

M2D2 IMPACT REPORT'23





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Overview of the Mission: The M2D2 Story

M2D2 is a lifeline for medical devices, life sciences, and biotech startups. Our mission is to provide startups with a vibrant innovation ecosystem and access to world-class facilities, industry and academic experts, and a vast array of resources to provide a path from proof of concept through to commercialization. M2D2 contributes to economic development in the Commonwealth of Massachusetts.

[LEARN MORE](#)





Incubator

Shared lab & office facilities for innovative Medical Device and Biotech startups

- 15,000 square-foot private lab facility | UMass Lowell campus
- 11,000 square-foot shared lab facility | UMass Lowell Innovation Building
- 2,000 square-foot shared lab facility | UMass Chan Medical School

Infrastructure includes equipment & resources

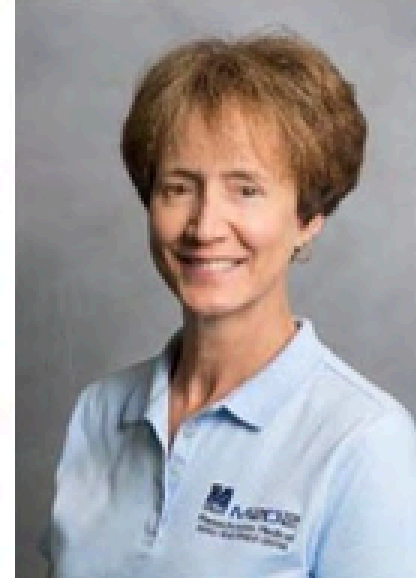
- Administrative support
- Lab personnel support
- Lab operations support
- Mentoring & Office hours with funders; subject matter experts
- Assistance with federal grant programs
- Access to Core Research Facilities

