

Innovation and Entrepreneurship Ecosystem at UVA

Melur K. (Ram) Ramasubramanian, Vice President for Research
Michael Straightiff, Executive Director Licensing & Ventures Group



Research, Innovation, and Entrepreneurship

- **Research –**

- Discovering how nature and manmade systems work and how these systems are interrelated.

- **Innovation –**

- Applying creativity to develop novel solutions to a problem. A successfully implemented solution is recognized as an innovation.
- Creativity may be enabled by researching on the topic for a while and be able to connect the dots leading to an innovation.

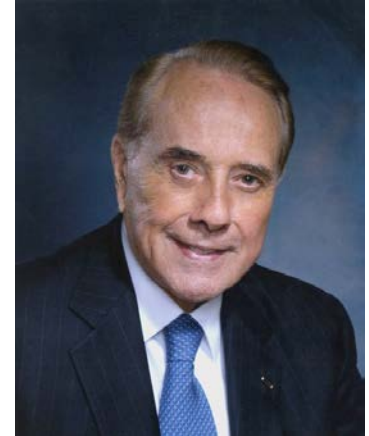
- **Entrepreneurship –**

- Recognizing opportunities in a timely fashion, bringing resources to develop promising ideas fully, and take the differentiated (and IP protected) solution to the market.

The Bayh-Dole Act of 1980



Bayh-Dole permits universities that receive federal funding, such as the University of Virginia, businesses, or non-profit organizations to elect to pursue ownership of an invention, rather than obligating inventors to assign inventions to the federal government.

