

2025 ANNUAL REPORT

JOHNS HOPKINS CENTER FOR BIOENGINEERING INNOVATION & DESIGN

GLOBAL PARTNERS
GLOBAL IMPACT



Thank you for taking a few minutes to see the exciting work completed this year in our Center. If you share our vision and values, I'd love to hear back from you on how we can make the program even stronger and more impactful. We could really use your advice and support.

CBID'25 was our 16th year, and one of our most creative and productive. We started June 2024 with Boot Camp Week, and wrapped up with final presentations and graduation in May 2025. From our first year in 2009, CBID has been guided by our two-fold mission: (1) the education and development of the next generation of leaders in healthcare innovation, and (2) the creation and early-stage development of solutions to major healthcare challenges that have a high potential for impact. We care deeply about both and track our impact on both scorecards: the professional success of our graduates and the impact of their ideas on the world. We also have a global perspective, with projects focused on both wealthy healthcare systems like Johns Hopkins as well as low and middle income regions of the world. This year, CBID teams completed projects in the USA, India, and Uganda.

CBID has developed an effective model for early-stage healthcare innovation that incorporates best practices from successful academic programs, medtech companies, and design firms. Our method ensures our innovation teams build their ideas on a solid foundation that consider all of the factors essential for success, from engineering to medicine, to business, laws and regulations, and management. CBID students engage closely with clinicians, engineers, industry professionals, and global health experts to design, build, and test solutions with high potential for real-world impact. We empower our students with the skills, connections, and experience necessary to become influential leaders in healthcare innovation.

To all of our partners and mentors, our creative and passionate students and fellows, our dedicated faculty and staff, our donors and sponsors, and our active board members, thank you for helping to make our small Center a unique and meaningful place.

Youseph Yazdi, PhD, MBA
Director

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CBID SPINOUT SPOTLIGHT

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Data-Driven Decisions in Spine Care: A Conversation with the Founder of CurveAssure

Evan Haas (CBID '22) is the co-founder of CurveAssure, a spinal assessment company that began during his CBID year alongside fellow classmate **Antony Fuleihan (CBID '22)**. Backed by the Abell Foundation and President's Venture Fellowships, CurveAssure is transforming how surgical decisions are made by bringing continuous, real-world data into spine care.



Why spine care, and why now?

CBID gave us a great jumping-off point. We had over 200 needs in our initial ideation on problems that we were seeing in orthopedic and neurosurgery. Working with world-class clinicians to be able to really understand what worries them, how they're treating patients, and what their pain points were was an amazing opportunity to continue to refine and build on important technologies to help these patients. We really fell down this path of how do we help patients get better surgeries and have better outcomes within spine care. Spine surgery really is very dependent on patient selection and surgical planning, and we found that doctors were missing the data and evidence to be able to make truly personalized decisions in spine care. So, it was a perfect fit for our team and the business strategy, and we decided to take that to market.



Evan Haas (left) and Antony Fuleihan (right)

What is CurveAssure?

Evan: CurveAssure is a spinal assessment company that gives doctors greater insight into how patients are outside of the clinic. The problem is that they're treating patients with just two X-rays, and these surgeries are life-changing, both for good and for bad. We allow doctors to get better insights into their patients to pick the right surgeries at the right time.

"Baltimore and CBID have been a great place for us to be— access to world-class clinicians, setting up our validation space, and being able to hire great talent."

— Evan Haas

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What was your favorite CBID experience?

My favorite part of CBID, and definitely the most rewarding, was the first time that we showed our prototype to a couple of our stakeholders. To see their eyes light up and see them get excited and really understand and connect that "Hey, this is our problem, and man, this could really be a solution to what we're seeing," made it all worth it— all the late nights, all the effort to be able to get to that was incredibly validating and really drove our mission and eventually is what allowed us to be able to create a company in this space to help solve these problems.



How did early pitch competitions help build momentum for CurveAssure?

In early-stage startups, non-dilutive funding is the name of the game. We were lucky to find early success in pitch competitions and accelerators—we won the Johns Hopkins Design Competition and did really well at Stu Clark, the Carey Business Adventure Challenge, and the Pava Center Fuel Demo Day. These were great sources of funding, but even more valuable was the experience of getting out there, learning how to pitch, and telling our story. In our current seed round, we pitched over a hundred times. It's all about getting in front of people, refining your message, showing progress over time, and finding those who really resonate with what you're building.



CUMULATIVE HIGHLIGHTS ⁵

300
graduates

215
project
mentors

130
projects

74
Advanced
Health

56
Global
Health

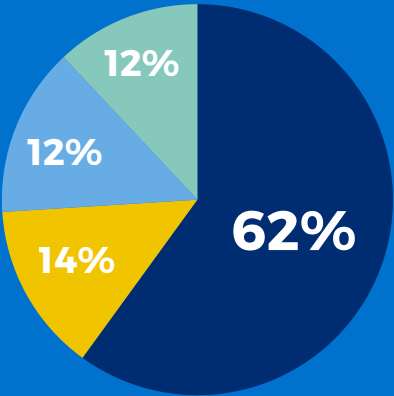
SUCCESSFUL GRADUATES IN MANY FIELDS

STARTUPS

ACADEMIA
MEDICINE, GRADUATE STUDIES

OTHER

GOVERNMENT, NON-PROFITS



INDUSTRY
MEDTECH, CONSULTING

MEDICAL STUDENTS & RESIDENTS ALSO ADMITTED

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Surgeons & Physicians

DEVIN O'BRIEN-COON, 2013

ALISON WONG, 2016

ANDREW EISENTHAL, 2018

ALEXIS GRAHAM, 2021

ZACHARY PLONA, 2022

JOSEPH BURKETT, 2022

KHALIL MERALI, 2023

ANDERS SIDERIS, 2023

SORUSH ROKUI, 2024

ABHIRAM CHERUKUPALLI, 2024



Medical Students

DAVID GULLOTTI, 2017

REGINA CHO, 2018

ALLISON WALLINGFORD, 2019

SOPHIA DIAZ, 2020

SAMUEL WEINREB, 2021

ALEXANDRO CHARA, 2021

ROHAN VERMA, 2022

SHIRLEY LIN, 2024

AZMINA KARUKAPPADATH, 2024

ARJUN MENTA, 2025

MITCH LIPKE, 2025

MARK SCHUWEILER, 2025



BUILT AT JHU CBID

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Breathing Innovation: The CBID-Born Startup Tackling Sleep Apnea

Mitchell Turley (CBID '23) and **Anders Sideris (CBID '23)** are the co-founders of Somnair, a neurostimulation startup developed during their CBID year to treat obstructive sleep apnea. Mitch, a mechanical engineer with prior experience in global health and implantable devices, and Anders, a trained surgeon with a background in head and neck research, bring complementary clinical and technical expertise to the problem. Over the past two years, they've continued developing Somnair through the Abell and President's Venture Fellowships and are now raising a seed round to complete their spin-out from Johns Hopkins. The team also includes part-time contributors **Phoebe Dijour (CBID '23)** and **Shri Prabha Shivram (CBID '23)**.



What is Somnair?

