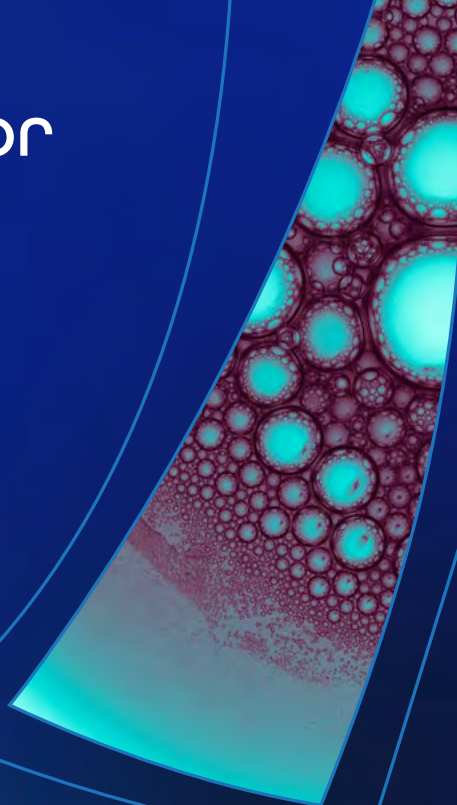




bioGenerator
The Startup Arm of BioSTL



BioGenerator Startup Connect

September
11-12, 2025



bioStl
At the Center of U.S. Bioscience

BioGenerator Startup Connect

Welcome to the inaugural BioGenerator Startup Connect. We are thrilled to bring together more than a dozen of St. Louis's most promising startups in human health and agriculture from our portfolio of over 80 active companies alongside a select group of leading investors from across the country.

St. Louis is home to one of the nation's most vibrant innovation communities - from world-class research institutions like WashU and the Donald Danforth Plant Science Center to innovation districts like Cortex and 39 North. Our region has become a hub where scientists, entrepreneurs, and investors collaborate to transform ideas into thriving companies.

Since 2001, our parent organization, BioSTL, has laid the foundation for the region's life science innovation economy with transformational programs (from public policy to global convening) that elevate St. Louis' leadership in solving important world challenges in human health and agriculture.

BioGenerator Ventures, the startup arm of BioSTL, creates and builds St. Louis start-ups with funding, talent, and space. Over the last 20 years, BioGenerator has invested nearly \$50 million to help launch over 130 companies. These companies have gone on to raise over \$2.95 billion in follow-on capital from more than 200 global investors and have created thousands of jobs in St. Louis. More than 200 companies have operated from our lab and office space at the BioGenerator Labs in Cortex and the Helix Center in 39 North.

The startups presenting at BioGenerator Startup Connect span a wide range of the life sciences - therapeutics, diagnostics, medical devices, digital health, agtech and research tools and services. Over the next two days, you'll hear from visionary startup founders, and academic, government, and venture leaders, connect with peers, and explore opportunities to partner with and invest in the next generation of human health and agtech startups in St. Louis. We're excited to launch this annual gathering and look forward to the collaborations that will emerge.

Thank you for joining us for the inaugural BioGenerator Startup Connect. We're proud to welcome you to St. Louis, BioSTL, and BioGenerator Ventures.



James McCarter, MD, PhD

Senior Managing Director, BioGenerator Ventures
Senior Vice President, BioSTL
Adjunct Professor of Genetics, WashU Medicine

BioGenerator Ventures creates, builds, and invests in St. Louis companies that are solving important problems in **human health** and **agriculture**.

BioGenerator provides startups with **funding**, **space**, and **talent**.

