who

constructed the triple decked "bunks" in the student call room at Firmin Desloge. And the pit drips and Mag Sulfate on the OB service at Starkloff Memorial, and the 30 min. VS and thus trying to catch 20 winks on an OB table with my feet in the stirrups anything for a nearby bed! There were also the post Biochem. Exam touch football games in Tower Grove Park (after the first "cold one " from the dining room cooler), across from the AKK House on Magnolia, where I lived the first 2 years with Dick Fleming, "Red Dog", Bill Seidensticker "Sticker", Pete Kelly and his roommate Bob Kayland and a grand cast of characters and friends (unrecognized group therapy!).

Not realizing or appreciating it at the time, I became somewhat depressed during my junior year. I had lived in the AKK house and therefore was surrounded by kindred spirits. After leaving that support group and sharing an apartment at St. John's (a summer externship had led to the opportunity) I started to feel as if my choice of medicine was not how I wanted to spend my life. It wasn't pleasure or fun, it was work and continual effort; but to quit and do what, be a highly knowledgeable detail man for a drug company? I also thought that it was a "normal" life growth experience, so "suck it up and get on with it." It is noteworthy that many Medical Schools have recognized the mental health challenges and situations faced by medical students and have instituted programs to respond to this.

Mary and I were married my Junior year, and in my Senior Year, Margaret Mary arrived ... on December 8th, the Feast of the Immaculate Conception: another miracle! After graduating I had a rotating Internship and a year of general surgery at St. John's Mercy in Creve Coeur. The hospital had been built on an old farm on which was located a magnificent peach orchard which I occasionally "plundered" - Mary baked an awesome fresh peach pie! One Sunday I was accosted by an elderly num who chastised me for taking their peaches, and if caught again I would suffer severe consequences. In light of this admonition, I inserted a special compensation requirement for the following year's contract; it would include free and open access to the orchard!

In my senior year I had a rotation on ENT and felt that it would be an excellent career choice. Neonates to geriatrics, both genders, challenging and complex anatomy, a medical specialty with surgery as an element of the practice. This is where Our Lady (or Someone) really smiled upon me and I was offered a residency at the Mayo Clinic in Minnesota. My first year was "interesting" as a month before starting, the 3rd resident withdrew from the program leaving just 2 of us. That resulted in being on call every other night as well as every other weekend. Home Friday evening after rounds, then back for rounds and conferences Saturday morning, and eventually returning home Monday evening after rounds. This was a challenge, physically, mentally and not the least, stressful on our which unfortunately ended marriage, 2 vears later. As the Viet Nam war was yet an active conflict, all graduating medical students were eligible for the "Dr. Draft" or if you had been accepted into a residency program, could apply for a continued deferment thru the "Berry Plan", which is what I did. Essentially avoiding the risk of being "selected" during your residency in return for receiving a commission retro dated to your first day of med school. This was the means through which the military services obtained their quota of specialists. You could even request which branch you preferred. Being a "style conscious" young man (for the past 2 years, white had been my true favorite color!) uniforms became a deciding factor. I requested the Navy first, the Air Force second and the

Army last. The Department of Defense, in all their wisdom, gave me my 3rd choice! I spent the next 6 years in Nurnberg, Germany, the first 3 in uniform, the next 3 in civies, as they had established a "DAC", Department of the Army Civilian, position as a means of keeping me at the MEDDAC. Living in Europe for 6 years was exciting with extensive travel opportunities. With almost 2 months' vacation time available, I took advantage of it. With a VW "pop-top" camper, winter skiing, summering at Lago d' Garda, the Costa del Sol, and the Algarve of Portugal became reality. Hopping to Paris, London or biking around Amsterdam also came across the travel schedule. It was definitely tough duty!

Another totally unexpected opportunity then presented itself - Saudi Arabia! While at a Christmas cocktail party I met the shop teacher from the German-American HS who was quitting his job in the mid school year to go to Saudi Arabia to teach carpentry to the Saudi employees of ARAMCO, the Arabian American Oil Company (the largest oil producing company in the world). I learned that they had western style communities and a major JACHO accredited medical center with 3 hospitals and ... an ENT department recruiting additional staff. I thought that this would be an exciting experience to spend a year there before returning to the states and becoming a "normal doctor." Nineteen years later, I did "return," but while there, transitioned from staff ENT surgeon, to chief of ENT, to Medical Director of a 20 physician ambulatory clinic in Abgaig, back to Dhahran as Chief of ENT (now a 6 man group) and finally named as Chief of an entirely new division, Medical Designated Facilities Division. ARAMCO had assumed management of another Saudi Gov't oil company, SAMAREK, with beneficiaries throughout the

Kingdom and healthcare contracts with private hospitals and clinics. In years prior, ARAMCO had sponsored me to attend courses with the AAPE in the states, attaining advanced status. I was relocated to Jeddah and began accessing all those organizations; meeting their owners, directors and staff and conducting a JACHO-like survey. I was given the freedom to select a staff of physicians, nurses and administrators to complete the organization. We eventually identified 9 hospitals, over 40 ambulatory clinics and 35 industrial clinics, stretching from the Rub A Kali, to the Red Sea and north to the borders with Jordan, Iraq and Kuwait to meet our clinical needs. As a team, we had created the first private comprehensive healthcare program in the country.

From there I was offered early retirement and elimination of the corporate non-compete clause to accept the position as Executive Medical Director of a new Saudi medical center, the Saad Specialist Hospital in Al-Khobar, close to Dhahran. ARAMCO wanted to divest themselves of healthcare, so encouraging and promoting the development and expansion of private healthcare at a standard that the patient population had come to expect was crucial. SSH was a 250 bed tertiary care level facility built by a very wealthy Saudi who was intelligent and gracious but a true autocrat. Rather than reporting to a BOD of which I was to be a member, I was directed to report to his wife, a competent business woman, but with no medical knowledge or experience. That arrangement lasted 2 years as frustration and blood pressure continue to rise, and we parted.

