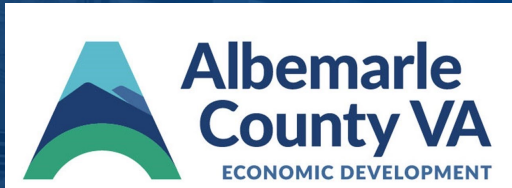


MARCH  
2024



PRESENTATION FOR



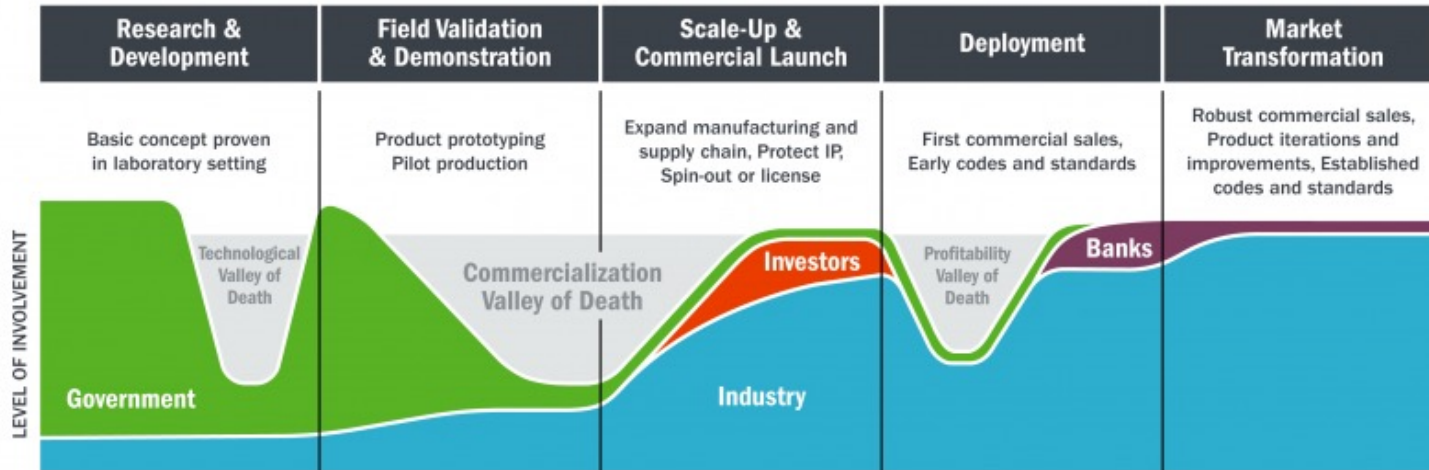
# Charlottesville Biotech Accelerator

A Life Sciences Innovation Accelerator + Lab  
*Charlottesville, Virginia*

# Significant untapped potential exists in university tech commercialization



- Translational research lacks focus on crucial aspects of commercialization and go-to-market strategies
- Founders require risk-taking mindsets, discipline and urgency in execution that universities cannot fundamentally offer
- Patients lose out on opportunities for new solutions to unmet needs



