



IMPACT REPORT



Dear Forward BIOLABS Community,

For the past five years, we have been on an incredible journey, undertaken together — bringing Forward BIOLABS to fruition and then seeing innovation advance through the work startup companies have performed here. Today, I am thrilled to share our first ever Impact Report, which includes highlights such as:

- 40+ startups have resided at Forward BIOLABS
- \$360M+ has been invested and granted to those companies
- 100% of companies that graduated into their own spaces remain in the greater Madison area

These highlights reflect not just our organizational mission but the influence we've had on the startups, entrepreneurs, and innovators who call Forward BIOLABS their home.

I extend my sincere gratitude to our:

- **Dedicated Forward BIOLABS team.** You do more in a day than some do a in a week. You take on any task, great or small. You are who our scientists and entrepreneurs rely on, and they trust you as I do, with everything their company is made of. *Thank you!*
- **Brilliant innovators.** Where some see problems, you see solutions! Your unending drive through the highs and lows of entrepreneurship to see your scientific breakthroughs become solutions for people everywhere your extraordinary work has my utmost respect.
- Steadfast supporters and partners. Your unwavering commitment and trust have been the driving force behind Forward BIOLABS' success. Together, we have cultivated an environment that nurtures groundbreaking ideas and propels them towards tangible, real-world impact.

As we celebrate these accomplishments, there are fantastic new opportunities on the horizon – to impact more entrepreneurs with our offerings and to grow the recognition of Wisconsin as a hub for young companies. Our collaborative spirit and determination will undoubtedly fuel the next wave of innovations and contribute to the future of Wisconsin's next industry giants.

If you're new to Forward BIOLABS, join our efforts and be part of the impact! For all who have been part of the journey so far, thank you for being an integral part of the Forward BIOLABS community, and cheers to the continued journey of propelling innovation forward!

JESSICA Martin Eckerly, MS, MBA *CEO*, Co-Founder

A message from Forward BIOLABS Board President

Unlike other technology startups that seem to run on wireless internet, bottomless coffee, and pizza, science companies face special barriers. They often require expensive and specialized equipment, intensive technical advice, and greater amounts of capital to navigate regulatory approvals and long product development cycles. The Madison ecosystems needs infrastructure like Forward BIOLABS to help startups do proof-of-concept work, create prototypes, and advance early-stage projects to the point where they can attract additional funding.

While there are many coworking spaces for the average technology startup, there were almost no coworking labs in the Midwest five years ago. When I arrived at University Research Park, I was interested in helping to create one because I recognized that it could reduce the capital required for lab-based startups by a factor of four to twelve.

Thanks to the hard work of the founders, the sponsors, the advisors, and most importantly, the staff team, Forward BIOLABS is a reality today with a great story to tell about its first five years.

Aaron Olver

BOARD OF DIRECTORS













AARON Olver, MA - Managing Director, University Research Park, President of Board of Directors, Forward BIOLABS

ROBERT Drape, MBA - CEO, WiCell; Co-founder, Forward BIOLABS

PAM Christenson - Director - Customer and Community Relations, Madison Gas & Electric

LISA Johnson - CEO, BioForward

TOM Livelli - Vice President - Life Sciences, Promega

MICHAEL Partsch, MBA - Chief Venture Officer, Wisconsin Alumni Research Foundation

TEAM FORWARD BIOLABS



MIKE Polewski, MS Senior Operations Manager



BIANCA Fung, MS Lab Operations Assistant



LAURA Kaiser, Engage Social Media

CHAD Rhodes, Figures First Consulting

Forward BIOLABS is critical to providing early-stage, life science entrepreneurs with an avenue to accelerate their companies, allowing them to utilize their investment capital on product development rather than equipment and operations. Forward BIOLABS, companies are then expanding into developing global partnerships, and delivering long- term economic impact to Wisconsin."

