



Director's Corner

Welcoming the Kern Institute's Inaugural Medical Education Transformation Collaboratories!

By Adina Kalet, MD, MPH

The Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education at the Medical College of Wisconsin is proud to announce our first cohort of Medical Education Transformation Collaboratories. These seven groups listed below represent cross-institutional, multi- and inter-disciplinary, multiple stakeholder communities of practice that will work together in a sustained effort around a shared project to transform medical education by engaging in both innovation and scholarship. Each of the funded collaboratories was selected after a highly competitive merit review process (See below for the list of reviewers). This group includes forty-five individuals from an array of academic disciplines plus a community representative, affiliated with twenty-two health professions education institutions, including medical and nursing schools in many regions of the United States and Canada. Four of the seven include an MCW partner! Members of these collaboratories will meet together in July 2021 and Winter 2022, as well as having regular subgroups meet throughout the year to share progress and resources, address challenges, plan for knowledge dissemination, and learn together. We will implement a process to determine eligibility for a second year of funding. They will update their progress regularly in the *Transformational Times*.

I learned early on that true collaboration is very challenging and worth doing.

In 2005, I found myself co-principal investigator on a medical education research project funded by the National Science Foundation. By this time, I had already participated in a number of large scale multi-institutional collaborations among (only) medical educators, and I thought I knew what it meant to effectively collaborate. Boy, was I wrong! My co-PIs on the [WISE MD](#) project, included a world class computer scientist (CS) from West Germany, an educational psychologist who led a lab exploring the use of technology in K-12 STEM education who was born in East Germany. Our project was focused on building a distributed network information system (with technology originally designed for the pornography “industry”) which would enable both delivering and studying the impact of a rich multimedia core surgery clerkship curriculum. Our team included CS and education graduate students from Korea, Turkey, and Israel, a MD/PhD in Medical Education from Canada, two fine artists (one Russian and one from

New Jersey with a culture all its own), a British qualitative informatician (yes, that is a thing), a mostly US-based team of videographers and multimedia editors, surgery clerkship directors from seven medical schools from across the country, and advisory groups from the American College of Surgeons and the Association of Surgical Educators.

Leading this project required that I danced as fast as I could. Although we were all fluent in English (at least the non-US born members were!), when we began, our team did not share a common scientific language (e.g., clinical surgery, medical education, computer science, learning science, technology, fine art, video production) or a common set of assumptions about what constituted education, learning, or successful research. We had widely divergent approaches to knowledge management (*e.g., What do we name and where do we keep our shared documents? What are those funny formulas and code snippets? How the heck do we write about our work together?*), or what it meant to do research and disseminate it (*e.g., Do we meet in person? Teleconference? Email? IM? Use Slack? Write blogs, proceedings, or papers?*). Oh, and we didn't all sit in the same location. Some of us were one mile apart (which in Manhattan, could mean an hour commute), or across the country or overseas.

It was a remote Tower of Babel for the first year. It was also endlessly fascinating - interpersonally, culturally, politically, intellectually. Technology helped, but it was our commitment to spending the time to get to know each other as people, to have the patience to listen to all points of view before making decisions, define terms, write glossaries, and to try-and-fail, try-and-fail, and try-and-fail, that made this the most impactful project any of us have ever worked on.

Despite going well down many blind alleys and surviving a good number of tense culture clashes, we figured it out. We had to, because we were accountable to our funders and each other to do innovative and creative work. In the end and as a team, we successfully garnered R01 funding from the NIH to conduct a randomized controlled trial to study WISE MD outcomes (WISE Trial). And consequently, the WISE MD program was one of the first rigorously studied, widely distributed digital medical education curricula in the world. This sparked building of many such curricula in wide use today. Whew! As they say, what doesn't kill you makes you stronger.

What it will take to transform medical education

Despite knowing how very difficult it was, the WISE Trial experience is why I believe that the key to transforming medical education will require a large number of intentional, and savvy collaborations across diverse groups of stake holders. While it is much easier to work with a group of like-minded people with whom you share a culture, background, and values, these small-scale projects are less likely to produce sustained meaningful change. It is just true. When you step *far* outside your comfort zone the risks are higher but so are the potential benefits.

The specific outcomes of the WISE Trial (which was a negative randomized controlled trial, by the way) were diverse and unexpected. We demonstrated the importance of context (Ellaway) and the difficulty conducting intra-institutional work (Sarpel). In addition, there were many sustained research, innovation and business collaborations that resulted. But, most important to me, were the close, life-long, intellectually stimulating relationships across a wide range of academic disciplines, world views, and working styles that developed. These colleagues keep me honest and brave enough to question assumptions. I learned to keep trying and failing until something wonderful happens.

Why we need to transform medical education now

We must take advantage of the available pedagogical principles and educational research to move the training of physicians from a 20th century to a 21st century model. Technology is irrevocably altering the practice of medicine. Artificial intelligence and robotics are disruptive. It is essential that our trainees need to engage with the technology and know both *how* to think and *what* to think about.

In the US, despite having the most expensive health care system in the world, our health outcomes are poor. There is an unconscionable maldistribution of physicians - both in specialty and geography - such that a great many of our citizens do not have access to or are able to afford basic medical care. There are many problems to address that we are not well prepared to address at this moment. It is time to pivot. We need to do this together, in collaboration.

