

M2D2

IMPACT

REPORT'22



LOWELL • WORCESTER

M2D2

Advancing Med Device & Biotech Innovations

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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



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Executive Director of
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Nate Hafer, PhD

Director, M2D2 Director,
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Medical School



David McManus, MD

Director, M2D2
Professor and Chair
Department of Medicine
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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 2022, M2D2 soared to new heights, spearheading a series of remarkable events that left an indelible mark on the startup landscape. The \$200K challenge, Impact, and Barracuda Bowl stood as testaments to M2D2's unwavering commitment to fostering innovation and propelling entrepreneurial endeavors forward. The stage was set for startups to unleash their potential, and the results were nothing short of extraordinary. With a plethora of winners and success stories, M2D2's events served as catalysts for transformative breakthroughs, empowering startups to thrive and leaving a lasting legacy in their wake. The remarkable achievements of 2022 underscore M2D2's unwavering dedication to shaping the future of entrepreneurship and solidifying its status as a beacon of inspiration for aspiring trailblazers.



MAJOR EVENTS'22

2022 M2D2
\$200K Challenge
Pitch Off
22 March, 2022

M2D2 IMPACT
Cycle 2
Accelerator
Pitch-Off
21 April, 2022

2022 CapCAT Big
Company/Little
Company
Showcase
16 June, 2022

M2D2 IMPACT
Cycle 3
Accelerator
Pitch-Off
20 July, 2022

Barracuda Bowl
2022 HealthTech
Pitch Event
3 October, 2022

M2D2 IMPACT
Cycle 4
Accelerator
Pitch-Off
30 November,
2022

\$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

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.



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 attendees

June 17, 2021
414 attendees

June 16, 2022
313 attendees

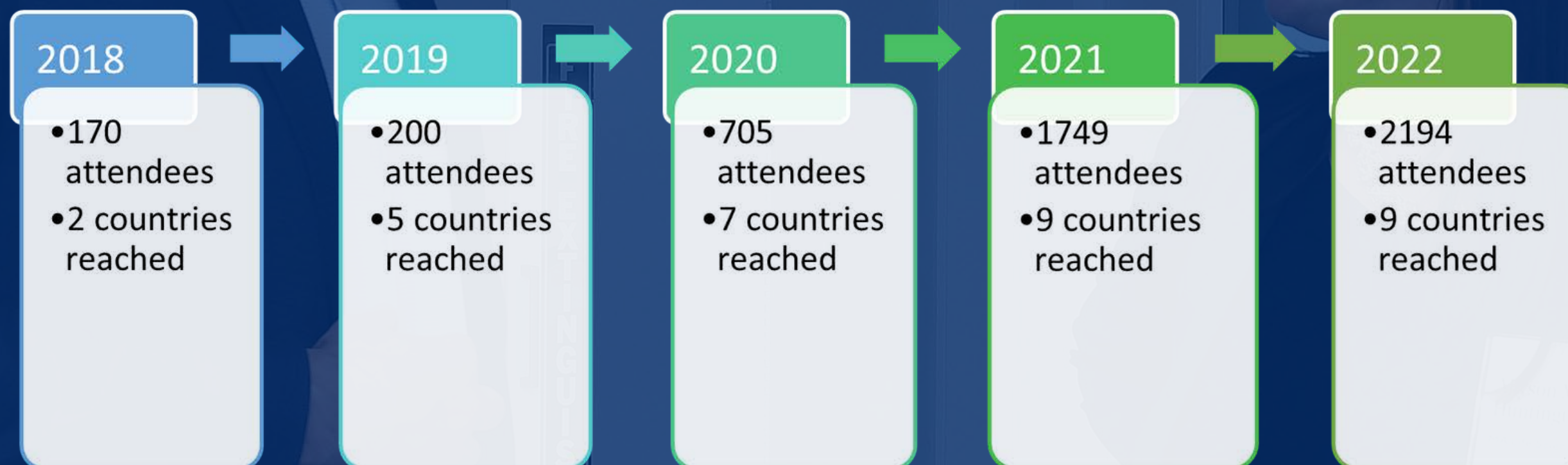


BARDA DRIVe



The program seeks to bring together innovators, entrepreneurs, investors, and the public health community to spur innovation in areas such as diagnostics, therapeutics, vaccines, and other medical technologies.

DRIVe provides funding, technical expertise, and resources to startups, small businesses, academic institutions, and other organizations to help advance promising concepts and technologies.



