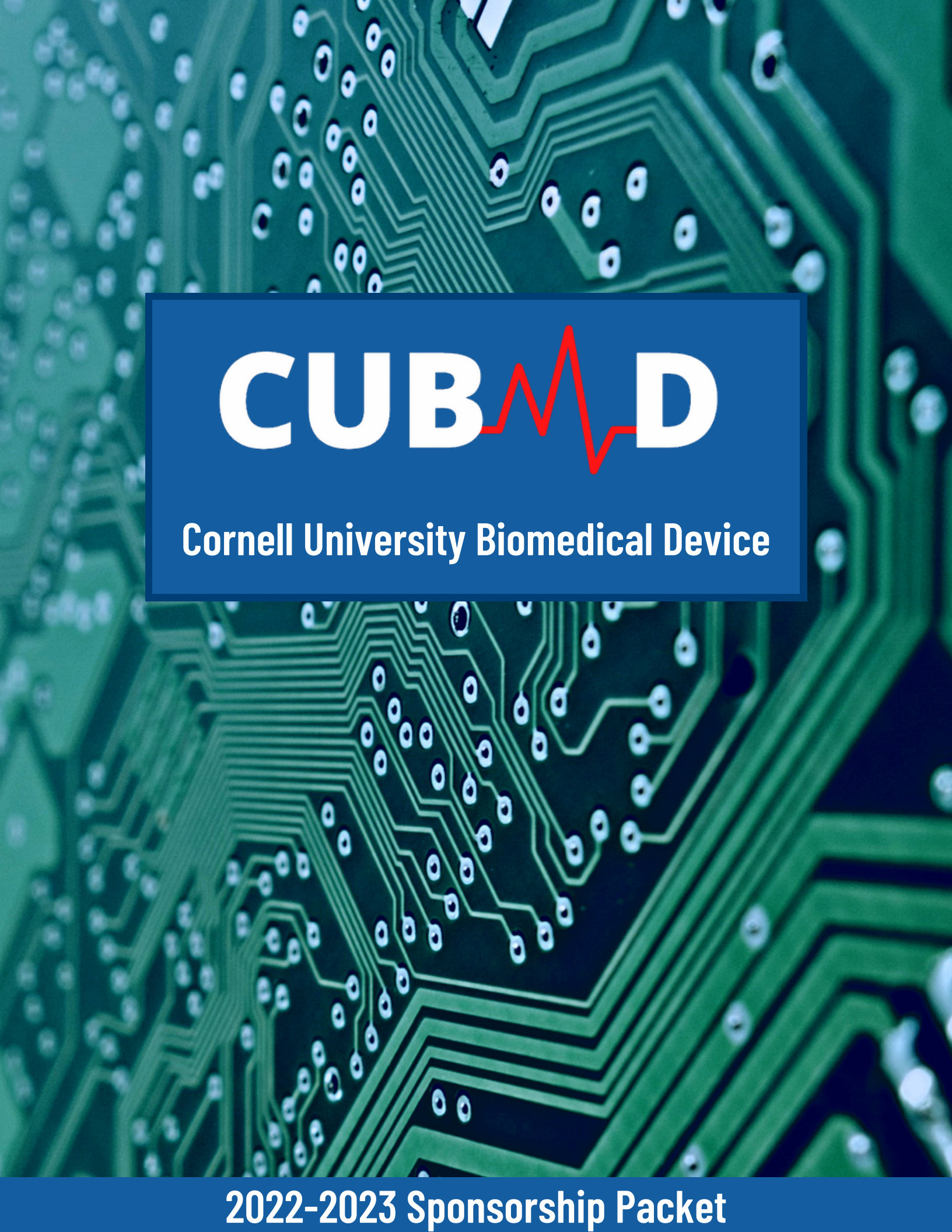


CUBMD

Cornell University Biomedical Device

2022-2023 Sponsorship Packet

LETTER FROM TEAM LEAD

Dear Potential Sponsor,

Thank you for your interest in sponsoring Cornell University Biomedical Device (CUBMD) – an interdisciplinary, student-led project team dedicated to revolutionizing healthcare. Our team was founded in 2019 and currently consists of 36 passionate members, but we are constantly seeking new members who share our vision and dedication to advancing healthcare through innovative technology.