- Nicolas Paris, CEO, Gilson: Key Advisor, Forward BIOLABS



ADVISORS

KEY ADVISORS

Sarah Duellman, PhD - Global Strategic Business Lead - Biotech, Promega

Robert Hougard Jr. - Vice President of Science and Technology, Findorff

Erik Iverson, JD, LLM - CEO, Wisconsin Alumni Research Foundation (WARF)

William Murphy, PhD - Harvey D. Spangler Professor and Director of Forward BIO Institute, UW-Madison

Nicolas Paris, MBA - CEO, Gilson

ADVISORS

Amit Acharya, PhD, MS - Chief Research Officer and System Vice President, Advocate Aurora Health

Kathy Collins - Emeritus Vice President of Economic Development, Madison Region Economic Partnership (MadREP)

Cynthia Czajkowski, PhD - Interim Vice Chancellor for Research and Graduate Education and Professor, UW-Madison

Jason Fields, MS - President and CEO, Madison Region Economic Partnership (MadREP)

Aaron Hagar, MURP - Vice President of Entrepreneurship and Innovation and Sector Strategy Development,

Wisconsin Economic Development Corporation (WEDC)

Charles Hoslet, JD - Vice Chancellor for University Relations, UW-Madison

Ed Javier, MBA, Director - Entrepreneurship and Innovation Program, Wisconsin Economic Development Corporation (WEDC)

Christopher Kozina, MEd - Assistant Vice Chancellor of Industry Engagement and Senior Advisor, UW-Madison

Sara Mann, Vice President - Commercial Excellence/General Manager - North America Branch, Promega

Paul Muench, MArch - Associate Director, University Research Park (URP)

Chorom Pak, PhD - CEO and Founder, Lynx BioSciences (LynxBio)

Katie Rice - Venture Relations Manager, Wisconsin Alumni Research Foundation (WARF)

Paul Weiss, PhD - Managing Director, Venture Investors

TECHNICAL ADVISORS

Jenna Gay - Director of Quality Assurance, WiCell

Michael Hendrickson - Director of Operations, BrainXell

David Rozema, PhD, MBA - Head of Therapeutic Chemistry, Empirico

Seth Taapken, MBA, MS - Director of Operations, WiCell





OUR MISSION

To empower aspiring entrepreneurs by providing a fully equipped and supported laboratory to de-risk technologies, achieve milestones, and grow successful companies.

Forward BIOLABS accelerates the growth of biotech startups by simplifying the process of starting a company in capital intensive industries.

Promega works with incubators around the world, and we are thrilled to see that Forward BIOLABS developed the best-inclass support for entrepreneurs. Based on our involvement with incubators in other entrepreneurial hubs, as well as from Promega's own history of growth after being founded in Wisconsin, we know that a vibrant startup ecosystem is critical to our community, our industry, and to our state. We are all looking forward to continued success for Forward BIOLABS and their member startups."

– Sarah Duellman, Global Strategic Business Lead -Biotech, Promega; Key Advisor, Forward BIOLABS



Forward BIOLABS

HISTORY



FALL 2018

Opened a pilot lab which operated out of WiCell. Forward BIOLABS opened the independent facility in University Research Park

in early 2019.

FALL 2019

With support from founding partners WEDC, Promega, URP, MGE, WARF, and other sponsors, completed remodel and expansion of the facility in University Research Park.

SPRING 2020

Significant effort kept the lab open every day during the pandemic. ensuring startups could continue progress toward milestones.

SUMMER 2023

Wisconsin received Tech Hub designation from the US EDA, where Forward BIOLABS was a component featured in the application.

Forward BIOLABS' unique offerings are designed to break down barriers and help optimize capital efficiency in launching your company effectively.

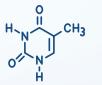
Co-working life science labs and network that accelerates growth.



Expedite Science with Equipped and **Supported Labs**



Cultivate and Build Relationships



De-risk Technologies Efficiently

Six months is a lifetime in biotech. At Forward BIOLABS, it was kind of like an instant lab. We could go in there, start our experiments and hire people without having to build out a lab. This is really going to help accelerate the biotech startup environment."

- Dave Lewis, Director of Research, Empirico

The Wisconsin State Journal





The most flexible, affordable turn-key solution for Startups.



Flexible Turn-Key Lab

Forward BIOLABS' ready-to-go, co-working life science labs and offices are available on a month-to-month basis, which allows rapid and affordable changes such as adding a lab bench or office cubicle.