After the "return" I took a year "sabbatical," spending a month in Rochester and several weeks in Graz, Austria where I had the opportunity to be with Prof. Heinz Stamberger, one of the fathers of Endoscopic Sinus Surgery. Later that year, I accepted a position with the ENT Dept. at the University of Kentucky and lived in Lexington. The Blue Grass, Bourbon and racing at Keeneland were a real welcome back to home. It was both refreshing and challenging to teach and learn from the residents whose knowledge would strike me with the thought, "glad I didn't have to compete with them for a position'!

As I preferred a group or private practice, with less regimentation and more income, to a University setting, and had friends at the Defiance Clinic in northern Ohio, I joined them as a replacement for their "retiring" ENT, who then decided to remain. It actually was a 1.5 doctor practice at best, so when the recruiters "came a-lookin," I accepted the opportunity of starting an entirely new practice in Weston, WV at a small community hospital, Stonewall Jackson Memorial (and no, we didn't change the name!) where I spent the next 12 years. It could not have been a more enjoyable experience. I worked with the space-allocation administrator and the decorators to plan, equip and staff the office. During those years, I served as chief of staff for 3 years, was elected to the BOD and served as President of the WVAO-HNS for 2 years

Times and needs change and when our hospital "merged" with a larger system to remain competitive, and 3 young ENTs finished their residencies at WVU and established new practices in the area, the "system" decided that maintaining the Weston practice was not financially justifiable. I was provided with a 90 day contract termination and an offer to commute 2.5 hours a day to Morgantown to start a new practice there as I was their sole employed ENT. I sincerely said thank you and had my left knee replaced. The lesser of two evils? I had colleague-friends at IU-Arnett Hospital in Lafayette, IN where I had provided vacation coverage, and as they were short a man, joined them in November 2020 for 2 years. I haven't been to "work" in over 20 years and it continues. From the children to the aging (I guess that I must now include myself in that category) the practice of medicine remains stimulating, a learning experience and a pleasure. God has been kind and I (we) have been blessed.

In closing I have to thank all of my teachers (for their understanding and tolerance) and all of you, my classmates and friends. Without everyone's kindness, understanding and assistance it would have been impossible to experience this journey. So, let's continue onto the next adventure – I still have a few more projects to complete before the Tolling of the Bell.

Thank you and God Bless You All,

John

The Class of 1970

We attended convocation together, took courses and exams together, worked through rotations together and attended graduation together, but each of us became a doctor on our own, at some crucial moment, an aloneness moment when we each realized the enormity of the lifelong journey we had begun.



"Your lives have irreversibly changed when you walked through that door."

Dean Robert Felix Convocation, Monday, Sept 19, 1966

The basic science years



"Study well. Remember that you sit where fourteen others wished they could be."





Labs





Gross anatomy

Histology



Neuroanatomy



Microbiology





Biochemistry



Pathology



Exams...





The gross anatomy final exam: fifty-four pages long...

23) The femoral canal

- (a) Lies in front of the iliopsoas
- (b) Ends superiorly as the femoral ring, located immediately medially to the femoral vein
- (c) Is closed superiorly by the transversalis fascia
- (d) Contains the obturator nerve
- (e) None of the above

24) The obturator internus

- (a) Enters the gluteal region through the lesser sciatic notch
- (b) Is supplied by a branch of the lumbar plexus
- (c) Has a bursa on its surface that faces the sacrotuberous ligament
- (d) Is primarily an abductor of the thigh
- (e) None of the above
- 25) In the gluteal region, the pudendal nerve(a) Supplies the piriformis
 - (b) Passes through the greater sciatic foramen above the piriformis
 - (c) While passing through the greater sciatic foramen, is medial to the posterior femoral cutaneous nerve
 - (d) None of the above



and more exams...





The neuroanatomy final: "musical chairs" ... two minutes each to identify the designated item at sixty stations...





A nearby butcher shop offered relief ...





Physical diagnosis



Clinical skills labs



Sterile technique



CPR



Compassion

The clinical years

Rounds



Morning rounds, thirty-bed ward, Unit II Medicine, St. Louis City Hospital



Work rounds, medicine service, Desloge Hospital





Professor's teaching rounds, Desloge Hospital



Chief Resident rounds, surgery service, the VA Hospital

Clinical conferences





Presenting patients to attending physicians



Patient care



"The secret of caring for the patient... is in caring about the patient."





Senior year... Decision time... Which specialty shall I choose for my life's work?









Long, long nights

Emergencies



On-call responsibilities



Exhaustion

And finally...



Internship Matching Day, March 16, 1970



"You arrived here four years ago as baccalaureates. You leave here today with M.D. after your names." Saturday, June 6, 1970

Graduation was a milestone in our years of study, a time to celebrate camaraderie and growth before our individual journeys evolved into the stories in this book.

In Memoriam

For some, the journey ended too soon...



John Alexander



Robert Bousquet



Jimmy Braly



Carol (Gioannini) Brown



Richard Butler



Rocco Fiordelisi



Theodore Mehalic



Paul Filippini



Dennis Gray



Edward Morgan



William Ott



Joel Ruffman



Thomas Schultz



Kenneth Rongey



Fulton Saier



Joseph Van Wagoner

We hope these stories provide our readers with insights about the inevitable, and sometimes unpredictable, evolution of their own journeys.



Still in place fifty years after its hallways and patient rooms gave us countless stories, Firmin Desloge Hospital is now a registered historic landmark,