



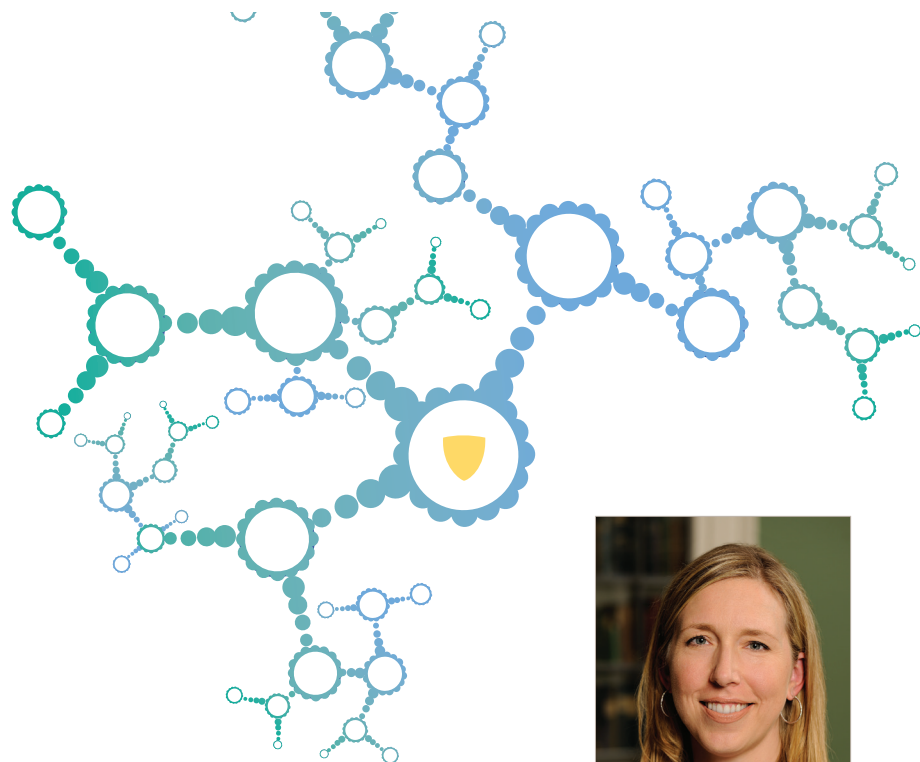
# 2015

## YEAR IN BRIEF

# TECH VENTURES



JOHNS HOPKINS  
TECHNOLOGY VENTURES



# NOLOGY TURES

Every day, Johns Hopkins students, faculty and staff members develop innovative ideas, create novel technologies and push the boundaries of science and research to make life better for people all over the world.

One breakthrough after another, they're changing the outlook for humanity, through new devices and drugs, digital tools that make surgeries safer and more successful, robotic solutions that shift the paradigm for small manufacturing companies, systems that improve maternal and infant mortality rates in developing countries, and more.

And it's all happening right here in Baltimore, at Johns Hopkins—in our laboratories, FastForward innovation hubs, classrooms and dorm rooms.

Our mission at Johns Hopkins Technology Ventures is to ensure we are nurturing the growth of our entrepreneurial ecosystem so that all of the seeds of innovation planted here at Johns Hopkins have the chance to thrive and the potential to have an impact on society at large. We are equally committed to Baltimore itself and believe that if we do our job well, we can bring in outside capital to

help companies grow and thrive here, which will provide jobs and opportunity for the people of this great city we call home.

This past fiscal year, Johns Hopkins Technology Ventures saw exciting growth—in the number of inventions disclosed, the number of startups created and funded, the programs and services we offer to support our constituents, in licensing revenues, and—importantly—in our team responsible for affecting change. We were especially pleased to name Neil Veloso as our new executive director of technology transfer. The pages that follow provide a snapshot of some of the highlights from fiscal year 2015 and give a glimpse of the many efforts at work.

It is an honor to come to work every day at Johns Hopkins Technology Ventures and serve the incredibly talented faculty, staff and students at this university. Their creativity, drive and innovations have the potential to change the world. It is my hope and conviction that our efforts to support these ideas, technologies and companies will make the future brighter for our community and beyond.

Sincerely,

 Christy Wyskiel

Senior Adviser to the President  
of The Johns Hopkins University





Neil Veloso

Executive Director, Technology Transfer  
Johns Hopkins Technology Ventures



This past year, we welcomed Neil Veloso as our new executive director of technology transfer. Already, he has proven to be a leader with strong management skills, strategic vision, customer service orientation and a collaborative work style.

