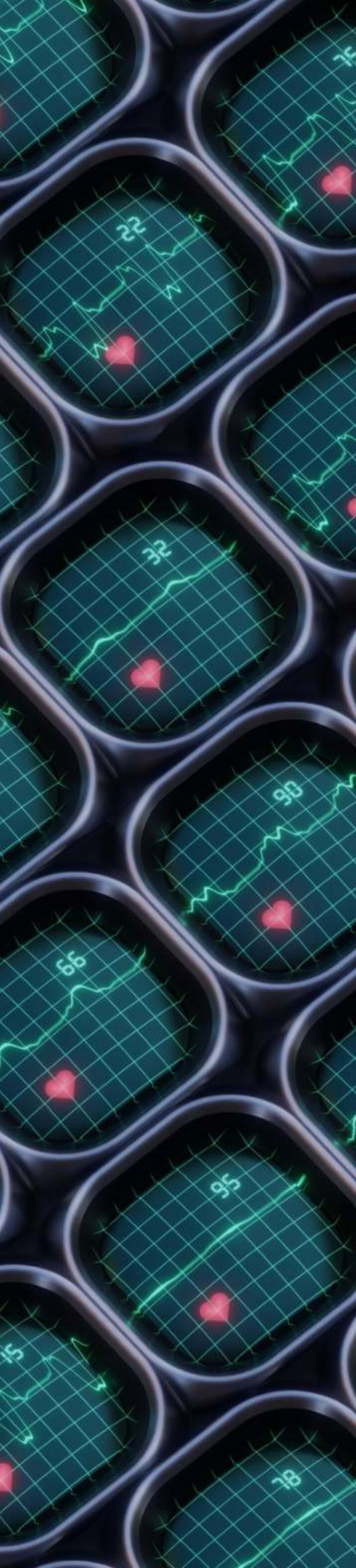




Catalytic Impact Foundation 2023 Impact Report

Accelerating Breakthroughs by Funding
Extraordinary Innovations and Visionary Leaders



Foreword

CIF supports the development of treatments for the world's most challenging health conditions. We invest in top teams working to commercialize cutting-edge science. CIF's mission is to accelerate innovations in life sciences and healthcare by funding companies addressing areas of high unmet medical need... technologies that are saving lives, or dramatically improving them.

Table of Contents

Strategic Initiatives	04
2023 Highlights	05
Launch of the CIF Women’s Health Initiative	06
CIF in the Boston Business Journal	07
Donation from Resonance Philanthropies CIF Advancing Solutions in Areas of Need (Examples)	08
The Companies we Support	09
New Portfolio Company: Raydiant Oximetry	10
Portfolio Company Impact	11
Growth and Success: By the Numbers	12
Portfolio Company News	13-14
Regenerative Philanthropy: Impact in Perpetuity	15

Catalytic Impact Foundation
PO Box 58
Hingham, MA 02043

Strategic Initiatives

1

Addressing the World's Unmet Healthcare Needs

CIF combines the discipline of venture capital with the mindset of philanthropy to invest in companies with transformative technologies.

2

Bridging the Valley of Death

There is a funding gap between grants supporting research and for-profit investment for early-stage companies. Strategically deployed philanthropic capital can help bridge that gap.

3

Catalytic Capital

By investing early, we help attract additional investment. These funds enable critical innovations to progress toward FDA approval.

4

Six Investment Verticals

Investments are focused in areas where need is great but funding is weak, including Children's Health, Rare Disease, Brain/Mental Health, Women's Health, Health Equity, and Aging.

5

Investing in Diversity is Good Business

Diversity drives innovation and CIF actively invests in diverse leadership. This includes companies led by women and other underrepresented leaders developing life-changing healthcare technologies.



2023 Highlights



Investments:

47 portfolio companies
3 investments in 2023
5 exits to date (plus 1 pending)



New Initiative:

Launch of Women's Health Initiative



Portfolio Company CEOs:

49% led by women
40% led by persons of color



Financial Performance:

46% return on investment portfolio
since 2019

Launch of the CIF Women's Health Initiative



“From expanding access to reproductive care to improving women’s cardiovascular health and ending the racial disparities in maternal mortality, we must do everything we can to close the gender healthcare gap. As part of a record wave of women elected to Congress..., these issues are personal. I applaud the work that the Catalytic Impact Foundation is doing to make a difference for women everywhere and I’m proud to be leading the charge here in Congress to put women’s rights and women’s health first.

