

# Social-Impact Investments



**RICHARD  
KING  
MELLON**  
FOUNDATION

VISIONARIES  
WANTED

# The Program

LAUNCHED IN 2021 as part of the Richard King Mellon Foundation's 10-year Strategic Plan, the Social-Impact Investment (SII) program is designed to provide risk capital to early-stage, for-profit ventures that align with one or more of the Foundation's four core program areas, which are: **Conservation**, **Economic Development**, **Economic Mobility**, and **Health & Well-Being**. The initiative utilizes program-related investments, a tool recognized by the IRS that enables philanthropic organizations, such as the Foundation, to invest in for-profit companies to advance their philanthropic mission.



# Social-Impact Investments: By the Numbers

54

Companies Funded

\$17.4  
MILLION

Total Invested

\$300k

Average Check Size

THE FOUNDATION typically makes 12 to 15 investments annually via the SII program, ranging from \$250,000 to \$500,000 per investment. The target companies are generally raising pre-seed or seed rounds of financing, though the Foundation will consider bridge rounds or later-stage opportunities where appropriate.

Companies receiving Foundation funding can be located anywhere in the United States, so long as the impact of the Foundation's investment accrues to Allegheny and/or Westmoreland counties in Pennsylvania. The lone exception to that rule is Conservation, the Foundation's one national program area. The impacts of investments in conservation-focused companies can be anywhere in the United States.

To build awareness of the program, the Foundation has hosted three SII Pitch Competitions since 2021. However, applications for Foundation investments can be submitted at any time, through the Apply page on the Foundation's website ([rkmf.org](http://rkmf.org)).

The Social-Impact Investment program is flexible by design: there are no matching requirements; the Foundation can lead or participate in a funding round as it deems appropriate; and there are no requirements for board participation, either with voting rights or as an observer. This flexibility allows the Foundation to invest with a focus on the impact of each company's innovative product, service, or technology.

Key Industries:

Software

Hardware

Manufacturing

Life Sciences



# Social-Impact Investments: Portfolio Companies

## Social-Impact Investments: Portfolio Companies

### **CONDUCTION** / Pittsburgh, PA

[www.conduction.live](http://www.conduction.live)

Enabling students to compose digital songs, then see them come to life performed by local musicians or their own classmates

**September 2024**    **\$265,000**    Pre-seed

**Economic Mobility**

### **DOORS UNHINGED** / Pittsburgh, PA

[doorsunhinged.com](http://doorsunhinged.com)

Pioneering the sale of reclaimed building products back into the commercial sector

**September 2024**    **\$265,000**    Pre-seed

**Conservation**

### **MONEYSTACK** / Pittsburgh, PA

[www.moneystack.com](http://www.moneystack.com)

Provides a financial counseling platform that helps people recover from gambling addiction

**September 2024**    **\$265,000**    Pre-seed

**Health & Well-Being**

### **NETRAMIND INNOVATIONS** / Pittsburgh, PA

[netramindinnovations.com](http://netramindinnovations.com)

Comprehensive AI-powered ophthalmic data analysis, screening and prediction

**June 2024**    **\$250,000**    Pre-seed

**Health & Well-Being**

### **REACH NEURO** / Pittsburgh, PA

[reachneuro.com](http://reachneuro.com)

Neurotech to directly restore shoulder, arm and hand movement for stroke survivors

**June 2024**    **\$350,000**    Seed

**Health & Well-Being**

### **HARVIE FARMS** / Pittsburgh, PA

[www.eatharvie.com](http://www.eatharvie.com)

Local-first online grocery store that offers a direct connection to the people who grow and produce your food

**March 2024**    **\$450,000**    Seed

**Conservation**

### **KORION HEALTH** / Pittsburgh, PA

[www.korionhealth.com](http://www.korionhealth.com)

Electronic stethoscope empowering people to do at-home heart and lung screenings

**March 2024**    **\$200,000**    Pre-seed

**Health & Well-Being**

### **LEAFICIENT** / Pittsburgh, PA

[www.leaficient.com](http://www.leaficient.com)

Leveraging state-of-the-art artificial intelligence to generate novel “plant vital signs,” enabling growers to diagnose health conditions and optimize growing environments to improve agricultural productivity