80+

Active
Companies,
20 exits

>\$49.6M

Invested

>\$2.95B

Follow-on Capital

56:1

Leverage

84%

Capital
from outside
of St. Louis

>200

Global and
strategic
investors

>200

Companies
housed in
BioGenerator
Labs in Cortex
& Helix Center
in 39 North

1000s

Jobs created
in St. Louis

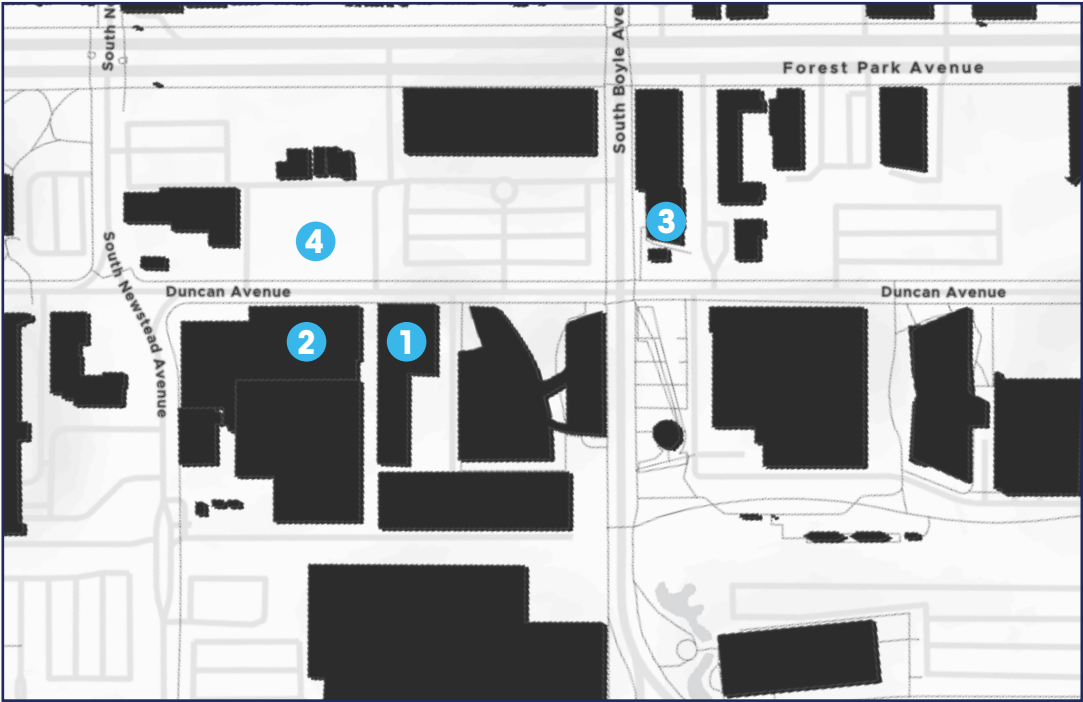
VENUES



BioSTL, Home of BioGenerator Ventures



WashU Medicine Jeffrey T. Fort Neuroscience Research Building



- 1 BioSTL, Home of BioGenerator Ventures**
4340 Duncan Ave., St. Louis, MO 63110
- 2 WashU Medicine Jeffrey T. Fort Neuroscience Research Building**
4370 Duncan Ave, St. Louis, MO 63110
- 3 Vicia**
4260 Forest Park Ave., St. Louis, MO 63108
- 4 Event Parking**
North of WashU Medicine Jeffrey T. Fort Neuroscience Research Building