Mitch: Somnair is a novel non-invasive neurostimulation oral appliance to treat obstructive sleep apnea. The form factor is similar to any retainer, but with an array of electrodes on the upper surface that stimulate the oral and palatal muscles to pull them forward and open up the airway, allowing patients to breathe more easily at night. During our CBID year, we spent time shadowing in the sleep surgery department at the Johns Hopkins Hospital. We saw multiple patients being screened for Inspire Therapy who were ineligible because of collapse at the level of the palate or lateral throat walls. We identified a significant unmet need for this patient population. Through the CBID spiral design process, we assessed the clinical need from commercial, clinical, technical, and strategic perspectives and decided to pursue it.



Mitchell Turley (left) and Anders Sideris (right)

"I initially had intended to take one year off surgical training... but I fell in love with this process."

— Anders Sideris

What inspired you to join CBID?

Anders: After eight years in medicine, I kept asking, "How could this be done better?" I had started a company and worked on engineering-clinical projects, but I lacked a full framework to take ideas to market. CBID's spiral process stood out because it brought together clinical, technical, business, and entrepreneurial thinking. I planned to return to surgery after one year, but I fell in love with the process and stayed.

Mitch: I had explored global health and entrepreneurship through a medical transport company, and later worked at Cook Medical on a small team developing a life-saving implant. I enjoyed it, but I wanted more strategic control. CBID gave me the tools to approach problems from the beginning and learn how to build something that matters.



How has being part of CBID shaped your career path today?

Mitch: CBID really was what I hoped it would be. I wanted to grab a problem by the horns and lead the solution process, and it gave me the space and structure to do that. The program, along with the Abell Fellowship and support from Hopkins, helped us take a student project and grow it into a (hopefully soon) venture-backed startup. It de-risked the leap into entrepreneurship and gave us the tools to keep building.

Anders: I would mirror all of that. What's powerful about CBID is how it shifts your mindset. You start looking at clinical problems not just through a clinician's lens but also through technical, business, and regulatory ones. It has been an incredible incubator. That early-stage support structure lets you ask tough questions, get advice, and develop your entrepreneurial skillset.



FROM CBID TO GLOBAL IMPACT

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Neha Verma (CBID '17) is a co-founder of Intellehealth, a startup company in the space of women's healthcare globally. She recently reflected on her experiences as Intellehealth has shifted from a CBID project in 2016 to an organization with 90+ members and huge margins of success. She shared with us some rewarding & testing moments over the past few years, and how CBID has taught her to embrace the needs of her current position.

What need is Intellehealth addressing?

Intellehealth continues to work towards the goal of improving access to healthcare for women and their families, at the last mile. Intellehealth has created a telemedicine-based novel solution practiced through governments and nonprofits. This healthcare solution is effectively integrated to existing 'brick and mortar' health systems, to evolve them to a higher level of functionality. Intellehealth provides their partners with mobile/web applications with personalized dashboards to aid in navigating healthcare needs. Intellehealth has a provider-to-provider app, direct-to-patient app, and a direct-to-patient helpline which accounts for different challenges and needs patients have. Intellehealth is an open-source solution. Its GitHub is available for those who seek it out. Being open-source is part of the developed value of Intellehealth. We never want to lock potential impact walls. By remaining open-source, we believe healthcare globally can continue to improve.

What resources did CBID provide you with?

CBID served as a docking point to form a complete network of mentors and specialists who contributed their knowledge to this unique issue. Starting a company from the ground up is incredibly difficult, and CBID played a key role in bringing in early-stage team members. For example, through CBID we connected with Dr. Acharya—co-founder of Intellehealth and board president—who brings his experience as a JHU program director. CBID's cross-functional nature allows students to collaborate across JHU's affiliated schools while also benefiting from its strong alumni network. As someone who has now become a sponsor for CBID teams, I've seen how these connections foster long-term collaboration. Intellehealth is partnering with a student team working on artificial intelligence for language models, and being able to share both our cited research in diagnostics and the code we have written has been an incredibly fulfilling resource exchange.

"I love how translational and entrepreneurial CBID is. I had built and run a company before coming to CBID, and loved that CBID provided a platform and safe space to innovate and meet other founders, inspiring me to join."

— Neha Verma

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How has your role at Intelhealth changed?

I have a background as Teacher's Assistant, which has influenced how I approach my role as a CEO of Intelhealth. I work in a hands-off manner. I believe trusting my team is key for them to succeed. As a CEO, it is my primary duty to provide teams with resources they need to get the ball rolling, but for the most part, allow them to use these resources in powerful creative ways. During the recruitment process, I look for individuals who possess two primary traits: they must have a deep passion, and they must possess technical skills. Like CBID, I have found myself seeking out an interdisciplinary team. The team dynamic of Intelhealth has shifted greatly since the company started. Now, it has a team of at least ninety contributors. As a CEO, my day-to-day life has changed greatly since being a student. There is a lot less doing, and a lot more enabling. I spend a majority of my time both watching and mentoring my employees, so they understand the company's visions and aims. My job has shifted because of the size of Intelhealth, and what is required of me has changed with the growth of this solution.



What does the future hold for you? Do you have any advice for incoming and prospective CBID students?

I believe that my role as a CEO will become increasingly focused on fundraising and managing the external face of Intelhealth. I hope to grow Intelhealth to different countries in need. There is ongoing work intertwining current artificial intelligence into the Intelhealth solution. AI can be incredibly valuable as a prospective agent in healthcare, and we believe at Intelhealth, it will continue to be transformational. For incoming and prospective CBID students, I hope they know the year will go fast. In terms of the reward, it truly is determined based on what each individual is willing to put into their own success and journey. You should enter your year at CBID with a clear end goal of what you are hoping to gain from this experience. The year will be extremely vigorous, so give it your all!

CBID MSE CLASS OF 2025 ¹¹



Amanda Cheung



Antoine Noreau



Arjun Kumar Menta



Ava Taylor



Emma Turner



Isabella Menendez



Ishir Sharma



Jay Tailor



Kenny Nova



Lindsay Lamberti



Mark Schuweiler



Natasha Mody



Sabine Meurs



Sabrina Zhou



Santiago Sanchez



Sneha Raj



Selena Shirkin



Shreya Jindal



Mads
Bundgaard Norlov



Saardhak
Bhrugubanda



Sofia Garcia del
Barrio Cervera



CBID 2025 MSE TEAMS

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Each team works on both Advanced and Global Health Challenges



Advanced: Neuro-TBI
Global: Breast Cancer in
Uganda



Advanced: Hemolysis
Global: Malaria in
Uganda



Advanced: Surgical
Guidance
Global: TB in India



Advanced: Limb Ischemia
Global: Telemedicine in
India

Blue Healer: Intramedullary Tibial Implant for CLTI Patients

Students: Mitch Lipke, Lindsay Lamberti, Santiago Sanchez, Jay Tailor, Selena Shirkin

Clinical Mentors: Dr. John McClure, Dr. Joshua Beckman, Dr. Clifford Weiss, Dr. Mark Lessne, Dr. Ali Tavallaei

Advisors: Mark Gelfand, Sean White, Kym McNicholas, Dr. Youseph Yazdi, Oriol Cuxart, Dr. Soumyadipta Acharya, Dr. Anders Sideris, Dr. April Zambelli-Weiner

Abstract:

