INNOVATE 2IMPACT

Impact Launchpad Pitch Competition

Tuesday, May 19, 2026

200 Club | Boston, Massachusetts

Sponsors

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Thank you for hosting today's event:

MORRISON FOERSTER

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Agenda

5:00pm-5:50pm **Poster Session, Networking, Food & Beverages**

5:50pm-7:30pm **Pitch Presentations and Q&A with Judges**

- **3-D Tissue Fibrosis Model** presented by Liora Altman-Sagan, MS
- **Eye Care** presented by Camille André, PharmD, PhD
- **Daybreak Pharmaceuticals** presented by Kevin Bian, PhD
- **Halo-Sense Neo** presented by Inbar Chityat
- **PolyCoarct** presented by Francesc Canalejo Codina, PhD
- **SalivaSens** presented by Atul Sharma, PhD
- **Neurapsyc** presented by Pranay Srivastava, PhD
- **SonoImmune Track** presented by Tao Sun, PhD

7:30pm-7:45pm **Poster Session and Networking (continued)**

Cookies and Coffee/Tea

7:45pm-8:00pm **Launchpad Finalist Announced & Program Closure**

Master of Ceremonies

Jon Davis, MD

Tufts Medical Center

Jared Auclair, PhD

Northeastern University

Filip Čučkov, PhD

Tufts University

Judges

Damla Boyer, PhD, MBA

Head of Life Science Innovation Portfolio Management, MilliporeSigma

Dr. Damla Boyer brings more than a decade of experience across research, consulting, and leadership roles within life science, pharmaceutical, and technology-driven organizations. Her work in Innovation Portfolio Management focuses on evaluating and advancing high-impact innovation opportunities, with expertise spanning scientific strategy, portfolio development, and cross-functional collaboration.

Francesca D. Joseph, MD

Pediatrician, Children's National Hospital

Adjunct Professor of Management, The George Washington University School of Business

Dr. Francesca D. Joseph is a physician, educator, and leader at the intersection of medicine, technology, and healthcare innovation. She is an assistant professor of pediatrics at the George Washington University School of Medicine and Health Sciences and an adjunct professor of management at the George Washington University School of Business. She contributes to two federally funded accelerator programs, helping early-stage companies and academic teams navigate the Total Product Lifecycle (TPLC) for medical devices and guiding them through regulatory, clinical, reimbursement, and commercialization pathways.

Monica Pheifer, MEM

Principal Lecturer, Massachusetts Institute of Technology

Monica Pheifer is a Principal Lecturer in the Riccio Graduate Engineering Leadership Program (GradEL) at MIT. She joined the program in 2024 to help “engineer better engineers” by leading courses, workshops, and the GradEL Engineering Residency—a high-impact internship experience offered exclusively to high-performing students. The residency enables students to apply their classroom learning in a real-world setting as team members at leading companies. Prior to MIT, Monica spent 15 years in industry at Johnson & Johnson, where she held roles of increasing responsibility across both the Medical Device and Consumer divisions.

Chandra Ramanathan, PhD, MBA

Chairperson of the Board, Nucleate

Dr. Chandra Ramanathan brings over two decades of leadership across biopharma and academia, with a strong record of translating cutting-edge science into impactful therapies and building high-value innovation ecosystems. His appointment marks a pivotal moment as Nucleate enters its next growth phase, strengthening links between global talent and early-stage innovation. Operating at the intersection of science, strategy, and execution, Dr. Ramanathan previously served as Global Head of Innovation Hubs and Head of External Innovation at Danaher and Global Head of Open Innovation at Bayer, where he led 60+ partnerships that generated over 70 preclinical programs and advanced multiple clinical assets.

Sanford (Sandy) Rosenberg, MBA

Executive in Residence, Part-time Lecturer, Tufts Gordon Institute
Founder, Discus Ventures

Sandy Rosenberg's career has focused on company formation, capital structuring, strategy, operations, and direct investment. Over three decades, he has co-founded, advised, and scaled startups, established companies, and investment funds across multiple sectors, including media, technology, healthcare, fintech, and hospitality. His firm, Discus Ventures, was created to work closely with founders, executives, and funds to operate businesses and deliver capital solutions that accelerate impact. He began his career as a strategic consultant at the PAI Group, which he also co-founded, working with companies across the U.S., Asia, and Central Europe.