MEET OUR TEAM



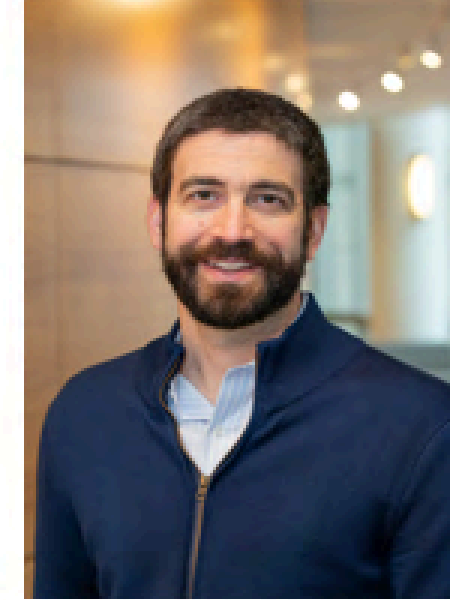
Steven Tello, EdD

Director, M2D2
Vice Provost for Innovation
& Workforce Development
UMass Lowell



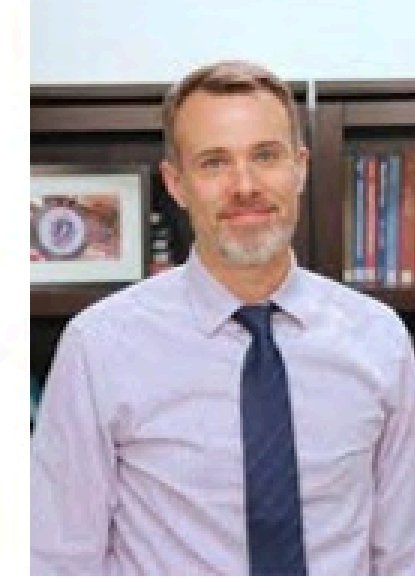
Mary Ann Picard, MBA, MS

Executive Director of
Entrepreneurship &
New Ventures



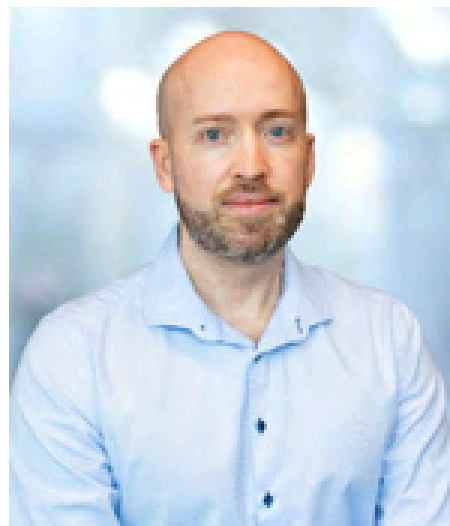
Nate Hafer, PhD

Director, M2D2 Director,
Clinical & Translational
Science UMass Chan
Medical School



David McManus, MD

Director, M2D2
Professor and Chair
Department of Medicine
UMass Chan Medical School



Richard Meiklejohn, MBA

Innovation Leader



Pamela McGuinness, MS

Director of Lab Operations



Alexei Teague

BARDA Program Manager



Jason Greenough

Director of Lab Operations
UMass Chan Medical School

M2D2 In Action

EVENT HIGHLIGHTS

In the dynamic landscape of 2023, M2D2 took center stage with a series of game-changing events that etched a bold narrative in the startup realm. The \$200K Challenge, Impact, and Barracuda Bowl emerged as testament to M2D2's resolute commitment to fostering innovation and catapulting entrepreneurial ventures to unparalleled heights. Teaming up with various sponsors, M2D2 orchestrated the Connected Patients Challenge and the Point of Care Showcase Event, spotlighting pioneers in digital health and diagnostics. The pivotal Impact Cycles 5 and 6 offered intensive incubation, propelling startups towards triumph. M2D2's strides in 2023 not only shaped the entrepreneurial future but also sowed the seeds for lasting legacies, empowering startups to flourish in their journey of innovation.



MAJOR EVENTS'23

2023 M2D2
\$200K Challenge
Pitch Off
22 March, 2023

M2D2 IMPACT
Cycle 5
Accelerator
Pitch-Off
4 April, 2023

Point of Care
Showcase & Pitch
Event- CAPCaT
6 June, 2023

Boston Scientific
Connected
Patient Challenge
VII
15 June, 2023

M2D2 IMPACT
Cycle 6
Accelerator
Pitch-Off
1 November,
2023

Barracuda Bowl
2023
9 November,
2023

\$200K Challenge

- Annually, M2D2 conducts a global competition where scores of entries are received from entrepreneurs and inventors looking to advance their novel technologies.
- The call for applications is based on needs statements provided by M2D2 corporate partners.
- The highlight of M2D2's annual programming calendar is the pitch-off every March where the 15 finalists from this program pitch their business plans to a panel of judges and an audience of 200+ people.

\$25,000 – 28 Applicants Nutter	2013
\$50,000 – 52 Applicants Nutter, Smith & Nephew	2014
\$100,000 – 64 Applicants Mintz Levin, Boston Scientific, Smith & Nephew, Omni Components, Mass. Life Sciences	2015
\$100,000 – 71 Applicants Mintz Levin, Boston Scientific, BD, Omni Components, MPR, R&Q, Mass. Life Sciences	2016
\$100,000 – 87 Applicants Mintz Levin, Boston Scientific, Johnson & Johnson, MPR, R&Q, Mass. Life Sciences	2017
\$200,000 – 113 Applicants Amgen, Mintz Levin, Boston Scientific, Johnson & Johnson, MPR, R&Q, Mass. Life Sciences	2018
\$200,000 – 143 Applicants Amgen, Asahi-Intecc, Hologic, Mintz Levin, Boston Scientific, Johnson & Johnson, MPR, R&Q, Mass. Life Sciences	2019
\$250,000 – 175 Applicants Amgen, Asahi-Intecc, Hologic, Mintz Levin, Boston Scientific, Johnson & Johnson, MPR, RQMIS, Mass. Life Sciences, Deshpande Foundation, Sarepta Therapeutics	2020
\$275,000 – 173 Applicants Amgen, Asahi-Intecc, BARDA DRIVE, CAPCaT, Kohler, Hologic, Mintz Levin, Boston Scientific, Johnson & Johnson, MPR, RQMIS, Mass. Life Sciences, Deshpande Foundation, Sarepta Therapeutics	2021
\$275,000 – 148 Applicants Argenta Advisors, Amgen, Asahi-Intecc, BARDA DRIVE, CAPCaT, Draper, Hologic, Mintz Levin, Northeast Biomedical Boston Scientific, Johnson & Johnson, MassMEDIC, MPR, RQMIS, Mass. Life Sciences, Sarepta Therapeutics	2022
\$275,000 – 196 Applicants Argenta Advisors, Amgen, Asahi-Intecc, BARDA DRIVE, Hologic, Mintz, Johnson & Johnson, MPR, Inertia, Mass Life Science, Prime Path Medtech, Novo Nordisk	2023

