The Office of Technology Management
At Urbana-Champaign

Fiscal 2017 Annual Report

University of Illinois
The role of the Office of Technology Management is to move the innovations that result from University of Illinois research into public use by protecting and licensing University intellectual property.

**Our goal is to create impact.** Both the societal impact that University discoveries have on public wellbeing, as well as the campus and statewide impact that result from economic development.
## FISCAL 2017 SUMMARY

<table>
<thead>
<tr>
<th>College/Unit</th>
<th>Disclosures</th>
<th>U.S. Patent Applications Filed</th>
<th>U.S. Patents Issued</th>
<th>Licenses &amp; Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Campus Total</strong></td>
<td>242</td>
<td>224</td>
<td>85</td>
<td>50</td>
</tr>
<tr>
<td>Agricultural, Consumer, and Environmental Sciences</td>
<td>24</td>
<td>9</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Applied Health Sciences</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beckman Institute for Advanced Science &amp; Technology</td>
<td>14</td>
<td>22</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Carl R. Woese Institute for Genomic Biology</td>
<td>10</td>
<td>12</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Carle-Illinois College of Medicine</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>120</td>
<td>149</td>
<td>64</td>
<td>16</td>
</tr>
<tr>
<td>Fine &amp; Applied Arts</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>66</td>
<td>71</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td>National Center for Supercomputing Applications</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note: Due to the large amount of interdisciplinary research on campus, inventions are often associated with more than one college or unit. As a result, the numbers reported in the table above may be counted multiple times, once for each associated college.*
OTM worked with **62 departments and units** across campus last year.
LICENSES & OPTIONS

2017 LICENSES & OPTIONS
BY INNOVATION TYPE

- Agriculture: 10
- Copyrighted Material: 3
- Electronics: 3
- Energy: 3
- Food: 1
- Materials: 2
- Research Tools/Reagents: 3
- Software Applications: 10
- Therapeutics & Diagnostics: 15

2017 LICENSES & OPTIONS
BY COMPANY TYPE

- Existing Companies: 27
- Start-Ups: 14
- Educational and Nonprofit Institutions: 6
- Sponsored Research, Subscriptions, and Consortia: 3

First Licenses to Start-Ups

<table>
<thead>
<tr>
<th>Year</th>
<th>Licenses &amp; Options</th>
<th>First Licenses to Start-Ups</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>46</td>
<td>6</td>
</tr>
<tr>
<td>2014</td>
<td>38</td>
<td>6</td>
</tr>
<tr>
<td>2015</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>2016</td>
<td>44</td>
<td>8</td>
</tr>
<tr>
<td>2017</td>
<td>50</td>
<td>5</td>
</tr>
</tbody>
</table>
FIRST LICENSES TO START-UPS IN FISCAL 2017

APPLIED GEO-IMAGING SOLUTIONS
Training and consultation on how to use remote sensing technologies to reduce the risk of groundwater contamination. Founded by Christopher Stohr, formerly with the Illinois State Geological Survey; the company is located in Catlin, Illinois.
geo-imaging.com

GLOBAL FOOD AND AG NETWORK
Offering MarketMaker, a national network connecting farmers and fishermen with food retailers, grocery stores, and processors. MarketMaker is available in 20 states. Founded by Darlene and Richard Knipe, formerly with the College of ACES; the company is located in Coal Valley, Illinois.
foodmarketmaker.com
IEPQ
Helping educators improve Individualized Education Programs (IEPs) for students. Founded by James Shriner from the College of Education; the company is located in the EnterpriseWorks incubator. iepq.education.illinois.edu

INSPIRIT IOT
Designing solutions to enhance machine learning applications. Founded by Deming Chen from the College of Engineering; the company is located in the EnterpriseWorks incubator. uninspirit-iot.com

RECONSTRUCT
Improving efficiency in the construction industry by using images of job sites to measure work completed, find plan deviations, and predict risk for delay. Founded by Mani Golparvar Fard from the College of Engineering; the company is located in the EnterpriseWorks incubator. reconstructinc.com
ACTIVE START-UPS BY INDUSTRY APPLICATION

- Agriculture & Animal Health: 6
- Copyrighted Material: 3
- Electronics & Engineering: 12
- Energy & Environment: 3
- Healthcare: 11
- Materials: 4
- Research Tools & Reagents: 3
- Software Applications: 19
ACTIVE START-UPS ACROSS THE COUNTRY

AMI
Champaign, IL
First sales to a U.S. coatings manufacturer.