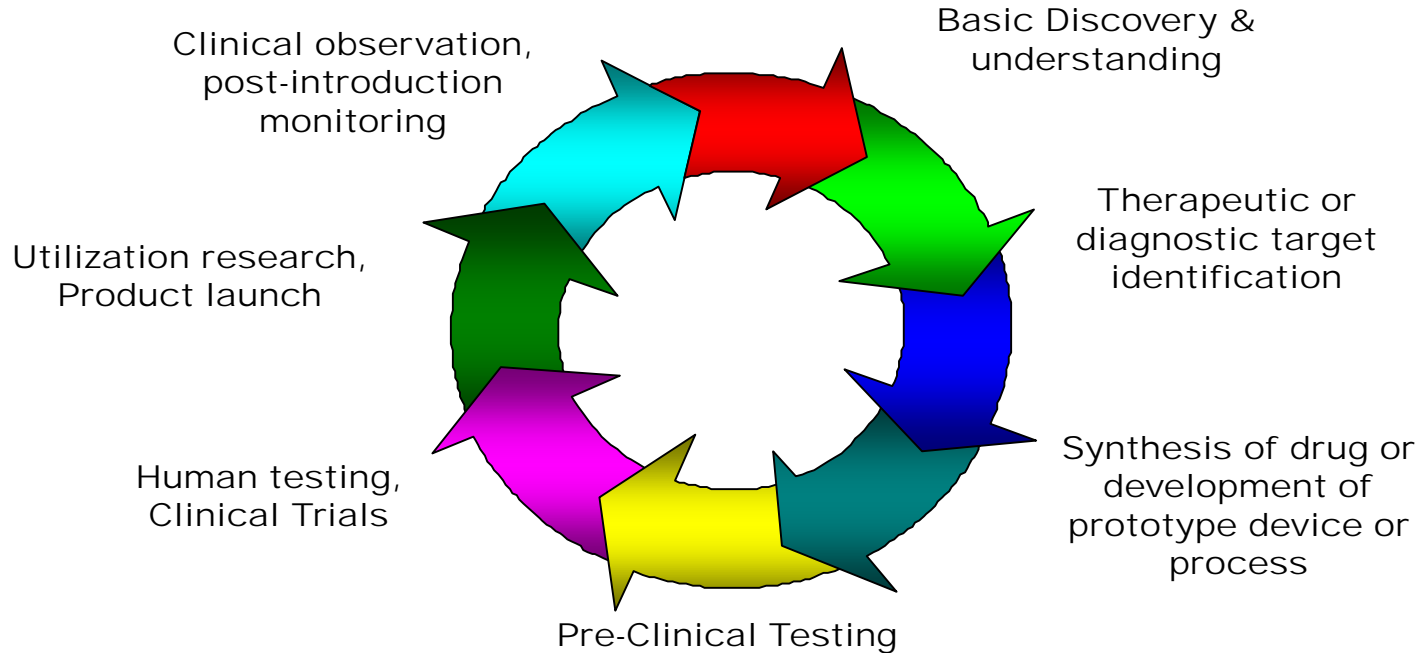


Visit bayhdole.lvg.virginia.edu for more information

Bayh Dole Responsibilities

- In exchange for the receipt of federal research funds and the University's election of title to intellectual property generated from federal support, the University must:
 - Timely prepare and file patent applications
 - Seek “expeditious practical application” (commercialization) of such intellectual property
 - Demonstrate a preference for small business and domestic manufacture
 - Report regularly to the United States government on compliance with the Act.

The “Full Circle” of Translational Research



Faculty and partners do better basic research after immersing themselves in translational challenges!

Innovation & Entrepreneurship at UVA



Executive VP & Provost

Entrepreneurship Education

Undergraduate
Graduate



Vice President for Research

Research Commercialization



Executive VP & Chief Operating Officer

Economic Development



catalyst.

Catalyst Accelerator

Through the Catalyst Accelerator Program, the University of Virginia works with local municipalities to provide business start-ups a bridge from an idea to a product.

[LEARN MORE](#)

Entrepreneurship Advisory Council



Research & Discovery Commercialization at UVA



LICENSING & VENTURES GROUP

*“I believe that we should strive to
be both great and good in all that
we do...”*

UVA LVG Mission Statement

*To maximize the intellectual, societal, and economic impact of UVA discoveries via commercialization.**

STRATEGIC GOAL III.
ENABLE
DISCOVERIES THAT
ENRICH AND
IMPROVE LIVES

*Revision in progress.





lvg.virginia.edu
lvg@virginia.edu
434-924-2175

Our Approach

We partner with faculty, entrepreneurs, and investors to bring innovations discovered at UVA into the marketplace.



IDEA

ENGAGE

We work with creators to discover the innovation's smartest path to impact

PROTECT

We navigate the legal & patenting process to protect ideas developed at UVA

DEVELOP

We connect and promote innovations to our partners and industry

ACCELERATE

We provide resources and expertise to support the entrepreneurial and investment process



IMPACT

Services

CORE BUSINESS

- Prior Art Searching
- Patent Preparation/Prosecution
- Federal/Sponsor Compliance
- Business Development
- Licensing/Contracting

OTHER SERVICES

- Translational Research Support
- Research Development
- Experimental Design (for patentability)
- Outreach/Training
- Graduate Student Internships
- Business Advisory Services

INCUBATOR SPACE

- UVA LVG Incubator work space available for UVA faculty, staff, and students daily use
- Ideal for groups of all sizes in need of meeting, conference, workshop and programming space
- A unique venue for creative thinking and innovation



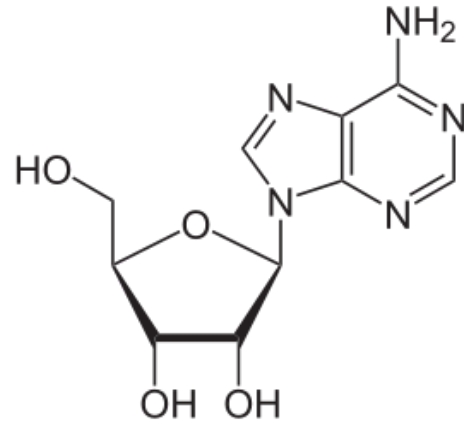
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LVG



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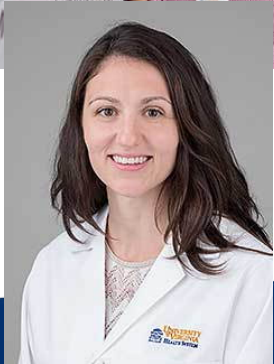
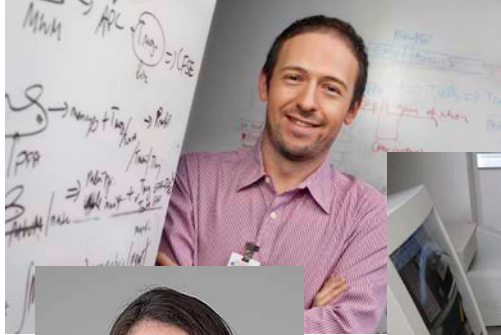
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Conventional Metrics