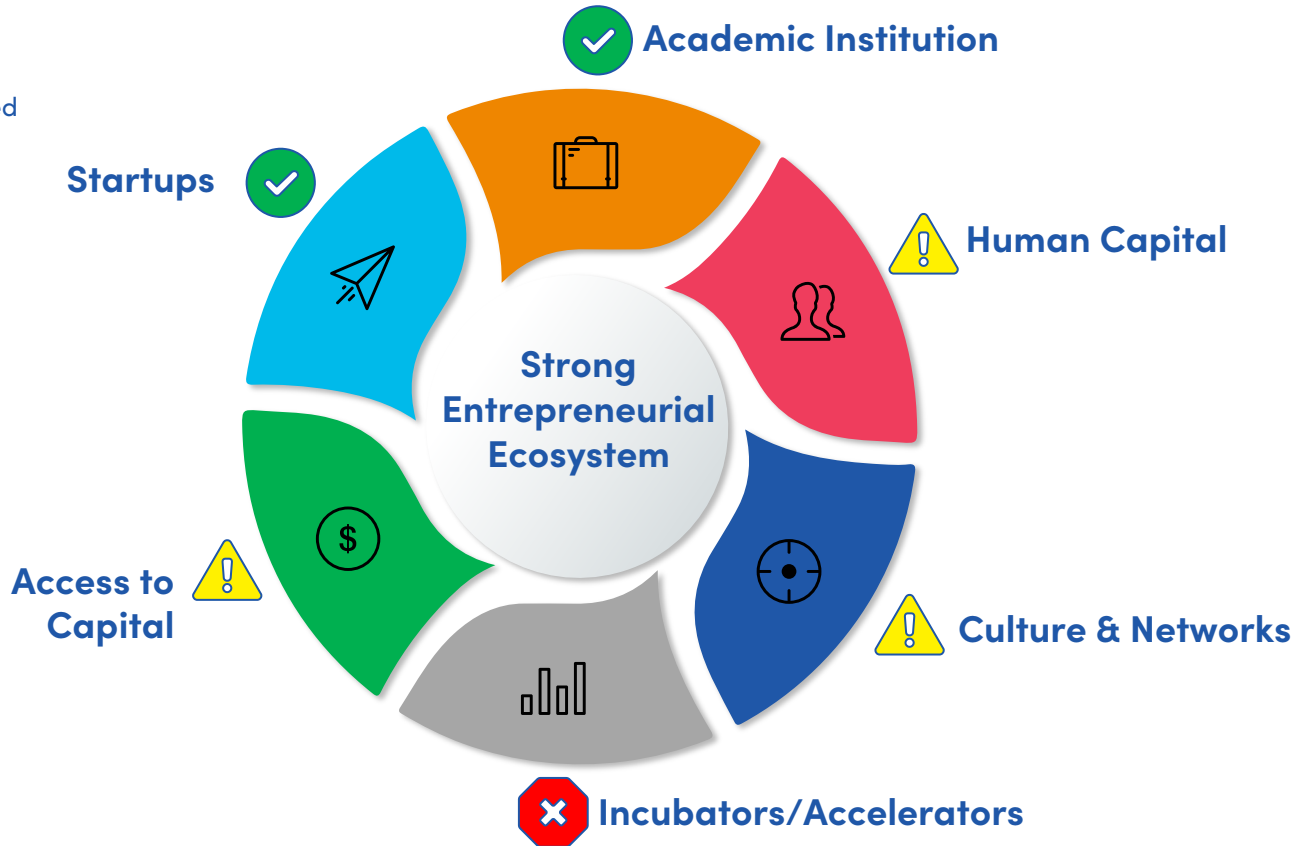
# CURRENT CHALLENGES

## Gaps in Charlottesville's Biotech Ecosystem:

✓ Established

⚠ Significant Need

✗ Non-existent



# Charlottesville's Biotech Sector is primed for growth.



## New Ideas will Follow UVA Investments

Over \$1B invested in institutional growth at UVA will drive research, innovation and commercial potential

- ***Manning Institute of Biotechnology***
- ***School of Data Science***
- ***Darden School of Business***
- ***McIntire School of Commerce***

## A Growing and Emerging Market

- #10 for US Med Device Seed investments in 2023 (Carta)
- Charlottesville ranked #4 city for entrepreneurs (Entrepreneur Magazine, 2016)
- Sector growth of 400+ new jobs from 2020-2022
- Investors looking for emerging markets for deal flow and diversity

## Networks are Stronger and VCs are investing

- Resources, education, and network are expanding and strengthening through CvilleBioHub
- Angel & VC investors increasingly deploying more capital since 2018
- Elite life sciences organizations and firms are seeking more access to the network



## SUCCESS-TO-DATE



CvilleBioHub is a 501c3 industry-led organization dedicated to accelerating growth in the life sciences sector.

**101** Startups Served  
*by Entrepreneur Advisors*

**67** Internships Hosted  
*4 cohorts, 20 companies per yr*

**49** Speaker Series Events

**2500** Event attendees

**2200** Unique Followers

**2** BioDiscovery Summits  
**8** Companies in BioSpark Pitch Event  
*(new in 2023)*



### SIGNIFICANT FUNDING SOURCES *(SINCE 2018)*

\$731,000 GO Virginia Grants

\$500,000 Quantitative Foundation

\$400,000 VIPC Regional Innovation Fund

### 2023 REVENUE & SOURCES

\$445,00 Grant Awards *(+12% YOY growth)*

\$43,000 Membership Revenue *(+51% YOY growth)*

\$159,00 Sponsorships & Partnerships *(+41% YOY growth)*



# Charlottesville Biotech Accelerator

A Life Sciences Accelerator within CvilleBioHub that will bolster success of high potential, early-stage companies.