Pitch Summaries

3-D Tissue Fibrosis Model

Presented by **Liora Altman-Sagan, MS**

The Garlick Lab at Tufts University School of Dental Medicine is developing a novel 3-D model of tissue fibrosis. This model enables researchers and clinicians to better understand fibrosis and evaluate new therapies for a broad range of skin diseases driven by fibrotic processes. Tissue fibrosis affects millions of people worldwide and results in tissue scarring, leading to loss of organ function and life-threatening diseases of the lung, GI tract, liver, and skin. More than 30% of patients with diffuse scleroderma die within 10 years of diagnosis—the highest mortality rate of any autoimmune disease—and there is currently no cure. There is an urgent need to develop effective new treatments.

Eye Care

Presented by **Camille André, PharmD, PhD**

In 2024, Elton John shared, *"I can't see anything, I can't read anything, I can't watch anything."* Sadly, his experience reflects a far broader clinical problem. Millions of people develop bacterial keratitis each year—a severe corneal infection that can rapidly lead to permanent blindness. Current antibiotics often fail because they do not prevent bacteria from attaching to the corneal surface, allowing infection to progress or reoccur. We have identified corneal surface molecules that multidrug-resistant *S. aureus* exploits to establish infection. By targeting these interactions, we aim to block infection at its earliest step, shifting care from treatment to true prevention of vision loss.

Daybreak Pharmaceuticals

Presented by **Kevin Bian, PhD**

Chemotherapy can shrink tumors initially, but many cancers eventually develop ways to survive it. When that happens, treatments stop working and patients are left with few options. Our innovation targets a previously unrecognized survival system that cancer cells use to adapt and become resistant. By blocking this system, we restore chemotherapy sensitivity and help prevent resistance from emerging. Because treatment resistance drives most cancer deaths and currently has no direct therapeutic solution, our first-in-class approach aims to enhance the effectiveness of existing therapies across a wide range of cancers

Halo-Sense Neo

Presented by **Inbar Chityat, MS**

In the NICU, medically fragile premature infants rely on continuous monitoring to survive, yet standard adhesive sensors can damage their underdeveloped skin, increase the risk of infection, and interfere with parent–infant bonding. We are developing a fully contactless vital-sign monitoring system that mounts directly above isolettes and fuses radar, video, and AI. This platform is designed to deliver precise vital-sign measurements and robust motion detection in motion-rich neonatal environments while eliminating the iatrogenic harm caused by adhesive sensors. By making monitoring safer and more humane, we aim to transform how hospitals detect clinical instability—starting with neonates and ultimately extending across the lifespan.

PolyCoarct

Presented by **Francesc Canalejo Codina, PhD**

Aortic coarctation and pulmonary artery stenosis are congenital narrowing of major arteries that affect more than 50,000 patients each year. Both conditions share a fundamental structural challenge: growth mismatch. The current standard of care requires repeated interventions throughout childhood. Although stents have emerged as a promising therapeutic option, existing devices are not designed to accommodate growth. PolyCoarct is a pediatric bioresorbable stent engineered to provide temporary vessel support, allow for natural growth, and then gradually resorb, leaving behind a remodeled artery. Our goal is to enable durable repair through a single, minimally invasive intervention.

SalivaSens

Presented by **Atul Sharma, PhD**

SalivaSens is developing SensiFloss, a noninvasive, saliva-based hormonal tracking platform for women navigating perimenopause—a 5- to 15-year transition that affects millions of women between the ages of 40 and 55. Hormonal fluctuations during this period can contribute to anxiety, mood changes, sleep disturbances, cognitive decline, weight gain, and metabolic disorders, yet most women lack objective tools to track and interpret these biological changes. SensiFloss integrates hormone sensing into a simple daily oral care routine, providing real-time results and longitudinal insights through a mobile app. By giving women timely, actionable information, SensiFloss empowers them to proactively manage symptoms before they escalate.