There is a constant need for new and improved biomedical devices to address current gaps in clinical technology and flaws in existing devices. At CUBMD, we strive to pioneer revolutionary health-related technology that will have a direct impact on the future of healthcare. We believe that our approach to inventing products, coupled with our dedication to improving healthcare, sets us apart from other organizations.

Throughout the academic year, we prioritize bringing our devices to multiple high-level competitions. This not only enables us to evaluate the potential success of our designs in the market, but also provides an opportunity to expose our ideas to a wider audience. Our core focus is to create products that address critical needs in the healthcare industry. If we identify a product with the potential to make a significant impact, we will continue refining and developing it. This includes filing for provisional patents, improving the product, and seeking partnerships with corporate sponsors and student entrepreneurship teams. By pursuing this approach, we can ensure that our innovative biomedical devices not only meet high standards of design, but also deliver tangible benefits to the healthcare community.

As a sponsor of CUBMD, you will gain exposure to a large community of students, faculty, and professionals. Your company logo will be prominently displayed on our team apparel, website, information slides, and posters. Our sponsors have already played a crucial role in helping us pursue our ambitions of extraordinary biodesign innovation and engineering. Your support will help us make an even greater healthcare impact for those in need and provide students a critical opportunity to apply knowledge outside the classroom.

We are excited about the opportunity to work with you and believe that our team's dedication, coupled with your support, can lead to the development of groundbreaking biomedical devices. Together, we can create lasting change in the world of healthcare.

Thank you again for considering sponsoring CUBMD.

Sincerely,
Molly Eron

ABOUT US

We are Cornell University Biomedical Device (CUBMD), a multidisciplinary team of undergraduate students unified by our passion for pursuing innovative solutions to the biggest challenges in modern healthcare. Whether we are inventing novel devices or improving the efficiency and affordability of existing ones, CUBMD continually strives to make advances in the world of biomedicine, presenting our devices at competitions and pushing to bring our big ideas to market.

Our Advisor - Dr. James Antaki

Dr. James Antaki is the Susan K. McAdam Professor of Heart Assist Technology at Cornell University's Meinig School of Biomedical Engineering. Professor Antaki's research is centered around the development of blood-wetted medical devices.

Contact Us

cornellbmd@gmail.com

cubmd.org

@cornellbmd

Cornell University Biomedical Device

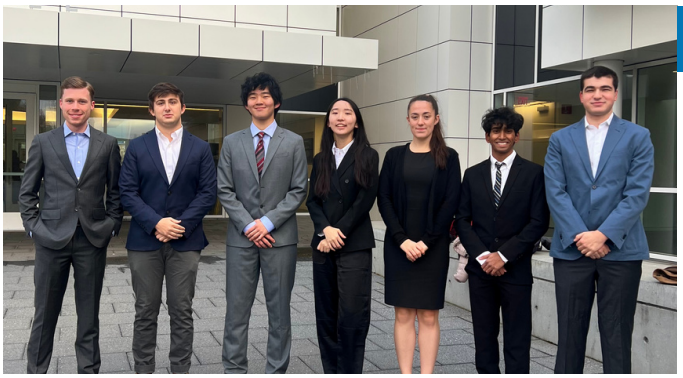
OUR SUB-TEAMS

PRODUCT DEVELOPMENT

The product development sub-team focuses on the construction of our product. This consists of developing prototypes and iterations that improve the efficiency of our devices. Members possess a wide variety of skills including CAD modeling, 3D printing, Arduino protoyping, designing printed circuit boards, and developing user applications that communicate with our device.

OUTREACH AND DESIGN

The outreach and design sub-team is responsible for guiding design proposals and researching clinical needs. Through active conversations and outreach with physicians and technical professionals, the sub-team explores product function and feasibility from a clinical perspective and evaluates how the team's solutions compare with current metrics and practices.



BUSINESS

The business sub-team is responsible for all matters related to business development and research regarding device patentability, reimbursements made by Medicare/Medicaid, estimated manufacturing costs, and identification of potential markets. Business members gain hands-on experience conducting patent research and business analysis for our devices. Business is also responsible for outreach to potential sponsors and other fundraising.