— Rep. Susie Lee (D-NV)

We were honored to host **Congresswoman Susie Lee (D-NV)**, Co-Chair of the Congressional Caucus on Women's Issues and a member of the Appropriations Committee, and **Elizabeth Garner, MD, MPH**, President of the American Medical Women's Association and a pioneering force in women's health research.

CIF brought together key opinion leaders and passionate supporters, from FDA lawyers to clinicians to policymakers, to discuss the need for innovative solutions that address the unique challenges women face with their healthcare.



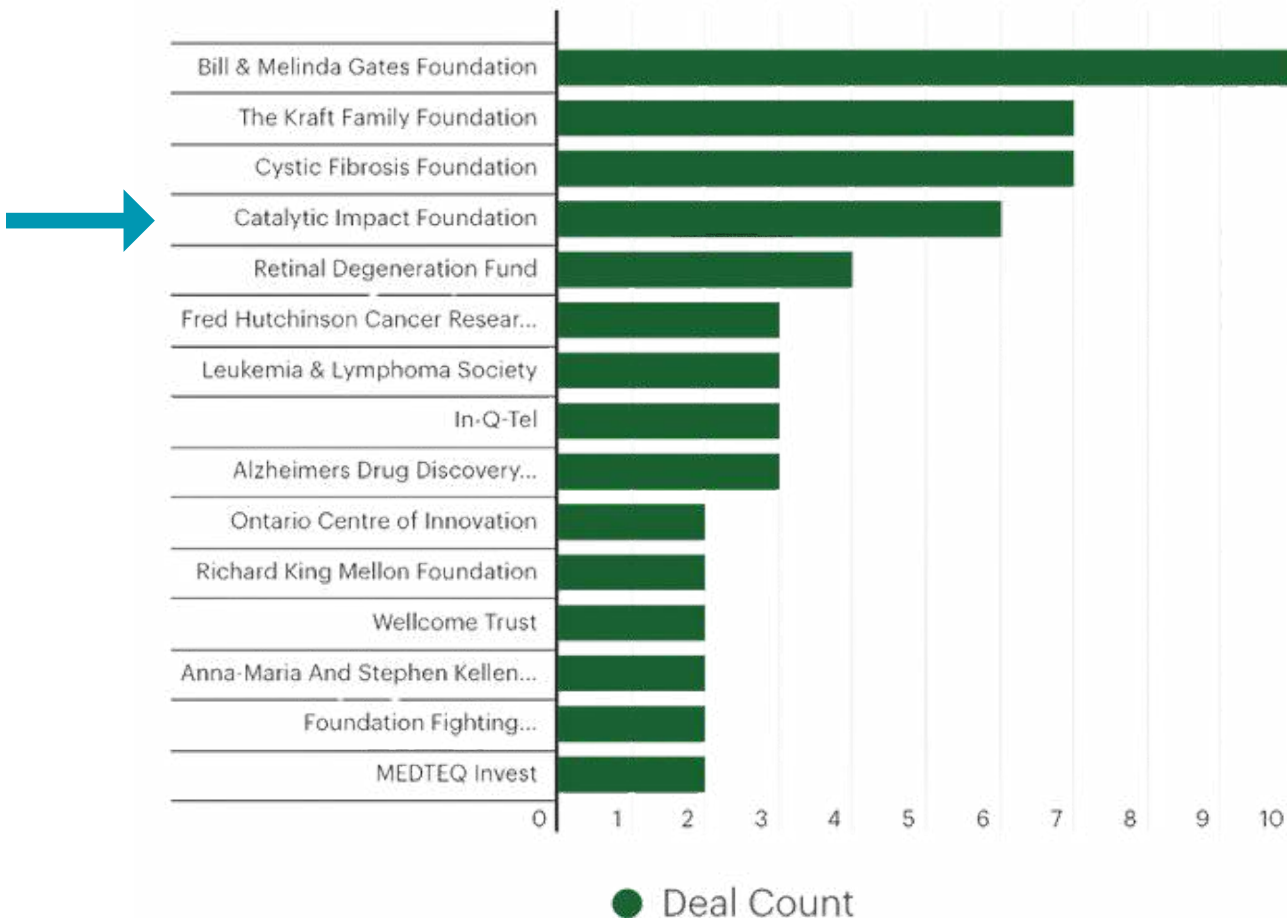
CIF team members touring the Children's National Research and Innovation Campus with Kurt Newman, MD (Former President and CEO of Children's National Hospital)

