

CENTER FOR EDUCATION



Shapiro Institute

BETH ISRAEL DEACONESS MEDICAL CENTER
HARVARD MEDICAL SCHOOL

SIMULATION IN MEDICAL EDUCATION



Newsletter
March 2026

See One, Do One, Teach One?

For centuries, individuals interested in becoming a physician served as an apprentice to a practicing doctor, learning the ins and outs of human biology as the science of medicine evolved and developing the empathy and humanism required for the interactions between the physician and patient; these interactions between physician and patient created the unique bond that makes the practice of medicine special. Even as we approached more modern times, aspiring doctors learned the procedural aspects of the profession at the side of an experienced practitioner. The dictum, “see one, do one, teach one,” was commonplace. While not taken literally, there was a sense that one could only get training and experience doing invasive procedures (from placing an intravenous line, to doing a lumbar puncture, to a surgical operation) by “practicing” on a live patient.

With the advent of technological advances in the 20th century, however, the concept of “medical simulation” was introduced. In the 1960s, the “Resusci Anne” was created and cardiopulmonary resuscitation simulation arrived with the notion of a mannequin replacing the live patient for practicing skills and teamwork. Several years later, the Sim One, the first computerized mannequin came on the scene. In 1968, the “Harvey” cardiology simulator was developed and the physical exam of the heart could be practiced without subjecting patients to prolonged episodes of auscultation.

Thirty years later, the Center for Medical Simulation (CMS) was formed in Boston; this was the world’s first comprehensive simulation center and countless doctors have experienced its programs since then, reinforcing medical knowledge, procedural skills and teamwork. Simulation had truly arrived!



Here at Beth Israel Deaconess Medical Center, a Minimally Invasive Surgery Skills Lab was initiated by Dr. Daniel Jones as part of the Shapiro Institute for Education and Research. A year later, the Carl J. Shapiro Simulation and Skills Center (SASC) was built and the BIDMC was off to the races with simulation curricula, faculty development courses, and interprofessional training occurring on a regular basis. In fact, the Shapiro Simulation Center was the first such Institute in North America to be accredited by the American College of Surgeons.

The Center, now under the direction of Dr. Daniel Ricotta, is active nearly from dawn to dusk with programs ranging from team training to individual students and trainees who come when they have a few moments to practice on a task trainer and refine a skill, particularly for minimally invasive surgery or robotic procedures. In 2025, there were nearly 20,000 learner hours in the SASC and, due to space limitations, many classes are now scheduled after 5:00 pm.

In this newsletter, you will learn about our dedicated staff, the research we are doing within the SASC, and the contributions of medical education to the care and well-being of our patients. The era of “see one, do one, teach one” is long gone.

- Richard M. Schwartzstein, MD

Simulation and the Next Phase of Medical Education

By Daniel Ricotta, MD
Senior Director, Simulation and Skills Center, BIDMC

For many years, most clinicians at Beth Israel Deaconess Medical Center thought of the Simulation Center in a very practical way, it was the place you went to practice a procedure before performing it on a patient, or to run through a clinical scenario you hoped you would manage well the first time it happened in real life. These roles remains essential. Simulation continues to provide a space where learners can make mistakes safely, explore difficult tasks, and gain confidence before assuming responsibility for patient care. It is now a required component of graduate medical education and a standard part of onboarding for new nurses and other important healthcare workers across the health system.

What has changed is the environment in which our clinicians practice. Clinical care has become more team-based, more technologically complex, and more dependent on rapidly evolving devices, workflows, and digital systems. New tools and processes now enter patient care at a pace that traditional teaching methods were never designed to support. Preparing health professionals for modern practice therefore requires more than scheduled teaching sessions or individual skill training. Teams need opportunities to rehearse together, to understand new processes before using them, and to identify problems before they reach the bedside.

For this reason, the role of simulation at BIDMC is expanding beyond education alone. We increasingly use simulation to support clinical care itself. Through our 3D printing and device development work, clinicians have designed patient-specific airway stents and customized wound-care devices that have been used directly in patient treatment at BIDMC. More broadly, the simulation environment allows teams to test workflows, examine communication, and identify safety risks in advance. In situ simulation allows practitioners to integrate new processes directly in their clinical environment. In this way, simulation is becoming a practical tool for quality and safety improvement, not just a teaching method.