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.

The presence of Matt Hepburn, White House Senior Advisor, Office of Science and Technology Policy, and Kenn Turner, President & CEO of the Massachusetts Life Sciences Center (MLSC), was the main highlight of the Barracuda Bowl, 2022 event. Their participation brought an air of authority and expertise to the occasion, emphasizing the importance of science, technology, and innovation in shaping the future. Matt Hepburn's role as a senior advisor in the White House underscored the significance of government support and policy in advancing scientific endeavors, while Kenn Turner's presence as the head of MLSC highlighted the pivotal role of life sciences in driving economic growth and development.



OTHER EVENTS'22

Speaking: Delivery
and Technique
27 January, 2022

P&K Lunch and
Learn
18 February, 2022

Corporate
Headshots Courtesy
of Northeast
Biomedical
22 February, 2022

SBIR/STTR Grant
Lunch and Learn
23 June, 2022

Medical Device
Connectivity-
Regulations, Privacy
and Cybersecurity
8 September, 2022

Prime Path
MedTech Lunch and
Learn
19 October, 2022

BARDA Reverse
Pitch- Vaccines on
Demand & Reboot
1 December, 2022

SBIR/STTR Grant
Lunch and Learn
5 December, 2022

Success Stories



Secured top honors in the "Cause of Death Elucidated (CODE) in Drug Overdose" Challenge by NIDA, winning the Northstar Campus Pitch Day Event, receiving a grant of \$15,000 from the Manufacturing Emergency Response Team 2.0, and being awarded a prestigious NSF phase IIB grant for biosensor development.



Obtained regulatory approval in the UK for a clinical trial of their dental bone adhesive biomaterial, received an NIH grant for treating vertebral compression fractures, and launched a space experiment for their regenerative biomaterial.



Following their time in IMPACT Cohort in late 2021, the Angler™ Steerable, Deflectable Microcatheter was FDA-cleared for human use, for both peripheral and coronary vascular indications. Winner of in-kind resources from M2D2 in this year's \$200K Challenge..

Success Stories

RADx

Rapid Acceleration of Diagnostics (RADx), is a fast-track technology development program that leverages the National Institutes of Health (NIH) Point-of-Care Technology Research Network (POCTRN).

- RADx works like the TV show, “Shark Tank,” to identify and support promising technologies
- Get more people tested more easily for the SARS-CoV-2 virus

Accomplishment

Test Us at Home: Nationwide siteless study. Enrolled 8000 participants

- Evaluate performance of three most popular over-the-counter tests for detecting infection in asymptomatic people when used serially. A collaboration with FDA to inform asymptomatic serial screening guidance. Sub-study with daily testing demonstrated performance against omicron.

[Read the Article](#)