AGENDA

Thursday, September 11, 2025

- 12:00-1:00 ● **Registration & Lunch**
Lobby, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
- 1:00-2:00 ● **Welcome & Keynote**
Auditorium, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
Jim McCarter, MD, PhD, Senior Managing Director BioGenerator Ventures
Doug Frantz, PhD, Vice Chancellor for Innovation and Commercialization at WashU
- 2:00-3:10 ● **Excite Talks**
Auditorium, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
 - » **Andrew Barnell**, Geneoscopy (Diagnostics)
 - » **Lu Alleruzzo**, Immunophotonics (Therapeutics)
 - » **Susan Martino-Catt**, Solis Agrosiences (Agtech & Research Services)
 - » **Andrew Young**, Pairidex & WashU Medicine (Diagnostics)
 - » **Tom Laurita**, Spearhead Bio & Danforth Technology Company (Agtech)
 - » **Eric Gornstein**, CappyBio (Research Tools)
 - » **Berk Tas**, SentiAR (Medical Device)
- 3:10-3:40 ● **Networking Break**
Lobby, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
- 3:40-4:40 ● **Startup Feedback Sessions**
Assigned BioGenerator Conference Rooms, BioSTL Building (Home of BioGenerator Ventures)
- 3:40-4:05 ● **Session 1**
 - » **Andrew Barnell**, Geneoscopy (Diagnostics)
 - » **Lu Alleruzzo**, Immunophotonics (Therapeutics)
 - » **Susan Martino-Catt**, Solis Agrosiences (Agtech & Research Services)
- 4:15-4:40 ● **Session 2**
 - » **Andrew Young**, Pairidex & WashU Medicine (Diagnostics)
 - » **Tom Laurita**, Spearhead Bio & Danforth Technology Company (Agtech)
 - » **Eric Gornstein**, CappyBio (Research Tools)
 - » **Berk Tas**, SentiAR (Medical Device)
- 5:00-6:00 ● **Networking Reception**
Vicia, 4260 Forest Park Ave, Entrance at Duncan & Boyle
- 6:00 ● **Dinner**
Vicia, 4260 Forest Park Ave, Entrance at Duncan & Boyle

Friday, September 12, 2025

- 7:30-8:00 ● **Breakfast**
Lobby, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
- 8:00-9:00 ● **Keynote: From the Human Genome Project to the Realization of Genomic Medicine: Highlights From a ~35-Year Journey**
Auditorium, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
Eric D. Green, MD, PhD, Former Director, National Human Genome Research Institute, U.S. National Institutes of Health
- 9:00-10:00 ● **Excite Talks**
Auditorium, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
- » **Matt Cooper**, Wugen (Therapeutics)
 - » **Bryan Witherbee**, Agragene & STL Agtech Innovation (Agtech)
 - » **Stephen Von Rump**, Sweetspot (Aegis) (Digital Health)
 - » **Eric Leuthardt**, Neurolutions, Aurenar & WashU Medicine (Medical Device)
 - » **Martha Schlicher**, Impetus Ag & STL Agtech Innovation (Agtech)
 - » **Cory Berkland**, Bond Biosciences, Other Start-ups & WashU (Therapeutics)
- 10:00-10:30 ● **Networking Break**
Lobby, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
- 10:30-11:20 ● **Startup Feedback Sessions**
Assigned BioGenerator Conference Rooms, BioSTL Building (Home of BioGenerator Ventures)
- 10:30-10:50 ● **Session 1**
- » **Matt Cooper**, Wugen (Therapeutics)
 - » **Bryan Witherbee**, Agragene & STL Agtech Innovation (Agtech)
 - » **Stephen Von Rump**, Sweetspot (Aegis) (Digital Health)
- 11:00-11:20 ● **Session 2**
- » **Eric Leuthardt**, Neurolutions, Aurenar & WashU Neuroinnovation (Medical Device)
 - » **Martha Schlicher**, Impetus Ag & STL Agtech Innovation (Agtech)
 - » **Cory Berkland**, Bond Biosciences, Other Start-ups & WashU (Therapeutics)
- 11:30-12:15 ● **Keynote: In conversation with Jim McCarter of BioGenerator Ventures**
Auditorium, WashU Medicine Jeffrey T. Fort Neuroscience Research Building
Gaurav Garg, Founding Partner at Wing Capital
- 12:15 ● **Lunch**
Lobby, WashU Medicine Jeffrey T. Fort Neuroscience Research Building

KEYNOTE SPEAKERS



Doug E. Frantz, PhD

Vice Chancellor for Innovation and
Commercialization, WashU

Doug E. Frantz, PhD, is vice chancellor for innovation and commercialization at WashU and professor of biochemistry and molecular biophysics at WashU Medicine. A leader in drug discovery and translational science, he previously served as the Max and Minnie Tomerlin Voelcker Endowed Chair in Chemistry at the University of Texas at San Antonio, where he co-founded the Center for Innovative Drug Discovery. His career spans academia and industry, including research at Merck and co-founding Bexar Biomedical. Frantz's work has attracted significant NIH, NSF, and Gates Foundation support, and he is a senior member of the National Academy of Inventors.