The center is also evolving into a place for innovation and investigation. Simulation provides a controlled

environment where new clinical technologies, care processes, and educational approaches can be evaluated before they are implemented in patient care. Current work includes studies of team performance, simulation-based educational research, and efforts to understand how artificial intelligence will influence training and clinical reasoning. As AI tools become integrated into clinical work, we must consider not only how they enhance learning, but also how they may change clinical reasoning, skill acquisition, and judgment. Simulation offers a setting in which we can study these effects deliberately rather than discovering them unintentionally in practice.



Daniel Ricotta, MD

These developments are directly connected to the Shapiro Institute's strategic planning efforts to strengthen teaching, advance interprofessional learning, and support education scholarship in the coming decade. A working group will examine how simulation can best support clinical competence, performance, and innovation over the next five to ten years. The underlying question is straightforward, as the health system changes, the way we prepare health professionals must change with it.

As this work has expanded, it has also become clear that demand for simulation now exceeds the center's original design. The center supports learners, clinical teams, and institutional initiatives across a rapidly expanding health system. Meeting these needs will require attention to space, staffing, and technology so that training environments realistically reflect clinical practice, can be brought to the bedside, and safely support system-wide initiatives. Preparation that does not resemble the conditions clinicians actually face cannot fully support safe patient care.

Simulation will remain a place of learning, but it is increasingly also a place where innovation, clinical care, and system improvement meet. By allowing clinicians and teams to practice, test, and refine care processes before they affect patients, simulation helps prepare not only individual providers but the organization itself. In doing so, it supports BIDMC's central mission, delivering excellent care while preparing clinicians who can practice with skill, judgment, and responsibility.

Pulmonary and Critical Care Medicine Family Day

On May 2, the Simulation and Skills Center will open its doors to family members of the Pulmonary and Critical Care Medicine Department (PCCM) for a special Family Day event. During this interactive and family-friendly experience, participants will have the opportunity to step into the role of a Pulmonary and Critical Care Medicine physician and gain insight into the training and skills required to care for critically ill patients.

The event will feature hands-on exposure to task trainers, high-fidelity mannequins, and a variety of advanced medical technologies used in everyday clinical practice. Families will be able to explore how physicians learn essential procedures, respond to emergencies, and work as a team in the intensive care unit. This event is designed to be educational, engaging, and fun for all ages, offering a behind-the-scenes look at the important and impactful work of PCCM clinicians.

Cardiac Research Foundation Technology and Heart Failure Therapeutics Conference

On March 1, 2026, the Carl J. Shapiro Simulation and Skills Center (SASC) supported Dr. Wilson Grandin at the Technology and Heart Failure Therapeutics Conference in Boston, which is sponsored by the Cardiovascular Research Foundation. SASC staff worked side-by-side with Dr. Wilson Grandin and his colleagues during this all-day event as he brought his BIDMC-based mechanical circulatory support and cardiogenic shock simulations to a wider audience. Simulation Center staff ran simulations using temporary devices like Impella and VA-ECMO to support cardiac function. Physicians from across the country took part in this training.



Outgoing Lunder Fellow

As her yearlong fellowship comes to a close, Brittany Nation, the Simulation and Skills Center's outgoing Lunder Fellow, is wrapping up some exciting and valuable projects that she has worked on alongside SASC staff.



During her fellowship, Brittany designed and developed an intracutaneous fistula task trainer, created to support both nursing education and surgical residency training. She also launched a Wound Care Bootcamp, a hands-on course that gives nurses the opportunity to practice essential wound care skills using realistic task trainers. In collaboration with Simulation and Skills Center staff, Brittany helped develop custom silicone and foam trainers specifically for this program.

In addition to curriculum and trainer development, Brittany partnered with Robbin Miraglia on an IRB-approved study examining knowledge and skill retention related to wound care education. Her work has also extended into interdisciplinary collaboration, as she continues to work with the NICU team to develop task trainers for use in neonatal simulation scenarios.

Brittany's creativity, dedication, and collaborative spirit have made a lasting impact on simulation-based education across multiple disciplines. We are grateful for her contributions and wish her continued success in her next chapter.