Startups join via "Membership"

- Month-to-month
- Membership grows as startup grows
- Lab and office options



Office Membership

- Hotel desks with mailing address
- Dedicated desks
- Office cubicles
- Private team rooms



Lab Bench Membership

Dedicated lab bench(es) with defined ambient and cold unit storage, use of all shared equipment and lab amenities. Each lab bench membership comes with:

- Gilson Pipetman, vortexer, minicentrifuge
- Extra ambient shelving
- Dedicated cold unit space: +4, -20, -80, LN2
- Access to all shared lab equipment
- Operational and lab support
- Office amenities
- Trainings
- Collaborative environment
- Networking opportunities
- Connections with our sponsors and partners



Forward BIOLABS' infrastructure,

equipment, and amenities: serving a wide range of notable industries.



Startups at Forward BIOLABS are in Biohealth and Medtech industries



Startups at Forward BIOLABS are in Clean Tech, Ag Tech, and related industries

100% of new startups got a lab bench when they needed it.

Serving Startups from Many Sources

- Spin-outs from the UW
- Startups founded by industry executives
- Startups selecting Madison, Wisconsin from out of state

Earliest Startups Prioritized

- New startups: 0-to-1 bench so scientific work can be initiated immediately
- Growth of current startup members
- When capacity allows, small projects from larger companies

Drug Development

Ag Biotech Medical Device Material Science Gene Therapy

Cancer Diagnostics Research Tools

Cellular Agriculture Cell Therapy Biomaterial Probiotics

> Regenerative Medicine Drug Delivery

> > Cancer Therapy Water Tech Synthetic Biology **DTC** Diagnostics Battery Technology/Energy Storage

> > > Viral Diagnostics



FORWARD BIOLABS'

Fully equipped, maintained, and operationally supported labs allow entrepreneurs to focus on their science and meet their milestones efficiently.

General Lab Equipment

- Benchtop centrifuges, refrigerated
- Gilson Microcentrifuges
- Minicentrifuges
- Fixed angled rotors
- Swinging bucket rotors
- Gilson pipettes (single and multichannel)
- Ovens (gravity and convection)
- Lab fridges
- Lab freezers
- Ultralow freezers
- Powerpacs
- Stir plates
- Hot plates
- Orbital shakers
- Rotators
- Ice machine
- Ultrapure water, on-demand

equipment and facilities has really helped.

- Toby Zutz, CTO and Founder, Gregor Diagnostics

- Automated plate washer

Molecular Biology

- RTaPCR instrumentation
- **Promega** Maxwell RSC (Automated Nucleic Acid Purification)
- Promega Quantus Fluorometer
- Gel electrophoresis
- Gel imaging
- Vacuum concentrators (speed vac)
- PCR thermal cyclers
- **Promega** GloMax (plate reader)
- Protein Transfer
- Denovix DS-11 FX+ (Nanospectrophotometer)
- Electroporation system
- Microbial incubators
- Bacterial, heated orbital flask shaker
- Benchtop autoclave
- Microwave

Forward BIOLABS has been a huge advantage. We raised \$900,000 to start development

work, but outfitting a full lab takes \$250,000, so having access to Forward BIOLABS'

Chemistry

- Lyophilizer
- Acid storage
- HPLC instrumentation
- Dissolution system
- Analytical balance
- Precision balance
- Chemical waste disposal
- Fume hood



- Phase microscope
- Fluorescent microscope
- Biological Safety Cabinets (BSCs)
- CO2 gas manifold with automatic switchover
- Biohazard waste removal
- Vacuum/waste removal
- Mycoplasma testing
- LN2 storage
- **Denovix** Cell Drop (cell counter)
- Controlled rate cryofreezer
- Panasonic CO2 incubators
- Flammable storage



Three Layers Protection for Cold Unit Product

- 24/7 Rees Scientific Equipment Monitoring System
- "On call" duty for alarms
- Back-up power
- Emergency cold units maintained

Safeguarding Cell Cultures

- CO2 manifold
- Automatic manifold switchover
- Extra CO2 capacity
- Manifold switchover alarm
- CO2 safety alarm

Safety Controls

- Safety shower
- Eye washes
- First aid kits
- AED
- Fire extinguishers
- Fire blankets
- Personal protective equipment (lab coats, gloves, eyewear)
- Cleaning solutions
- Security and 24/7 access
- Safety data sheets (SDS) policy

Business Support

- Orientation for new members
- Startup connections with young company-specific info
- Graduation support through move-out
- Real time Q&A
- Guidance on topics such as HR, hiring, funding, etc.