Kern Institute's Medical Education Transformation Collaboratories 2021-2022

Collaboratory Title and Project Description	Team Members and Affiliations (*Team Lead)
<p>Laying a Strong Foundation: How Do Medical Schools with and without Learning Communities Promote Character, Caring and Professional Identity Formation During Students' Pre-Clerkship Years?</p> <p>Description: This project will “develop a greater understanding of the phenomenon of PIF as experienced by medical students early in their medical education” by including the voice of medical students and the role that organizational frameworks play in promoting PIF.</p>	<p>*David Hatem, University of Massachusetts Medical School Jennifer Quaintance, University of Missouri Kansas City Marjorie Dean Wenrich, University of Washington William Agbor-Baiyee, Chicago Medical School at Rosalind Franklin University Mrinalini Kulkarni-Date, University of Texas/ Austin-Dell Medical School Megan A McVancel, University of Iowa/Carver College of Medicine Alejandro Moreno, University of Texas/ Austin-Dell Medical School Thuy Lam Ngo, Johns Hopkins School of Medicine Kurt Pfeifer, Medical College of Wisconsin Elizabeth Yakes, Vanderbilt University School of Medicine</p>
<p>The Data Science of Character</p> <p>Description: This project will establish a multifaceted, multi-level definition of character, a corresponding collection of behavioral measures of character, and draft a set of recommendations for cultivating character at the at the individual and institutional level.</p>	<p>*Debra Klamen, Southern Illinois University School of Medicine Anna Cianciolo, Southern Illinois University School of Medicine Collin Hitt, Southern Illinois University School of Medicine John Mellinger, Southern Illinois University School of Medicine Bridget O'Brien, UCSF School of Medicine Robert Treat, Medical College of Wisconsin Crystal Wilson, Southern Illinois University School of Medicine</p>
<p>Educating Educators to Serve as Change Agents through Professional Identify Formation</p> <p>Description: This project will create, implement, and evaluate a new longitudinal curriculum for interprofessional healthcare leaders based on five content areas associated with</p>	<p>*William T Branch, Jr, Emory University School of Medicine Corrine Abraham, Emory University School of Medicine Richard M. Frankel, Indiana University School of Medicine Debra Klitzelman, Indiana University School of Medicine</p>

<p>higher-order professional development and education leadership among faculty participants.</p>	<p>Calvin Chou, University of California, San Francisco School of Medicine Elizabeth A Rider, Harvard Medical School</p>
<p>NYU-UCSF Collaboratory to Advance URiM Faculty in Academic Medicine</p> <p>Description: This project will examine the impact and outcomes of a Faculty Leadership Development Program (FLDP) designed for junior faculty who are underrepresented in medicine (URiM) developed using a novel theory-based framework.</p>	<p>*Richard Greene, NYU Grossman School of Medicine Sarah Schaeffer, UCSF School of Medicine Tiffany E. Cook, NYU Grossman School of Medicine Joseph Ravenell, NYU Grossman School of Medicine Walter Parrish, NYU Grossman School of Medicine Sonille Liburd, NYU Grossman School of Medicine</p>
<p>Characterizing Cultures of Mattering in Health Care Education</p> <p>Description: This project will learn how nursing and medical students matter, defined as adding value and feeling valued, in their learning environments.</p>	<p>*Julie Haizlip, UVA School of Nursing & Medicine Natalie May, UVA School of Nursing & Medicine Karen Marcdante, Medical College of Wisconsin Caitlin Patten, Medical College of Wisconsin Rana Higgins, Medical College of Wisconsin</p>
<p>Creating a Collaboratory to Map Medical Education's Blind Spots</p> <p>Description: This project will help the medical education community see its blind spots with clarity, identify structures and barriers that prevent progress, and define strategies to address blind spots.</p>	<p>*Sean Tackett, Johns Hopkins Medical School, Bayview Medical Center Scott Wright, Johns Hopkins Medical School, Bayview Medical Center Cynthia Whitehead, Wilson Centre, University of Toronto, Faculty of the Health Sciences, Ontario CA Yvonne Steinert, McGill University, Montreal, CA Darcy Reed, Mayo Clinic School of Medicine</p>

<p>A Model for Integration of Clinical Performance Measures into Residency Training Programs (Policy Paper)</p> <p>Description: This project will address policy related to the challenges of linking educational innovations with clinical outcome measures through the use of meaningful clinical performance measures, harnessing the potential of the electronic health records to capture these data, as well as bridging the silos of medical education and health care quality improvement.</p>	<p>*Abby Schuh, Medical College of Wisconsin Dan Schumacher, Cincinnati Children's Hospital Medical Center Alina Smirnova, University of Calgary, CA Saad Chahine, Queens University, Ontario CA</p>
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Thanks to the Kern Institute's Medical Education Transformation Collaboratories Merit Reviewers 2021-2022	
David Stern, MD, PhD	Wendy Peltier, MD
Kurt Pfeifer, MD	Jeff Amundson, PhD
Sandy Zabar, MD	Jeff Fritz, PhD
Verna Monson, PhD	Jake Prunuske, MD
Amy Prunuske, PhD	Karen Marcdante, MD
Libby Ellinas, MD	Malika Siker, MD
Lisa Dodson, MD	Ali Harrington, MD
Mike Levas, MD	

For further reading:

Ellaway, R. H., Pusic, M., Yavner, S., & Kalet, A. L. (2014). Context matters: emergent variability in an effectiveness trial of online teaching modules. *Medical Education*, 48(4), 386-396.

Sarpel, U., Hopkins, M., More, F., Yavner, S., Pusic, M., Nick, M., ... & Kalet, A. (2013). Medical students as human subjects in educational research. *Medical Education Online*, 18(1), 19524.

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