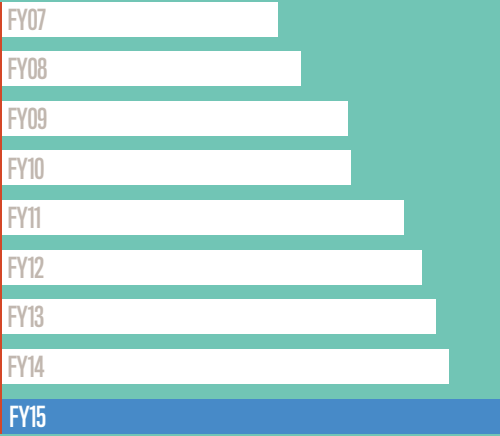
Neil has extensive experience in technology transfer and commercialization, having joined us from Cleveland Clinic Innovations in Ohio, where he spent the last nine years in a variety of related roles. Most recently, he served as its senior director of innovation management, directing technology commercialization at Cleveland Clinic and at seven of the company's Innovation Alliance Partners.

In our office, Neil focuses on intellectual property management and commercialization strategy across a broad portfolio of assets. He manages a team that advises inventors, administers intellectual property and promotes commercialization through licensing, new venture creation and the development of industry partnerships. His deep proficiency in deal execution and strong record of working with physician-scientists and researchers to identify technologies with commercial potential make him a strong asset to the university's commercialization efforts.

Neil earned his bachelor's degree in biology at The Johns Hopkins University and master's degrees in business and environmental health sciences at Case Western Reserve University.

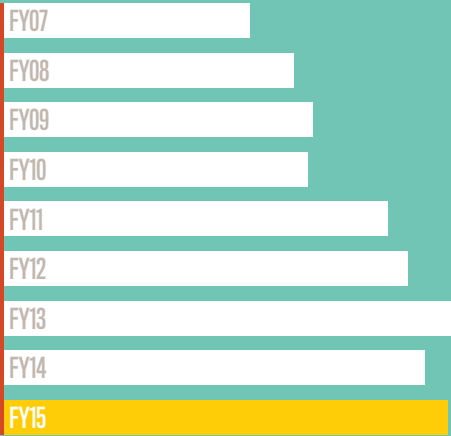


# THE YEAR



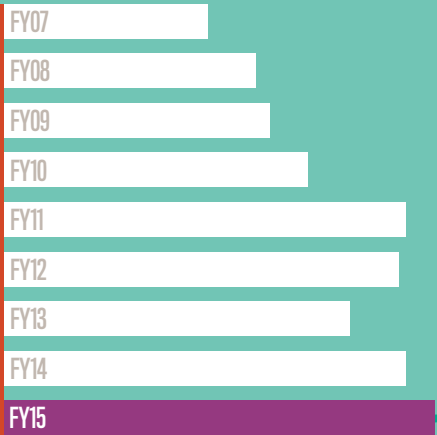
516

INVENTION DISCLOSURES RECEIVED



\$17.9

MILLION IN LICENSING REVENUE



171

NEW AGREEMENTS, INCLUDING OPTIONS



# IN BRIEF

# 16

## NEWLY CREATED STARTUP COMPANIES

Anacrusis  
Ashvattha  
Baton LLC  
Blade Therapeutics  
Brightfield Imaging  
DiPole Materials, Inc.  
Intellix Checklists, Inc.  
MycoMed  
Newco  
PapGene  
Pontifax Management  
Potenza  
Public Health Technologies, Inc  
Sonavex  
Tavec, Inc.  
TheraCord LLC