Each year, over 150,000 Americans undergo major lower-limb amputation due to no-option Chronic Limb-Threatening Ischemia (CLTI), a condition for which standard revascularization is no longer viable. These patients face a 1-year mortality rate exceeding 25% and impose over \$43 billion in annual U.S. healthcare costs. Current treatments—angioplasty, bypass, and venous arterialization—are ineffective in patients with heavily calcified, below-the-knee disease and rely on vessel patency and specialist access

BlueHealer is a novel, minimally invasive orthopedic device designed to restore perfusion from the bone marrow outward using distraction osteogenesis (DO). The system stimulates angiogenic signals, enhancing capillary formation and tissue healing. BlueHealer builds on proven Tibial Transverse Transport (TTT) methods but modifies the mechanism to reduce infection risk and patient burden. Early clinical interest, customer discovery, and a validated Class II De Novo regulatory path support its adoption. With a projected device cost of \$20,000 and manufacturing costs under \$4,000, BlueHealer offers a scalable, cost-effective alternative to amputation. Our next steps include prototype refinement, benchtop testing, cadaver studies, and FDA engagement, enabling future clinical trials and commercialization.



Neuro Prima: Improved Cranial Implant for TBI

Students: Arjun Kumar Menta, Shreya Jindal, Sofia Garcia del Barrio, Kenny Nova, Ava Taylor

Clinical Mentors: Dr. William Anderson, Dr. Risheng Xu

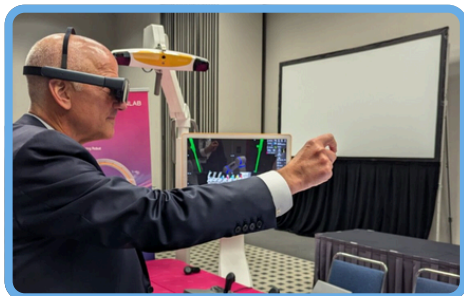
Advisors: Dr. Youseph Yazdi, Dr. April Zambelli-Weiner, Dr. Ashish Nimgaonkar

Abstract:

Traumatic brain injury (TBI) remains a leading cause of death and disability in the US, with an estimated 1.7M cases and 70K deaths annually. It mostly affects young people in vehicle accidents, and elderly in domestic falls. For the most severe cases, the only life saving intervention is a two-surgery treatment. During the first surgery, around half of the patient's skull is removed for approximately 30-90 days to allow for unrestricted brain swelling. The second surgery replaces the skull portion that was removed, to provide the patient with long term brain protection.

These two surgeries are highly invasive, resulting in high costs (among the top 20 most expensive procedures in the US), significant complications, and lengthy hospital stays. Even after the swelling has subsided, patients must wait to have a second invasive surgery because they remain in such a fragile state from the first one, further delaying patient rehabilitation.

Neuro Prima's novel cranial implant enables the functions of both surgeries within a single procedure. By eliminating the secondary surgery and associated infection rates, our solution enables a safer, faster, and more affordable recovery for patients.



SurgMap: Intraop Guide for Oncology Surgery

Students: Mark Schuweiler, Emma Turner, Sabrina Zhou, Mads Bundgaard Norlov, Amanda Cheund, Ishir Sharma

Clinical Mentors: Dr. Leila Mady, Dr. Anders Sideris, Dr. Dominick R. Guerrero

Advisors: Dr. Youseph Yazdi, Dr. Soumyadipta Acharya, Caterina Esposito, David Maher

Abstract

SurgMap is developing tools to improve surgical outcomes for oral cavity squamous cell carcinoma (OCSCC), the most common head and neck cancer. OCSCC affects about 35,000 people annually, with cases expected to rise 40% by 2040. Treatment usually involves primary tumor resection, where removing adequate margins is critical. However, cancer-free margins are achieved in only 15–26% of cases, and close or positive margins often lead to recurrence. Most early-stage patients experience recurrence, requiring a second surgery or adjuvant therapy such as radiation or chemotherapy.

Currently, surgeons rely on verbal descriptions and rudimentary tools to locate residual tumor margins, often resulting in incomplete removal or damage to healthy tissue. SurgMap addresses this by mapping the exact anatomical position of positive margins back to the resection bed to reduce recurrence and prevent unnecessary morbidity. Its system includes SurgScan, software that uses 3D scans of both the resected tumor and tumor bed, allowing pathologists to annotate margin locations. SurgMark, a set of physical markers placed during surgery, precisely calibrates and aligns scans. Together, these tools integrate seamlessly into surgical workflows, improving communication, resection accuracy, and long-term outcomes while reducing healthcare costs.



Veina Vascular: Improving Blood Specimen Quality in Emergency Departments

Students: Antoine Noreau, Isabella Menendez, Natasha Mody, Saardhak Bhrugubanda, Sabine Meurs, Sneha Raj

Clinical Mentors: Dr. Lukas Ramcharran, Dr. Michael Phelan, Dr. Michael Redlener

Advisors: Dr. Youseph Yazdi, Dr. Soumyadipta Acharya, Dr. April Zambelli-Weiner, Brisa Seibert

Abstract:

Hemolysis, the breakdown of red blood cells during sample collection, impacts approximately 17% of the 70 million blood draws conducted annually in emergency departments (EDs) across the United States. Current blood collection methods using IV catheters, syringes, and traditional vacuum tubes expose cells to excessive shear stresses, resulting in hemolysis that alters lab results, delays diagnoses by over an hour per patient, and creates an economic burden of approximately \$15 billion annually due to increased hospital costs and prolonged patient wait times.

Veina Vascular introduces a novel blood collection device designed to optimize pressure differentials and to maintain laminar blood flow, dramatically reducing shear stress and subsequent hemolysis. Our device seamlessly integrates with existing IV catheters, requires minimal training, and ensures accurate lab results from a single draw. By preventing repeated blood draws, our technology improves clinical decision-making, shortens ED stays, and reduces hospital operational costs.

Developed through extensive clinician collaboration and validated by stakeholder interviews across North America and Europe, Veina's solution directly enhances patient throughput, significantly improving emergency department efficiency and patient care quality.



Telemedicine + AI in Rural India

Students: Mitch Lipke, Lindsay Lamberti, Santiago Sanchez, Jay Tailor, Selena Shirkin

Advisors: Dr. Neha Verma, Dr. Shekhar Waikar, Dr. Luis Soenksen, Dr. Samson Jarso, Adler Archer, David Bigio, Dr. Soumya Acharya, Dr. Youseph Yazdi, Bharat Shetty, Ganaraj Perunda, Sandhya Tikku

Abstract:

In rural India, clinical consultations are often constrained by time, resource limitations, and incomplete patient histories, leading to missed or delayed diagnoses. This project introduces an AI-driven, dual-agent simulation system designed to emulate realistic clinical encounters for the purpose of improving history-taking in low-resource telemedicine settings. The system features two independently controlled large language model (LLM) agents: a History-Taking Agent and a Simulated Patient Agent, which interact turn-by-turn within a structured controller framework. The HxTaker agent asks context-relevant questions and terminates when diagnostic sufficiency is reached; the patient agent responds based on a structured clinical case, avoiding unsolicited information. This agentic design mimics real-world interaction patterns, especially for patients with low literacy or complex symptom presentations.

