PATHWAY TO CURES

NATIONAL **BLEEDING DISORDERS** FOUNDATION

Venture Philanthropy Fund Report

A status report on the Pathway to Cures (P2C) portfolio of companies and founders we support through evergreen equity investing as of December 1, 2025.

Pathway to Cures demonstrates the potential of venture philanthropy to transform the landscape of bleeding disorders research. Guided by the National Bleeding Disorders Foundation's (NBDF) mission to advance innovative treatments and ultimately cures for inheritable blood and bleeding disorders, Pathway to Cures unites scientists, sound investment strategies, and mission-driven investors to accelerate disruptive treatments through the development pipeline. In 2025, we continued building a solid foundation of strong partnerships, funding pioneering research, exploring new collaborations, and supporting novel technologies that have potential to transform care with maximum impact.

This report details some of the breakthroughs that our portfolio companies achieved in 2025. They are discovering new ways to reduce bleeding through neurostimulation; to harnessing B cells for protein production; and developing lipid-based delivery systems to utilizing RNA to manage coagulation. Each portfolio company shares the same goal as NBDF: better treatments, reduced patient burden, and ultimately, a better quality of life.

We hope you are as inspired as we are by the achievements of Pathway to Cures. With your partnership, we can work together to ensure that every dollar moves us closer to sustainable, accessible solutions for all people affected by inheritable blood and bleeding disorders.

With gratitude and resolve,

Philip M. Gattone

NBDF President and CEO

The National Bleeding Disorders Foundation Venture Fund, LLC, d.b.a. Pathway to Cures, accelerates breakthroughs for treatment and cures for inheritable blood and bleeding disorders.

We are committed to mission-driven investing in innovative technologies while building long-term sustainability through investment returns.

The fund's operational tempo has been steady and deliberate. Since 2023, we've made five investments: Anvesana, Spark Biomedical, Be Biopharma, Seawolf Therapeutics, SeraGene Therapeutics, plus follow-on funding for Spark. A sixth investment in Afimmune is pending.

Our support extends beyond financial investment. We maintain an active dialogue with Pathway to Cures portfolio companies, connecting them with scientific and clinical experts, as well as respected legal and consulting professionals, to complement their needs as they do the work needed for our community.

The process of sourcing deals is robust and global in scope. Since operations began in 2023, we have reviewed more than 220 opportunities and participated in over 150 virtual and in-person meetings. Referrals pour in from our Board, Scientific Advisory Group, and Investment Committee, augmented by connections with venture capitalists, other philanthropic funds, and attendance at top-tier industry events. Founders with visionary ideas also seek us out, enriching our pipeline and broadening our reach. We seek relationships with technology transfer offices at leading universities, uncovering groundbreaking discoveries that align with our interests, an important window on the earliest emerging solutions.

Guided by the expertise and global reach of our scientific and investment professionals, with lean operations and a small fund for investment, we maintain a diverse and meaningful portfolio, anchored by rigorous scientific standards and focused on areas of greatest unmet need.

Looking ahead, we are committed to expanding our partner network, sharing deal flow with experienced co-investors, and remaining vigilant in our pursuit of ventures with meaningful impact potential. Importantly, we continue to connect with donors who share our vision for the bleeding disorders community.

Sincerely,

Teri Willey

Pathway to Cures, Managing Director and Officer

$3.5 MM
funds under management

220+
companies reviewed

5
portfolio (investee) companies

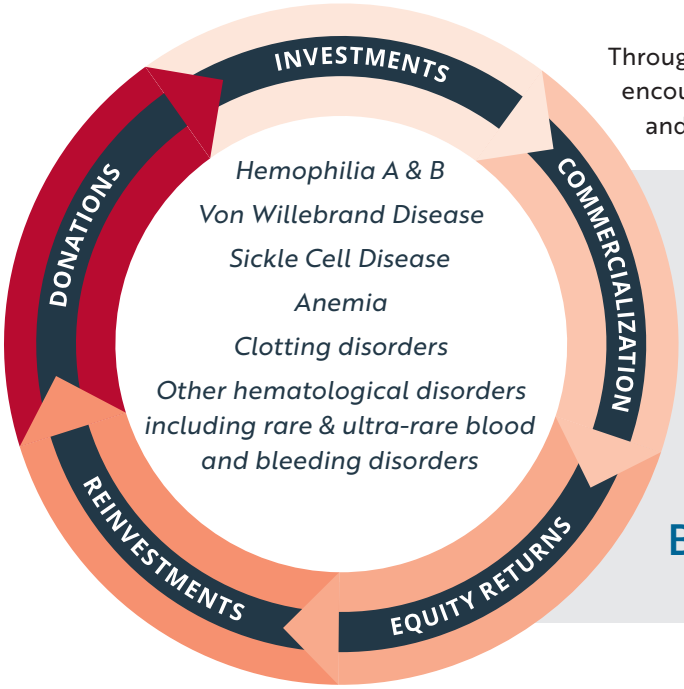
$165.73 MM
raised by portfolio companies (In rounds with P2C)