- Invention Disclosures
- Patent Applications
Filed/Patents Issued
- Transactions
- New Ventures Licensed

Metrics



Metrics - Peer Group Comparisons*

- Among “Reputational” Peers (16) (2018)
 - 16th in Research Expenditures
 - 5th in Research Expenditures/Invention Disclosure
 - 7th in Research Expenditures/Deal
- Among Research Expenditure Peers (13) (\$465-\$612 MM w/Medical School) (2018)
 - 7th in Research Expenditures
 - 3rd in Research Expenditures/Invention Disclosure
 - 2nd in Research Expenditures/Deal
- Among Top Ranked Universities by Total Research Expenditures[^] (51) (2017)
 - 51st in Research Expenditures
 - 13th in Research Expenditures/Disclosure
 - 11th in Research Expenditures/Deal
- Among Commonwealth of Virginia Peer Universities (2013-2017) [§]
 - ~42% of reported invention disclosures
 - ~48% of issued patents
 - ~57% of deals[§]

* Association of University Technology Managers - Annual Licensing Survey (2018).

[^] National Science Foundation HERD Survey (2017).

[§] Assessment of Virginia’s Research Assets. Teconomy Partners, LLC. (2018).



UVA Innovation Revenue Distribution Formula

- 35% Innovators
- 10% Research Support for Innovators
- 10% Innovator's Departments
- 10% Innovator's School
- 35% UVA Innovation & Scholarly Activities Fund

Expanding LVG's Offerings

- UVA LVG Seed Fund
- UVA HS Venture Fund
- Company formation, incubation, and staffing
 - Entrepreneur/Executive/Expert-In-Residence

STRATEGIC GOAL IV.

Lead economic development through academic discovery and entrepreneurship

UVA LVG Seed Fund

- Established 2015
- \$10 MM “evergreen” Seed Fund
- 5 member, independent oversight committee (alumni VC)
- 8 initial/2 follow-on investments
- \$3.253 MM invested
- 1 exit/7 investments remain
- Unrealized portfolio value: \$2.975 MM
- Subsequent capital raised: \$33 MM