The system is optimized for Intellehealth's mobile-based telehealth platform, supporting local languages, multiple-choice responses, and sub-10-minute session limits. Evaluation includes LLM judge scoring, AIME differential diagnosis accuracy, and structured output quality. Initial results show promising improvements in diagnostic yield (from 41% to 68%), with ongoing tuning of prompts and termination criteria. Future work includes integration of vital signs, trust scaffolds, and deployment in live clinical pilots to assess real-world impact and scalability in underserved healthcare settings.



Improving Breast Cancer Screen and Dx in Uganda

Students: Arjun Kumar Menta, Shreya, Jindal, Sofia Garcia del Barrio, Kenny Nova, Ava Taylor

Advisors: Dr. Soumya Acharya, Dr. Musoke Shariff, Dr. Sandra Sanchez, Dr. Mitala Yekosani, Dr. Sam Kalungi, Marina Rincon Torroella

Abstract:

Breast cancer is the leading cause of death for women worldwide, claiming 685,000 women's lives annually. In low- and middle-income countries, the impact is particularly devastating, with survival rates plummeting to 40-60%, and 89% of diagnoses being late-stage. In Uganda, there exists a 6–11-month diagnostic delay that greatly exceeds the 60-days recommendation by the World Health Organization and significantly drives the high breast cancer mortality rate. The shortage and centralization of pathologists (18 pathologists:46M Ugandans), limited diagnostic ability in rural healthcare centers, cultural stigma, and the lack of financial means are the primary contributors to this crisis.

Ekyalo Diagnostics aims to enable faster diagnostic turnaround times for breast cancer patients in low-resource settings by: (1) simplifying slide digitization, region-of-interest capture, and transmission for breast cytology; (2) streamlining communication with centralized, highly skilled hospitals; and (3) integrating our solution with the resources already available in these rural settings. Our low-cost technology leverages smartphones, existing microscopes, and eyepiece cameras to capture and transmit cytology images. These are sent via a mobile app powered by a robust machine-learning algorithm that highlights the most diagnostically relevant regions, enabling pathologists to work more efficiently and accurately.



Low-Cost Screening for Latent TB in India

Students: Mark Schuweiler, Emma Turner, Sabrina Zhou, Mads Bundgaard Norlov, Amanda Cheund, Ishir Sharma

Advisors: Dr. Youseph Yazdi, Dr. Soumyadipta Acharya, Neetisha Bersa, Meghashish Sharma, Dr. Amita Gupta, Dr. Samyra Cox

Abstract:

Tuberculosis (TB) remains one of the leading infectious causes of death worldwide, with India bearing the highest burden. While national efforts have improved detection and treatment of active TB, identification of latent TB infection (TBI), especially in children, remains under addressed. Among India's 250 million school-aged children, over half of pediatric TBI cases are estimated to go undetected yearly. This is largely due to the lack of scalable, field-deployable screening tools and limitations of the current standard: manual, clinician-dependent measurement of induration after TB skin testing (e.g., Mantoux or Cy-TB). This process is subjective, error-prone, and impractical in schools or homes without trained personnel. InduRate is a low-cost, user-friendly solution designed to transform pediatric TBI screening through objective, accessible measurement of TB skin test results. Any user—regardless of training—can press a deformable material against the forearm 48–72 hours post-test to capture an impression of the induration. Paired with a smartphone app, the system automatically determines if the test is positive or negative, removing user variability and clinician dependency.

Early validation with clinicians and untrained users has shown strong accuracy and usability. By enabling screening in schools and homes, InduRate addresses key barriers: subjectivity in measurement and limited access to care. It's now being integrated into a school-based protocol with the JHU Gupta-Klinsky India Institute (GKII) and is designed to pair with antigen-based tests like Cy-TB, with the goal of increasing detection and preventing progression to active TB.



Integrated Entomological Decision Support System for Malaria Control in Uganda

Students: Antoine Noreau, Isabella Menendez, Natasha Mody, Saardhak Bhrugubanda, Sabine Meurs, Sneha Raj

Advisors: Dr. Soumyadipta Acharya, Sunny Patel, Marina Rincon Torroella, Dr. Neil Lobo, Mercy Opiyo, Dr. Michael MacDonald, James Kaweesa, Jovan Batte, Mike Kato, Bumali Kawesa, Kigongo Siriman, David Onanyang, Sean Blaufuss, Dr. Douglas Norris, Nathaniel Moller

Abstract:

VectorCam, an AI-enabled tool for high-throughput vector surveillance, was originally developed by a previous CBID team and validated through a randomized controlled trial (RCT). Building on their work, our team was tasked with two key objectives: (1) identifying strategies for scaling VectorCam to additional countries and new use cases, and (2) enabling effective utilization of the high-quality surveillance data it collects at national, district, and local levels.

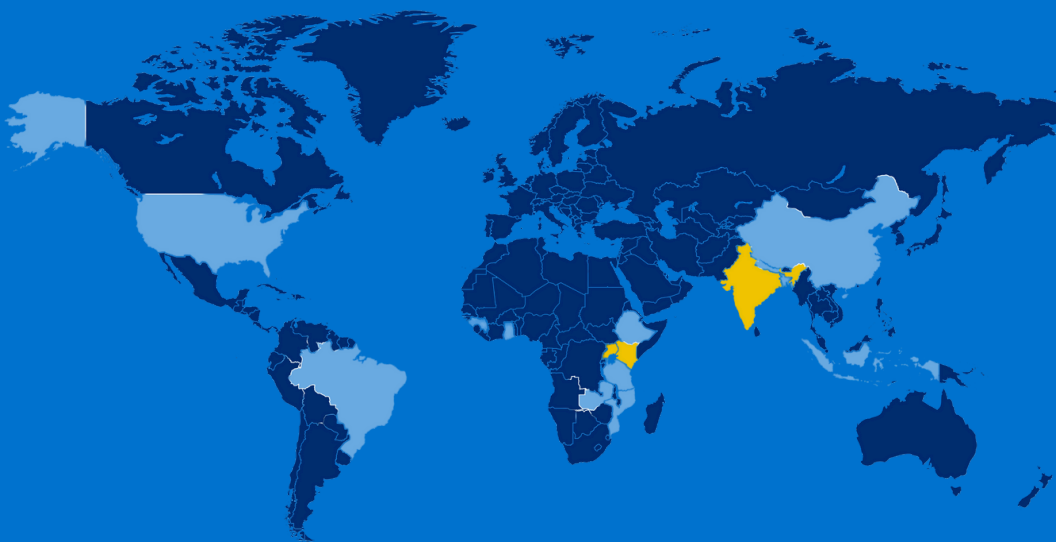
To address the first objective, we conducted over 50 stakeholder interviews and a global landscape assessment to identify scaling opportunities, challenges, and strategic pathways. Using insights from this landscape analysis and interviews with expert entomologists, we developed VectorPAL, a unified decision support platform that integrates entomological, epidemiological, and climate/geographical data into actionable insights. VectorPAL enables health authorities to monitor vector dynamics and disease transmission risks in real-time at localized levels, facilitating targeted, timely, and sustainable vector control strategies. By bridging the gap between surveillance data and intervention planning, our work advances the ability of health systems to respond proactively to vector-borne disease threats worldwide.