$3.35 MM
invested & committed

1
portfolio company (pending investment)

**all numbers as of December 1, 2025*

Today's investments fuel tomorrow's breakthroughs



Through investment and partnerships, Pathway to Cures encourages early stage biotechs to leverage their innovations and therapeutic platforms for the benefit of our community.

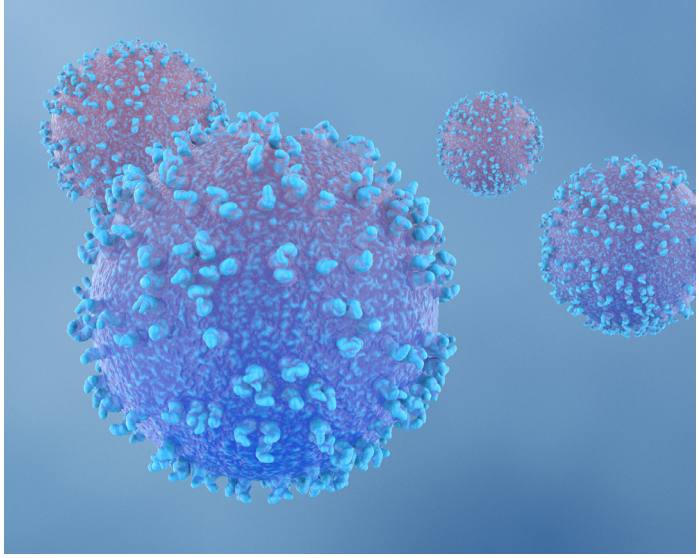
By reinvesting proceeds from investments back into the Fund, P2C will amplify investment impact, support promising companies, and build a portfolio of investments that further the mission of the National Bleeding Disorders Foundation.

SeraGene THERAPEUTICS	SEAWOLF THERAPEUTICS
APPROACH: RNA technology targeting and controlling proteins involved in clotting	**APPROACH:** Non-viral mediated platform for genetic medicines designed to be durable and redosable
STRATEGIC AREA: Long-lasting therapies that reduce the burden of treatment by precisely modulating the body's natural clotting proteins to restore normal blood function across several different bleeding disorders	**STRATEGIC AREA:** Non-viral mediated DNA delivery genetic medicines for inheritable diseases including bleeding disorders
P2C FUNDING IMPACT: Treatment of bleeding disorders including VWD with a focus on women's health	**P2C FUNDING IMPACT:** Treatment of bleeding disorders including hemophilia A & B with potential for additional rare bleeding disorders
DATE OF INVESTMENT: August 2025	**DATE OF INVESTMENT:** January 2025
be BIOPHARMA	SPARK BIOMEDICAL OhmBody FiveLiters
APPROACH: Engineered B-cells as a novel approach to cellular medicine	**APPROACH:** Non-invasive vagus nerve stimulation
STRATEGIC AREA: Engineered B-cell medicine for the treatment of inheritable bleeding disorders	**STRATEGIC AREA:** Non-invasive medical device for the treatment of bleeding disorders
P2C FUNDING IMPACT: Treatment of bleeding disorders including hemophilia B	**P2C FUNDING IMPACT:** Von Willebrand disease and women with heavy menstrual bleeding
DATE OF INVESTMENT: October 2024	**DATE OF INVESTMENT:** October 2023
ANVESANA	Afimmune
APPROACH: RNA-sequence target identification	**APPROACH:** Synthetic fatty acid small molecule
STRATEGIC AREA: Small molecule therapeutics for treatment of inheritable bleeding disorders.	**STRATEGIC AREA:** Oral small molecule for treatment of inheritable blood disorders
P2C FUNDING IMPACT: Factor XI deficiency and women with hemophilia	**P2C FUNDING IMPACT:** Treatment of sickle cell disease and thalassemia
DATE OF INVESTMENT: September 2023	**DATE OF INVESTMENT:** Pending

Pathway to Cures (P2C), is an affiliate of the National Bleeding Disorders Foundation and is registered as a non-profit with 501(c)(3) status. As a venture philanthropy fund, neither management nor donors to P2C will receive capital distributions. Profits from investments made by P2C will be returned to the organization to further advance the mission.