Shapiro Institute

BETH ISRAEL DEACONESS MEDICAL CENTER
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Simulation & Skills Center

BILH Simulation Symposium

BIDMC's Simulation and Skills Center will host the Fourth Annual Simulation Symposium on June 5. This event brings together simulation educators from across BILH for a day of networking, hands-on workshops, and collaboration aimed at strengthening the simulation education community. This year's theme, "Preparing to Launch," will focus on expanding and launching simulation programming throughout the BILH network. Educators from Anna Jaques Hospital, Beth Israel Needham, Beverly Hospital, Lahey Hospital & Medical Center, and Mount Auburn Hospital are expected to participate.

Save the date!!

**Beth Israel Deaconess Medical Center
Lahey Hospital & Medical Center
Fourth Annual Simulation Symposium**

**Friday, June 5, 2026
8:00am-12:30pm**

**Beth Israel Deaconess Medical Center
Carl J. Shapiro Simulation and Skills Center
330 Brookline Avenue
Boston, MA 02215**

Full program agenda will follow

PRINCIPLES OF MEDICAL EDUCATION



Robbin Miraglia, PhD, RN to Present on Simulation in Clinical Learning at Principles of Medical Education Course

At the upcoming Principles
of Medical Education course

(March 24–27), Robbin Miraglia, PhD, RN, Simulation and Skills Education Specialist at the Shapiro Simulation and Skills Center, will deliver a session titled "Meeting Learners Where They Practice: Bringing Simulation to the Clinical Environment."

Robbin's session explores the growing role of in-situ simulation, an educational approach that brings simulation training directly into real clinical environments rather than traditional simulation centers. This method allows learners to practice technical, cognitive, and teamwork skills within the actual clinical settings where they work, helping educators identify gaps in processes, improve team performance, and uncover potential patient safety risks.

During the session, participants will learn how to design and implement effective in-situ simulations—from identifying learning objectives and engaging stakeholders to developing realistic scenarios and conducting reflective debriefings. Dr. Miraglia will also highlight strategies for maintaining psychological safety for learners and operational safety for patients and staff, an essential component when simulation activities occur in active clinical environments.

By bringing simulation closer to the point of care, this approach helps educators create practical, team-based learning experiences that directly improve clinical practice and patient safety.

Scenario Design: Scenario Development



- Real clinical cases
- Common issue scenarios
- Complex scenarios
- Stacked micro scenarios

Educational Research Grant – Applications Now Open

We are pleased to announce a funding opportunity for the 2026–2027 academic year. One grant of up to \$25,000 will be awarded to support a high-quality educational research project that advances practice or theory in medical education. The selected investigator will receive ongoing mentoring and methodological support from the Shapiro Institute's Office of Educational Research throughout the project.

Projects may include educational innovations or assessment initiatives for students, residents, or fellows, as well as research studies that contribute to the theory and scholarship of medical education. Quantitative, qualitative, or mixed methods approaches are welcome. The goal is to support work that leads to scholarly dissemination, including a manuscript or curriculum publication.

Key Dates

Application deadline: May 8, 2026 (5:00 PM)

Funding decisions announced: May 29, 2026

Funding period: Oct. 1, 2026 – Sept. 30, 2027

Eligibility: Principal investigators must hold a Harvard Medical School faculty appointment at Beth Israel Deaconess Medical Center.

How to Apply

Submit a complete proposal to Johannah Mitchell at jmitch12@bidmc.harvard.edu

For more information visit: www.shapiroinstitute.org/researchproposal

Supporting Your Journey in Medical Education Scholarship



Spotlight on Scholarship By Shreya P. Trivedi, MD

Medical education scholarship is deeply rewarding but rarely linear. Many of us can point to moments when a project stalled, felt overwhelming, or lost momentum despite strong ideas and meaningful work. Often, when we look back, what made the difference wasn't more time or effort, but a fresh perspective: another educator to listen, troubleshoot, and help us see the next step more clearly. That's where structured support for medical education scholarship matters.

Whether you're refining an early idea into a scholarly project, developing your research questions, finalizing your methods or outcomes, or analyzing data (quantitative, qualitative, etc.), thoughtful guidance can help transform good work into recognized scholarship.

We are fortunate to be surrounded by some of the brightest minds in medical education at BIDMC. Through the Office of Education Research, our goal is to ensure that faculty, residents, and students not only conduct meaningful educational work but also receive appropriate credit for it. Mentorship and consultation can help clarify scope, align projects with scholarly standards, and identify dissemination strategies that match both the work and the educator's goals.