Eric D. Green, MD, PhD

Former Director, National Human Genome
Research Institute, U.S. National Institutes
of Health

Eric D. Green, MD, PhD, is the former director of the National Human Genome Research Institute (NHGRI) at the U.S. National Institutes of Health (NIH). A key leader in the Human Genome Project, he was NHGRI's scientific director and chief of the Genome Technology Branch before serving as the NHGRI Director for over 15 years. His research advanced comparative genomics and identified genes linked to several hereditary diseases. Green has authored and co-authored more than 390 scientific publications and played a central role in multiple major NIH initiatives, including the All of Us Research Program. He has also been recognized with numerous honors for his contributions to genomics and biomedical science, including being elected to National Academy of Medicine.



Gaurav Garg

Founding Partner, Wing Capital

Gaurav Garg is a founding partner of Wing and a serial entrepreneur who has founded five companies, including Redback Networks and Ruckus Wireless, both of which achieved public listings. He was previously a partner at Sequoia Capital, where he incubated and helped build FireEye and Jasper into major businesses, and invested early in companies such as MobileIron, Shape Security, Aruba, and RingCentral. Earlier in his career, he held leadership roles at Redback Networks and engineering positions at SynOptics and Bay Networks. Garg holds degrees in electrical engineering and computer science from WashU, where he serves on the Board of Trustees. He has been named to the Forbes Midas List and honored as Silicon Valley Venture Capitalist of the Year.



Geneoscopy
geneoscopy.com
Sector: Diagnostics



PRESENTER

Andrew Barnell, MBA

Chief Executive Officer, Geneoscopy

OVERVIEW

- Founded in 2015, Geneoscopy empowers patients and providers to transform gastrointestinal health through innovative diagnostics
- Geneoscopy has developed a novel method to reliably extract and quantify eukaryotic RNA biomarkers in stool samples (seRNA). These seRNA biomarkers are being used to develop multiple assays that improve the ability to noninvasively evaluate gastrointestinal disease

HIGHLIGHTS

- ColoSense® FDA approved as a screening test for adults, 45 years of age or older, who are at typical average risk for developing colorectal cancer
- ColoSense® recommended as first-line test for colorectal cancer screening by National Comprehensive Cancer Network Guidelines
- In 2025, closed \$105M Series C, led by Bio-Rad Laboratories



Immunophotonicsimmunophotonics.comSector: Therapeutics

**PRESENTER****Lu Alleruzzo, MBA**Chief Executive Officer, Co-Founder, & Board
Member, Immunophotonics

OVERVIEW

- Founded in 2012, Immunophotonics is a clinical stage biotech company focused on developing novel immune-stimulating drugs to augment routine tumor destruction techniques in the field of Interventional Immuno-Oncology®
- The company uses a proprietary glycan polymer, IP-001, that retains tumor debris after injection into ablated tumor lesions to generate tumor antigen depots. In addition, it acts as a potent, multimodal stimulant of innate and adaptive immune cells
- IP-001, has the potential to transform routine tumor destruction treatment into a systemically active cancer immunotherapy intended to induce tumor-specific responses to eradicate cancer

HIGHLIGHTS

- Raised over \$40M in dilutive financing
- Completed the final treatments of patients in a phase 1a/2b clinical trial for advanced solid tumors
- Completed multi-center Phase 1b/2a clinical trial in the U.S., U.K., France, Germany, and Switzerland to treat patients with colorectal cancer, non-small cell lung cancer, and soft tissue sarcoma
- The company is pursuing a pivotal Phase 2/3 trial evaluating IP-001's potential to transform tumor ablation into systemic immunotherapy