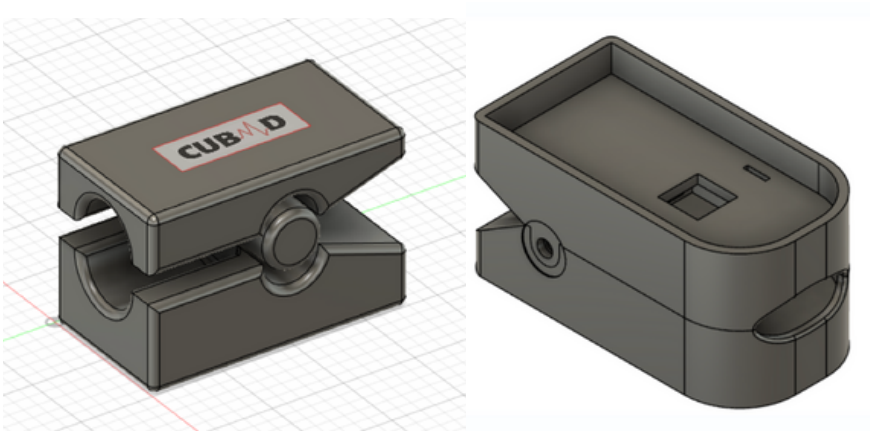
MEDIA

The Media team is composed of graphic designers and web developers. The graphic designers are responsible for managing our social media accounts and designing team gear, as well as preparing flyers, presentations for competitions, and handouts. The webmasters are responsible for managing our team websites, including our general, LinkedIn, and Giving Day pages.

CURRENT PROJECT

MelanOxi

Conventional pulse oximeters are found to overestimate blood oxygen levels in people with darker skin (occult hypoxemia), especially in those who already have low blood oxygen. The overestimation of blood oxygen leads to racial bias and disparity in healthcare outcomes, especially during the COVID-19 era. It prevents sicker people from accessing care and increases the prevalence of target diseases.



MelanOxi takes accurate measurements of blood oxygen, regardless of skin color. Our design features three wavelengths of light and a database for calibrations. The oximeter analyzes the data from the absorption of light from oxygenated hemoglobin (HbO2) and deoxygenated hemoglobin (RHb), which differ significantly at specific light wavelengths. Most basic pulse oximeters only consist of two LEDs and a photodiode, with no capacity to correct for inaccuracies based on skin tone. Thanks to MelanOxi, physicians will be able to reduce racial disparities in the accuracy of diagnostics, guaranteeing all patients equal access to quality care.

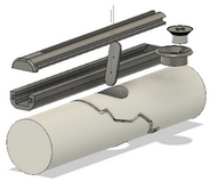
PAST PROJECTS

BruxFree

An over-the-ear Bluetooth device to help users with awake bruxism, a prevalent dental disorder often induced by stress and anxiety. Through the provision of biofeedback on an over-the-ear Bluetooth device, we enable users to go about everyday activity with minimal interference with the ability to track their progress in live time with the convenience of a mobile application.

Engineering Innovation Competition Finalist

FastenPro



Traditionally, orthopedic surgeons use surgical screws to stabilize bone fractures. However, these screws often back out from bone, causing pain and necessitating additional surgery. We designed an insertion device that administers a threaded metal plate to hold the fracture together. This cost-effective mechanism maintains a long-lasting compression force, avoiding the need for follow up surgery to fix backed-out screws.

Create the Future: Top 5 Most Popular Ideas & Top 100 Ideas

ExoGuard

A wearable product which alerts patients about movements that could lead to back sprains or strains. By being informed of their real-time posture and back movements, wearers are able to build good posture habits according to feedback and prevent long-term strain.

Engineering Innovation Competition Finalist

WHY SPONSOR CUBMD?

By sponsoring us, you give CUBMD students the meaningful experience of working together to improve lives and gain real-life capabilities outside of class. This year is especially exciting for us as it is our first year as an official project team! As we expand in size and gain additional support across campus, we hope to pursue more ambitious projects and broaden our reach. Contributions from generous sponsors will allow us to achieve these goals and ultimately amplify our impact on the healthcare industry. Your donation will go towards purchasing components and equipment, as well as training our members in new skills to facilitate device design and production. With your support, we can test-run our projects in the context of a larger market and introduce our capabilities to a wider audience. We hope you consider making a contribution to help us improve the lives of a vast community of patients and providers!