**March 2024**    **\$250,000**    Seed

**Conservation**

### **LOANBYE** / Pittsburgh, PA

[www.loanbye.com](http://www.loanbye.com)

Integration software to bring student loan repayment benefits to a broader marketplace

**March 2024**    **\$300,000**    Pre-seed

**Economic Mobility**

### **MARINUS ANALYTICS** / Pittsburgh, PA

[www.marinusanalytics.com](http://www.marinusanalytics.com)

A tech company dedicated to protecting vulnerable communities by utilizing AI to combat human trafficking, child exploitation, and adjacent crimes

**March 2024**    **\$400,000**    Series A

**Economic Mobility**

### **PEOPLES ENERGY ANALYTICS** / Pittsburgh, PA

[www.peoplesenergyanalytics.com](http://www.peoplesenergyanalytics.com)

Eliminating energy poverty through reducing unpaid energy bills, while improving revenue recovery in energy utilities

**March 2024**    **\$500,000**    Seed

**Health & Well-Being**

### **REZQ BIO** / Pittsburgh, PA

[rezq.bio](http://rezq.bio)

Advancing clinical and preclinical assets to treat Type 1 Diabetes and other localized inflammatory diseases

**March 2024**    **\$400,000**    Seed

**Health & Well-Being**

## Social-Impact Investments: Portfolio Companies

### **TROUTWOOD** / Pittsburgh, PA

www.troutwood.com

Conflict-free financial planning and investment education platform

**March 2024**      **\$300,000**      Seed

**Economic Development**

### **NOMA AI** / Pittsburgh, PA

noma.ai

Bringing the power of artificial intelligence and predictive patient monitoring to the bedside

**December 2023**      **\$250,000**      Pre-seed

**Health & Well-Being**

### **PEPTILOGICS** / Pittsburgh, PA

peptilogics.com

Revolutionizing the discovery process for novel peptide therapeutics for patients with serious and life-threatening diseases

**December 2023**      **\$425,000**      Series B

**Health & Well-Being**

### **BIOHYBRID SOLUTIONS** / Pittsburgh, PA

biohybridsolutions.com

Developing and delivering safe and effective biologic drugs to patients everywhere

**October 2023**      **\$250,000**      Seed

**Health & Well-Being**

### **FOREST DEVICES** / Pittsburgh, PA

forestdevices.com

Creating fast, accurate, and easy stroke detection tools that anyone in the care pathway can use

**October 2023**      **\$350,000**      Series A

**Health & Well-Being**

### **GUS GEAR** / Pittsburgh, PA

gusgear.net

Improving the safety and quality of life for those facing medical challenges

**October 2023**      **\$500,000**      Seed

**Health & Well-Being**

### **GRIDWISE** / Pittsburgh, PA

gridwise.io

Leveraging data to make gig drivers' lives and jobs more productive and fulfilling

**June 2023**      **\$500,000**      Series B

**Economic Development**

### **HEART INPUT OUTPUT** / Pittsburgh, PA

www.heartio.ai

digital diagnostic using AI to empower clinicians to identify cardiovascular disease quickly and accurately

**June 2023**      **\$300,000**      Series A

**Health & Well-Being**

### **SIGNATURE DIAGNOSTICS** / Pittsburgh, PA

signaturedx.com

Genomics research company developing noninvasive tests that identify diseases and medical conditions in their early/silent stages

**June 2023**      **\$400,000**      Series A

**Health & Well-Being**

### **ADVANCED OPTRONICS** / Pittsburgh, PA

advancedoptronics.com

Augments surgeon perception with real-time sensor feedback to assist during delicate and life altering surgeries, starting with cochlear implant surgery to address hearing loss

**April 2023**      **\$350,000**      Pre-seed

**Health & Well-Being**

### **CIVIC CHAMPS** / Carmel, IN

www.mentoringworks.com/

Volunteer and Mentor Management Platform for nonprofits to streamline data collection and enhance on-going engagement

**April 2023**      **\$700,000**      Seed

**Economic Mobility**

### **LOOPED SOLUTIONS** / Hermitage, PA

www.ohanalink.com/loopedsolutions

Redefining how we interact and communicate by providing safe, engaging, and personalized connection through our innovative platforms