Neurapsyc

Presented by **Pranay Srivastava, PhD**

Stroke affects more than 12 million people worldwide each year, and over 7 million Americans are living as stroke survivors. While many regain mobility during rehabilitation, progress often declines once structured therapy ends and nearly half receive no home therapy after discharge. Neurapsyc is developing a lightweight wearable that provides real-time, leg-specific movement cues during at-home walking. The system supports walking retraining in daily life, promoting safer mobility and reducing the risk of falls. The goal is to support long-term recovery and sustained independence for a growing population of individuals with neurological impairments.

SonoImmune Track

Presented by **Tao Sun, PhD**

We are developing engineered immune cells that can be visualized in real time using standard clinical ultrasound and/or MRI. By labeling macrophages with lipid-shelled microbubbles, each cell becomes an acoustically active contrast agent detectable by both ultrasound and MRI. After systemic injection, these cells migrate to sites of brain inflammation or tumors, enabling clinicians to monitor immune-cell trafficking and persistence in vivo. This platform addresses a major limitation in cell-based immunotherapy: the lack of practical methods to verify target engagement and biodistribution of therapeutic cells.

Poster Session

Presenter	Innovation Name	Summary
Joshua Freedman, MSE / Yi-An Hsieh, MSE	Airalux Medical	Smart therapeutic spirometer with reminders and performance tracking to improve post-surgical breathing exercise adherence.
Amin Ramezani, PhD	BeatAI	AI system predicting dangerous heart arrhythmias hours before onset using continuous physiologic data.
Nakul Raykar, MD, MPH / Samir Seshadri, MSc	Blood DESERT Coalition	Walking blood bank system addressing rural blood shortages to prevent avoidable hemorrhage deaths.
Farhad Rikhtegar Nezami, PhD, MS, BS	CardioVision	Patient-specific AI digital twin platform to improve planning and outcomes in TAVR procedures.
Brian Lin, PhD	Cellsor	Living olfactory biosensor digitizes smell to enable real-time, noninvasive detection of disease, pollutants, and chemical threats.
Jermaine Hartsfield, BS, MSODL / Ackeem Evans, CEO	CIVA	Digital platform connecting researchers and communities to sustain trust and accelerate research translation.
Dohyun Park, PhD	Clarious	Membrane-less microfluidic device improving viral vector manufacturing yield and scalability.
Rachel MacNeill, DPT	Correct'em	Silicone hemorrhoid treatment combining splinting, medication delivery, and cryotherapy.
Mary Weatherbee, MS, MSW	Dirigo Resiliency Training (DiRT)	Peer-support resiliency training program reducing burnout among ICU healthcare professionals.

Poster Session (Continued)

Presenter	Innovation Name	Summary
Evan Linton, MS	Enhanced Fall-Risk Assessment	Quantified balance-control assessment improving fall-risk evaluation beyond standard clinical tests.
Mostafa Rezaeitaleshmahalleh, PhD	GRAFTMIND	AI-driven CABG planning platform simulating blood flow to optimize graft selection.
Emily Huang, MD	HomeScope	Miniaturized cystoscopy device enabling decentralized bladder cancer surveillance.
Stephanie Matsubara, MBA / Niyi Odewade, MD / Nikhil Lal	Longevia	Rewards-driven educational nutrition platform leveraging AI to gamify nutritional adherence and improve long-term patient outcomes for nutrition-dependent chronic conditions (e.g. renal disease, hypertension).
David Zhou, PhD / Stephanie R. Jones, PhD / Nicholas Tolley, PhD	PyraSim Neuroscience	AI-based EEG biomarker platform linking brain-circuit signals to disease states.
Sebastian Useche, MS	SilkAid (SilkMed)	Spray-on silk fibroin wound dressing that accelerates healing and reduces grafting for deep partial-thickness burns.
Sudhakaran Prabakaran, PhD	Svastha	Blockchain-enabled health data exchange allowing providers to own and monetize consented data.
Kareen Coulombe, PhD / Arvin Soepriatna, PhD	TEEM Therapeutics	Patient-derived 3D cardiac tissue models to improve drug discovery and reduce late-stage failure.
Tasha Gaye, BS	TressAI	Wearable scalp-health monitoring system that detects tension and stress to prevent hair loss and scalp disorders.