Portfolio Spotlight

BIOPHARMA



Be Biopharma is engineering B cells to produce therapeutic proteins naturally within the body, offering a potential long-term alternative to traditional gene therapy. Pathway to Cures invests in this innovative approach to help speed the development of durable, transformative treatments for people with bleeding disorders.

What is BE-101?

BE-101 is a new type of cell therapy. It is created by taking a patient's own B cells, altering them to produce factor IX using gene editing, and then re-introducing them back into the patient's body, where they will potentially make enough factor IX to enable sustained levels of FIX and reduce annual bleeding episodes. This approach would greatly reduce the burden on the patient of multiple infusions associated with current therapies.

Why B cells?

B cells are the body's protein-making factories, producing thousands over a long period of time. Gene editing can now be used to alter B cells to produce specific therapeutic proteins. This has resulted in a new class of cellular medicines called engineered B cell medicines, or BCMs, that have the potential to be durable, can be made using donor cells (allogenic), are re-dosable, and can be given without needing to use chemotherapy or immunosuppression.

What is different about it?

This therapy for hemophilia B is given in a way that is better for the patient. In many cell or gene therapies, patients must undergo chemotherapy or immunosuppression first. This innovative approach doesn't require this, making it less toxic, safer, and more comfortable for the patient. Pathway to Cures strives to invest in and support new approaches to curative therapies for inheritable blood and bleeding disorders. Be Biopharma's innovative approach is an example of this.

The clinical trial:

BeCoMe-9 is a two-part, multi-center, first-in-human Phase 1/2 clinical trial. In the first section of the trial, a small group of adults with moderate to severe hemophilia B will receive gradually increasing amounts of BE-101 to find the safest and most effective dose. Once that dose has been established, more participants will be added in the second phase of the trial. After receiving the therapy, all participants will be monitored for safety and clinical activity for approximately 52 weeks. For more details see www.clinicaltrials.gov under NCT identifier: NCT06611436.

NBDF's venture philanthropy fund Pathway to Cures is fortunate to be in good company with top tier investors in Be Biopharma, supporting innovation on behalf of our bleeding disorders community. Be Bio was founded in October 2020, and is backed by ARCH Venture Partners, Atlas Venture, RA Capital Management, Nextech, Alta Partners, Longwood Fund, Bristol Myers Squibb, Takeda Ventures, Seattle Children's Research Institute, Pathway to Cures and others to re-imagine medicine based on the power of engineered B cells.

Learn more at **https://be.bio/**

Portfolio Spotlight

SPARK BIOMEDICAL

FiveLiters OhmBody

Pathway to Cures' investment in Spark Biomedical is an example of how we foster the development of innovative approaches to healthcare access and unmet medical needs in the blood and bleeding disorders community.

Spark Biomedical's hemostasis division, FiveLiters, builds on 20 years of research at the Feinstein Institutes for Medical Research in vagus nerve stimulation and hemostasis, coupled with Spark Biomedical's FDA approved non-invasive neurostimulation device.

Spark Biomedical's first clinical studies for bleeding disorders are encouraging. When participants used the device for 60 minutes two times per day each day of their period, the result overall was 50% less blood loss and 20% shorter periods. Cramp pain severity was also significantly reduced. The trial, the results of which were published in Frontiers in Medicine in October, 2025, included 16 participants:

- 8 participants with von Willebrand disease (VWD) type 1 and heavy menstrual bleeding
- 8 participants with heavy menstrual bleeding of unknown cause

VWD type 1 is one of the most prevalent inheritable bleeding disorders in the world as well as being often undiagnosed and overlooked, limiting access to treatment. Likewise, alternative safe and effective treatments for heavy menstrual bleeding are also needed as the current drug and hormone treatments are not sufficient for many people, and many seeking help for this type of abnormal bleeding are not taken seriously by their health care providers.