**April 2023**      **\$250,000**      Seed

**Health & Well-Being**

## Social-Impact Investments: Portfolio Companies

### **MODULE DESIGN** / Pittsburgh, PA

www.modulehousing.com

Helping developers succeed with modular construction

**April 2023**      **\$1,000,000**      Series A

**Economic Development**

### **PRECISION NEUROSCOPICS** / Pittsburgh, PA

www.precisionneuroscopics.com

Developing medical technologies with a focus on equity by focusing on the end user, their families, and medical staff to increase access and reduce costs

**April 2023**      **\$400,000**      Seed

**Health & Well-Being**

### **CODEJOY** / Pittsburgh, PA

www.codejoy.org

Igniting a new generation of creators by eliminating barriers and inviting everyone, everywhere in the world to explore robotics and coding

**December 2022**      **\$150,000**      Seed

**Economic Mobility**

### **TELLING.AI** / Pittsburgh, PA

telling.ai

Telehealth platform analyzing voice and breath sounds to assess lung health

**December 2022**      **\$500,000**      Series A

**Health & Well-Being**

### **ELEMENT EXO** / Pittsburgh, PA

elementexo.com

Exoskeletons providing a more secure lifting technique, increased energy levels, and improved employee retention

**December 2022**      **\$400,000**      Seed

**Economic Development**

### **EQUA HEALTH** / Pittsburgh, PA

equahealth.io

Transforming lives through evidence-based mindfulness training

**December 2022**      **\$250,000**      Seed

**Health & Well-Being**

### **RESILIENT LIFESCIENCE** / Pittsburgh, PA

www.resilient.bio

Combating overdose with wearable technology

**December 2022**      **\$500,000**      Pre-seed

**Health & Well-Being**

### **SUSTAINABLE COMPOSITES** / Lancaster, PA

sustainablecompositesllc.com

Technology to upcycle finished leather scrap into a new leather material creating supply chain circularity while reducing CO<sub>2</sub>

**December 2022**      **\$300,000**      Series A

**Conservation**

### **VELO** / Pittsburgh, PA

www.velo.ai

Mobility tech, starting with an AI-powered bike light and camera designed to keep you safer on your ride

**December 2022**      **\$300,000**      Seed

**Economic Development**

### **WELLY** / Pittsburgh, PA

www.wellybottle.com

Highly functional and fashionable drinkware that helps our environment

**December 2022**      **\$250,000**      Series A

**Economic Development**

### **MINDTRACE TECHNOLOGIES** / Pittsburgh, PA

mindtrace.com

A clinical decision-making tool that helps neurosurgeons preserve and predict their patients' cognitive functions during awake brain surgery

**October 2022**      **\$350,000**      Pre-seed

**Health & Well-Being**

### **GREEN RIBBON LIBRARY** / Pittsburgh, PA

greenribbonlibrary.com

Short, engaging, and medically accurate videos to help your students manage the challenges of young adulthood

**June 2022**      **\$250,000**      Pre-seed

**Health & Well-Being**



## Social-Impact Investments: Portfolio Companies

### **ECOTONE RENEWABLES** / Pittsburgh, PA

[www.ecotonerenewables.com](http://www.ecotonerenewables.com)

Making sustainable food and agriculture systems more accessible and prevalent outside the industrial scale

**June 2022**      **\$350,000**      Series A

**Conservation**

### **HARDLY** / Pittsburgh, PA

[hardly-work.com](http://hardly-work.com)

AI career tools that enable collaboration between career staff and job seekers and speed up the job application process

**June 2022**      **\$250,000**      Seed

**Economic Development**

### **WELL BRIDGE HEALTH** / Pittsburgh, PA

[www.wellbridgehealth.com](http://www.wellbridgehealth.com)

Connected health management company offering a unique hi-tech hi-touch model significantly lowering healthcare spend and improving self-management

**June 2022**      **\$400,000**      Seed

**Health & Well-Being**

### **HONEYCOMB CREDIT** / Pittsburgh, PA

[www.honeycombccredit.com](http://www.honeycombccredit.com)

Unlocking growth opportunities for small businesses to build vibrant, financially empowered communities

**April 2022**      **\$350,000**      Series A

**Economic Development**

### **OPTIMUS TECHNOLOGIES** / Pittsburgh, PA

[www.optimustec.com](http://www.optimustec.com)