Lab Services

- Equipment tech support, maintenance, repair
- Biological and chemical waste removal
- Lab and office cleaning
- Lab coat laundering
- Promega products specific to member needs
- Specialized, user-specific equipment training
- Safety training
- OSHA Bloodborne Pathogen guidance
- Standard Operating Procedures (SOPs)
- Scientific guidance (e.g., cell culture, chemistry)
- Custom technical assistance
- Certification(s) of key equipment





FORWARD BIOLABS

FORWARD BIOLABS

PROMISE

From the beginning of your startup journey through graduation, our team ensures you have the support you need to flourish.



Membership and Residency Once onboarded, companies receive access

to all of Forward BIOLABS' offerings.

Transition Support

Companies grow their team, advance their technology, and identify their own independent space during their time at Forward BIOLABS. Forward BIOLABS provides information, support, and resources to ensure the transition begins with success.



Graduation and Continued Growth

Companies proceed with their science at Forward BIOLABS until they are able to seamlessly shift the work to their new space. Forward BIOLABS continues to be an advocate and resource as they grow.



Jessica, Mike, and the Forward BIOLABS team are among the strongest advocates for the growth of the biotechnology industry that we have met. Beyond the physical resources that Forward BIOLABS offers, there is also an incredible wealth of knowledge that Jessica and the team bring, coupled with deep institutional experience that is critical for early-stage startups. We are fortunate to have a resource like Forward BIOLABS in our community, which combines scientific excellence and physical resources with a leadership team that genuinely cares about the teams that Forward BIOLABS helps to incubate and is deeply invested in the development of biotech in our community."

- Johnathan Ebben, MD, PhD, CEO and Co-Founder, NanoRed

SUPPORTIVE COMMUNITY



Culture of camaraderie



Networking opportunities



Lunch 'n Learns



On demand business and scientific assistance









Startup success begins with hard work and an innovative team.



CURRENT MEMBER COMPANIES





































GRADUATE COMPANIES





































Activate Fellow - Flux XII, ChloBis Water

Forbes 30 under 30 - ChloBis Water

Product Design of the Year Award - AyrFlo

Equalize Med Tech - AyrFlo

2023 Best Tech Startups in Wisconsin - Elephas

TechCrunch Startup Battlefield - ChloBis Water

gener8tor/g-BETA - Cultured Decadence, Gregor Diagnostics

20 Wisconsin Startups to Watch in 2020 - Gregor Diagnostics

Wisconsin Innovation Awards - Elephas — Winner (biotech category)

Five Health Tech Startups You Should Know - BrainXell, Immuto Scientific, AyrFlo

WEDC We're All Innovating Contest - Cellular Logisitics, Dianomi Therapeutics, AyrFlo, Gentueri — Winners

GMCC's Pressure Chamber - Child Health Imprints, Cultured Decadence, NanoRed — Winners; AyrFlo — Finalist

WTC's Wisconsin Governor's Business Plan Contest - Cold Water Technologies, ChloBis Water — Winners

Creative Destruction Lab, "CDL" - Polymer Forge, AyrFlo, Child Health Imprints

Five Startups From UW with Great Ideas to Protect the Earth - Flux XII, ChloBis Water

The Fi Global Startup Innovation Challenge - Cultured Decadence — Finalist

Baldwin Wisconsin Idea Grant - ChloBis Water







































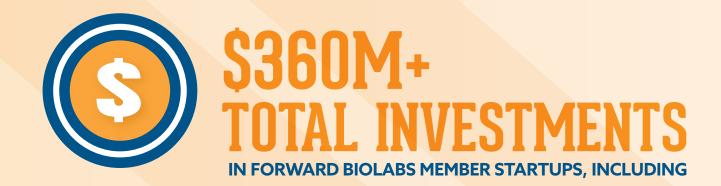








MAKING A DIFFERENCE IN WISCONSIN







COUNTRIES

Data collected via publicly available databases. With roughly 50% of investment details reported, this is an underrepresentation of the true number of firms and locations that have invested into startups at Forward BIOLABS

