Sam Seifter Reflections

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In 1974, I arrived at Einstein to begin my graduate training in the biochemistry department known for its many distinguished faculty and an exceptional chair, Dr. Sam Seifter. Having had a small liberal arts college education and with little research experience, I sought advice from many on which research topics were interesting and likely to have biomedical relevance. At that time, owing to a series of encounters with human disease and its personal toll, I was intently focused on undertaking a research project which would have potential medical impact. While many of the faculty offered expert guidance in this regard, Dr. Seifter was more Socratic in his counsel. He would typically ask me, “What is the question?” and consequently encourage me to follow a path to pursue the answers. In time, I developed sufficient information to render judgment about the laboratory in which to undertake a dissertation. I selected the laboratory of the late Dr. Julius Marmur because, in part, he seamlessly merged two interests: genetics and biochemistry. Moreover, unknown to any of us, this laboratory environment was most ripe to embrace the advent of molecular biology that was soon to unfold.

Graduate training in biochemistry at AECOM was rigorous and intensive. The required courses were very well taught. Departmental seminars were a spectacular experience for the student, largely owing to the collegial but in-depth exposition of every presented topic. Dr. Seifter was amongst the most insightful questioners; gently pushing the speaker’s own knowledge envelope in a non-threatening, didactic, and constructive manner. The effectiveness of this novel formulation of the more commonplace Q & A can not be overestimated as it can produce the most brilliant discourse from scientists at virtually every level of training. During my early years as a junior faculty member, my efforts to emulate this style were distant from the Seifterian method. What appears to come effortlessly to some requires great effort for others to achieve.

Early in my tenure as a graduate student, I began exploring whether I should also consider training in medicine. Dr. Seifter became a strong advocate for this idea. I recall him recollecting his own experience as a graduate student at Western Reserve and his prescient realization that biochemical research could substantively change our understanding of disease pathogenesis and, I add, by direct extension, herald new therapeutics. With his encouragement and that of Julie Marmur, I successfully competed for the rare American Cancer Society Special Postdoctoral Award. This funding mechanism, intended to support the training of physician-scientists, provided not only medical school tuition support but also a postdoctoral level stipend. Upon defense of my dissertation and graduation, I matriculated in the College of Medicine. With the advocacy of Drs. Seifter and Marmur, I continued a modest research program during my years in medical school. This attempt to balance priorities was to become de rigeur for aspirants of academic medicine such as myself. In retrospect, I believe that the challenge placed before me (conducting research and learning medicine concurrently) was by design. While my research progress during this period was glacially slow, I was the beneficiary of much departmental support, most notably from Dr. Seifter.

Following medical internship, a medical residency, endocrine fellowship, and postdoctoral training at the Massachusetts General Hospital, I returned to AECOM as a faculty member. Like many colleagues who were also assistant professors, I was excited to have an opportunity to initiate an independent laboratory effort. It was also challenging to integrate clinical responsibilities, teaching duties, and, on the personal side, a growing family. To put into perspective this multitude of professional expectations, I sought the counsel of a number of faculty members. As I recall from a brief chat, Dr. Seifter suggested that the ball was in my court – that I, not others, needed to establish the priorities and then develop a set of strategies to address them. The outcome would therefore be solely in my hands. The prevailing funding climate, particularly at the NIH, was not dissimilar from what we experience today: for a grant to be funded, it must score less than the tenth percentile. After literally squeaking out support for my first R-level grant, I resisted the pervasive, but nonetheless well-intentioned, advice of many in my mentoring sphere to write additional grant applications. Instead I devoted myself to manuscript preparation and submission and separately grew more comfortable in my capacity as attending physician at the Bronx Municipal Hospital Center/Jacobi Hospital. I appreciated that scholarly publications would translate into additional funding. Deviating little from my original plan, hatched amidst the uncertainty of continuing my research career, I slowly began to establish a niche within the research world. At this same time, I commiserated with several talented junior colleagues,
some forced to abandon science, because they failed to secure extramural support.

Largely by serendipity, my research group made a series of observations that the scientific community believed heralded the development of gene therapy for neurological diseases. After a number of months, I determined how best to address my peer community's assessment of my work and its relevance to medicine: embrace it and move forward. In retrospect, this decision, inspired by my original motivations for pursuing medicine, reminded me of my early days as a graduate student where I was seeking a compass to assist with career navigation. As noted earlier, I found a directional heading with the input of Dr. Seifter. My efforts to launch neurological disease gene therapy took me to the University of Rochester School of Medicine and Dentistry, then, and still, having one of the premier Departments of Neurology as well as an outstanding infrastructure for clinical trials.

My academic journey is still unfolding and the future is uncertain, but almost certainly will be exciting and I hope productive. The contributions that people make to one's career and its trajectory are not easily measured. They are not simply quantified by time but rather by content and impact. I know for certain that my career would not have evolved as it has without the wise counsel of Dr. Sam Seifter. Perhaps when I complete my work, I will, through the lens of hindsight, be better able to assess the various elements, particularly people, who were important to my career. At this junction, likened perhaps to the fifth inning, it is already evident which of the managers (carrying the metaphor further) were key to the success of the team and its players. Dr. Seifter, my cap is off to you.