IMPACT

IMPACT is a 12-week accelerator program that uses a unique 1:1 approach and is created to connect startups with resources needed for commercialization. Selected companies have the opportunity to engage with our corporate sponsors.

Boston
Scientific

AMGEN®

Point32Health



CAPCaT

CAPCaT is a collaborative initiative between UMass Medical School and UMass Lowell that accelerates the development of innovative technologies for heart, lung, blood, and sleep disorders. It offers a pilot grant funding program, feasibility assessments, product development support, clinical pathway assistance, access to additional resources, incubator space, and clinical trial support. CAPCaT also facilitates research partnerships, provides capital, and offers training and education opportunities. It serves as a vital hub for advancing point-of-care technologies in healthcare.

June 18, 2020
317 registrations

June 17, 2021
414 registrations

June 16, 2022
313 registrations

June 6, 2023
321 registrations



A background image showing a group of people at a Boston Scientific event. In the foreground, a man with glasses and a blue shirt is seated on the left, and a woman is seated on the right, both holding microphones. Behind them, several other individuals are visible, some looking towards the camera. The Boston Scientific logo is visible in the upper right corner of the background image.

Boston Scientific Connected Patients Challenge

The annual Connected Patient Challenge is one way Boston Scientific engages with the startup community to drive meaningful innovation. The Challenge is a global contest designed to address unmet healthcare needs by encouraging companies and individuals to leverage digital health tools to optimize patient care and healthcare efficiency.

The Connected Patient Challenge VII fireside chat was a perfectly balanced mix of digital health clinician, corporate and patient experiences. Heidi Dohse, founder of Tour de Heart and Senior IT Architect with Boston Scientific shared her history with a pacemaker, touching on the critical role her digital health tools play in helping her maintain her health. Dr. Ken Stein and Dr. David McManus highlighted the overwhelming amount of data now available from smart health devices, and the impact that has on clinicians everywhere.

**Boston
Scientific**

Barracuda Bowl

An annual pitch event that provides value through business plan presentations and feedback. In this annual event resembling "Shark Tank," esteemed life sciences investors and influencers will pose challenging inquiries to entrepreneurs.

This year's 5 startups presented innovations that answered BARDA's current areas of interest. The 2023 keynote speaker Carla Reimold, Ph.D., Vice President of Industry Strategy and Investments of Massachusetts Life Sciences Center (MSLC) shared the insights directly related to the Boston biotech hub "Boston MedTech Update: From Innovation to Impact".



OTHER EVENTS'23

Graduating from an
Incubator Program &
Building your own lab
30 March, 2023

All Around Optical
Safety Lunch and
Learn
21 June, 2023

UML Core Research
Facility Showcase
20 September, 2023

New FDA Cyber
security guidelines-
IMPACT On Cloud
Dependent MedTech
5 October, 2023

Student & Employer
Mashup
14 November, 2023

All about the UMASS
Lowell Innovative
Fellows Training
Program (LIFT)
16 December, 2023

Success Stories



In 2023, RevBio achieved notable success with FDA approvals for a regenerative bone adhesive and a U.S. clinical trial for dental implant stabilization. The company secured substantial NIH grants, totaling \$5.4 million, focusing on reducing opioid use and treating complex fractures. Additionally, RevBio earned ISO certification for quality management and received a strategic investment from Pacific Dental Services, emphasizing its commitment to innovation. These milestones position RevBio as a leader in regenerative medicine, poised to impact both orthopedic and dental interventions significantly.