GLOBAL HEALTH TRAVEL GALLERY



GLOBAL HEALTH PROJECTS MAP



2025 Projects - Kenya, Uganda, India



Past Projects - Bangladesh, Brazil, China, Ethiopia, Ghana, Guinea, Indonesia, Mozambique, Nepal, Tanzania, USA, Zambia



Johns Hopkins CBID Abell Foundation Fellowship

We offer a second-year fellowship for students involved in our intensive one-year MSE program. The fellowship program, which is funded by the Abell Foundation, allows students to focus on building a new venture around the concept they developed during their first year. The fellows leverage the second year to raise funding, build and test prototypes, derisk the technology, and build a team of advisors.



Noah Lu is an Abell Fellow and a member of the CBID Class of 2024. He holds a Bachelor's degree in Biomedical Engineering with a second major in Neuroscience from Johns Hopkins University. His research experience includes work in neuroengineering at Johns Hopkins Hospital, along with innovation-focused projects in medical imaging and operating room safety. Noah is passionate about expanding access to cutting-edge medical technologies to reach and benefit a broader patient population.



Gabriella Wong is an Abell Fellow and member of the CBID class of 2024. She graduated with a Bachelor's degree in Mechanical Engineering from the Georgia Institute of Technology, and worked on innovation projects in the areas of laparoscopic and endovascular surgery at the Johns Hopkins Hospital, and with clinical partners in Kenya and Rwanda. She is interested in the future of translational biomedical technologies, especially in low-resourced spaces.



Oriol Cuxart is an Abell Fellow and member of the CBID class of 2024. Prior to CBID, he worked as a clinical trial consultant at Veeva Systems and as a healthcare innovation consultant at IESE Business School, where he led business development for EU-funded medtech ventures. He is currently the CEO and Co-Founder of SinuStim, a novel neurostimulation oral appliance for the treatment of chronic nasal congestion and facial pain.



Sandhya Tikku is an Abell Fellow and member of the CBID class of 2024. She earned her degree in biomedical engineering from UT Austin and brings technical experience in neuroengineering, circuitry design, and 3D printing. She is currently the CTO and Co-Founder of SinuStim, a novel neurostimulation oral appliance for the treatment of chronic nasal congestion and facial pain.



Aryaman Shodhan is an Abell Fellow and member of the CBID class of 2024. He graduated with a Bachelor's degree in Biomedical Engineering and Computer Science from Johns Hopkins University. He has worked on multiple innovation projects spanning ENT, endovascular surgery, and malaria - collaborating closely with clinicians and field researchers. Aryaman is interested in applying engineering and AI to solve public health challenges through user-centered, field-informed design.

SinuStim

Fellows: Sandhya Tiku, Oriol Cuxart

Clinical Mentors: Dr. Nicholas Rowan, Dr. Andrew Thamboo, Dr. Anders Sideris

Advisors: Dr. Youseph Yazdi, Dr. Gene Fridman, Dr. April Zambelli-Weiner, Smitha Gopal

Abstract:

SinuStim is developing a mouthguard that instantly alleviates nasal congestion and facial pain for patients with chronic sinus disease by using gentle electrical pulses that regulate overactive nasal nerves. SinuStim is drug-free, non-invasive and provides lasting relief.

Despite affecting over 40 million people in the US, treatment options for Chronic Rhinosinusitis (CRS) remain limited and outdated, with the standard of care—intranasal corticosteroids, saline irrigations, and antihistamines—unchanged since the 1950s. These therapies have poor patient compliance due to concerns about long-term use and frustration over their limited effectiveness. With only 45% efficacy, many patients continue to suffer from persistent nasal congestion, facial pressure, headaches, poor sleep, fatigue, and difficulty focusing.

SinuStim is the first non-invasive solution that addresses the root cause of the disease, overactive nasal nerves. Using proprietary stimulation parameters, just three minutes of use provides immediate congestion relief lasting up to eight hours, offering a comfortable, drug-free alternative to ineffective sprays and invasive surgery.

SinuStim is expected to enter the market in 2027 through a physician-directed model, integrating into clinical practice guidelines. The initial focus will be the 5 million CRS patients unresponsive to medication and unwilling or ineligible for surgery. Long-term, their vision is to serve the 42 million CRS patient population as a first-line treatment.



Advancing the Treatment of Abdominal Aortic Aneurysms

Fellows: Noah Lu, Aryaman Shodham

Clinical Mentors: Dr. James Black, Dr. Courtenay Holscher, Dr. Elliot Chaikof, Dr. Cliff Weiss

Advisors: Dr. Youseph Yazdi, Dr. Soumyadipta Acharya, Dr. Inder Makin, Dr. Ashish Nimgaonkar, Dr. April Zambelli-Weiner, Dr. Ali Uneri, Dr. Amir Manbachi, Michelle Zwernemann, Aditya Polsani

Abstract:

Abdominal Aortic Aneurysms affect over 1.5 million people in the U.S. annually and result in 30,000 deaths, with rupture carrying a fatality rate of more than 85%. Endovascular Aneurysm Repair (EVAR) has become the standard treatment due to its minimally invasive nature and lower short-term mortality compared to open surgery. However, about 25% of EVAR procedures fail due to Type II endoleaks—caused by reverse blood flow through collateral vessels, particularly lumbar arteries. Traditional embolization approaches for treating these leaks are costly, often unsuccessful, and frequently require multiple reinterventions, pushing total treatment costs to over \$100,000 per patient.

To address this, we developed EndoGuard, a non-invasive, image-guided system that uses Doppler ultrasound to localize the leaking vessels and high-intensity focused ultrasound to occlude them precisely. EndoGuard eliminates the need for incisions, catheters, radiation, or embolic agents, significantly reducing risks such as spinal cord ischemia and incomplete closure. With its intuitive touchscreen interface and real-time imaging feedback, EndoGuard transforms a traditionally complex, inpatient procedure into a single-session, outpatient solution. This approach improves safety, streamlines workflow, and reduces costs—saving hospitals and insurers thousands per patient while offering a faster, more effective treatment for those at risk of life-threatening aneurysm rupture.



ARISE: Accelerated, Realistic, Surgical Education

Fellow: Gabriella Wong

Clinical Mentors: Dr Victor Ndicunguye, Dr David Ntirushwa, Dr Grace Chen

Advisors: Dr Youseph Yazdi, Dr Soumyadipta Acharya, Dr Tigistu Adamu Ashengo, Dr Harshad Sanghvi, Marina Rincon Torroella

Abstract:

Perioperative mortality rates in low- and middle-income countries (LMICs) can be up to 25 times higher than in high-income countries (HICs). Laparoscopic surgery—the standard of care for many abdominal procedures in HICs—can reduce complication rates by over 50%, hospital stay by 45%, and cost by 30%. As a result, many LMICs aim to adopt laparoscopy more widely. However, adoption is significantly limited by a shortage of trained personnel. In Rwanda, for example, there are only six laparoscopically-trained OB/GYNs across four public hospitals, far too few to train the country's 87 OB/GYN residents. In hospitals accredited by the College of Surgeons of East, Central, and Southern Africa, residents graduate with experience in only 10 laparoscopic cases—well below the 175 required in U.S. general surgery programs.