To support our community now, Spark Biomedical has launched a wellness brand, OhmBody, with a product designed to improve menstrual symptoms from heavy menstrual bleeding to cramping, mood swings, menstrual brain fog, and gastric upset. Spark Biomedical will continue their FDA clinical trials to develop additional products for bleeding disorders over the next few years.

In August, 2025, Spark was selected by Wellcome Leap an awardee of "The Missed Vital Sign" worldwide program. The goal of the program is to demonstrate that routine recording, quantifiable measurement, and better treatment options for menstruation can reduce the time it takes a woman to get effective treatment for heavy menstrual bleeding from 5 years to 5 months – without increasing unwanted surgical intervention or menstrual cycle suppression.

Spark Biomedical will use the funding from the award to launch a decentralized nationwide pivotal clinical trial assesing the safety and efficacy of transcutaneous auricular neurostimulation for treating heavy menstrual bleeding; including women with VWD.

NBDF shared the news of this new technology through an NBDF Wednesday Webinar May 28, 2025 "A New Era of Menstrual Care: The Revolutionary Sciences of Wearable Neurostimulation" discussing the science and clinical studies supporting the use of non-invasive vagus nerve stimulation to manage heavy menstrual bleeding.

Spark Biomedical Publishes First Peer-Reviewed Trial Showing Wearable Device Reduces Heavy Menstrual Bleeding

Pilot study demonstrates over 50% reduction in menstrual blood loss and improved symptoms using non-invasive, drug-free therapy.

Read the full article at **https://www.frontiersin.org/journals/medicine/articles/10.3389/fmed.2025.1664433/full**

Learn more at **https://www.ohmbody.com/**

Portfolio Spotlight

SeraGene THERAPEUTICS

SeraGene Therapeutics is developing a new direction for treating bleeding and clotting disorders. SeraGene's technology fine-tunes gene expression, potentially offering safer, more flexible, and longer-lasting therapies.

SeraGene Therapeutics is a pre-clinical stage biotechnology company that develops RNA-based and nanomedicine therapies to treat blood coagulation disorders, such as bleeding disorders and thrombosis. They are working on long-lasting therapies that reduce the burden of treatment by precisely modulating the body's natural clotting proteins to restore normal blood function and improve patient quality of life, particularly for women with bleeding disorders and those with rare blood disorders.

SeraGene uses proprietary RNA technology to suppress or enhance the expression of specific genes needed for coagulation. To deliver this technology, they use lipid nanoparticles (LNPs) – tiny carriers that transport the RNA directly to liver cells. The RNA-LNP therapies localize to the liver, modulating protein expression to restore normal clotting function. This approach is designed to provide advantages over traditional treatments, including greater precision and a reduced need for frequent dosing.

SeraGene Therapeutics is a spin-out from the Versiti Blood Research Institute in Wisconsin and the Center for Blood Research at the University of British Columbia and supported by the Nanomedicines Innovation Network in Canada. The Vancouver-based company has received numerous accolades, including being named a "Company to Watch" at the 2024 Life Sciences BC Awards and winning the $3,000 Coup de Coeur prize at Sweet Pharma Day in 2024. It was a finalist in the 2025 Lily Grand Challenge.

Learn more at **https://www.seragenetx.com**

About Pathway to Cures

Pathway to Cures (P2C) is the venture philanthropy fund of the National Bleeding Disorders Foundation created to accelerate the development of cures across all inheritable blood and bleeding disorders.

In collaboration with other organizations, P2C invests in innovative therapies and technologies, leveraging the deep resources and scientific community relationships of the National Bleeding Disorders Foundation. By reinvesting proceeds from investments back into the Fund, P2C will amplify the investment impact, support promising biotech companies, and build a portfolio of investments that further the mission of the National Bleeding Disorders Foundation.

For more information, visit *www.pathwaytocures.org*.

About National Bleeding Disorders Foundation

The National Bleeding Disorders Foundation (NBDF) is dedicated to finding cures for inheritable blood and bleeding disorders and addressing and preventing these disorders' complications through research, education, and advocacy, enabling people and families to thrive.

In collaboration with other organizations, P2C invests in innovative therapies and technologies, leveraging the deep resources and scientific community relationships of the National Bleeding Disorders Foundation. By reinvesting proceeds from investments back into the Fund, P2C will amplify the investment impact, support promising biotech companies, and build a portfolio of investments that further the mission of the National Bleeding Disorders Foundation.

To learn more, visit *www.bleeding.org* and follow NBDF across social media

@nbd_foundation

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