A comprehensive suite of technologies that make environmental sustainability financially and operationally successful for heavy-duty diesel fleets

**April 2022**      **\$250,000**      Series B

**Conservation**

### **BEHAVIOR** / Pittsburgh, PA

[www.behavior.com](http://www.behavior.com)

Democratizing addiction and mental health recovery using AI, behavioral health tech, and wearables for crisis aversion and mental health support

**December 2021**      **\$200,000**      Seed

**Health & Well-Being**

### **BOSWELL** / Boston, MA

[www.boswell.io](http://www.boswell.io)

Trusted technology and wraparound service partner for food pantries and social service organizations

**December 2021**      **\$200,000**      Seed

**Health & Well-Being**

### **DISSOLVES** / Pittsburgh, PA

[www.dissolves.com](http://www.dissolves.com)

Closing the gap left by current packaging by introducing our convenient, dissolvable, natural packaging

**December 2021**      **\$150,000**      Acquired

**Conservation**

### **FABRIC HEALTH** / Philadelphia, PA

[www.fabrichealth.com](http://www.fabrichealth.com)

Helping busy families where they already are — at the laundromat

**December 2021**      **\$500,000**      Series A

**Health & Well-Being**

### **FARM TO FLAME ENERGY** / Pittsburgh, PA

[ftfenergy.com](http://ftfenergy.com)

Providing scalable, end-to-end electricity generation systems for communities in emerging markets

**December 2021**      **\$200,000**      Seed

**Conservation**

### **LUMIS CORP** / Pittsburgh, PA

[lumiscorp.com](http://lumiscorp.com)

Harnessing the power of augmented reality (AR) and establishing a new paradigm for healthcare training

**December 2021**      **\$200,000**      Seed

**Health & Well-Being**

### **NUMOOLA** / Pittsburgh, PA

[numoola.com/](http://numoola.com/)

Family banking app that combines real money with financial literacy to help young families understand how the financial decisions they make impact their bottom line

**December 2021**      **\$200,000**      Seed

**Economic Mobility**



## Social-Impact Investments: Portfolio Companies

### **PHRQL** / Pittsburgh, PA

phrql.com

Enterprise personalized meal planning for health systems, supermarkets, and institutions

**December 2021**    **\$150,000**    Seed

**Health & Well-Being**

### **BRIGHTWAY HEALTH** / Pittsburgh, PA

www.brightwayhealth.org

Providing remote therapeutic monitoring software and computer vision to enable scalable management of physical health

**December 2021**    **\$200,000**    Pre-seed

**Health & Well-Being**

### **RUBITECTION** / Pittsburgh, PA

rubitection.com

Skin health assessment and care management, re-imaged and innovative

**December 2021**    **\$200,000**    Seed

**Health & Well-Being**

### **SAFE SPACE TECHNOLOGIES** / Pittsburgh, PA

www.safe-space.us

Meeting the demands of today with intelligent and efficient disinfection solutions

**December 2021**    **\$200,000**    Pre-seed

**Health & Well-Being**

### **TOYZ ELECTRONICS** / Pittsburgh, PA

tozelectronics.com

Upskilling and providing tangible pathways and resources to diverse students enhanced by AI

**December 2021**    **\$150,000**    Pre-seed

**Economic Mobility**

### **TREK GUM** / Pittsburgh, PA

trekgum.com

Plastic-free chewing gum with functional ingredients in every chew

**December 2021**    **\$100,000**    Pre-seed

**Health & Well-Being**

The background is a solid teal color. Scattered across it are several white, semi-transparent geometric shapes, primarily triangles and quadrilaterals, some pointing towards the center and others pointing outwards, creating a dynamic, abstract pattern.

# **Social-Impact Investments: Select Company Profiles**

# BioHybrid Solutions

“This could be a game changer” in the fight against cancer.”

**Laura Benjamin**

President and Chief Executive Officer of BioHybrid Solutions



## Creating “Biological Missiles” with Fewer Side Effects

INSIDE A LOW-SLUNG BUILDING tucked under a highway overpass in Sharpsburg, a small group of scientists believe they are on the verge of a breakthrough in the fight against cancer.

BioHybrid Solutions is deploying its advanced chemistry platform to create injectable drugs that will target only cancer cells and spare healthy cells.