## 2,478

ACTIVE ISSUED PATENTS



## 7%

INCREASE OVER FY 2013 ISSUED PATENTS



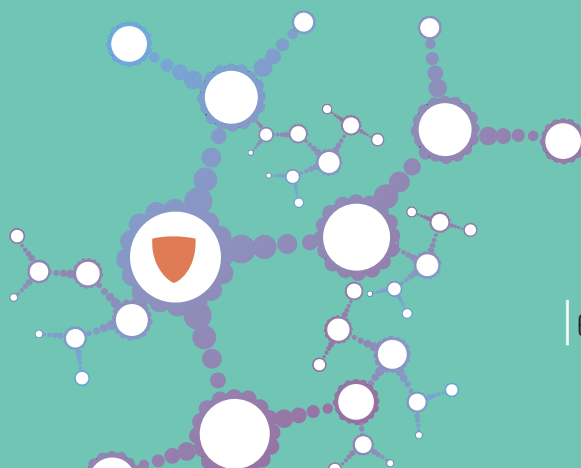
## 112

NEW U.S. PATENTS ISSUED



## 3,900

MATERIAL TRANSFER AGREEMENTS COMPLETED



# STARTUPS

# 16

## NEWLY CREATED STARTUP COMPANIES BY LICENSING JOHNS HOPKINS UNIVERSITY TECHNOLOGY

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Anacrusis

Ashvattha

Baton LLC

Blade Therapeutics

Brightfield Imaging

DiPole Materials, Inc.

Intellix Checklists, Inc.

MycoMed

Newco

PapGene

Pontifax Management

Potenza

Public Health Technologies, Inc

Sonavex

Tavec, Inc.

TheraCord LLC

# 4

## NEW CORPORATE PARTNERSHIPS

.....

Bayer

Institute of Organic  
Chemistry and  
Biochemistry (IOCB)

Microsoft

Luminox





# 6

## NEW DREAMIT HEALTH BALTIMORE TEAMS

.....

Baton

Decisive Health Systems

InsightMedi

REAL Dietitian

Redox

Sisu Global Health

# 5

## STUDENT STARTUPS RECEIVING RALPH S. O'CONNOR UNDERGRADUATE ENTREPRENEURSHIP FUND AWARDS

.....

Aezon

BHEST Medical

Forte Health

Clean Air Pillow

ShapeU



# 14

MENTORS-IN-RESIDENCE



# 24

TEAMS PARTICIPATING IN I-CORPS



# \$4.5

MILLION RECEIVED BY STARTUPS IN  
SMALL BUSINESS INNOVATION RESEARCH  
UNDING; MORE THAN \$250 MILLION  
RECEIVED BY STARTUPS IN  
FOLLOW-ON FUNDING



# 25

COMPANIES CURRENTLY IN "RESIDENCE"  
IN FASTFORWARD INNOVATION HUBS

# SPACE UP FOR IDEAS



## FastForward East

FastForward East, Johns Hopkins' newest innovation hub, opened in February 2015. Located in East Baltimore in the Rangos Building at 855 N. Wolfe St., the 6,000-square-foot hub provides affordable shared co-working, office and laboratory space near Johns Hopkins' medical campus to facilitate collaboration between entrepreneurs and researchers at the schools of Medicine, Public Health and Nursing, as well as at the flagship hospital. The innovation hub's open plan and communal spaces encourage cross-pollination of ideas and startup strategies among entrepreneurs, faculty and staff. Laboratory and office spaces are at capacity.



#### 1812 Ashland Ave.

Johns Hopkins broke ground at 1812 Ashland Ave. in May 2015 to build a 165,000-square-foot building with 25,000 square feet set aside to expand FastForward East. The space will provide additional co-working, office, laboratory and conference space for startups. The need for this additional space reflects the momentum Johns Hopkins' innovation ecosystem is experiencing. It also signifies FastForward's potential to have an impact on Baltimore's economic development. Much of the Johns Hopkins Technology Ventures team will relocate to the new building when it opens in fall 2016.



#### FastForward Homewood

FastForward Homewood is Johns Hopkins' original innovation hub. It occupies 13,000 square feet in Baltimore's historic Stieff Silver building, within a mile of The Johns Hopkins University's Homewood campus. The hub opened in early 2013, and its laboratory and office spaces have been at-capacity ever since.



# RESOURCE



- Twelve startups participated in The Johns Hopkins University's **Social Innovation Lab** in fiscal year 2015. The seven-month program supported these nonprofits and mission-driven for-profits addressing pressing social issues in Baltimore and beyond by offering them funding, mentorship, space and training to help transform their ideas into thriving ventures with measurable impact.



- For the second year in a row, Johns Hopkins co-sponsored **DreamIt Health Baltimore**, a four-month accelerator program for health information technology startups. Six teams participated this year, each receiving \$50,000 in funding along with an educational curriculum; space in which to work; a mentor/advisor; pro-bono legal and accounting advice; introductions to potential funders, partners and customers; and time with industry, government and academic leaders.