Importantly, MedEd scholarship is not just about publications. It can open doors to collaboration, foster professional identity as an educator, and support long-term career development. We take pride in supporting educators at every stage of this journey, celebrating progress, normalizing challenges, and helping navigate the inevitable bumps along the way.

If you would like to schedule a consultation with the Office of Education Research, please visit: www.shapiroinstitute.org/education-research or contact Johannah at jmitch12@bidmc.harvard.edu

Multidisciplinary GME Programs Launch

Two new Graduate Medical Education (GME) programs have been launched, expanding multidisciplinary training opportunities across several specialties.

A new one-year Non-Standard Training (NST) program focused on Infectious Diseases and Orthopedics is expected to begin this summer. The program will focus on joint and skeletal infections, providing orthopedic physicians with in-depth training in the infectious disease management of musculoskeletal conditions. Dr. Wendy Stead, current Infectious Diseases Program Director, will serve as Program Director for the program.

In addition, a new one-year Multidisciplinary Hypertension NST program has been launched with a clinical focus on hypertension. The fellowship includes training across Nephrology, Cardiology, Endocrinology, and Internal Medicine, providing a comprehensive, multidisciplinary approach to hypertension care. Dr. Jennifer Cluett will serve as Program Director. For more information, go to:

<https://research.bidmc.org/medicine-gme/clinical-hypertension-fellowship>

Regional Anesthesiology Fellowship Earns ACGME Accreditation

A one-year clinical training program in regional anesthesiology has recently received accreditation from the Accreditation Council for Graduate Medical Education (ACGME).

The fellowship is designed for physicians who have previously completed training in anesthesiology and focuses on developing advanced expertise in ultrasound-guided regional anesthesia procedures, nerve blocks and epidurals, as well as acute pain management in orthopedic care. Approximately 10% of the program is dedicated to research.

New Program Directors Appointed

Graduate Medical Education is pleased to announce the appointment of two new Program Directors (PDs).

Dr. Ryan Cauley was named Program Director of Plastic Surgery. A graduate of Cornell University, Dr. Cauley completed his Plastic Surgery residency at BIDMC and has served as Associate Program Director since 2020.

Dr. Jessica Cassavaugh was named Program Director of Critical Care Medicine. A graduate of the University of Pittsburgh, Dr. Cassavaugh has been with BIDMC since 2018. Her research focuses on the relationship between estrogen and inflammation.

BIDMC Celebrates Resident & Fellow Appreciation Week

Our GME office celebrated Resident and Fellow Appreciation Week from February 23–27, 2026, with events recognizing the hard work and dedication of our trainees. BIDMC residents and fellows play a vital role in patient care, medical education, and research, and this week was an opportunity to express our gratitude.

To show our appreciation, we hosted a complimentary coffee and snack break on both the East and West campuses. Attendees enjoyed a well-deserved break at the Resident Lounge in the Rabb/Gryzmish Building and

Klarman 3rd Floor, with refreshments available.

Thank you to all our residents and fellows for your commitment and contributions!



Cookies and Cuddles for PCE

On February 19th, we launched our new PCE Student Wellness Series with a “Cookies & Cuddles” drop-in event. Students enjoyed a brief pause from their clinical schedules with sweet treats and some much-needed puppy time. We look forward to offering similar wellness events throughout the year.

If you have ideas or would like to get involved, please contact Naomi Montilla at: nmontil1@bidmc.harvard.edu.



Medical Student Merch

The Shapiro Institute recently provided custom scrub caps and fleeces to our medical students. These items not only help keep students warm and comfortable during their clinical work, but also support our commitment to sustainability by promoting the use of reusable scrub caps and reducing waste. We're grateful for the opportunity to support our students in ways that are both practical and environmentally mindful.



PCE Endings & Beginnings

December marked a heartfelt farewell as we celebrated the graduation of our PCE class, highlighted by moving reflections from last year's Medical Education Representatives on what BIDMC has meant to them. In January, we welcomed our newest PCE students with an interactive orientation introducing the longitudinal components that will shape their year ahead. To our new class — welcome, and best of luck as you begin your PCE journey at BIDMC!



BIDMC Faculty Development Offerings at a Glance

The Shapiro Institute for Education and Research offers a wide range of programs designed to support faculty development and advance excellence in medical education at BIDMC and across HMS.