“I think we have the opportunity to make some really exciting drugs that no one else can make,” said Laura Benjamin, President and Chief Executive Officer of Biohybrid Solutions. “This could be a game changer.”

Benjamin said the company has a proprietary method of targeting cancer cells using polymer-based technology

developed in a laboratory at Carnegie Mellon University.

The Richard King Mellon Foundation invested \$250,000 in BioHybrid Solutions so the company can develop the drugs and conduct clinical trials, to advance their work and to help to secure other investors. The investment is part of the Foundation’s Social-Impact Investment program, where the Foundation invests in for-profit companies with a social mission that aligns with the Foundation’s philanthropic goals.

The traditional way of fighting cancer through chemotherapy stops cancer cells from dividing, but also prevents other cells throughout the body from regenerating. That can lead to debilitating side effects such as hair loss, blood and gut problems.

# BioHybrid Solutions *continued*

The past two decades have given rise to a new class of drugs called antibody-drug conjugates or ADCs, in which chemotherapy drugs are attached to antibodies, allowing them to latch specifically on to cancer cells. ADCs are sometimes called “biological missiles” because they take the chemotherapies only to the cancer and spare the rest of the body.

But there have been limitations in the use of ADCs, including their potency. A breakthrough in the technology came recently when scientists attached eight small molecules of cancer-fighting drugs, instead of two, increasing its effectiveness.

Benjamin believes the technology at BioHybrid will allow scientists to attach a hundred or more small molecule chemotherapies to an antibody, greatly increasing the effectiveness of treatment.

“I’m dedicated to precision medicine, which means not just having a good drug, but knowing which patients to give it to. It’s one of the most important things in the world to me.”

“We are going to build something that looks like a bottlebrush,” she said. “The bristles of that brush attach to small-molecule chemotherapies, and that bottlebrush is attached to an antibody. In essence the antibody will drag that bottle brush tail directly to the cancer where the small molecule chemotherapies will do their job.”

Benjamin said this technology would reduce risk to patients. If one of hundreds of the tiny cancer-fighting molecules falls off of the bottlebrush, it won’t cause significant damage to the body.

The company’s new focus on oncology drugs is a pivot from concentrating only on contracts with the Department of Defense to create drugs that protect soldiers from chemical warfare agents. “I am very proud of that work,” she said. “It will continue.”

Benjamin long has used her scientific and entrepreneurial skills for medical advancements. After earning a degree in biology at Barnard College, Columbia University, and a doctorate in molecular biology at the University of Pennsylvania, she became associate professor of pathology at Harvard Medical School. In 2009, she became a vice president in oncology at Eli Lilly and Company. In 2018, she became CEO and President of OncXerna Therapeutics, a company that develops therapies for oncology patients.

In February 2024, Benjamin became President and CEO of Biohybrid Solutions, where she is proud to be part of an all-female leadership team with co-founder and Executive Vice President Antonina Simakova and COO Becky Wolfe.

Most cancer patients face a race against the clock, and she wants to make sure they get the most effective treatment from the onset.

“I’m dedicated to precision medicine, which means not just having a good drug, but knowing which patients to give it to. It’s one of the most important things in the world to me.” ■

# Ecotone Renewables



“I see us scaling up to become the much-needed monster gobbling up all the food waste in the world.”

**Dylan Lew**

Chief Executive Officer and Co-Founder of Ecotone Renewables

## Turning Food Waste into Soil Sauce

DYLAN LEW WALKS UP TO A SHIPPING CONTAINER and pulls on a drop-box handle where people dump their leftover french fries, half-eaten salads and other food waste.

In go the food scraps. Out comes “Soil Sauce,” an organic plant fertilizer that is a healthy byproduct of all that waste.

What doesn’t come out of the ZEUS digester system is methane, a gas that leads to global warming and accounts for 8 percent of global emissions just from rotting food waste alone.

Lew, the 25-year-old Chief Executive Officer and Co-Founder of Ecotone Renewables, and his friends in college came up with the digester system as a way to lessen food waste, enrich soil and divert harmful carbon gas from the atmosphere.

“I’m an impatient person,” said Lew, a Carnegie Mellon University materials engineering graduate. “Food waste is such a big global problem.” About 40 percent of all food is tossed out before consumption, a startling figure that not only wastes resources but also harms the environment.