APTIMMUNE
Champaign, IL
Launched the world’s first mucosal PRRSV Vaccine for swine

MADBONE
Champaign, IL
Sold its first product: the MADPipe

MICROLUTION
Chicago, IL
Acquired in May 2016 by GF Machining Solutions

VERIFLOW SYSTEMS
Champaign, IL
Won Tech Trailblazers’ Security Trailblazer Award
Raised $8.2 million in Series A funding led by Menlo Ventures and New Enterprise Associates

REVOLUTION MEDICINES
Redwood, CA
Raised $25 million in Series A financing

VOXEL8
Somerville, MA
Recipient of 2016 R&D 100 Award

More than 60 active start-ups across the United States
Note: Beginning with fiscal 2017, counts for U.S. patent applications and issued U.S. patents will include activity that was unaccounted for in the prior fiscal year (2016).

More than 800 active, issued U.S. patents
**REVENUE ($ MILLIONS)**

- 2013: $4.91
- 2014: $5.26
- 2015: $6.19
- 2016: $4.85
- 2017: $4.74

**REVENUE:** $4,742,585

- Patent Expense Reimbursement: $2,087,202
- Net Available for Distribution: $3,689,975

**ACTUAL DISTRIBUTIONS**

- Inventors’ Share: $453,880
- University Share:
  - Unit/College: $1,529,931
  - OTM Cost Recovery: $1,064,252

*Note: “Actual Distributions” do not match the “Net Available for Distribution” in any one year because of the time lag between the date monies are received and the date actual distributions are made.*

**TOP THREE REVENUE GENERATING TECHNOLOGIES**

- **CANCER FIGHTING COMPOUNDS:** small molecules with potential applications as therapeutics
- **WHEAT LINES:** being produced on farms across the United States
- **DEPOSITION AGENTS:** metal complexes that can be used for depositing metal compounds
ADVANCING THE UNIVERSITY’S VISION

In 2016 the University put forward a 10-year strategic framework charting a path to the future. The Office of Technology Management supports the University’s priorities by working to:

- Build a culture of innovation, collaboration, entrepreneurism and thoughtful risk-taking.
- Grow and diversify experiential learning and career guidance.
- Increase the University’s power as an engine for statewide and regional economic development.
- Forge new research and development partnerships.
IMPACT OF PROOF-OF-CONCEPT FUNDING

Professor Paul Hergenrother, 2015 I-POC recipient, credits the program “It directly led to our scientific breakthrough on predictive guidelines for compound accumulation in Gram-negative pathogens and our forthcoming Nature manuscript.”

READY-TO-SIGN GETTING TRACTION

Download and sign non-exclusive licenses for technologies across the research spectrum, including agriculture, engineering, healthcare, software and more. The program has generated multiple technology inquiries and a signed license with 3M.

SUPPORTING THE ENTREPRENEURIAL PIPELINE

OTM is a partner in campus I-Corps activities. In 2017, a technology manager acted as a start-up mentor during the 7 week national I-Corps program. In addition, a technology manager serves as the office liaison to the regional I-Corps node.
WORKING WITH STATE PARTNERS TO INCREASE TECHNOLOGY TRANSFER

OTM continues to provide technology transfer services to Illinois State University and is discussing similar arrangements with the Illinois Mathematics & Science Academy (IMSA) and OSF Healthcare.

INTEL SUBSCRIPTION AGREEMENT YIELDS FIRST LICENSE

The agreement, similar to an option, gives Intel access to the campus’ electronics patent portfolio in return for an annual fee. The program yielded its first license in 2017.

PARTNERING WITH CARLE AND THE NEW COLLEGE OF MEDICINE

The new Carle-Illinois College of Medicine is already generating invention disclosures. OTM meets monthly with the research leadership team at Carle to discuss IP management for joint collaborations, such as the Carle Illinois Collaborative Research Seed Funding Program.
INTERN PROGRAM SUPPORTS STUDENT DEVELOPMENT
OTM employs 12 graduate and undergraduate interns to work as commercialization analysts and communications staff. Internships at the office are carefully crafted to provide educational opportunities, professional mentoring, and networking time with corporate contacts.

CELEBRATING THE ENTREPRENEURIAL SPIRIT
Innovation Celebration is an annual campus and community event that recognizes local innovators through awards in multiple categories. OTM is proud to partner with the organizers to host two of the awards.

Innovation Transfer Award: recognizes discoveries with the potential for significant societal impact. 2017 awardee: Dr. Frederic Kolb for his work on soft red winter wheat lines.

Alexis Wernsing Innovation Award: recognizes an individual or team that has channeled their experience living with a disability into positive change. 2017 awardee: Arielle Rausin for her development of wheelchair racing gloves.