## Our Values:

**Exemplary Science:** Upholding unparalleled scientific standards.

**Relational Excellence:** Cultivating powerful networks through relationships.

**Cultivating Industry Mindsets:** Fostering proactive commitment and accountability

**Precision Advising:** Providing direct, frequent, hands-on support.

**Founder-Centric Engagement:** Meeting founders at every step.

**Investment Viability:** Customized fundraising strategies to propel companies beyond accelerator.



## WHO WE SERVE

The Charlottesville Biotech Accelerator attracts, builds and prepares the most promising life sciences companies for commercialization.



Developing new  
medical  
treatments



Making food  
better and safer



Making  
healthcare  
delivery smarter



Accelerating  
research



Detecting and  
diagnosing  
disease

Concepts in **human health innovation** in therapeutics, medical devices, tools, and digital health solving for unmet needs in large markets.



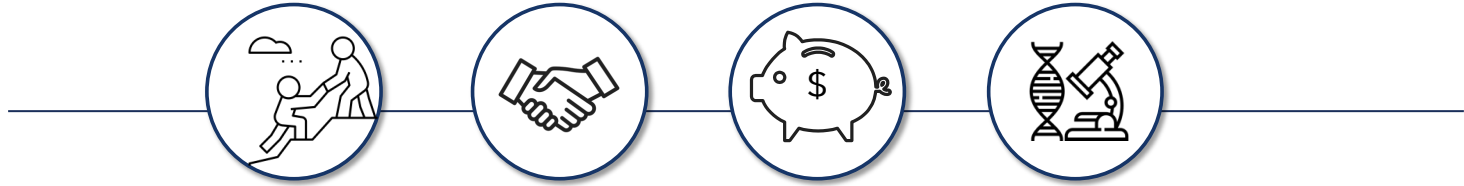
**We will collaborate with UVA and accept applications from:**

- UVA licensed technologies (~50%)
- UVA alumni (~25%)
- underserved, high potential concepts from along the east coast (~25%)



# The Charlottesville Biotech Accelerator Differentiator:

## A Commercialization-Focused Organization that Develops Highly Competitive Companies



### The Accelerator Experience:

**Capital Infusion:** Companies receive \$100k for 5% equity for minimum 12 month residency

**Lab Space:** Opportunity to research, develop or prototype in state-of-the-art facility

**Office Hours:** Valuable private sessions with industry services organizations and experts

**Community Access:** Exclusive entry to community events, fostering networking opportunities and collaboration

**Individualized Advising:** Personalized 1:1 advising and support to address specific challenges

**Pitch Perfection:** Regular pitch reviews to refine and sharpen investor presentations & delivery

**Strategic Funding Guidance:** Advice and introductions to top-tier investors to optimize fundraising success



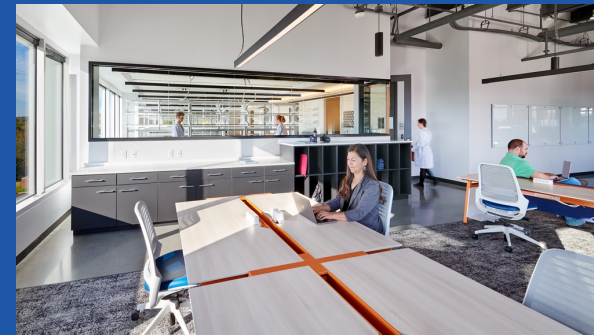
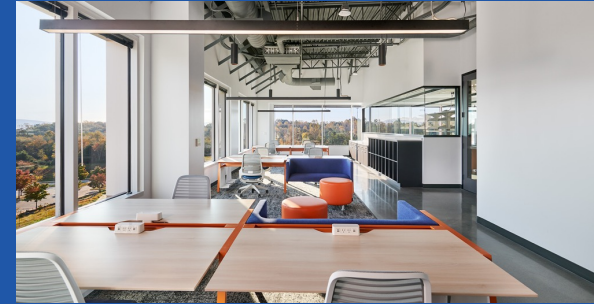


CURRENT OPPORTUNITY

# Three-Year Pilot Accelerator Program

Head Quartered at North Fork Research Park

Approx. 6500 sq ft dedicated  
office + shared spaces + turn-key laboratory space



# Companies are ready to start formally engaging.

Through CvilleBioHub's advising of more than 100 startups, we have identified several that fit the Accelerator criteria for the first cohort.