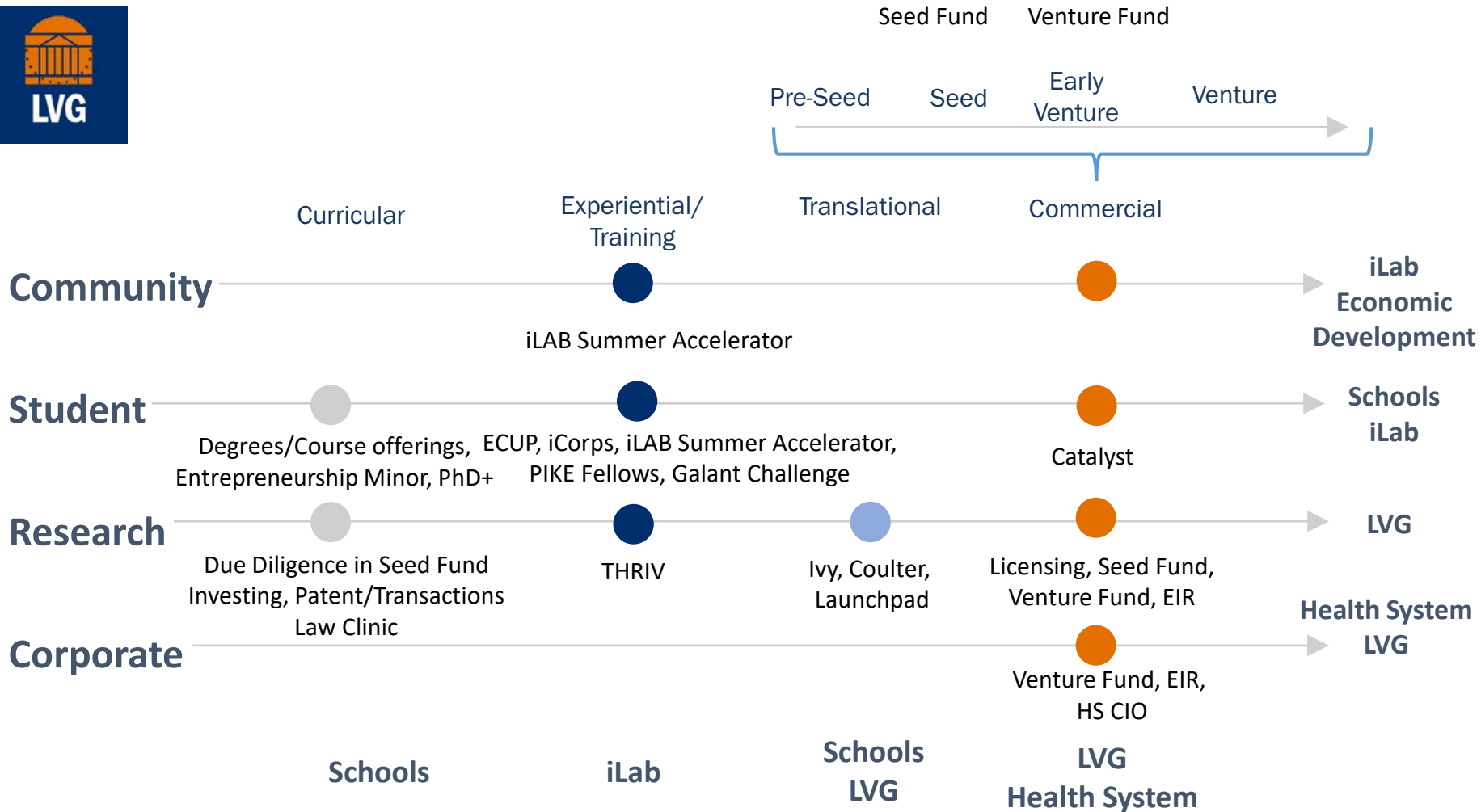
UVA HS Venture Fund

- Established 2017
- Administrative management by LVG
- \$15 MM Fund
- 5 member oversight committee
- 5 initial/4 follow-on investments
- \$7.45 MM invested
- 5 investments remain

Partnering with the Community

- Establishment of UVA LVG based Entrepreneur-in-Residence program





FUNDING RESOURCES

Typical level of investor interest at this stage
 Less
More

| Pre-Launch Funding size varies by Organization/Grant | Pre-Seed \$10,000-\$200,000 | Seed \$200,000-\$2MM | Series A \$1-5MM | Series B \$5-20MM |
|---|----------------------------------|-------------------------|---------------------|----------------------|
| iLab Incubator Program* | | | | |
| NSF iCorps* | | | | |
| CRCF - Matching Research Funds | | | | |
| UVA Translational Research Funds | | | | |
| UVA Competitions | | | | |
| | Catalyst Accelerator Program | | | |
| | SBIR/STTR Matching Funds | | | |
| | CIT Gap Funds | | | |
| | Crowdfunding | | | |
| | CRCF - Commercialization Program | | | |
| | Angel Investors | | | |
| | | UVA LVG Seed Fund | | |
| | | Early VC | | |
| | | | Corporate VC | |
| | | | | Private Equity |

*denotes programmatic support in addition to funding (i.e. mentorship, workspace, legal help, etc)

Strengthening Our Impact

- Coordination of resources from across Grounds with common intent of commercialization, economic development, and/or financial return

Collectively, our research productivity, quality, and impact are strong but could be stronger.

UVA LVG

Fall Open House

We welcome UVA faculty, researchers, innovators, community partners, and entrepreneurship enthusiasts to:

**GET TO KNOW OUR TEAM
MEET OUR STARTUP COMPANIES
CELEBRATE INNOVATION AT UVA**



LICENSING & VENTURES GROUP



**TUESDAY,
SEPTEMBER 17 TH
4 : 30 – 7 : 00 PM**

722 Preston Avenue
Suite 107
Charlottesville, VA

appetizers and drinks will be served

ride-sharing encouraged
overflow parking available after 5:00PM
at 800 Preston Ave (region ten building)



Discussion



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