Address to the Lebanese Medical Students’ International Committee (LeMSIC)

June 18, 2016

President Fadlo R. Khuri

Dear future colleagues and members of the Standing Committee on Research Exchange (SCORE), it is a pleasure to be with you this morning. You are here to celebrate a major accomplishment in this transformative journey that you have embarked upon, one that has shaped, inspired, and changed every one of you here today. You are the beneficiaries of support from your parents, family, and friends, and of inspiration from the variety of experiences and people that you have encountered in your lives. The importance of participating in scientific research cannot be overstated. The best way to know the facts is to engage in research; one of the fundamental missions and duties of the great research universities which AUB is and always aspires to be. William Osler, a founder of modern American medical education, was known to have remarked: “It astonishes me how many physicians practice medicine without reading. What does not surprise me in the least is how poorly they do so!”

The finest physician scientists and clinical scientific investigators exemplify many of the essential qualities needed for excellence in this matchless field of medicine, and they gradually learn and integrate the vast potential for meaningful servant leadership. Each of us is faced with the choice of many professions. In all honesty, you have chosen one fraught with challenges, an artful science that is perpetually evolving. You will come to see why medicine is not only any profession, but a calling like no other. It will present to you a series of opportunities and challenges unlike those in any other profession, some that you will cherish and others that you may dread. But you must face all of them head on.

We have all taken different paths to arrive here today. To mark the occasion, I have been asked to share some aspects from my personal scientific journey. As you may be aware, many studies indicate that almost all productive medical researchers had their first major first authored publication before their 30th birthday. But some, like me, have taken longer to mature scientifically, and so it may be with many of you. My first paper of any sort came after my 31st birthday, and my first high impact paper came just before my 37th. And yet I was a tenured professor at Emory University at the age of 38, have published over 300 peer reviewed papers, and our work has been cited over 15,000 times. I led or co-led federal grants with a net value of over $25 million, and received several major honors, including the Richard and Hinda Rosenthal Award of the American Association for Cancer Research for research that “has helped change how we think of lung and aerodigestive cancers.” So in my case, my love of science, inspired by my parents and strengthened by my exposure to my father’s laboratory and the laboratories of Bernard Weinstein and others during my career, was buttressed by resilience, persistence and self-awareness.

So what wisdom can I impart to you on your own path towards scientific excellence, as you launch your own scientific careers with early excellence? Let me start by sharing an anecdote with you. After taking three drugs and one oncolytic virus all the way from pre-clinical data through to phase III trials that ultimately failed to gain approval, the fourth trial that I helped start failed to complete accrual in the United States and Europe. This was due to the difficulty of injecting an oncolytic virus with a limited half-life directly into tumors in the neck. Finally, scientists and physicians in China, unimpeded by international patent and copyright laws observed in the rest of the world, completed a randomized phase II trial with a knockoff of this same virus in China, making it the first approved...
oncolytic viral treatment in the world (albeit only in China). However, even in that one successful enterprise, victory was undermined. The Chinese equivalent of the FDA commissioner who approved this virus was subsequently condemned to death due to a conviction of severe corruption!

So what can I add to the far more concise, precise, and frankly useful things that you have learned and excelled at to date, and that you will yet learn from your teachers in the years to come? Like many of you, I have been inspired by the example of the people who were closest to me. Foremost even among these remarkable individuals was my late father, who remains, in so many ways, the role model and ideal that I have never come close to achieving. My late father was a physician scientist whose voyage from Lebanon to the United States included winning AUB’s highest student honor, the Penrose Award twice, as an undergraduate and as a medical student, graduating at the top of his medical school class while serving as class president at AUB, completing a residency in internal medicine and a fellowship at Brigham and Women’s Hospital, and earning a post-doctoral fellowship in biophysics at Harvard Medical School. My father served the American University of Beirut with great distinction as chair of the department of physiology, starting at the age of 32 and becoming dean of the AUB medical school at the age of 43. More importantly for his family, and perhaps most remarkably, he was an omnipresent father and husband. He left an example that inspired my younger siblings and me, and the deanship at the American University of Beirut is named in perpetuity in his honor.

As I was trying to decide what I could possibly succeed at while I was growing up, my otherwise impartial father and maternal great-uncle conspired to buy me a pair of microscopes for my 18th birthday, a not-so-subtle hint that perhaps my spirited/exuberant personality, my love of biology and chemistry, and my attachment to people indicated that a career in medicine and in research could serve to inspire one whose thirst of knowledge and challenges was always an instinctive and restless need, as it is for all of you.

In 1982, I left Lebanon and moved to New Haven for what I thought would be one year abroad at Yale University before I returned to the country of my origin. But that return never took place. As the great Arabic poem by Al-Mutanabbi goes, “The winds blow in directions the ships may not desire.”