56+

AWARDS

TOTAL

FEDERAL AGENCIES

AMPLIFYING UW-MADISON'S SCIENTIFIC AND ECONOMIC VALUE



STARTUPS HAVE UW-MADISON CONNECTIONS



70% **STARTUPS ARE UW-MADISON SPINOUTS**



AGREEMENTS BETWEEN UW-MADISON AND FORWARD BIOLABS STARTUPS

CELEBRATING ACQUISITIONS

















Photos by Steve Apps, Wisconsin State Journal

SERVING DIVERSE FOUNDERS AND EXECUTIVE LEADERSHIP



of leaders are an ethnicity other than **Caucasian**



of leaders are women



of leaders were born in a foreign country

Wisconsin to the World:

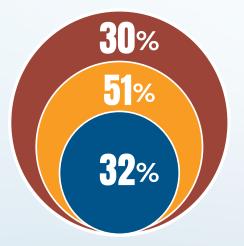
Young companies at Forward BIOLABS have numerous national and global connections.



Map data: ©2024 Google, Maxar Technologies

What's made in Wisconsin stays in Wisconsin

A testament to the state's commitment to excellence and its skilled workforce.



30% hold education from UW-Madison BS/BA, BBA, MS, PhD, MBA, JD, postdoc, residency, and certification.

51% of the founders and executive leaders have received education from UW-Madison

32% of founders and executive leaders hold more than one degree from UW-Madison

10% have degrees from the UW System

WHY STARTUPS CHOOSE WISCONSIN



TALENT



ENTREPRENEURIAL SUPPORT

AFFORDABILITY



Forward BIOLABS is more than just opening doors; it's unlocking pathways to prospects ahead. These routes offer opportunities to spotlight our industry and propel emerging companies onto national and international stages. Forward BIOLABS in Madison is the foundation, not only in enabling founding teams to drive new technologies onward, but in advancing road maps for its own expansion that foster collaborations statewide. Together, with BioForward's strong advocacy, we are shaping Wisconsin's biohealth sector. We're building a future filled with growth and success."

- Lisa Johnson, CEO, BioForward



CASE STUDIES

Landing space for UW spinouts.

For Pls, postdocs, and PhD students commercializing technology from UW-Madison, Forward BIOLABS offers an efficient solution for R&D and a welcoming community. About two-thirds of startups served originated at UW-Madison.



HIGHLIGHTED COMPANIES

BrainXell

Immuto Scientific

Gregor Diagnostics

Cellular Logistics

Cold Water Technologies







Forward BIOLABS is directly addressing the local need for well-equipped and affordable life science laboratory space. We would have had to raise significantly more money to get a laboratory established and our time to product development has been considerably shortened."

- Alex Vodenlich, President & CEO, Cellular Logistics

CASE STUDIES

Serving Start-ups founded by industry executives.

Forward BIOLABS offers entrepreneurs a complete solution to simplify the process of starting a new company.



HIGHLIGHTED COMPANIES

Elephas Bio

Empirico

Polymer Forge

Squire Biosciences









You really ideated and executed on something that by all accounts is and will catalyze substantial growth of biotech here. Perhaps it will emerge over time as the biggest factor in bridging the gap between available IP and capacity to develop it. If I end up with any more ventures, I'll certainly start them at Forward BIOLABS."

- Carter Cliff, Serial Entrepreneur

Launching in **Madison, Wisconsin** from another state.

Cultured Decadence, a cellular agriculture company, created novel methods to make crustacean food products using cell culture and tissue engineering techniques. The founders moved from California, where they were working at startups, to launch Cultured Decadence from Wisconsin.

Upside Foods, a venture-backed company with a valuation of \$1 billion+, acquired Cultured Decadence in 2022.





Forward BIOLABS has all of the expensive equipment that a biotech company needs, but might only use once a week or once a month. That's something that's very unique to Madison. The startup costs for an early-stage biotech company are pretty high, and if it weren't for all the available resources, we probably wouldn't be here in Madison. Without the resources, it would be much more difficult to start a company like we're doing here."