### Accelerator Prospects include:



\*

- Complex DNA design & manufacturing
- Seed Round \$3M (raising)



\*

- Age-related Macular Degeneration, pre clin
- Virginia BioSpark Pitch Winner



- Acute respiratory distress syndrome drug, pre clin
- JLABS@DC and Blue Knight program resident



- Autoimmune therapeutic, Ph1
- \$6M Seed Round (all VC funded)



- Portable feeding tube apparatus
- Series A \$6M



- Pulmonary Fibrosis Drug, pre clinical
- Seed Round \$2M (raising)



- Clinical AI tool for stroke prevention
- Seed Round \$2M (raising)



- Large portfolio of biotech R&D projects
- SBIR funded innovation (avg \$20M annually)

## PARTNERSHIPS

# Network as a Key to Success

Deep and growing life sciences partner ecosystem.

## INDUSTRY PARTNERS

---



## INVESTOR NETWORK

---



## ACADEMIC-VIRGINIA COLLABORATORS

---

### Charlottesville



### Roanoke/Blacksburg



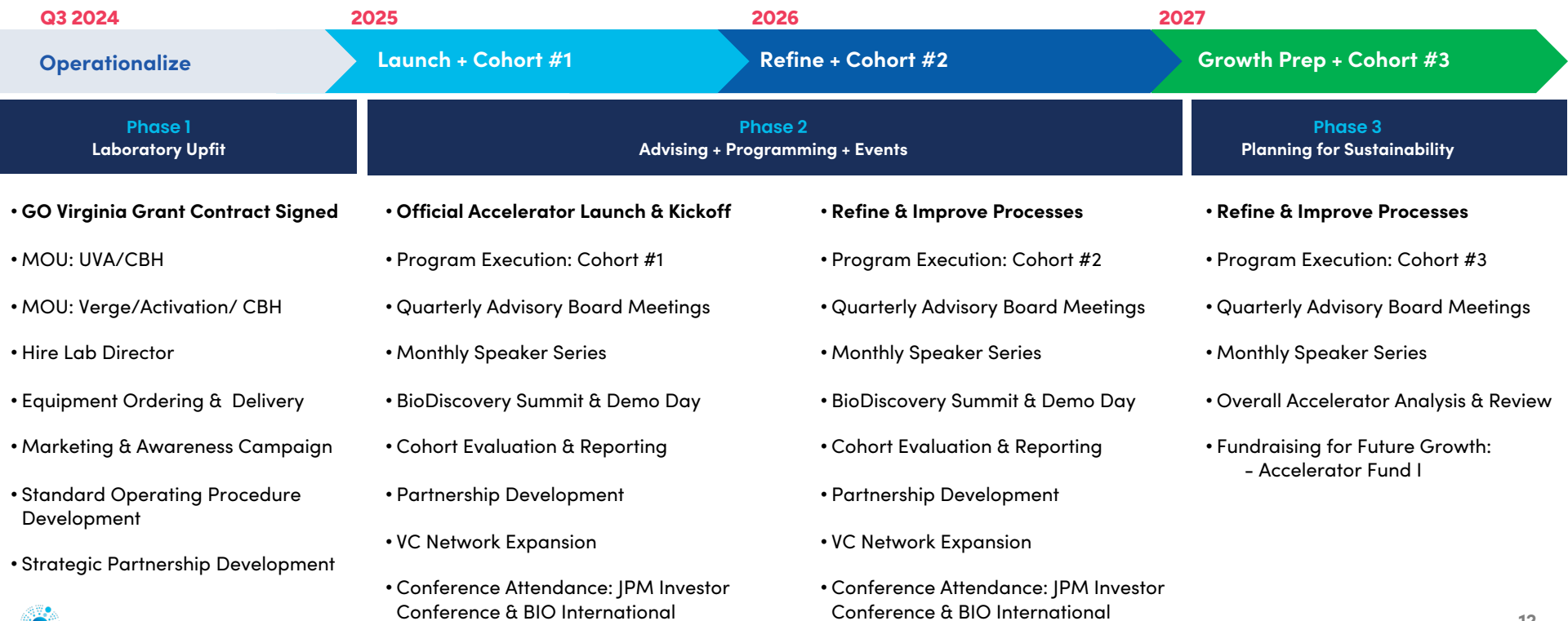
### Richmond



## TIMELINE & MILESTONES

# Roadmap to Success

The 3-Year Pilot will establish proof-of-concept and a foundation for long-term success.