CIF Featured in the Boston Business Journal

CIF was featured in a story about the increasing importance of venture philanthropy in life sciences/biotech investment. **CIF was recognized as the 4th most active health-focused venture philanthropy investor in New England**, behind the Gates Foundation, The Kraft Family Foundation, and the Cystic Fibrosis Foundation. We are proud to be recognized for our work, and to be in such esteemed company. As our financial returns are reinvested for more impact, in a model we call “regenerative philanthropy”, we look forward to growing our impact over the coming years addressing critical unmet medical needs in children’s health, women’s health, mental health, and more.

[Read article here](#)

Top Nonprofit/Foundation Investors in Massachusetts Biotech



Source: Pitchbook

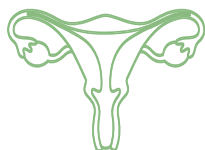
Generous Donation from Resonance Philanthropies

CIF is excited to announce that we have received a follow-on donation of investment capital from **Resonance Philanthropies**, a DAF at Impact Assets funded by **Sheri Sobrato**. The gift will be used to accelerate innovation to address urgent unmet needs in various areas of healthcare where CIF currently focuses.

This gift will be instrumental to CIF as we continue to support early-stage companies that are developing novel, cutting-edge treatments for some of the most challenging diseases where there are limited treatment options.



CIF Advancing Solutions in Areas of Need (Examples)



Outside of Cancer, Women's Health Research gets just 1% of Funding

- **OCON Healthcare** (Abnormal uterine bleeding & heavy menstrual bleeding)
- **AOA Diagnostics** (Ovarian cancer diagnostics)



90% of Rare Diseases have no Cures

- **Lucy Therapeutics** (Rett's Syndrome)
- **Origami Therapeutics** (Huntington's Disease and other neurodegenerative disorders)
- **Applied Therapeutics** (Galactosemia)



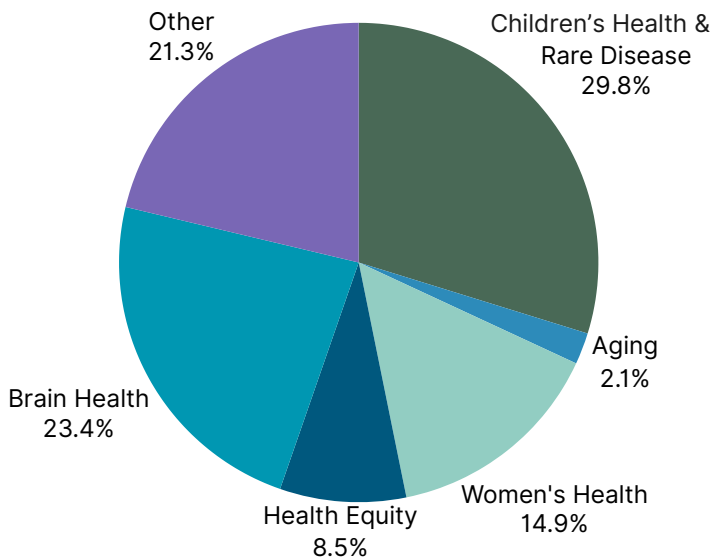
9% of High School Students have Attempted Suicide

- **Alto Neuroscience** (Treatment Resistant Depression)
- **Beckley Psytech** (Treatment Resistant Depression)
- **Ceretype Neuromedicine** (Functional MRI to match effective treatments using personal biomarkers)