MyBiometry achieved double success with the "Best Overall Startup Award" from Point32Health's Clinical Innovation Team at UMassM2D2 and the "Audience Choice Award" for the best startup pitch at the TiE Global Angels Investor Summit 2023 in Los Angeles. These accolades highlight MyBiometry's impactful contributions to clinical innovation and position them as a standout startup in the healthcare and technology landscape.

Success Stories



Hubly Surgical soared to success in 2023, beginning with a sweep at the AWS Startup Competition, securing a \$20,000 Grand Prize and \$100,000 in AWS Credits. Their winning streak continued with a \$25,000 Grand Prize at TechRise Chicago and culminated in a \$50,000 Grand Prize at TiE Global 2023, outshining 1,400 applicants. With their FDA-cleared Hubly Drill now available for sale, Hubly Surgical attracted a remarkable \$3 million in oversubscribed funding. This extraordinary year solidifies Hubly Surgical's position as a leader in healthcare technology innovation and investment appeal.



In 2023, Nesa Medtech achieved a significant milestone with the FDA granting 510(k) clearance for its Fibroid Mapping Reviewer Application (FMRA). This regulatory approval highlights Nesa's commitment to addressing clinical needs for patients with uterine fibroids. The FMRA's clearance positions Nesa Medtech as a leader in the field, poised to make a significant impact in enhancing fibroid diagnostics and treatment planning.

Event Winners'23

\$200K Challenge

- 1st Place – Spheric Bio
- 2nd Place – RevBio
- 3rd Place – Medicsen

IMPACT Cycle 5

- The Most Investable Award from Life Science Nation – Grace & Able
- The Best Poster Award from Inertia Product Development – KAT Innovation
- The Most Innovative Award from PQE Group – BrilliantStrings Therapeutics
- The Biggest Potential Social IMPACT Award from RedCrow – ActivArmor
- The Best Showcase Day Presentation from Agile Search Inc – Nanochon
- The Pitch-Off Judges Awards from Prime Path Medtech™ – ActivArmor, BrilliantStrings Therapeutics and Sonogen Medical Inc.
- The Overall Winner Award from Prodt – Sonogen Medical Inc.

Boston Scientific Connected Patients Challenge VII

- Digital Health Challenge Winner – myBiometry
- Peripheral Vascular Challenge Winner – Rubitection Inc.

Event Winners'23

IMPACT Cycle 6

- The Best Showcase Presentation award from bene : studio – NucleusRx, Detact Diagnostics, and Embrace Prevention
- The Most Investable Startup award from Life Science Nation – Cosmos Pharmaceuticals
- The Best Poster award from M2D2's own marketing agency StitchDX – myBiometry
- Most Innovative (sponsored by MPR) – VenoVision
- The Biggest Potential Social Impact award, presented by Alira Health and selected by audience vote – Rubitection
- The Pitch-Off Judges Award from Prime Path Medtech – myBiometry, JOGO Health, and Rubitection
- The Best Overall Startup award from Cycle 6 Sponsor Point32Health – myBiometry

CAPCaT presents NIH funded startups:

- Volumetrix
- VPG Medical
- Brainstem Biometrics
- InfraredRx
- General Prognostics

Point of Care Showcase & Pitch Event

A woman with short dark hair, wearing a dark quilted vest over a maroon turtleneck, is smiling and looking towards a man. The man, with short grey hair, is wearing a dark suit, white shirt, and dark tie. He is holding a brown paper coffee cup with both hands and looking down at it. The background is a plain, light-colored wall. The image has a semi-transparent dark overlay, and there are decorative circular gradients in the corners: a purple-to-orange gradient in the top right and a purple-to-orange gradient in the bottom left.