Solis Agrosciences

solisagrosciences.com

Sector: Agtech & Research Services



PRESENTER

Susan Martino-Catt, PhD

President & Chief Operating Officer, Solis Agrosciences

OVERVIEW

- Founded in 2021, Solis Agrosciences is the trusted partner for high-quality Agtech research services
- Service offerings include plant transformation and gene editing, plant phenotyping, and end-to-end sequencing services
- Whether developing a novel plant trait or advancing an existing line, Solis provides scientific rigor backed by laboratory and stewardship best practices to drive commercialization

HIGHLIGHTS

- Closed ~\$8M in funding to expand offerings, scale revenue, and achieve profitability
- Led by industry veterans with extensive experience in R&D, product development, and regulatory
- Growing customer base includes dozens of venture-backed startups and large public companies
- Acquired Ferris Genomics in 2024 to complement current offerings with sequencing services
- Solis creates awareness and attraction to the STL Ag innovation ecosystem for other corporates and startups



Pairidex

pairidex.com

Sector: Diagnostics



PRESENTER

Andrew Young, MD, PhD

Founder & Chief Scientific Officer, Pairidex

OVERVIEW

- Pairidex is developing a more accurate, personalized platform for blood cancer monitoring to enable better treatment decisions
- Their rapid, inexpensive test uses droplet digital PCR to detect the unique genomic alterations driving a patient's cancer for sensitive disease burden assessment over time

HIGHLIGHTS

- Founded in 2023 by WashU physician-scientist and CSO Andrew Young, MD, PhD, and led by CEO Paul Kortschak, MBA, JD
- Closed an oversubscribed pre-seed round in 2024 to launch operations
- Clinically validated assay demonstrates reliable disease identification to a limit of detection of 1 cancer cell in 100,000 cells
- Successfully established a CAP-accredited, CLIA-certified laboratory operated by a strong team of scientists
- Expanded platform of assays and established multiple customers and collaborators in 2025



Spearhead Bio

spearheadbio.com

Sector: Agtech



PRESENTER

Tom Laurita, PhD

Chief Executive Officer, Spearhead Bio

OVERVIEW

- Founded in 2025 by the Danforth Technology Company and Donald Danforth Plant Science Center scientists
- Spearhead Bio leads the next generation of powerful native genome engineering tools to accelerate the development and launch of new transgenic & non-transgenic crops
- Spearhead Bio's flagship technology significantly enhances the efficiency of crop genome engineering using the tools nature already provides while ensuring seamless integration, reduced regulatory hurdles, and increased consumer acceptance

HIGHLIGHTS

- Technology developed by Dr. Keith Slotkin, Principal Investigator at the Donald Danforth Plant Science Center
- Published in *Nature* in 2024
- Launched by the Danforth Technology Company in February 2025
- Awarded nearly \$3M in grant funding from the NSF, NobleReach Foundation, and Danforth Plant Science Center



CapyBio

capybio.com

Sector: Research Tools



PRESENTER

Eric Gornstein, MBA

Chief Executive Officer, CapyBio

OVERVIEW

- Founded in 2023, CapyBio fuses machine learning with cutting-edge single-cell transcriptomics to unlock new levels of precision in generating medically relevant cell types
- Our platform accelerates cell engineering for applications in regenerative medicine, drug discovery, and disease modeling

HIGHLIGHTS

- Secured initial funding from BioGenerator, Cultivation Capital, and Hypha Life Sciences
- Hired CTO and CEO
- Launched internal development program on improving in vitro hepatocyte models



SentiAR

sentiAR.com

Sector: Medical Device



PRESENTER

Berk Tas, MBA

Chief Executive Officer, SentiAR

OVERVIEW

- Founded in 2017 by WashU Professors Jennifer Avari Silva, MD and Jonathan Silva, PhD, SentiAR is developing the first application of mixed-reality technology for use during interventional procedures
- Initially focused on cardiac ablation procedures, including the treatment of atrial fibrillation