SPONSORSHIP TIERS

Platinum ($1000+)

- Recognition on Team Website
- Large Logo on Team Apparel
- Spotlight on All Social Media Platforms
- Receive Team Resume Book
- Receive CUBMD Merchandise Care Package
- Host a Booth at Our Showcase or Set Up Exclusive Networking Event with Our Team

Gold ($750+)

- Recognition on Team Website
- Larger Logo on Team Apparel
- Spotlight on All Social Media Platforms
- Receive Team Resume Book

Silver ($250+)

- Recognition on Team Website
- Larger Logo on Team Apparel
- Spotlight on all Social Media Platforms

Bronze ($100+)

- Recognition on Team Website
- Small Logo on Team Apparel

HOW TO SPONSOR

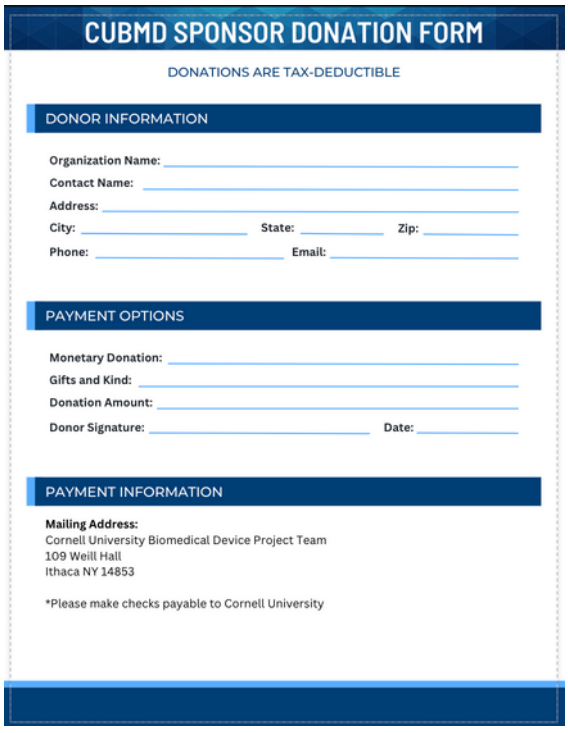
Method 1: Use the CUBMD Gift Fund

You can sponsor CUBMD using our Giving to Cornell page which can be accessed through the QR code or using the following URL:
https://tinyurl.com/givecubmd

SCAN ME

Method 2: Use the Donation Form on the next page

You can also sponsor us using the following form on the next page.



CUBMD SPONSOR DONATION FORM

DONATIONS ARE TAX-DEDUCTIBLE

DONOR INFORMATION

Organization Name: _____

Contact Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

PAYMENT OPTIONS

Monetary Donation: _____

Gifts and Kind: _____

Donation Amount: _____

Donor Signature: _____ Date: _____

PAYMENT INFORMATION

Mailing Address:
Cornell University Biomedical Device Project Team
109 Weill Hall
Ithaca NY 14853

*Please make checks payable to Cornell University

Full form on next page

CUBMD SPONSOR DONATION FORM

DONATIONS ARE TAX-DEDUCTIBLE

DONOR INFORMATION

Organization Name: _____

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City: _____ **State:** _____ **Zip:** _____

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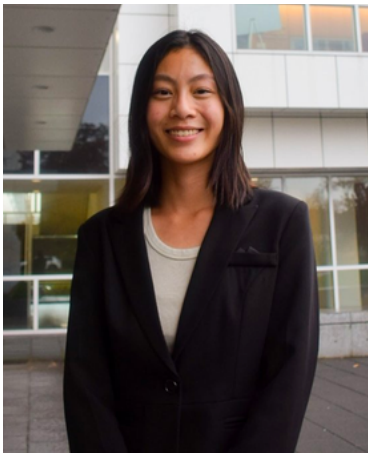
CONTACT US

Molly Eron
Head Team Lead
moe8@cornell.edu

Ashmitha Sivakumar
Product Development Lead
as2736@cornell.edu



Melody Xu
Outreach & Design Lead
myx2@cornell.edu

Ian Luskin
Business Lead
il263@cornell.edu

Jenna Ceraso
Finance Chair
jc2787@cornell.edu

Tej Ramachandrula
Recruitment Chair
tvr5@cornell.edu

Asher Lal
Recruitment Chair
al2333@cornell.edu

Victoria Capobianco
DEIJ Officer
vac63@cornell.edu