2022 In Numbers



David McManus

Matt Hepburn

\$200K CHALLENGE



209
Attendees



148
Applications



\$275,000
Winning Prize

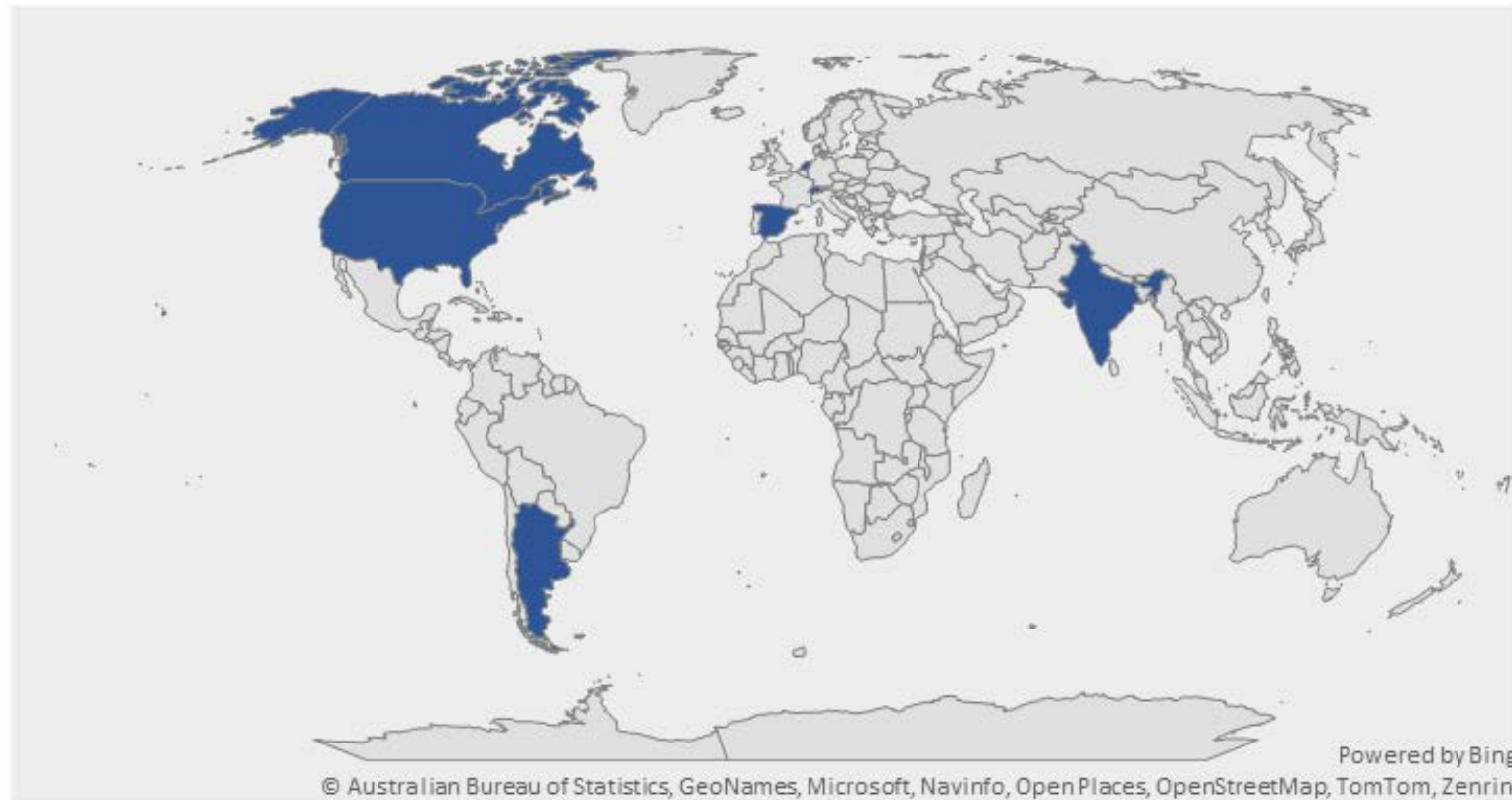


16
Sponsors

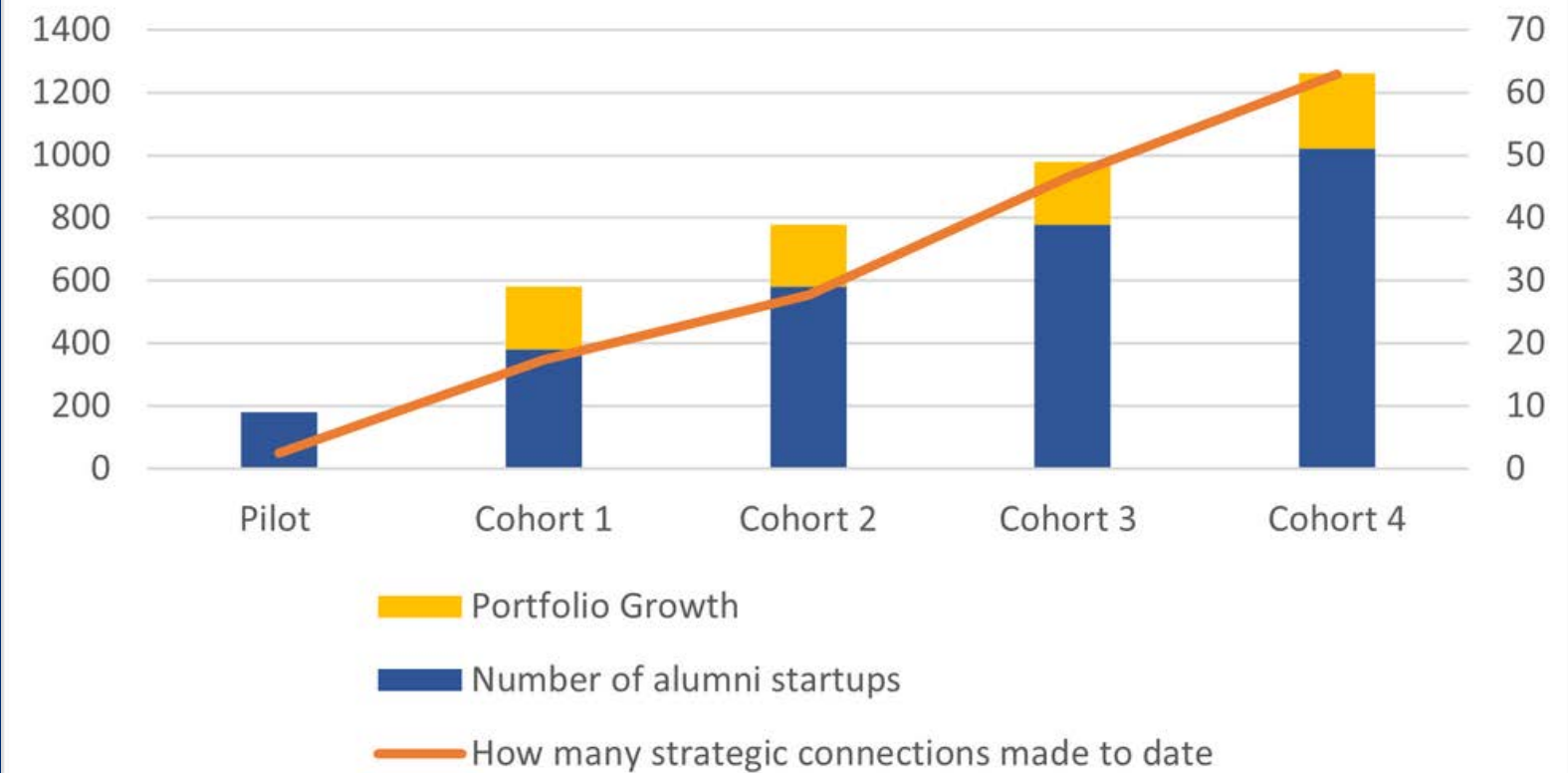


IMPACT

IMPACT REACH



2022 IMPACT DATA



7 Countries



445 Attendees



32 Alumni Startups



909 Strategic Connections

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

CAPCAT



5 Winners



\$100,000 awards each



313 Attendees

Awards to companies developing point of care devices to improve sleep, detect atrial fibrillation, and monitor heart function.

BARDA DRIVE



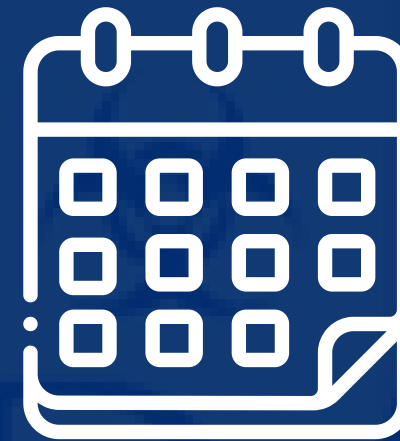
50

**Innovators
Contacted**



23

Market Research



12

Programs



9

**Countries
Reached**



42

One on Ones



1

**Wrap-Around
Supports**



2194

Attendees

BARRACUDA BOWL



236
Attendees



6
Panelists



5
Pitches



Program Sponsors



Johnson & Johnson INNOVATION | JLABS

Massachusetts
LIFE SCIENCES CENTER

Boston
Scientific

AMGEN

DRAPER

SAREPTA
THERAPEUTICS

RQMIS INC.

HOLOGIC®
The Science of Sure

ASAHI
INTECC

Omni
CORPORATION

MPR

Waters
THE SCIENCE OF WHAT'S POSSIBLE.®

MassMEDIC
Massachusetts Medical Device Industry Council

argenta:advisors™
Life Science Reimbursement Consulting

TRIUMVIRATE
ENVIRONMENTAL

M
MINTZ

Northeast Biomedical
Product Development Services
www.northeastbiomed.com

2023 Events Timeline

We hope you can join us!

[Register here](#)



\$200K
Challenge
March 2023

Cohort 5 -
Pioneering
Orthopedics
January-April
2023

Point of Care
Showcase &
Pitch Event
June 2023

Boston
Scientific
Connected
Patients
Challenge VII
June 2023

Cohort 6 -
Accelerating
Smart
Healthcare
August-
November
2023

Barracuda Bowl
October 2023

Contact Us



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