The Pittsburgh-based startup has five digester systems in the field, at locations ranging from the Pittsburgh International Airport to Allegheny General Hospital.

The Richard King Mellon Foundation made a \$350,000 investment in Ecotone Renewables to help scale to five anaerobic digester systems while improving local soil health and supporting underserved communities. This initial investment helped anchor future investment rounds so they

# Ecotone Renewables *continued*

can continue to scale up. The third iteration of the digester is called ZEUS.

The investment is part of the Foundation's Social-Impact Investment program, which provides capital to mission-driven, for-profit companies to enable them to develop products and services that address societal issues.

Ecotone works with the Greater Pittsburgh Community Food Bank and 412 Food Rescue to make sure any salvageable food goes to people in need.

"They are both incredible organizations that are the frontlines trying to redistribute food before it gets wasted," Lew said. "I see us as the safety net for food that is already spoiled when it comes to them, and we can sustainably process."

The company, which sells its Soil Sauce, also donates the fertilizer to community gardens and farmers, and hires local artists such as Juliandra from PBJ Customs, who painted a vibrant mural on the front of one of the systems where people throw their food waste.

The company helps the environment by preventing the costly and fuel-guzzling process of transporting food waste to landfills, while also cutting back on methane and other harmful gasses.

"We're up to about 180,000 pounds of food waste diverted to date. That's equivalent to about 25,000 big, mature trees diverting carbon for us," Lew said.

Living up to its sustainability ethos, the company uses the gas it collects to power the system and keep it heated throughout the year.

The inside of the trailer is filled with pipes, controls, a grinder that pulverizes food and a tank that mimics the process of human digestion by breaking down food anaerobically. Ecotone has two patents pending.

## The company helps the environment by preventing the costly and fuel-guzzling process of transporting food waste to landfills.

Lew collaborated with fellow Carnegie Mellon University, University of Pittsburgh and University of Michigan students on the company's early inception as Pittsburgh's first portable farm. This first system used fish waste to feed nutrients to the greenhouse plants on top of the fish tank system. Realizing the process was better suited to a large scale, they pivoted to the digester model, launching the first system in 2019. Lew is joined by Co-Founders Kyle Wyche and Elliott Bennett who are leading the company as COO and CFO respectively.

A foodie who loves to go to restaurants and cook himself, Lew said he enjoys talking to chefs about the digester. Ecotone already has leased one to a vegan restaurant chain in Rhode Island called Plant City and is talking to another national restaurant chain in California.

Lew, the impatient green entrepreneur, is thinking globally. "I see us scaling up to become the much-needed monster gobbling up all the food waste in the world." ■



# Fabric Health



## Meeting People Where They Are — in Laundromats

“People are just sitting there, and they can’t make the chore go any faster. You have this rare idle time that other chores don’t have.”

**Courtney Bragg**

Co-Founder of Fabric Health

WHEN COURTNEY BRAGG goes to work, she hangs out at a laundromat, where she often sees harried mothers, kids in tow, lugging a week’s worth of dirty clothes inside.

After offering to help load the laundry into the washer, Bragg will ask if the family has any health-care needs.

Bragg, Co-Founder of Fabric Health, has found the two-hour wait for clean clothes to be the ideal time to connect people of

low incomes to the health-care resources they often have trouble accessing, such as finding health insurance, accessing their benefits, finding affordable medication, and scheduling appointments. Leveraging that insight has become Fabric Health’s business.

“People are just sitting there, and they can’t make the chore go any faster,” she said. “You have this rare idle time that other chores don’t have.”

Bragg and Co-Founder, Allister Chang, won first place and a \$500,000 investment from the Foundation’s Pitch Competition. The prize money will enable the Philadelphia-based company to expand to Pittsburgh.

“We work with busy families,” Bragg said. “When you are low-income, you have to wait for public transit or a health-care clinic. A family who works shift work and has child-care duties might not have flexibility to make a doctor’s appointment in advance. It puts an incredible burden on families.” ■



# Contact

Bobby Zappala  
Program Officer  
[bzappala@rkmf.org](mailto:bzappala@rkmf.org)  
TELEPHONE 412.392.2800

For general inquiries about  
the program and application  
process, please email:  
[rkmf@rkmf.org](mailto:rkmf@rkmf.org)