To address this training gap, we developed ARISE: a system designed to simplify and decentralize laparoscopic training. ARISE includes the LaparoscopiX app and a physical box trainer. The app guides trainees step-by-step through essential laparoscopic skills, enabling early and independent practice without requiring an on-site mentor. For more difficult tasks, trainees can upload videos to their mentor network for asynchronous feedback on specific skills. An integrated AI tutor further supports learning by offering personalized tips based on performance data.

ARISE is the first platform to combine guided curriculum, on-demand mentorship, and box trainer access. By enabling independent learning and mentorship only when needed, it expands laparoscopic training in resource-limited settings while easing the burden on expert mentors.



CBID-ABELL FOUNDATION INNOVATION FELLOWSHIP

27

17+

PENDING
PATENTS

12

STARTUPS
LAUNCHED

+\$38

MILLION
FUNDS RAISED

**40 FELLOWSHIPS
AWARDED
SINCE 2016**

PRODUCT DEVELOPMENT

PRE-CLINICAL
DEVELOPMENT

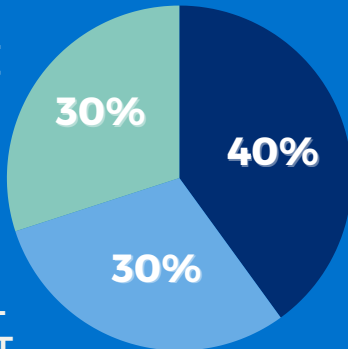
30%

CLINICAL
DEVELOPMENT

30%

40%

IN MARKET



AWARDS AND FUNDING

28

American Cancer Society Grant (2024–25):

Ekyalo Diagnostics - \$250,000

VentureWell Stage 1:

Veina Vascular - Pioneer Grant (\$5,000)

VentureWell Stage 2:

Ekyalo Diagnostics - Propel Grant (\$20,000)

Veina Vascular - Propel Grant (\$20,000)



Washington State University Business Plan Competition:

Neuro Prima - Foster Garvey Open League Prize (\$5,000)



HopStart:

Veina Vascular - 1st Place Medical Technologies (\$5,000)



Pava Center:

Veina Vascular

- Spark Accelerator Grant (\$500)
- Summer Incubator Grant (\$4,500)

SinuStim:

- Spring 2025 Fuel Demo Day Judges' Prize (\$15,000)



2025 Fast Forward Accelerator Cohort:

VectorCam - \$50,000

Visilant - \$50,000



Baylor New Venture Competition:

SinuStim:

- First Place Elevator Pitch Competition (\$1,500)
- Third Place Overall (\$10,000)

\$430K+ IN AWARDS

BUSINESS PLAN
COMPETITION 25

BAYLOR
NEW VENTURE
COMPETITION

fast forward
accelerate good

American
Cancer
Society

PAVA

HOPSTART
HOPKINS NEW VENTURE CHALLENGE



VENTUREWELL™
idea to impact

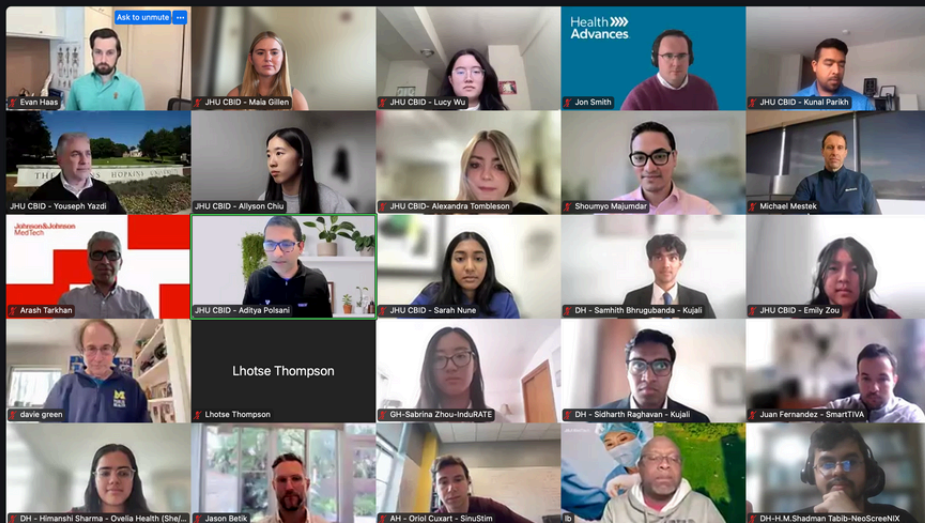


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CAREY BUSINESS SCHOOL

CBID HOSTS TOP INTERNATIONAL HEALTHCARE DESIGN COMPETITION

29

OUR 7TH
YEAR



2025 Johns Hopkins Healthcare Design Competition

Open to any student-led team that has designed a health-related solution. All countries. All academic fields.

A competition to celebrate good design in healthcare! Winners show a solid understanding of the need, the people impacted, focused problem-solving, and a great real-world solution!

AWARDS

for each track

- 1st Prize \$5,000
- 2nd Prize \$3,000
- 3rd Prize \$1,000

2-Page Submissions Due

January 26, 2025

Finalists Announced
March 10, 2025

Live Competition and Awards!
April 12, 2025
10am - 2pm EST

CHOOSE FROM 3 TRACKS

Solutions for Advanced Health Systems



Global Health/ Humanitarian Design



Healthcare Apps/ Digital Health



Guidelines, Info, Submissions:
cbid.bme.jhu.edu
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THE CBID PROGRAM



One Year MSE in
Bioengineering, Innovation, and Design
cbid.bme.jhu.edu

2025 JOHNS HOPKINS HEALTHCARE DESIGN COMPETITION

Open to all student-led teams from around the world that have designed health-related solutions.

medical devices - surgical tools - diagnostic devices - drug delivery devices - health IT solutions - mHealth solutions - global health innovations

TRACKS

**Solutions for
Advanced
Health Systems**



**Global Health/
Humanitarian
Design**



**Healthcare
Apps/ Digital
Health**



STATS

received

440

unique project proposals

recruited

35

industry reviewers

participants from

44

unique countries



PARTICIPATION

applications from

203

unique schools

Harvard University
Massachusetts Institute of Technology (MIT)
Columbia University
Cornell University
University of California, Los Angeles (UCLA)
University of Michigan, Ann Arbor
University of Pennsylvania
Khulna University of Engineering & Technology
Pontificia Universidad Católica del Perú
Georgia Institute of Technology
Imperial College London

Johns Hopkins University
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Carnegie Mellon University
Washington University in St. Louis
University of Nigeria
University of Rwanda
... and more!

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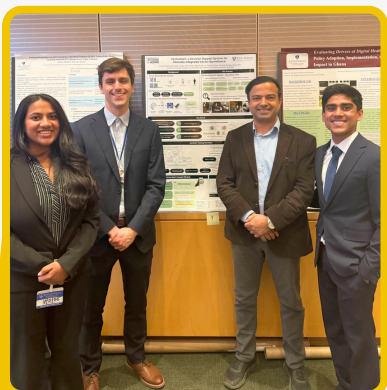
MEDTECH

Hosted by

**BIOENGINEERING
INNOVATION
& DESIGN**

EVENTS ACROSS JOHNS HOPKINS UNIVERSITY

31



Global Health Day Symposium at the Bloomberg School of Public Health 4.2.2025

Fall Innovation Showcase at Johns Hopkins Hospital 12.3.2024

JOHNS HOPKINS
BIOENGINEERING
INNOVATION
DESIGN

**Advanced Health Innovation
End-of-Semester Presentations**
Tuesday, December 3rd, 2024
3:00 - 6:00 PM EST

This is a virtual event.
Zoom Meeting ID: 955 7037 8374

Please attend and provide feedback for the clinical needs.