CIF's Portfolio Companies

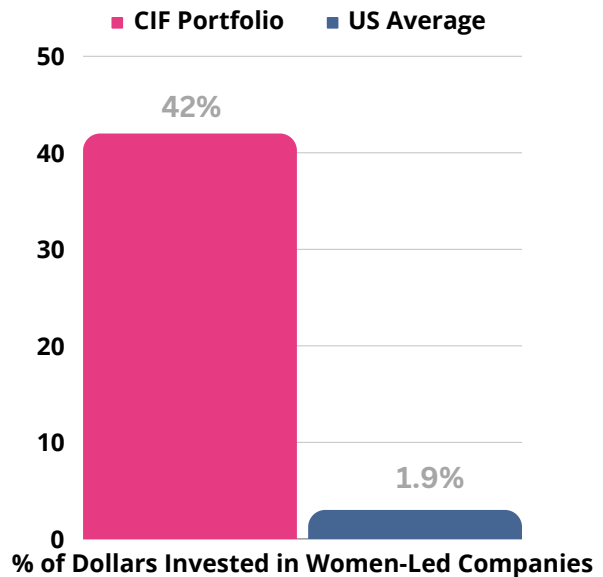
We have invested in 47 portfolio companies across Children's Health, Rare Disease, Aging, Women's Health, Brain Health, and Health Equity.

Areas of Focus



CIF invests primarily in 6 important health verticals where there is high unmet need, and a severe lack of funding. We are particularly committed to funding innovations in Children's Health, Women's Health and Brain health (including mental health).

Women-Led Companies



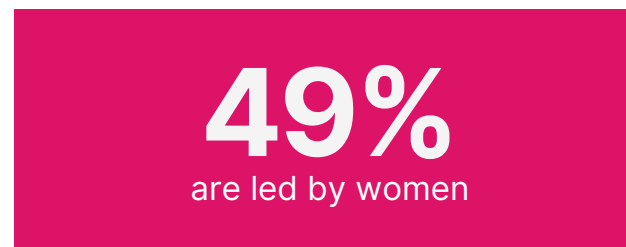
Sources: Pitchbook

Nationally, in 2022, 1.9% of venture capital funds went to companies led by women. CIF is proud that 42% of our investment dollars support women-led companies.

Leadership of CIF's 47 Portfolio Companies:



20 of CIF's portfolio companies are led by persons of color



23 of CIF's portfolio companies are led by women

New Portfolio Company: Raydiant Oximetry

Overview

We are excited to announce our new investment in Raydiant Oximetry, a company that aims to dramatically improve maternal and newborn health outcomes. Raydiant's non-invasive fetal pulse oximeter, **Lumerah**, directly measures the oxygen saturation of the fetus' blood. Lumerah has already been assigned FDA breakthrough status. If successful, it could revolutionize the current standard of care for fetal monitoring during labor and delivery.

The Impact

In the 50+ years of using fetal heart-rate monitoring, obstetrical providers have found it challenging to accurately predict fetal distress during labor and delivery.

This has led to a five-fold increase in Caesarean sections with little evidence that there has been any reduction in neonatal birth injury, stillbirth or cerebral palsy. Pre-clinical studies on Lumerah have shown 95% sensitivity and 84% specificity in detecting fetal distress, in comparison to the lower sensitivity (85%) and very low specificity (29%) associated with traditional fetal heart-rate monitoring.

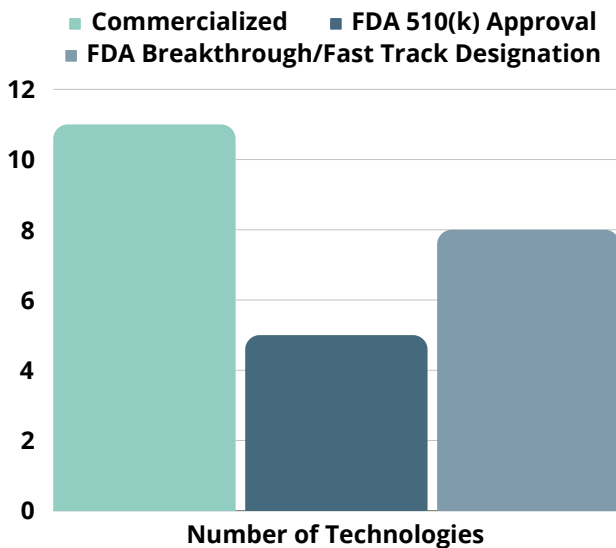
Raydiant Oximetry's Lumerah is intended to be integrated into current monitoring platforms, complementing fetal heart-rate monitoring to reduce emergency c-sections, newborn birth injury and premature birth - indirectly reducing postpartum complications, maternal mortality, and capturing cost-savings for Medicaid and families.