2023 In Numbers

\$200K CHALLENGE



337
Attendees



148
Applications



\$275,000
Prize Pot



12
Sponsors



Welcome to

BOSTON SCIENTIFIC CONNECTED PATIENTS CHALLENGE VII



253
Attendees



196
Applications



\$40,000
Prize Pot



5 Pitches



IMPACT

Connecting medtech startups from across the globe with investors and key stakeholders.



424 Attendees



71 Alumni Startups



357 IP Filings



7
FDA Clearances



2348
Strategic Connections



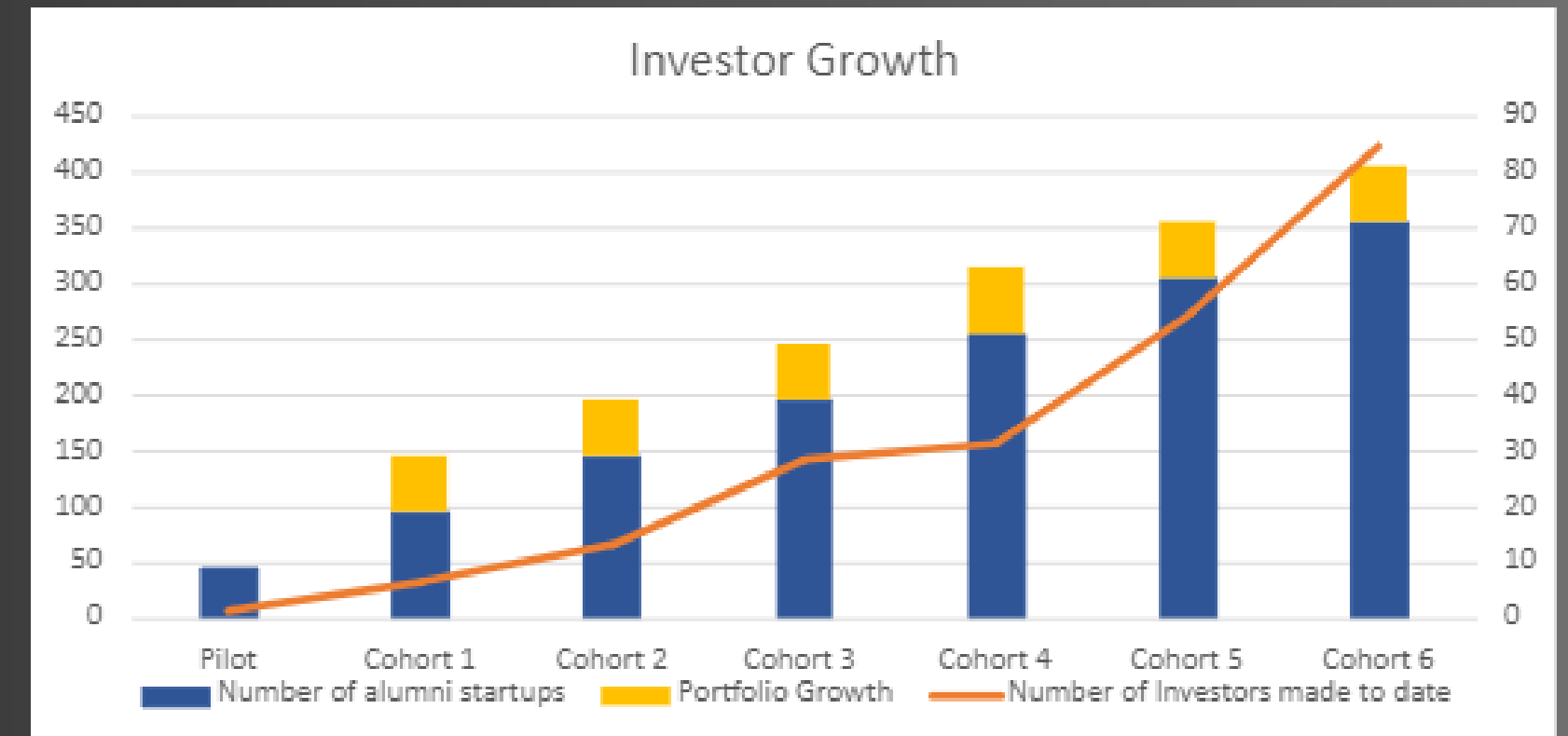
\$60 Million
Post-Program Funding



74%
Underserved/Underrepresent
ed Founders & Co-Founders



455
Workforce Size



CAPCAT