3:00 - 3:10 PM Welcome & Introduction
3:10 - 3:50 PM Emergency Medicine
3:50 - 4:30 PM Neurosurgery
4:40 - 5:20 PM Head and Neck Cancer
5:20 - 6:00 PM Interventional Radiology

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JOHNS HOPKINS | J&J MedTech | TTT | HEALTH RESEARCH | J. J. ECO-NOMICS | Health Equity

CRD, BAE, BALCOLL, CRD, BAE, BALCOLL



~~DOLPHIN~~ Shark Tank Innovation Showcase at Johns Hopkins University 3.27.2025

SPECIAL THANKS FOR PROFESSIONAL MENTORSHIP

32

Hogan Lovells

CBID places great emphasis on fostering strong industry connections and providing students with valuable insights from leading experts. One notable highlight from the past year was our visit to Hogan Lovells, a renowned global law firm specializing in healthcare and life sciences. During this visit, a team of experts generously dedicated their time to provide critical feedback on the FDA

pre-submissions written by our students. The expert team at Hogan Lovells conducted a thorough review of the pre-submissions and offered insightful advice to the students. Their expertise in navigating the complex regulatory landscape proved invaluable as they outlined the necessary next steps for each team to undertake. The students greatly benefited from this feedback, gaining a deeper understanding of the FDA approval process and the regulatory requirements specific to their projects.



Our teams had the privilege of meeting with representatives from the Centers for Medicare & Medicaid Services (CMS) to discuss reimbursement strategies. During these meetings, the CMS team

provided valuable feedback to each CBID team, offering insights into the reimbursement process and highlighting key considerations for success. The students appreciated the opportunity to engage directly with CMS experts, gaining a broader perspective on the economic aspects of their projects. The feedback received from CMS played a crucial role in shaping the students' understanding of the reimbursement landscape and equipped them with the knowledge needed to navigate the complex intersection of healthcare innovation and financial sustainability.



JHU-CBID FACULTY HIGHLIGHTS

33



Youseph Yazdi, PhD, MBA

24-25 Publications

- Navigating Breast Cancer Innovation in Uganda: Within and Without the Textbook. IEEE Pulse
- Health Care Innovation for Low-Resource Settings: The Value of Local Immersion and Partnership. IEEE Pulse
- The Need for Health Care Innovation Training in Medical Education.

24-25 Grants

- Community Breast Vision
Sponsor: American Cancer Society - \$265,000
- Neurostimulation
Sponsor: NSF I-Corps - \$50,000
- Development of a novel, highly efficient Descemet's Membrane Endothelial Keratoplasty (DMEK) and Deep Anterior Lamellar Keratoplasty (DALK)
Sponsor: NSF/Eyede Medical - \$103,491
- SinuStim
Sponsor: VentureWell (Pioneer) - \$5,000
- EndoGuard
Sponsor: VentureWell (Pioneer) - \$5,000



Clifford Weiss, MD

24-25 Publications

- Effects of Implementing a Standardized Risk Stratification and Triage Workflow for an Established Pulmonary Embolism Response Team (PERT). Annals of the American Thoracic Society
- Creating and Publishing Systematic Reviews, Meta-analyses, and Scoping Reviews: A 10-step Guide for Students and Trainees. Academic Radiology
- Thoracic Wall Venous Malformation with Epidural Drainage. Journal of Vascular and Interventional Radiology
- Rare Manifestation of Sjögren Disease: Multiple Complex Bilateral Pulmonary Arteriovenous Malformations Treated with Staged Embolization. Journal of Vascular and Interventional Radiology

JHU-CBID FACULTY HIGHLIGHTS

34

24-25 Grants

- FRONTIER Study (Safety and Feasibility of using TheraSphere™ GBM Y-90 Glass Microspheres in patients with recurrent GBM)
Boston Scientific - \$1,000,000
- Radiologic Stratification of Treatment and Prediction of Response for Venous Malformations
1 R01 HL171130-01 - \$2,250,000



Kunal Parikh, PhD

24-25 Publications

- Application of a Degradable Thin Film to Modulate Perfusion to Post-Transplantation Airways in Rats
- Early postoperative conjunctival complications leading to exposure of surgically implanted CorNeat EverPatch devices
- Ion-paired moxifloxacin nanocrystal formulation improves treatment and prevention of ocular infection

24-25 Grants

- Enabling safe, effective, and convenient neuroprotection through targeted restoration of retinal ganglion cell metabolism
Wilmer Pooled Professor Research Fund
Lutty Award, JHU - \$50,000
- Accessible, AI-enabled eye care
GenAI Accelerator, Google.org/Visilant - \$1,500,000



Ashish Nimgaonkar, MD

24-25 Publications

- Development of a targeted oral pharmacologic duodenal exclusion therapy for the treatment of metabolic diseases. Science Advances
- GLY-200, an oral pharmacologic duodenal exclusion drug, resulted in positive effects on glucose, lipids and bodyweight in patients with type 2 diabetes: Results of a randomized, double-blind placebo-controlled trial. Diabetes, Obesity and Metabolism



Soumya Acharya, MBBS, PhD

24-25 Publications

- Selective mycobacterial capture with UV-polymerized poly-DADMAC surfaces. Journal of Materials in Medicine
- Digital assistant for patient history-taking & physical exam in telemedicine. Oxford Open Digital Health
- VectorCam usability study (community-based malaria surveillance). JMIR Human Factors
- VectorBrain (CNN for mosquito ID). Scientific Reports
- Breast cancer innovation in Uganda. IEEE Pulse
- Health care innovation in low-resource settings. IEEE Pulse
- Decoding oxygen prescriptions (EHR vs. patient-reported). BMC Pulmonary Medicine

24-25 Grants

- Scale up of a novel digital tool to support entomological surveillance for malaria: A multicountry implementation study.
Sponsor: Bill and Melinda Gates Foundation - \$3,499,000
- Ekyaal Diagnostics: Breast Cancer Diagnosis in East Africa
Sponsor: VentureWell (Propel) - \$20,000
- Hemolysis in the Emergency Department Grant
Sponsor: a.VentureWell (Pioneer) - \$5,000
- Veina Vascular
Sponsor: VentureWell (Propel) - \$20,000
- Advancing Breast Cancer Diagnosis in Low Resource Settings Grant
Sponsor: American Cancer Society - \$225,000
- Telemedicine for Health Access
Sponsor: Intelehealth - \$150,000



Marina Rincon Torroella, MPH

24-25 Grants

- Scale up of a novel digital tool to support entomological surveillance for malaria: A multicountry implementation study.
Sponsor: Bill and Melinda Gates Foundation - \$3,499,000
- Ekyaal Diagnostics: Breast Cancer Diagnosis in East Africa
Sponsor: VentureWell (Propel) - \$20,000

CBID STARTUPS SINCE 2009

36



\$50+ MILLION

IN FUNDING RAISED AFTER CBID

OUR PARTNERS

SPECIAL THANKS TO OUR CURRENT AND PAST PARTNERS



A TEAM DEDICATED TO HEALTH INNOVATION AND EDUCATION

38

FACULTY



Youseph Yazdi joined Johns Hopkins in 2009 as faculty in BME and head of CBID. He has 30+ years of experience in early-stage medical device innovation and design. Prior to JHU, he was in Advanced R&D, BizDev, and then Corporate Director, Science and Technology, at Johnson & Johnson. He earned a BS degree in Electrical Engineering from Rice University, MS acoustics, a PhD in Biophotonics from UT-Austin, and an MBA from the Wharton School at UPenn.