 Nonetheless, I embraced Yale, particularly the medical school where I learned to love not only the science but also the art of caring for others. I was fortunate to go to one of the oldest medical schools in America, and equally fortunate that it was in New York, the Columbia College of Physicians and Surgeons. There, in the midst of many life-altering experiences, I met my inspiring and remarkable wife, who was in the process of studying for her Masters and later PhD in Nutrition while fending off the amorous advances of a literal fleet of suitors. Her qualities of intelligence, temperance, generosity, beauty and good judgment were for me unmatched, though her judgment is called into question when one considers her choice of life partner!

It was at Columbia that I met and apprenticed under the late I. Bernard Weinstein, then the Cancer Center Director at Columbia University. He was a man of great wisdom, humor, and natural kindness. He was also one of the greatest scientists I had the great fortune to be associated with. During my training as a house officer at the Boston City Hospital I discovered in the midst of the darkest days of the AIDS epidemic two fundamental truths: that the bedside appealed to me more than the bench, and that the only path forward for patients stricken with intractable diseases such
as AIDS and cancer was through research. When I informed Bernie Weinstein of my stunning realization—stunning to me, at least, if not to my parents—he simply said to me: “Always follow your heart.”

Another influential mentor was the great Korean-American cancer clinical trialist, Waun Ki Hong, with whom I worked while at the MD Anderson Cancer Center. Bernie Weinstein, Ki Hong, my wife Lamya, my parents, my brother and my children have all been the great positive influences in my life, and it was largely due to their guidance, unvarnished belief and constant support, that in 2006, I returned to the American University of Beirut to receive one of the most meaningful awards that I will ever have the opportunity to earn, the Nagi Sahyoun Memorial Award. This award is named for a brilliant Palestinian-Lebanese neuroscientist, an AOA member, who died of sarcoma of the pelvis, and whose meteoric rise is still legend at AUB. This award is bestowed for accomplishments in biomedical research that will one day impact medical care. I was again humbled by its significance when, in 2012, I learned that the recipient 6 years after me was the great Peter Agre, the 2003 Nobel Laureate in Chemistry who discovered aquaporin. Agre’s friendship with my father gave me award even more meaning for me.

You see, I have long held to the belief that incentivizing talented and dedicated individuals to develop new knowledge, to engage in the discovery of the truth through science, is the key to progress not only in biomedical research, but in human empathy. I am convinced that with the right motivation, people can work wonders for the greater good that this University stands for, as embodied by the motto engraved on the walls of Main Gate: “That they may have life and have it more abundantly.” Those for whom we seek to provide a more abundant life include our patients, who are indeed those less fortunate than ourselves. One thing you learn from taking care of cancer patients is that your worst day is almost always better than your patient’s best day. Keep that in mind the next time you are suffering the pain of some form of rejection or disappointment, and have to talk to and care for someone with a life altering or life ending illness.

I am a true believer in this kind of approach, which is at the heart of what I call Academic Exceptionalism. I believe that when the diverse peoples that comprise our medical and research communities share in both the responsibility and the rewards of generating knowledge, more people can step up and be truly exceptional. It isn’t about the money for these remarkable individuals. Empowering them is the name of the game, in my book. Such a system generates more resources and more ownership from all the best folks. It is the polar opposite of trickle-down economics, a philosophy I call Empowering Academic Exceptionalism. That is what I truly believe drives achievement in research, in academia, and progress in medicine.

And so we come to the mystery and power of medicine. In medicine, you will do great good at times, but failure will also occasionally find you. You will experience great frustration as those whom you labor to heal suffer nonetheless. You will learn anew, as many of us have, the clinical insights that you acquire not only with knowledge and experience, but in the very fabric of life. These insights are immersed in fascinating new data about the DNA and RNA and proteins that determine the factors behind an individual’s illness and its ultimate outcome. All of these will give you only partial answers, and you will learn to accept that for all our enhanced knowledge, all our faith, or lack thereof, in science, God, technology or whatever it is we hold dearest to our hearts, medicine remains an art. It is an art that is predicated on one’s sense of responsibility to others, and the great privilege of caring for those less fortunate than ourselves.
Art and science, history and roadmap, medicine provides a career in which every day is worthwhile; every challenge is meaningful; every task important; and every lesson invaluable. If life as a perennial student of the biological and social sciences appeals to you, you have chosen well. You never stop learning in medicine. The lessons you learn and those that you in turn teach acquire great significance. Members of the SCORE Class of 2016, today we celebrate your accomplishments. We celebrate the fact that you have navigated soundly, with skill, accomplishment and sound judgment, a voyage deep into the science, magic, and mystery of medicine. You join in your pursuit of the truth with generations of great scholars and scientists, humanists and heroes. You were selected not only for your brilliant academic accomplishments, but for the innate spirit of servant leadership you demonstrated when you applied for this most demanding, and ultimately most inspiring of professions. My charge to you is to enjoy the voyage. It is a long one, but I can think of none more challenging, more meaningful, or more rewarding. Some of you will discover and receive powerful new scientific knowledge, but all of you will heal, and be yourselves healed by the journey. Congratulations and best wishes moving ever forward into the heart of this most noble and magnificent calling!