Portfolio Company Impact

Portfolio Company Innovations: Progress toward Commercialization

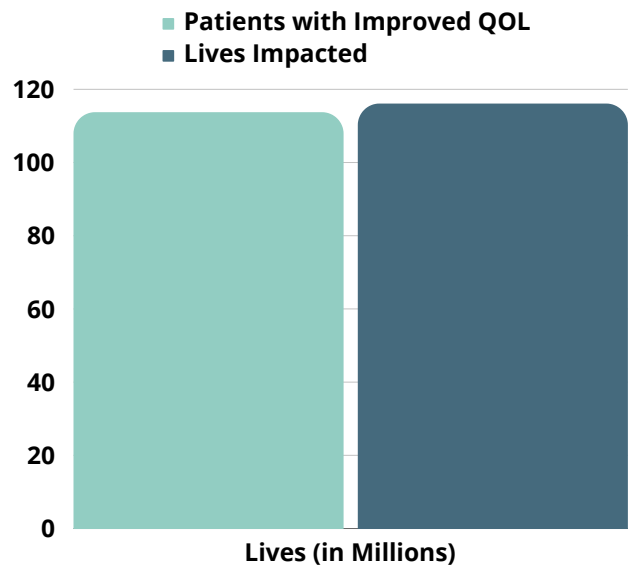
CIF's 47 portfolio companies currently have a combined 94 technologies in development.



- **11** of these technologies have been successfully commercialized and are currently making an impact in patients' lives.
- **5** have received FDA 510(k) approval.
- **8** have received FDA "Breakthrough Status" or "Fast-Track Designation", where the FDA has determined the innovation addresses a serious unmet need and/or promises to be a significant improvement over standard of care.

Potential Number of Lives Saved and Improved

With CIF's focus on Children's Health and Rare Diseases, some innovations will address very small patient populations, which are too often ignored by traditional for-profit funders. However, over CIF's entire portfolio, the innovations will affect a large number of lives.



If all technologies under development are successfully commercialized:

- **> 2.35 million lives could be saved**
- **> 116 million lives could be improved**

Growth and Success: By the Numbers

<p style="text-align: center;">>46% Growth in Portfolio Value</p>	<p>In five years of active investing, the value of CIF’s portfolio has grown substantially through portfolio company growth and five successful exits.</p>
<p style="text-align: center;">3 New Portfolio Companies</p>	<p>In 2023, CIF invested in Starlight Cardiovascular, Raydiant Oximetry and Wavely Diagnostics.</p>
<p style="text-align: center;">94 Technologies in Development</p>	<p>CIF’s portfolio companies are developing innovative therapeutic molecules, therapeutic devices, diagnostics, biologics, drug discovery platforms, and more.</p>
<p style="text-align: center;">>\$1 billion in Additional Capital Raised by Portfolio Companies</p>	<p>Our investments are catalytic. Our early support using risk-tolerant capital helps to validate the companies, and helps them to attract additional capital.</p>

Portfolio Company News

Bicara Therapeutics

Announces an oversubscribed Series B round, raising \$108M to advance dual-action biologics for solid tumor cancers (March 2023)

Bicara Therapeutics is a clinical-stage company developing dual-action biologics for head and neck cancer designed to deliver an immunomodulatory payload directly to the tumor to ramp up immune cell activity, potentially offering long-lasting efficacy.

Alio

Received second FDA clearance for SmartPatch™, a remote monitor for hemoglobin, hematocrit and potassium for dialysis patients (March 2023)

And, Closed on \$18M Series C Funding (December 2022)

Alio is a clinical stage medical technology company that enables precision medicine with realtime data. It is currently developing a technology for dialysis patients which monitors hemodynamic parameters using a small, non-invasive medical device that adheres to the skin.



Stingray Therapeutics

Received IND approval for SR-8451A product, an ENFP-1 inhibitor aimed at activating innate immune response in tumors (April 2023)

Stingray Therapeutics is developing immunotherapies to treat various types of cancer. Their technologies aim to modulate the tumor microenvironment through activating the innate immune response.