Soumyadipta Acharya is an Assistant Professor in the Department of Biomedical Engineering and the CBID Graduate Program Director. He is a physician and biomedical engineer by training. Dr. Acharya was the chief architect of the CBID MSE program including its global health innovation program. His research is focused on global health engineering, especially for the last mile of the health system in low- and middle-income countries.



Kunal Parikh is a serial inventor and entrepreneur working at the intersection of medtech and social enterprise to enable health equity globally. He serves on the faculty of the Center for Bioengineering Innovation & Design and Center for Nanomedicine at JHU, where he leads multidisciplinary teams in creating and commercializing biomedical solutions to significant, unmet healthcare needs. He earned his Ph.D. in Biomedical Engineering from Johns Hopkins University and has been recognized by Forbes 30 under 30 in Healthcare.



Clifford Weiss is a Professor of Radiology, Radiological Science and Biomedical Engineering. He serves as Medical Director of CBID, the Director of the Johns Hopkins HHT Center of Excellence, Director of the Johns Hopkins Vascular Anomalies Center, and Deputy Editor of Interventional Content for the journal Radiology. Dr. Weiss' clinical focus lies in the diagnosis and treatment of vascular malformations. His research focuses primarily on the development of Bariatric Embolization--the development of new embolic therapies and devices.



Ashish Nimgaonkar is a gastroenterologist-scientist and an entrepreneur. He is an Assistant Professor of Medicine, medical director for the CBID program, and adjunct faculty at the JHU Carey Business School. He is the founder & CEO of Glyscend Therapeutics, a venture-funded, clinical-stage company which had its origins in CBID. He graduated from the Harvard-MIT HST program and completed his clinical training at Harvard and Stanford, where he was also a Biodesign fellow.



April Zambelli-Weiner is a Senior Healthcare Leader, Innovator & Entrepreneur with 25+ years of experience in medtech commercialization and translational epidemiology. Having helped to commercialize hundreds of diverse medical products, Dr. Zambelli-Weiner advises healthcare leaders on reimbursement, health economics, and evidence generation to improve speed to patient. Dr. Zambelli-Weiner is founder and CEO of TTI Health Research & Economics, holding leadership positions in national and international non-profits focused on improving healthcare.

FACULTY (CONTINUED)



Marina Rincon Torroella Marina Rincon Torroella, MPH (Johns Hopkins), is a global health advocate advancing equitable healthcare in low-resource settings. With a background in biodesign and physical therapy (Universitat Autònoma de Barcelona), she leads health innovations from design to implementation across global contexts. She directs Global Health Programs at Johns Hopkins CBID, integrating engineering, design, and public health for sustainable impact. Marina also co-founded Vector Control Innovations, a nonprofit tackling malaria and surveillance.



Harshad Sanghvi recently retired as VP and chief medical officer for Jhplego at Johns Hopkins University. He has dedicated his career to assisting 45 countries in adopting evidence-based guidelines, including spending two decades in Kenya to improve healthcare for women. Notably, he developed the single-visit approach for cervical cancer prevention, implemented in 30 countries. Harshad received prestigious awards for his work in preventing postpartum hemorrhage and holds an Honorary Fellowship with the Indian College of Obstetrics and Gynecology.



Susan Harvey is the Vice President of Worldwide Medical Affairs at Hologic Inc. and a medical technology innovator focused on women's health. At Hopkins, she was the Director of breast imaging, with mentoring awards in the School of Medicine, Bloomberg School of Public Health, and in Biomedical Engineering. Currently, Susan is on the Board of Directors for RAD-AID, a global NGO, and Johns Hopkins Biomedical Engineering.

BUSINESS DEVELOPMENT, MARKETING, & OPERATIONS



Aditya Polsani is Director of Business Development at CBID where he manages marketing, recruiting talent, mentoring teams, and corporate partnerships. Over the years, he has held various roles at Johns Hopkins including in Biomedical Engineering, the Brain Science Institute, and Johns Hopkins Technology Ventures where he managed technology incubation, IP management, licensing, and commercialization activities. He also co-founded CBID, Academic Drug Discovery Consortium (ADDC), and Hopkins Biotech Network (HBN).



Terria Hudock is the Senior Administrative Coordinator at CBID where she provides support to the Executive Director, faculty, students, clinicians, and industry partners within the CBID MSE Program. Prior to joining Johns Hopkins in 2025, she held a program coordinator position at Hershey Medical Center in PA.

BUSINESS DEVELOPMENT, MARKETING, & OPERATIONS



Allyson Chiu is a senior majoring in Biomedical Engineering and is most interested in the intersection between business and biotechnology. She is invested in helping companies push out new breakthrough research from labs into patients' hands. As a marketing intern at CBID, she manages social media accounts and engages with students in the studio to create content, supporting their ideas.



Lucy Wu is a senior double majoring in Applied Math and Computer Science, and is invested in exploring how data-driven practices can improve healthcare systems. She is a marketing intern at CBID where she designs flyers and brochures and collaborates to curate social media posts that effectively communicate student innovations to a public audience.



Maia Gillen is a junior majoring in Biomedical Engineering and minoring in Computer Science and Entrepreneurship & Management. She's interested in the intersection of healthcare, tech, and business strategy, and is especially motivated by work that advances healthcare equity. At CBID, she manages social media and helps share the stories of students, startups, and events.



Alexandra Tombleson is a sophomore majoring in Biomedical Engineering and Applied Mathematics and Statistics, pursuing a minor in Entrepreneurship & Management. She is highly interested in entering industry after completing her undergraduates degree, specifically in the field of prosthetics. At CBID, she coordinates the CBID LinkedIn page, and manages social media content creation. She hopes to potentially further the current CBID students by highlighting their work.



Sarah Nune is a sophomore majoring in Biomedical Engineering. She is studying for a career in medical devices and believes that videography and storytelling can inspire others in this field. At CBID, she creates videos to showcase projects, CBID events, and student life.



Emily Zou is a junior majoring in Computer Science and minoring in Visual Arts. She is passionate about the use of technology in creative and meaningful ways. She is a marketing intern at CBID as the Graphic Designer. She helps design posters, brochures, and collaborates with her team to create consistent and engaging content.

SPECIAL THANKS TO CBID ADVISORY BOARD MEMBERS

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WHAT INSPIRED YOU?

42

**SUGGESTIONS,
RECOMMENDATIONS?**

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