LOWELL • WORCESTER



150 Attendees



6 Panelists



BARRACUDA BOWL



372
Attendees



6
Panelists



5
Pitches



Program Sponsors



Point32Health



Boston
Scientific



inertia



AMGEN

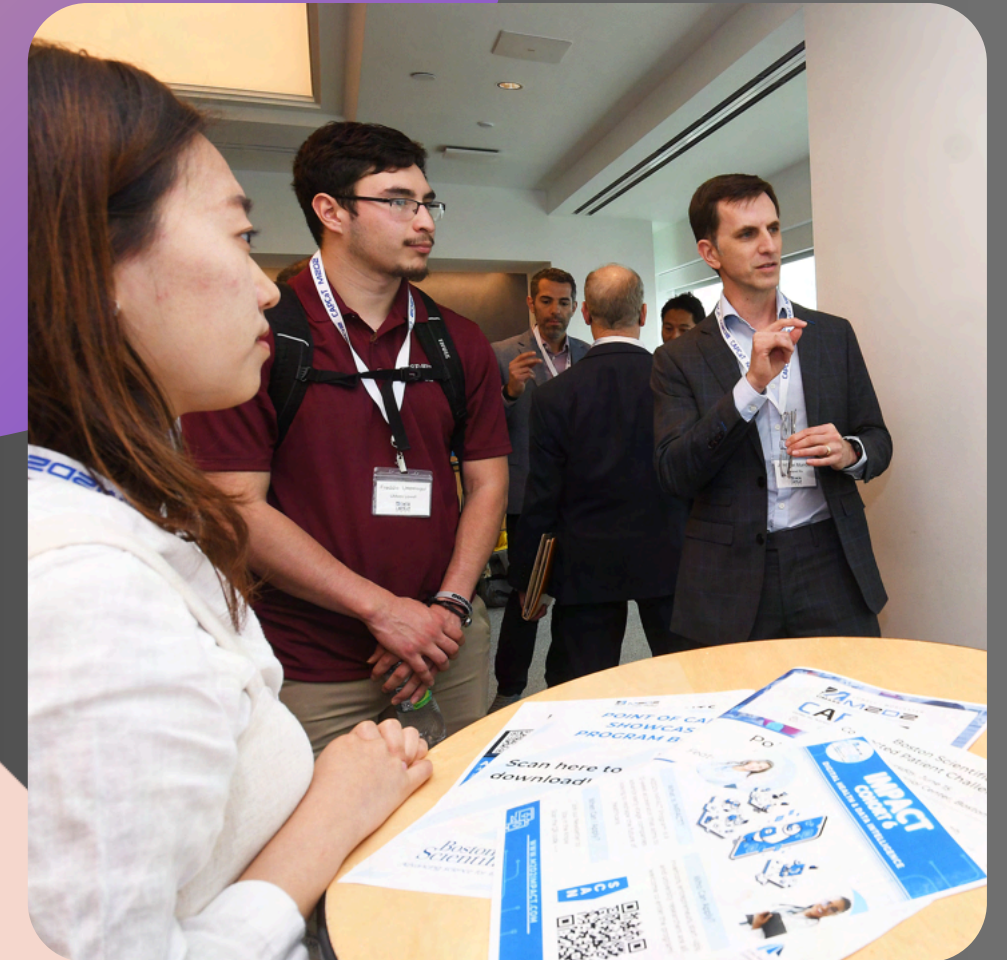


bene :
studio

2024 Events Timeline

We hope you can join us!

[Register here](#)



Cohort 7 - Manufacturing
the future of Innovation
January-April 2024

\$200K Challenge
March 2024

Boston Scientific
Connected Patients
Challenge
May 2024

Healthtech Fest (BARDA)
June 2024

Cohort 8 - TBC
August-November 2024

Barracuda Bowl
October 2023

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