# CvilleBioHub Leadership Team

We are industry leaders strengthening the Charlottesville biotech sector with a commitment to innovation and commercialization.

## LEADERSHIP & ENTREPRENEUR ADVISORS



**Nikki Hastings, PhD**  
*Executive Director  
and Co-Founder*



**Dana Goldsmith**  
*Business Development  
Entrepreneur-in-Residence*



**Chad Rogers, MBA**  
*Entrepreneur-in-Residence*



**Andy Krouse, MBA**  
*Entrepreneur-in-Residence  
CEO, Slate Bio & CEO, GenEP*



\*led through acquisition

# CvilleBioHub Board Members

The board offers expertise in industry, finance, medicine and entrepreneurship.

## BOARD OF DIRECTORS



**Payam Pourtaheri**  
*Board Chair, CvilleBioHub  
CEO/Founder, AgroSpheres*



**Kyle Benusa, MBA**  
*CEO and co-founder  
Ballast Consulting*



**Will Mauldin, PhD**  
*CEO/Founder  
Rivanna Medical*



**Taylor Cope**  
*Director of Operations  
InBio*



**Carleen Bowers, PhD**  
*Vice President  
Indigo Biological Products*



**Maya Desai, PhD**  
*Director  
Guidehouse*



**Brooke Braun**  
*Executive Director, Comm  
UVA McIntire*



**Evan Edwards, MS**  
*Chief Innovation Officer  
Kymanox*



**Jim Daniero, MD**  
*Associate Professor  
UVA Otolaryngology*



## USE OF PROCEEDS

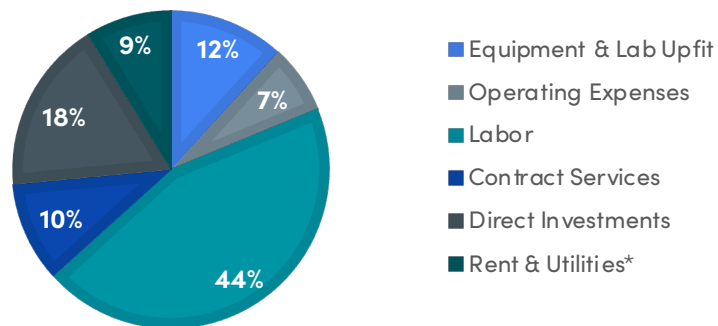
# Total Projected Need

## CvilleBioHub seeks a \$8.5M investment for 3-Year Accelerator Pilot Program

### 3-Year Pilot Projected Expenses\* (\$)

	Year 1	Year 2	Year 3	TOTAL
Equipment & Lab Upfit \$	999,628	\$ -	\$ -	\$ 999,628
Operating Expenses \$	192,963	\$ 198,751	\$ 204,714	\$ 596,428
Labor** \$	1,211,270	\$ 1,257,561	\$ 1,305,439	\$ 3,774,270
Contract Services \$	299,600	\$ 281,465	\$ 288,502	\$ 869,567
Direct Investments \$	500,000	\$ 500,000	\$ 500,000	\$ 1,500,000
Rent & Utilities*** \$	250,000	\$ 250,000	\$ 250,000	\$ 750,000
<b>TOTAL</b>	<b>\$ 3,453,460</b>	<b>\$ 2,487,777</b>	<b>\$ 2,548,655</b>	<b>\$ 8,489,892</b>

### Expense Breakdown



\*assumes Rent & Utilities at North Fork Research Park included as in-kind from UVA

\*\* Labor includes CvilleBioHub Staff (5 FTEs); Entrepreneur Advisory Contractors (4 EIRs) + Fringe Benefits

\*\*\*expenses provided by UVA as of 3/12/2024

## FUNDING SUMMARY

# CvilleBioHub seeks a \$8.5M investment for Charlottesville Biotech Accelerator.

### SOURCES:

#### 1. GO Virginia State Economic Development Grant

**\$4M:** GO Virginia grant application → **Deadline March 22**

**\$2M:** Required Match from in-kind and cash contributions:

***Match Commitments to date = \$1.235M***

- *[\$500k Wilson Sonsini, in-kind, approved, outside of overall budget requirement]*
- *[\$50k Cooley, in-kind, approved, outside of overall budget requirement]*
- **\$25k Private Donor Edwards Family Contribution, approved**
- **\$160k Quantitative Foundation, cash, approved**
- **\$100k UVA Innovates, Mike Lenox, approved**
- *\$100k City of Charlottesville EDA, cash, pending approval*
- *\$300k Albemarle Country EDA, pending approval on 3/19, cash*