Suggested Primary Educator Track

Faculty interested in building careers in medical education can participate in a structured pathway that includes:

- Educator Bootcamp
- Foundations in Medical Education
- Rabkin Fellowship
- BIDMC Academy of Medical Educators

Together, these programs provide foundational skills, advanced training, and a community of educators committed to improving teaching and learning in medicine.

Foundations in Medical Education

The Foundations in Medical Education program provides core knowledge and practical strategies for faculty beginning or strengthening their careers as educators. The program is a 10-month in-person course, designed for early-career faculty and seasoned clinicians. This program equips participants with the essential skills needed to teach effectively in clinical and classroom settings and provides faculty development for furthering their careers. Participants receive a certification after completing the course.

Rabkin Fellowship

The Rabkin Fellowship is a nationally recognized, in-depth faculty development program open to all HMS faculty. Held weekly over one year, the fellowship provides stipends to support faculty time. Established in 1998, the Fellowship is particularly well-suited for physicians whose current or future roles include substantial teaching responsibilities in undergraduate, graduate, or continuing medical education.

Specialized Offerings

In addition to its core programs, the Shapiro Institute offers specialized training opportunities in emerging and high-impact areas, including:

- Foundations in Artificial Intelligence and Digital Education
- Foundations in Clinical Trials
- Medical Education Scholarship Program
- Foundations in Performance Mindset in Medicine

RFAs for all Foundations courses will be out in the Spring with applications due July 1. Please visit www.shapiroinstitute.org/foundationshome for more information.

“Our newest course, **Performance Mindset in Medicine** is a program that aims to introduce science behind the psychology that influences performance outcomes in medicine. It is designed for faculty and educators in all specialties and offers insight to how we can be more deliberate in training our psychology as an essential resource for physicians. The content for this work has been developed in collaboration with a performance psychologist from the US Olympic Team.”



James Naples, MD

BIDMC Academy of Medical Educators

The BIDMC Academy of Medical Educators fosters a vibrant community dedicated to developing and supporting educators across the institution. Established in 2010, the academy now includes over 400 members including faculty, staff, trainees, nurses, and other healthcare professionals and offers virtual and in-person sessions throughout the year.

In addition, the Shapiro Institute also supports faculty through educational grants, education research consulting, UME and GME support and National programming, including the Millennium Conference. For more information: www.shapiroinstitute.org

Dr. Richard Schwartzstein and the Millennium Conference Featured in CHEST Physician

The Shapiro Institute for Education and Research was recently highlighted in CHEST Physician in an article exploring how artificial intelligence is reshaping medical education. The piece features insights from Dr. Richard Schwartzstein, the Ellen and Melvin Gordon Distinguished Professor of Medicine and Medical Education at Harvard Medical School and Executive Director of the Shapiro Institute.

The article references discussions from the 2025 Millennium Conference, where teams from eight medical schools gathered to examine the evolving role of AI in training the next generation of physicians. One key takeaway from the conference was the importance of maintaining strong foundations in physiology, pathophysiology, and clinical reasoning, even as AI tools become more integrated into educational and clinical practice.

Dr. Schwartzstein emphasizes that while large language models can support learning and help educators develop new teaching tools, they are fundamentally based on pattern recognition and can produce errors or biased outputs. As a result, trainees must develop the skills to critically evaluate AI-generated information and recognize potential inaccuracies or “hallucinations.” Maintaining strong diagnostic reasoning and physical examination skills remains essential for safe and effective patient care.

The article also highlights the need to equip clinician educators with the knowledge and competencies required to use AI responsibly in teaching and clinical environments. As AI technologies evolve, initiatives like the Millennium Conference continue to play an important role in shaping thoughtful, evidence-based approaches to integrating AI into medical education.

Read the full article: <https://biturl.top/r6Vr2i>

Dr. Adam Rodman Featured in The New York Times on the Future of A.I. in Medicine

Dr. Adam Rodman, Director of A.I. Programs at the Carl J. Shapiro Center for Education and Research at Beth Israel Deaconess Medical Center, was recently featured in The New York Times discussing how artificial intelligence may shape the future of patient care.



In his guest essay, Dr. Rodman reflects on a foundational principle of medicine articulated by physician Francis Peabody more than a century ago: “The secret of the care of the patient is in caring for the patient.” While some worry that emerging technologies could weaken the human connection between doctors and patients, Dr. Rodman argues the opposite—that artificial intelligence can become a powerful tool that strengthens patient engagement while preserving the central role of the physician.