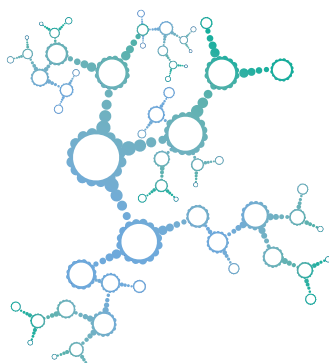


- Two dozen Johns Hopkins teams participated in the **National Science Foundation's I-Corps** program, in which participating teams pair with mentors to develop business plans and customer discovery projects for their technologies. Johns Hopkins hosts and provides instructors for I-Corps programs, helps recruit and select teams, and matches teams with mentors.





- For our first **University Technology Day**, in December 2014, we partnered with local venture capital firm **Greenspring Associates** to bring top-tier venture capitalists and angel investors from around the country to Baltimore to hear pitches from two dozen Johns Hopkins startups. This event allowed Hopkins to showcase the technological breadth of startups created at the university and supported by FastForward.
- We also hosted our annual joint meeting of the **Johns Hopkins Alliance for Science and Technology Development** and the **University of Maryland, Baltimore's Commercial Advisory Board**. The event is a unique opportunity for researchers to showcase early technologies with commercial potential to a network of potential customers, partners, mentors and investors. In 2015, several Johns Hopkins startups also had the opportunity to showcase their technologies.
- In fiscal year 2015, we supported the first **Johns Hopkins University Bootcamp for Technology Entrepreneurs**, co-hosted by The Johns Hopkins Carey Business School and The Johns Hopkins Whiting School of Engineering. The program provided participants—who hailed from a range of schools and disciplines—with the basic knowledge and skills needed to move ideas from laboratory to market.
- Our **Mentors-in-Residence** program grew from eight to 14 mentors in fiscal year 2015. The program pairs experienced entrepreneurs, industry leaders and venture capitalists with entrepreneurial faculty and startups at Johns Hopkins. Through regular interactions, the mentors guide our startups and entrepreneurial teams along the commercialization path.
- In fiscal year 2015, the **Commercialization Academy** provided nine student interns with practical technology commercialization experience, exposure to innovative technologies around the university and other skills related to diverse careers in science. The Academy also launched an expert speaker series exposing students to a variety of subdisciplines within the field of commercialization, as well as an online entrepreneurial training platform and library for the entire Johns Hopkins innovation ecosystem.







# GRANTS

- Established in 2015, the **Louis B. Thalheimer Fund for Translational Research** will provide seed funding to Johns Hopkins faculty members to produce the proof-of-concept, prototype and commercial feasibility studies necessary to bring discoveries and innovations out of the laboratory and into the world. The first round of funding will be awarded in late 2015.
- The Ralph S. O'Connor Undergraduate Entrepreneurship Fund**, which provides funding for undergraduate entrepreneurs, distributed its first round of grants in the spring of 2015. Five promising teams received grants ranging from \$2,000 to \$10,000.
- The Johns Hopkins University-Coulter Translational Partnership**, established in 2011 to fund exciting research collaborations between biomedical engineers and practicing clinicians at Johns Hopkins, has awarded \$2.5 million so far to help move 23 Johns Hopkins projects closer to commercialization.
- The Johns Hopkins University Institute for Clinical and Translational Research** manages the Accelerated Translational Incubator Pilot program, which offers \$100,000 grants—10 at Johns Hopkins in fiscal year 2015—to fund exciting projects seeking to improve clinical interventions.
- Four Johns Hopkins University researchers received awards at the annual joint meeting of the **Johns Hopkins Alliance for Science and Technology Development** and the **University of Maryland, Baltimore's Commercial Advisory Board** in April 2015.

# KEY PARTNERS

- Global biopharmaceutical company **Bayer Healthcare** and The Johns Hopkins University began a five-year collaboration in June 2015 to develop new therapies targeting diseases of the eye, such as age-related macular degeneration, diabetic macular edema, geographic atrophy, Stargardt's disease and retinal vein occlusion.
- The Johns Hopkins Drug Discovery program began a five-year collaboration with the **Institute of Organic Chemistry and Biochemistry** (IOCB) in Prague, Czech Republic, in spring 2015. Chemists at the IOCB and Johns Hopkins biologists will develop drugs for a range of therapeutic areas, including neurological diseases, cancer and gastrointestinal disorders.
- Our collaborative work with **MedImmune**, the global biologics research and development arm of biopharmaceutical business AstraZeneca, continues to grow and evolve. In fiscal year 2015, six new projects were added to our list of ongoing collaborations, bringing the total number to 11.







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