**Remaining Requested Cash Match: \$765k**

#### 2. University of Virginia President's Office; **Meeting Scheduled for March 20**

**~\$750k In-kind:** Lab space/office contribution of 6,500 sq ft @North Fork

**Remaining Total Cash Needed: \$2.3M**





## What does success look like?

### 10-YEAR GOAL:

**Attract, build and prepare** 100 companies for life sciences commercialization success to positively impact and improve human health.

### 3-YEAR PROJECTED ACCOMPLISHMENTS:

1. Cohort metrics: \$25M raised, 15 major milestones accomplished, 90% survival rate
2. Ownership stake in 15 companies (potential sustaining funds)
3. 15+ Investment Firm Partnerships and 15+ Strategic Industry Partnerships
4. Data to support Go/No-Go on raising Accelerator Fund I (for-profit arm)

YEAR	1	3	5	10
Participating Companies	5	15	40	100
Partners: Investment Firms	10	15	25	50
Strategic Partners	10	15	25	50
Total Capital Invested in Companies	\$1M+	\$25M	\$100M	\$500M



## GO Virginia Predicted Outcome Metrics

---

	Year 1	Year 2	Year 3	Total
<b>Number of New Internships Created</b>	5	5	5	15
<b>Number of Businesses Served</b>	10	20	30	60
<b>Number of Entrepreneurs Engaged</b>	20	30	40	90
<b>Number of Mentors Engaged</b>	10	12	20	46
<b>Total Capital Raised</b>	\$4M	\$8M	\$12M	\$24M
<b>Number of New Programs Created</b>	2	-	-	

---



## **Our Ask to Albemarle County EDA**

**Total match request for GO Virginia Grant = \$300k**

**CvilleBioHub requests \$100k per year for three years to support the Charlottesville Biotech Accelerator in a 3-Year Pilot Project.**

*A contribution at this level will close out GO Virginia match commitment that unlocks \$4M from the Commonwealth of Virginia.*

*If awarded, match use requires proof of payment to draw down grant in a reimbursement model protecting the County's fiscal responsibilities.*

*Funding will be applied to contract advisors who will be directly guiding founders towards success and growth, leading to increased capital secured and increased job numbers.*



**CvilleBioHub** fosters innovation,  
accelerates the development of biotech  
ventures, attracts and retains talent,  
and ultimately elevates Charlottesville's  
status as a thriving, emerging hub for  
biotech innovation and  
entrepreneurship.

**Contact:**

Nikki Hastings

434.249.5080

[nikki@cvillebiohub.org](mailto:nikki@cvillebiohub.org)



# Match Allocation-To-Date

	GO Virginia Match (in \$1000)			Total Match			Allocation (in \$1000)		
	Cash	In-Kind	Approved				Year 1	Year 2	Year 3
Wilson Sonsini		\$ 500 x		\$ 500		Wilson Sonsini	\$ 167		
Cooley		\$ 50 x		\$ 50		Cooley	\$ 17		
ThermoFisher		\$ 100 x		\$ 100		ThermoFisher	\$ 100		
Edwards Family	\$ 25		x	\$ 25		Edwards Family	\$ 25	-	-
Quantitative Foundation	\$ 160		x	\$ 160		Quantitative Foundation	-	\$ 60	\$ 100
UVA Innovates	\$ 100		x	\$ 100		UVA Innovates	\$ 33	\$ 33	\$ 33
City of Charlottesville EDA	\$ 75		x	\$ 75		City of Charlottesville EDA	\$ 25	\$ 25	\$ 25
Albemarle Country EDA	\$ 300		3/19 decision	\$ 300		Albemarle Country EDA	\$ 100	\$ 100	\$ 100
Manning Family Foundation	\$ 765			\$ 765		Manning Family Foundation	\$ 255	\$ 255	\$ 255
Match	\$ 1,425	\$ 650		\$ 2,075		Total Match	\$ 722	\$ 473	\$ 513
						Cash Match	\$ 438	\$ 473	\$ 513



### Company Summary

- Outsourced design and construction of full-length long and/or complex DNA constructs; ideal for gene therapy drug development.
- Manufacturer at gram-scale quantity and provides long-term storage.