Microbion

Granted U.S. patent for inhaled pravibismane for pulmonary infections (April 2023)

Microbion is developing drugs for difficult-to-treat infections, including chronic infections and antibiotic-resistant infections. Their current focus includes developing drugs to treat respiratory infections, foot ulcer infections, and orthopedic implant infections.



Portfolio Company News

Pyrames

Received FDA 510(k) clearance for their Boppli® product to continuously and non-invasively monitor the blood pressure of critically-ill infants (September 2023)

Pyrames is developing a unique sensor platform that provides continuous blood pressure monitoring in a lightweight, comfortable, wireless package. With its paper-thin, flexible sensor and compact wristwatch form factor, it is an alternative to arterial lines and inflatable cuff-based blood pressure monitoring systems.



Epibone

Successfully implanted their lab-grown, personalized bone graft into six patients as part of their Phase 1/2a study with no adverse events, and healing as expected (June 2023)

Obtained FDA approval for their osteochondral product's Investigational New Drug Application (IND) allowing Epibone to begin testing its lab-grown knee cartilage in humans (July 2023).

EpiBone's is developing personalized bone and cartilage solutions to change the orthopedic landscape. Their technology eliminates donor tissue supply constraints. The engineered tissues, sourced from stem cells, begin integrating immediately post-implantation.

AOA Diagnostics

Raised \$17M to expand their ovarian cancer prospective clinical trial and GlycoLocate™ Platform to target a broader range of cancers (October 2023)

AOA Diagnostics is an ovarian cancer diagnostics company looking to develop an early, non-invasive, liquid biopsy blood-test for women with symptoms and suspicion of ovarian cancer. This test would allow earlier diagnosis of ovarian cancer, allowing for earlier and more effective treatment.

Oncoheroes Biosciences

Received Orphan Drug Designation for Dovitinib, their osteosarcoma drug, and will begin clinical trial investigation for volasertib and dovitinib (October 2023)

Oncoheroes Biosciences is a groundbreaking life-science company exclusively focused on new therapies for childhood and adolescent cancer. The discovery and development of pediatric cancer drugs remains underfunded.

Terran Biosciences

Received FDA clearance for their NM-101 platform, the only FDA-approved software used to analyze neuromelanin-sensitive MRI scans (December 2023)

Terran Biosciences is a biotech platform company developing therapeutics (including psychedelic compounds) and drug-design technologies for patients with neuropsychiatric illnesses, including schizophrenia.

Regenerative Philanthropy: Impact in Perpetuity

At CIF, we take the long view. Like gardeners, we know that nurturance takes time. Yet with patience, guidance, experience, and wisdom, we are quietly building a health innovation system - a global community, with intelligence and resources, to create novel solutions to healthcare challenges that have persisted too long. A system that will sustain itself, permanently and ongoingly. In perpetuity. A community of innovators, and leaders, with permanent evergreen philanthropic funds that replenish themselves, harvesting benefits of early investment, and reinvesting those funds in the future. Over time, we know that CIF's garden of innovation will yield great benefits for human health. We welcome you into our garden.





Thank you to all our donors, our team and our advisors!

As we hope you will see from the amazing stories and statistics in this year's impact report, 2023 was an amazing year for CIF. It has been a year of exceptional effort and innovative thinking from every corner of our start-up community, with exciting progress. Founders from our portfolio companies have worked to bring new discoveries from bench to bedside for patients with few options and critical needs. These innovations will reinvent the future of treatment for some of the world's most challenging diseases and conditions, including rare diseases, cancer, and chronic conditions, such as mental health and heart disease.

It is because of your generosity and the hard work of our staff and volunteers that the Catalytic Impact Foundation has been able to invest to spur bench-to-bedside translation of innovative discoveries. Donors like you helped us launch crucial initiatives, such as the Children's Health Fund and the Women's Health Initiative. You have provided us the capacity to invest in bold ideas.

Together, with your continued support, we can forge ahead in our determined effort to develop and deliver meaningful innovations that bring hope and answers to patients and their families. Together, we make innovation possible. Thank you for supporting lifesaving discoveries.

Every dollar counts.

Catalytic Impact Foundation
PO Box 58, Hingham, MA 02043

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cifimpact.org 
giving@cifimpact.org 