HIGHLIGHTS

- Raised Series A and B rounds from professional venture capital funds
- Recruited industry-experienced CEO and independent director
- Received \$2.2M NIH grant to advance technology platform
- Established critical strategic partnerships, enabling broad access to market
- Demonstrated advantages of technology in clinical studies; presented clinical data in multiple peer-reviewed publications



Wugenwugen.comSector: Therapeutics

**PRESENTER****Matthew Cooper, PhD**

Co-Founder & Chief Scientific Officer, Wugen

OVERVIEW

- Founded in 2018 by RiverVest and WashU Medicine scientists, Wugen is a clinical-stage biotech developing next-gen off-the-shelf CAR-T therapies for hematological malignancies
- Lead program WU-CART-007 is engineered to treat T-cell acute lymphoblastic leukemia (T-ALL), a disease found in children, adolescents, and adults

HIGHLIGHTS

- Licensed multiple CAR-T and NK technologies from WashU Medicine
- Raised over \$300M in capital from venture and crossover investors
- Built standalone facility in the Cortex Innovation District
- Completed a Phase 1/2 clinical trial that demonstrated safety and evidence of anti-leukemic activity in heavily pretreated patients with a response observed in 91% of patients receiving WU-CART-007 (Ghobadi et al. Blood. 2025)
- Recently dosed the first patients in a pivotal Phase 2 clinical trial
- Opportunity to achieve the first approval of allogeneic CAR-T cell therapy



Agragene

agragene.com

Sector: Agtech



PRESENTER

Bryan Witherbee

Chief Executive Officer, Agragene

OVERVIEW

- Founded in 2017, Agragene holds the exclusive license for Precision-Guided Sterile Insect Technology™ (pgSIT™) for worldwide use on all crops and all crop-damaging insects
- pgSIT™ is powered by gene editing techniques and generates sterile male pests that, when released, compete to mate with females which results in no offspring and natural suppression of the harmful pest population
- Agragene's first product, KNOCKOUT-SWD™, is a solution for Spotted Wing Drosophila (SWD), a pest that affects soft-skinned fruit and causes >\$500M in berry crop losses per year in the US

HIGHLIGHTS

- Submitted regulatory package for KNOCKOUT-SWD™ to US EPA for registration of the product for commercial sales in 2027
- Scaled manufacturing and tested field delivery system with high-valued partners in berry industry
- Announced partnerships with established contract insectaries for insect production and distribution



SweetSpotsweetspot.healthSector: Digital Health

**PRESENTER****Stephen Von Rump**

Founder & Chief Executive Officer, SweetSpot

OVERVIEW

- Founded in 2020, SweetSpot is a digital health company that partners with endocrinology practices to provide end-to-end diabetes care management services
- SweetSpot combines a centralized platform for continuous glucose monitor (CGM) and insulin pump data with clinical support from certified diabetes educators, and automatically captures reimbursable care events to generate new revenue for practices
- Experienced leadership team includes co-founders Stephen Von Rump (CEO), Dr. Ralph Oiknine (CMO), Abby Cohen (COO), Dr. Amiad Fredman (CPO)

HIGHLIGHTS

- Achieved \$1.5M annual recurring revenue as of Q2 2025, with 50%+ quarter on quarter growth
- Named 2025 Company to Watch by the American Diabetes Association
- Welcomed Dr. Mary Jo Gorman to the Board in 2024
- Retrospective trial in 2024 found a 10%+ improvement in Glucose Time in Range with more frequent clinician touchpoints.
- Won an Arch Grant in 2023 and an Arch Grant Growth Grant in 2025



Neuroolutions

neuroolutions.com

Sector: Medical Device



PRESENTER

Eric C. Leuthardt, MD, MBA

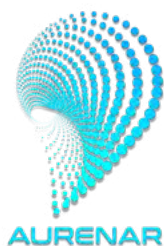
Founder, Chief Scientific Officer, Director,
Neuroolutions