### Problem

Successful DNA Synthesizer and scientist who worked in West Coast startups has an idea upon moving to Charlottesville for becoming the “General Contractors of DNA” but not clear on early stage fundraising pathways and strategy.

### Impact *(From 2020 to present)*

- Reviewed and endorsed the concept at its earliest stages.
- Mentored the CEO/founder on strategies for balancing job retention while advancing their side hustle.
- Provided critical feedback on pitch materials, contributing to their improvement.
- Successfully spun out from Teselegen Biotechnologies in 2023.
- Made introductions to angels and VCs, leading to deep due diligence in the current \$3M Series A fundraising round.

## CASE STUDY #2



### Company Summary

Portable enteral feeding tube and connected device that enables active lifestyle for chronic and pediatric patients.

### Problem

A young patient is undergoing cancer treatments, requiring a feed tube for nutritional delivery. His father has an idea for improving quality of life with a new portable technology, but is a first-time founder with little experience or network in MedTech.

### Impact *(From 2020 to present)*

- Reviewed and endorsed the concept at its earliest stage, facilitating introductions to key stakeholders who validated the development opportunity.
- Mentored the CEO/founder and reviewed pitch materials and offered feedback.
- Enabled a successful \$800k seed round from Virginia angel investors, Fry's Path Capital, Sands Capital. Supported follow-on \$6M Series A.
- Attracted top talent in 2023, resulting in savings exceeding \$100k in recruiting fees.
- Identified ideal facilities for the company's growth beyond its initial space.
- Currently advancing towards 510k regulatory approval.

## CASE STUDY #3



### Company Summary

Laboratory research tools company for microbiome research, with a portable plate reader as its flagship product.

### Problem

Invented by UVA researchers; funded by federal NSF SBIR grants; ready to scale and sell product, but lacked full-time CEO and experience raising equity capital.

### Impact *(From 2018 to 2021)*




- Provided leadership and strategic advising on business model/pricing.
- Developed the company's initial operations infrastructure.
- Attracted five CEO candidates, successfully recruiting Eric Mayton to join.
- Mentored the CEO, leading to broad investor interest across Virginia angel groups.
- Reviewed Pitch materials and offered critical feedback.
- Saw an oversubscribed Seed Round of \$1.33M
- The company is now revenue-generating and has attracted acquisition interest.



# No space for UVA spinouts to grow and develop

## Charlottesville is losing its competitive edge to other regions



	Cluster Identity	Investment from the State, 2023	Annual R&D Spend	New Company Formation, 2022	Incubator/ Accelerator Sq Ft
Charlottesville 	<i>Innovation</i>	<b>\$50M</b> to UVA	<b>\$611M</b> #48 (6.1 percentile)	<b>5</b>	<b>0 sq ft</b>
Richmond 	<i>Pharmaceutical</i>	<b>\$15M</b> to Activation Capital + Phlow Corp	<b>\$364M</b> #76 (9.2 percentile)	<b>10</b>	<b>102,000 sq ft</b> for new lab Center for Innovation
Roanoke/ Blacksburg 	<i>Collaboration</i>	<b>\$15.7M</b> to City of Roanoke	<b>\$542M</b> #54 (6.8 percentile)	<b>10</b>	<b>40,000 sq ft</b> for shared lab space

## WHY NOW?

# Charlottesville: increasing biotech funding & success

## Examples of recent milestones and momentum in the regional industry:

2016



Ecosystem builders for biotech community established



Receives FDA approval for wireless vital sign monitoring system



Novel male contraceptive device  
Seed \$2.3M

2019-2020



Novel ag tech for safe pesticides, \$8.8M  
Series A



Drug discovery platform, Ph1 trials for solid tumors, Series A \$25.1M



Autoimmune Drug Platform, Seed \$2M

2022



Novel ag tech for safe pesticides, Series B \$22M



Alcohol use disorder drug, Filed IPO



Formerly Medical Automation Systems, Acquired by Abbott, \$4.9B



Acquired by DexCom, undisclosed terms



Acquired by Jazz Pharmaceuticals, \$350M in total return opportunity



Receives FDA clearance for Ph2 clinical study in rare metabolic disease; raised \$40M Series A



