The Dean's Column

At a "21st Century Cures" roundtable convened by the U.S. House of Representatives' Energy and Commerce Committee in 2014, Michael Milken, founder of FasterCures, described the U.S. medical research process as "21st-century trains running on 19th-century tracks." The same can be said of medical education, albeit with a twist: "21st-century trains running on 20th-century tracks."

Medical education as we know it was framed by the Flexner Report of 1910. This report unleashed a wave of reform, reshaping the 20th-century American medical school landscape. Medical schools with a near absence of admissions standards, many issuing MDs to students without high school degrees, let alone university ones: gone. Medical schools with two-year tracks, mostly relying on local doctors who lacked even a trace of academic credentials: gone. For the medical school in the Flexner mold — a call for high-quality, medical school-controlled clinical instruction, rigorous licensure standards and high-caliber faculty qualified to train students in the science of medicine.

Jefferson survived the Flexner tsunami because we were out ahead of it. We had already adopted many of the report's recommendations, such as a curriculum grounded in basic science. And Jefferson had actually pioneered a reform that Flexner insisted on: medical education that augmented lectures in an amphitheater with clinical experiences in a hospital. Many schools never saw the tidal wave coming and were swept away — from 160 MD-granting institutions in 1904, plummeting to 85 by 1920, and sinking yet further to but 66 medical schools in 1935.

More than 100 years later, the modern medical school, shaped by Flexner, is of an entirely different breed, seemingly well adapted to a medical world transformed. Flexing effortlessly with the steady advances of ever more super-specialized medicine and comfortably ensconced within complex but somehow tractable healthcare delivery enterprises, medical schools seem perched on a stable ledge. This is deceptive. The ledge is in fact meta-stable, as we all brace for massive paradigm shifts, across all our missions. The disruption will be like

none seen heretofore. The Borders bookstore chain is expanding one day, shut down the next. For many, the clinical moorings will be strained, if not untethered, as hospitals and health systems realign, consolidate and sometimes disappear altogether. This will stress the very fabric of the medical schools that rely upon them. The very role of the MD will morph in the face of technologies such as telehealth and expanding roles for non-MD healthcare providers. Medical schools will have to adapt their education missions to these changing clinical realities.

Here at the Sidney Kimmel Medical College, my colleagues and I have been challenging ourselves: how should we educate students in the college's third century? We are not alone in posing this fundamental question, as it is a common refrain at medical schools nationwide, but we believe the solution set we are contemplating has some unique angles. Once again, we intend to be ahead of the curve in the medical education space. We intend to be not simply one of the survivors, but one of the leaders.

Our design will be uniquely Jefferson, imprinted with our commitment to superb skills and our emphasis on empathy as the essential companion of clinical excellence. Our students recognize the importance of connecting the future to Jefferson's proud past and have named the renewal process JeffMD. Current plans call for the new curriculum to roll out as early as September 2016, for the Class of 2020. Here are some of the principles that are guiding its development:

- Patient-centered: Students will learn to view the care they provide through the patient's lens. Early clinical exposure, integration of humanities throughout the curriculum and attention to the complexities of patients' lives will reinforce the Jefferson values of compassion and holistic care.
- Fully integrated design: The curriculum will comprise three phases separated by two interphases. Each phase will encompass fundamental science, clinical exposure, professional development, the humanities and individual scholarly inquiry. The interphases will allow students to pursue electives and prepare for the USMLE.

- **Competency-based:** Student progress will be measured by competency rather than "seat time" and final exam grades. Students who progress faster than others will have enriched learning opportunities.
- Earlier specialty interest: We will encourage students to declare a specialty interest at the start of Phase 3 and then provide them with career-specific training opportunities. Our graduates will enter residency with advanced competencies in their chosen fields.
- Range of instructional styles:
 While encompassing traditional lectures, instruction will emphasize small-group learning, reflection and continuous, formative assessment. Critical thinking will take precedence over memorization.

The entire SKMC community is engaged in the design process. Groups of faculty, students and staff are working on every element, and students have been most active of all. In addition to our wonderful Student Advisory Group, 118 students recently attended a town hall meeting to learn about the redesign and to help us see things from their perspective.

We hope that you, our alumni, will also bring your valuable perspectives to this important initiative. You, more than any other members of our community, can bring us the view of practicing physicians across the breadth of disciplines, practice settings and communities. We recently held alumni meetings in Pittsburgh, Pa.; Lititz, Pa.; and Wilmington, Del. If could not attend one of those meetings, I hope you will write me with your thoughts at mark.tykocinski@jefferson.edu. Only a fully engaged community can give us a curriculum that fully recognizes the unique Jefferson experience.

As we together embrace an undertaking of this magnitude, at a time when the medical academy at-large is facing considerable challenges, a thought from Albert Einstein seems relevant: "The significant problems we have cannot be solved at the same level of thinking with which we created them."

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