

Developing to Full Potential: Medical Education as a Scientific Discipline

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How does anyone reach his or her full potential? Some argue that training and mentorship create the foundation upon which potential grows. Others posit that exposure and the accrual of experience is the currency with which potential is bought. Still others insist that potential could never be realized without the driving dual engines of passion and dedication—that we can never reach our true potential unless we tap into the desire to be great at something. Though arguments could be made for all of these theories, the reality is that education, experience, and dedication all play equal roles in an individual achieving his or her potential. As medical educators, we are tasked with developing strategies to help our colleagues and future colleagues develop to their full potential, and we must do so by creating a strong foundation of training, ample currency of experience, and a highly functioning engine of dedication.

Fortunately, a successful model for us in medical education to follow already exists—the development of physician scientists. To develop the pipeline of physician scientists, many programs designed for early outreach and research exposure for medical students exist, such as the National Institutes of Health (NIH)-funded T35 short-term summer research experiences. In addition, many physicians pursuing research careers seek advanced training through research

fellowships or advanced degree programs, such as a master's in public health. These programs are often supplemented by structured mentorship to facilitate the development of a good research question together with appropriate methodologies to help explore potential answers. Lastly, funding mechanisms, such as the NIH "K" or mentored career development awards, enable physicians who are early in their faculty careers to obtain protected time and funds to begin their research. These programs, from the medical student to faculty level, all identify as early as possible a passion for research in participants, provide training and mentorship in critical research skills, and offer valuable experiential learning opportunities.

We must reconceptualize medical education as a scientific discipline no different from basic or clinical research. We must identify interested individuals early, so they can receive training and mentorship to facilitate their understanding of the science and rigor of medical education. However, without a venue for experimentation, that understanding is useless. Institutions also must promote the application of their new knowledge by funding education research opportunities and experiences. These steps require funding, structured programs, and a cultural shift.

In 2010, recognizing these needs, the University of Chicago Pritzker School of Medicine initiated a longitudinal model for developing and training medical educators. The first step on this pathway is the Medical Education Scholarship & Discovery Track,¹ similar to traditional research tracks and open to all medical students. This track offers students early exposure to the principles of medical education and allows them to create or participate in medical education research with faculty mentors, obtain teaching skills and experience, and enter the community of practice of medical educators. Continuing this experience into the graduate medical education (GME) years, the residency program in pediatrics has a similar Medical Education Track,² which builds on the traditional three-year GME program with the addition of an extra year of training to complete a master of health professions education degree

and a thesis that focuses on GME research or curriculum development. During the postgraduate and faculty years, the Medical Education Research, Innovation, Teaching, and Scholarship (MERITS) fellowship program enables participants from multiple clinical specialties to obtain advanced training in medical education.³ The MERITS program introduces participants to the scientific foundations of medical education, as they are guided through a scholarly project that they initiate during their yearlong training. In fact, one of their early assignments is to attend *Academic Medicine's* Question of the Year session at the Association of American Medical Colleges Annual Meeting. Upon returning home, they each present their own answers to the Question of the Year to our fellows and faculty. This experience is one of many that fosters appreciation for national issues facing medical education today. Finally, all faculty have the opportunity to apply for funding through the Academy of Distinguished Medical Educators to focus on a timely and relevant medical education project.

Many medical educators have achieved their potential through independent experiences and their own dedication to the field. Medical education, however, should not be a game of happenstance. Training medical educators requires structure, expertise, and a culture for promoting discovery. This framework of formalized training, mentorship, and structured experience is already well known to us from decades of cultivating physician scientists. By changing how we train medical educators, we can offer current and future members of our community the opportunities not only to reach their potential but also to expand their potential beyond what they have imagined.

References

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