Dr. Rodman describes two possible paths for the future of health care. One model relies on direct interactions between patients and artificial intelligence systems with minimal physician involvement. The alternative—and the one he advocates—is a collaborative “triadic” model, in which patients, physicians, and A.I. work together. In this vision, A.I. helps patients prepare for visits, manage medications, and surface new concerns, while physicians remain essential for clinical judgment, empathy, and complex decision-making.

As A.I. continues to enter everyday clinical practice, Dr. Rodman emphasizes the importance of guiding its adoption thoughtfully and transparently. By doing so, the medical community can ensure that new technologies enhance care while preserving medicine’s most important element: the human relationship between doctor and patient.

Read the full article: <https://biturl.top/ZFFjEz>

SAVE THE DATES!

BIDMC Education Week



Henri R. Ford, MD named Daniel C. Tosteson Visiting Professor

We are thrilled to announce the 2026 Daniel C. Tosteson Visiting Professor will be Henri R. Ford, MD, MHA

Dr. Ford is dean and chief academic officer of the University of Miami Leonard M. Miller School of Medicine. Dr. Ford is a Haitian-born pediatric surgeon recognized for his global contributions in medicine including performing the first successful separation of conjoined twins in Haiti in 2015, alongside surgeons he helped train.

Dr. Ford will join several education sessions during Medical Education Week, including the Building Bridges Session with the Rabkin Fellows and BIDMC Academy, and will be the featured speaker at the Department of Medicine Grand Rounds on Thursday, June 4, 2026.

EDUCATION WEEK SCHEDULE OF EVENTS

Monday, June 1

4pm-5:30pm – Teaching Award Ceremony & Education Research Poster Session
Rabkin Board Room, Shapiro 10

Thursday, June 4

8am-9:00am – Medical Education Grand Rounds
Daniel C. Tosteson, MD Visiting Professor
Henri R. Ford, MD
Via zoom

Friday, June 5

8am-12:30pm
BILH Simulation Symposium
Shapiro Simulation and Skills Center/BIDMC

More schedule information to follow

Call for Applications: Shapiro Institute's Education Poster Session

Showcase your medical education work at our Annual Teaching Award Ceremony & Reception during Medical Education Week 2026!

Event Date: June 1, 2026 | 4:00 – 5:30 PM

Who Can Apply?

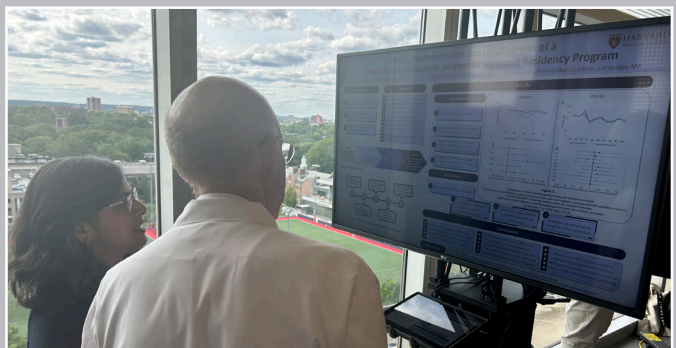
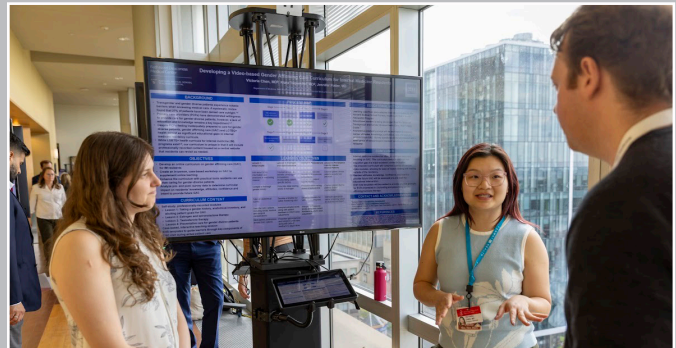
Any BIDMC/HMFP employee involved in MedEd (attendings, fellows, residents, nurses, etc.).

What Can You Submit?

Education research (completed or in progress)
Quality improvement projects
Teaching innovations (classroom, bedside, simulation, assessments, materials)

How to Apply:

Submit a 250-300-word abstract here by **April 17, 2026**. [Click here for application](#)



From all of us at the Shapiro Institute, Happy Spring!

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