Featured article: Livability.com John Pattison CEO and Co-founder, Cultured Decadence

Establishing a site in Madison, Wisconsin.

Synbiotic Health, an advanced probiotics and prebiotics company, established R&D and commercial capabilities in Madison, Wisconsin to complement existing discovery-focused facilities in Lincoln, Nebraska. The scientific team got started at Forward BIOLABS while their larger facility was being set up.

Synbiotic's leadership noted the established industry and workforce talent in Wisconsin the "the Silicon Valley" of probiotic manufacturing - was a major contributing factor when opening the Madison facility.



Piloting a new business opportunity

Complete Phytochemical Solutions, (CPS), a Cambridge, Wisconsin, company in botanical analytic testing that spun out from UW-Madison, began at Forward BIOLABS to pilot a new assay that required different and additional equipment, infrastructure, and capabilities than their existing lab. Their membership at Forward BIOLABS has allowed them time to test the market before making a decision to bring that service in-house and invest in their own BSL-2 lab expansion.





Validating production for business continuity

Calimetrix, a young company producing quanitative MRI phantoms from UW-Madison, validated Forward BIOLABS as a secondary manufacturing site as part of their business continuity plan, allowing short-term additional capacity for product manufacturing.



Immediate access to equipment, office space, and networking opportunities with other member companies has allowed us to make significant early advances in our biologic research. As a result of these early successes, we are strategizing to build out biologic lab capacity in Cambridge, Wisconsin."

> - Christian Krueger, CEO, **Complete Phytochemical Solutions**



Startups choose Forward BIOLABS for community and sector-specific opportunities.

Startups find use of our office membership while grant writing and fundraising. Some companies grow into utilizing the lab, others value the office and community.



Stark Therapeutics



Often times, entrepreneurs don't quite fit in. We don't belong at the University, and we're not far enough along to have grown our own teams with the culture, community, and space that larger companies have established. This is one of the things that makes Forward BIOLABS so special - it's "home" for those of us early in our startup journey. Forward BIOLABS provides a wonderful community of other founders and startups, it provides their own team who are at the ready to answer questions and to be a sounding board, it provides opportunities to get to know other founders in similar industries with similar challenges, and it provides a physical space in which to conduct my work.

- Guelay Bilen-Rosas MD, Founder and CEO, Ayrflo

Serving small projects for larger companies when capacity allows

Genus, a cutting edge animal genetics company, joined Forward BIOLABS as a sponsor and took up a small presence in the lab to work on an animal genetics project, allowing temporary extra capacity for research and development.

During the early stages of the pandemic, sponsoring company Illumina applied their powerhouse sequencing and array technologies to quickly mobilize a temporary project team that utilized Forward BIOLABS to gather data in the battle against COVID-19.







Having spent part of my career in young companies, I know the challenges firsthand. Supporting Forward BIOLABS is a win-win; we are enthusiastic about the positive impact Forward BIOLABS is having.

- Bill Checovich, Vice President -Operations and Site Leader, Illumina-Madison



Empowering corporate startups to collect early data to support an additional location in Wisconsin.

Established in 2021, VaxThera aims to contribute to the independence of biologicals in Colombia and Latin America by advancing development of vaccines for COVID, Dengue, Chikungunya, Yellow Fever, Influenza, and Zika. They recently initiated R&D operations at Forward BIOLABS in collaboration with their UW-Madison founder.





Edan made a seed-stage investment in a technology developed in Wisconsin, and hoped the technology would kick start a full company site in Wisconsin. With the de-risking data acquired at Forward BIOLABS, they confidently graduated to independent space within University Research Park.



THANK YOU, PARTNERS

We extend our deepest gratitude to our partners. As a 501(c)(3) non-profit, we are incredibly grateful for our founding sponsors; their trust and commitment made Forward BIOLABS a reality. Because of this support, Forward BIOLABS continues to fulfill our mission to make it easier to start a biotech company. With the cornerstones of Forward BIOLABS set, we look forward to advancing our work together to accelerate startup growth in the coming years!

FOUNDING











PLATINUM

















SILVER

















ECOSYSTEM PARTNERS





















If you are new to Forward BIOLABS, it's a great time to get involved! Join our efforts and be part of the impact!





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forwardbiolabs.org

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