Acquired by Pear Therapeutics



Novel male contraceptive device  
Series A \$10M



Analytical Chemistry Tools for pharma applications  
Series B \$18.4M



Epilepsy Drugs  
Seed \$1.5M



Metabolic Syndrome Therapeutics  
Series B \$132M

2017-2018

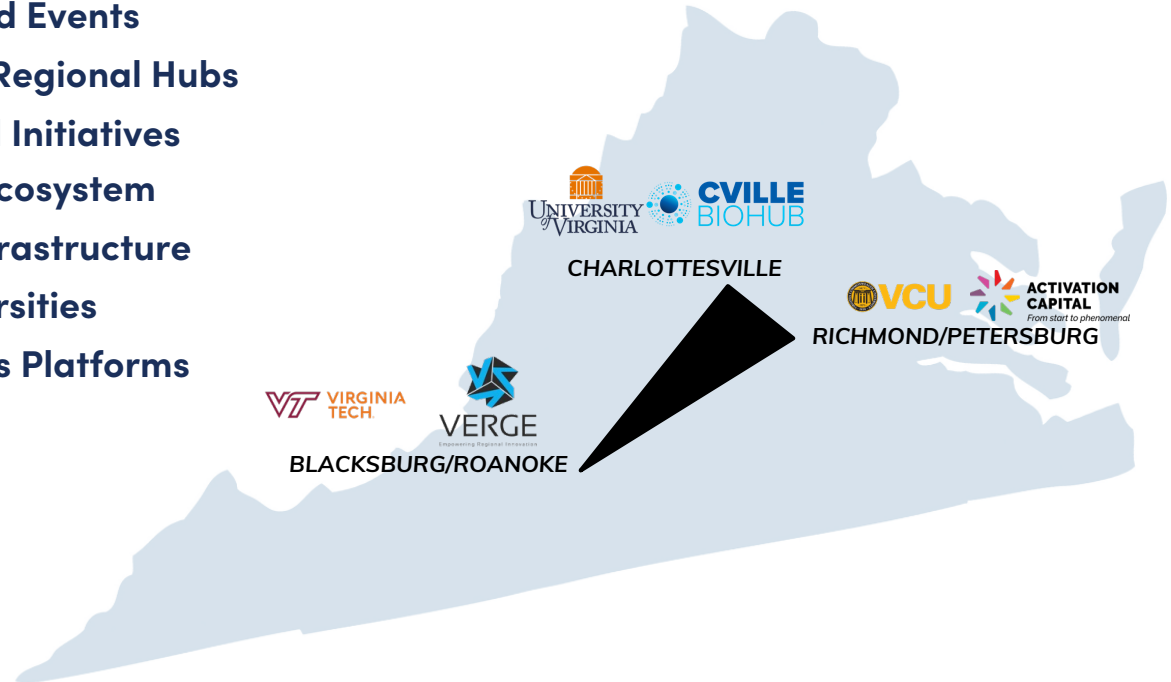
2021



## STATEWIDE COLLABORATION

Charlottesville Biotech Accelerator is collaborating across VA with life science industry partners in the new Virginia Research Triangle.

- Cross-City Networking and Events
- Resource Sharing Across Regional Hubs
- Collaborative Educational Initiatives
- Interconnected Funding Ecosystem
- Shared Resources and Infrastructure
- Joint Initiatives with Universities
- Unified Data and Analytics Platforms



## EXAMPLE #1

# Accelerator Success Stories

UF Innovate, Gainesville, FL

Since 2011: 130,000 sq ft accelerator space

\$16.2M grants and \$14M from University of Florida

TODAY:

- One of largest Super Hub Programs in US
- **\$10.8B** Invested into Companies,
- **34%** higher wage rate than Florida State average

**IMPACT:**

**\$3B+** company exits

**84%** success rate

*(companies that remain viable  
five years after graduation)*



## EXAMPLE #2

# Accelerator Success Stories

## BIOSTL's BioGenerator, St. Louis, MI



BIOSTL  
DRIVING ST. LOUIS INNOVATION



**Since 2017: 80,000 sq ft incubator space**  
supported by Medical School w/ \$1.5M annually

### TODAY:

- Advanced rankings for Missouri to **19th from 29th**
- **\$37M** Invested into **91** Startups

## **IMPACT:**

**\$2.7B follow-on funding**  
**170 VC investors in network**

**BioGenerator's systematic de-risking of commercially-viable innovations give VC firms the confidence to invest.**