OVERVIEW

- Neuroolutions is advancing brain-computer interface (BCI) technology to support stroke rehabilitation.
- The IpsiHand® System is an FDA-cleared device that uses a brain-computer interface to assist in rehabilitation training for chronic stroke survivors with upper extremity hemiparesis

HIGHLIGHTS

- First FDA-cleared BCI device indicated for use in chronic stroke patients with upper extremity hemiparesis
- Breakthrough Device Designation from FDA
- CMS Recognition: IpsiHand® has an established HCPCS code (E0738) and is classified under Durable Medical Equipment (DME)
- Supported by ongoing clinical and real-world evidence studies



Aurenar

aurenar.com

Sector: Medical Device



PRESENTER

Eric C. Leuthardt, MD, MBA

Founder, Chief Executive Officer, Aurenar

OVERVIEW

- Founded in 2024 by WashU and Saint Louis University physicians and engineers, Aurenar is developing an ear-worn neuromodulation device that boosts the body's natural control of inflammation
- The easy-to-use, disposable device is designed for ICU use to reduce costly and life-threatening complications driven by inflammation

HIGHLIGHTS

- Demonstrated significantly reduced rates of cerebral vasospasm, improved discharge outcomes, and clinical cost reductions in a pilot trial of neuroICU patients who suffered subarachnoid hemorrhage
- Led by CEO Eric Leuthardt, MD, MBA, WashU physician-scientist and Assistant Vice Chancellor for Innovation and Commercialization
- Completed full specifications and requirements for the device and executed vendor agreement for device manufacturing



Impetus Agriculture

impetusag.com

Sector: Agtech



PRESENTER

Martha Schlicher, PhD

Chief Executive Officer, Impetus Agriculture

OVERVIEW

- *Bt* Proteins | Over 1 Billion Acres Protected – For over 100 years, naturally occurring *Bt* proteins have delivered safe, effective control of crop-damaging insects
- The Growing Challenge – Decades of widespread use have driven the evolution of insect resistance, significantly diminishing effectiveness of *Bt* products in many key crop production regions
- Impetus Ag has created a platform for re-engineering *Bt* activity to overcome resistance mechanisms, restoring insect control for both sprayable biopesticides, biotech seed traits, and the potential for an entirely new market of “topical traits”

HIGHLIGHTS

- Proven efficacy against both resistant and susceptible insect populations
- Cost of goods advantaged proprietary tools to engineer *Bt* strains incorporating Impetus protein technology
- Issued patents
- Active collaborations with multi-national partners to drive commercialization
- Team with deep Ag expertise and decades of experience in delivering commercial *Bt* products



Bond Biosciences

bond.bio

Sector: Therapeutics



PRESENTER

Cory Berkland, PhD

Chairman of the Board, Officer & Co-Founder,
Bond Biosciences

OVERVIEW

- Founded in 2015, Bond is a clinical-stage biopharmaceutical company focused on the discovery and development of non-absorbed oral therapeutics that bind targets locally in the gastrointestinal (GI) tract to treat or prevent human disease
- Our clinical lead, BBI-001, is a safe, convenient, and effective treatment for patients with iron overload resulting from Hereditary Hemochromatosis. By binding dietary iron to inhibit absorption, BBI-001 is designed to prevent the potentially serious consequences of unmanaged iron overload

HIGHLIGHTS

- First-in-human trial established safety and proof of mechanism
- Series B financing funded the clinical evaluation and manufacturing process development
- Sponsored payer study revealed high-need, high-value sentiment among Pharmacy Directors

INVESTMENT PORTFOLIO

Active and exited BioGenerator portfolio companies



PROGNOSIA



FORWARD DEFENSE





NOTES

NOTES

BioGenerator Ventures creates, builds, and invests in St. Louis companies that are solving important problems in human health and agriculture.



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biogeneratorventures.com
biostl.org