

2016 ANNUAL REPORT

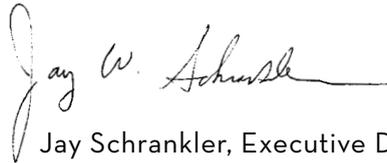
A fluorescence micrograph showing a cluster of living cells. The nuclei are stained with a blue dye, and the cytoplasm is stained with a yellow-orange dye, indicating the presence of a calcium pump biosensor. The cells are arranged in a somewhat circular pattern, with some showing more intense staining than others.

Micrograph of a fluorescent calcium pump biosensor in living cells, developed by University of Minnesota scientists and licensed to Photonic Pharma LLC, a UMN startup.



GREETINGS,

The Office for Technology Commercialization continued to build on its record of outstanding success in FY2016. Our revenues were higher than at any point in the last five years, and we achieved a milestone in receiving more than 400 new invention disclosures. We also launched our 100th startup company through OTC's Venture Center. Thanks to our community, volunteers and many partners for being a part of our success.



Jay Schrankler, Executive Director
Office for Technology Commercialization



About OTC

The Office for Technology Commercialization operates a broad-ranging technology commercialization function for the University of Minnesota, connecting University researchers and their inventions with the marketplace. OTC's work facilitates the development of new products and services to benefit the public, foster economic growth and generate revenue to support the University's mission of research and education.

Learn more about how we can help you:

research.umn.edu/techcomm

HIGHLIGHTS-FY2016

- A record 17 startups were launched in FY2016 in a diverse number of sectors.
- 101 startups have been launched since the Venture Center formed in 2006.
- UMN is one of only three NIH funded Research Evaluation and Commercialization Hubs (REACH). In 2016, 10 teams completed the MN-REACH program and received commercialization grants totaling \$1.5 million.
- 81 MN-IP research agreements with 62 companies resulted in over \$12 million in related sponsored research in FY2016.
- Three UMN inventions received National Innovation Awards from TechConnect.
- Innotronics and Minnepura, both UMN startups, were named among the 35 “Best University Startups 2016” by the National Council of Entrepreneurial Tech Transfer (NCET2).
- MIN-Corps, a joint initiative of OTC, the College of Science and Engineering, and the Holmes Center for Entrepreneurship, delivered entrepreneurship skills development programs to over 350 STEM students, faculty and staff.
- In June, OTC hosted the Association of University Technology Managers (AUTM) 2016 Software Course in Minneapolis and presented on several software licensing topics.

TECHNOLOGY COMMERCIALIZATION DATA

	2012	2013	2014	2015	2016
GENERAL					
INVENTION DISCLOSURES	321	331	343	354	402
NEW LICENSES*	71	91	154	268	194
CURRENT REVENUE GENERATING AGREEMENTS*	426	331	429	544	528
GROSS REVENUES	\$45.7	\$39.5	\$27.4	\$20.2	\$46.9
OUTGOING MATERIAL TRANSFER AGREEMENTS	313	281	288	297	273
PATENTS					
ISSUED PATENTS (U.S. AND FOREIGN)	153	129	104	136	168
NEW PATENT FILINGS*	115	148	138	146	202
MN-IP					
MN-IP RESEARCH AGREEMENTS	14	41	51	69	81
COMPANIES W/ MN-IP RESEARCH AGREEMENTS	15	38	44	54	62
SPONSORED RESEARCH COMMITMENTS	\$2.6	\$3.8	\$4.3	\$10.8	\$12.2
STARTUPS					
STARTUP COMPANIES	12	14	15	16	17

Dollar amounts represented in millions

Office for Technology Commercialization, InfoEd System; U of M Enterprise Financial System

*New Licenses and Current Revenue Generating Agreements: Updated in FY2014 to include express licenses with revenue greater than \$1,000; FY2015 data includes 94 licenses for the FAST technology, spun out that year as FastBridge Learning.

*New Patent Filings: Updated in FY2015 to include both U.S. and foreign filings. Pre-FY2015 data include only U.S. filings.

EXTERNAL PARTNERSHIPS

MINNESOTA INNOVATION PARTNERSHIPS (MN-IP)

Since it debuted in 2011, the nationally recognized Minnesota Innovation Partnerships program, or MN-IP, has set the University of Minnesota apart by lowering barriers to industry collaboration with University researchers. This multi-faceted program has business-friendly terms that have helped forge more than 260 research agreements and numerous technology licenses between the U and industry partners.

MN-IP Create previously offered two options for companies: Option A which allows companies to pre-pay a portion of a research agreement in exchange for an exclusive license to the technology developed; and Option B which has no upfront fees and waits until intellectual property is developed to negotiate a royalty-bearing license.

In 2016, MN-IP Create expanded to offer a third option. Option C allows companies to pre-pay a designated share of a sponsored research agreement in exchange for a non-exclusive, worldwide license to all IP that arises from the project. The sponsoring company does not pay any royalties, annual minimums or other technology commercialization fees on the license. The company also has the opportunity to later negotiate an exclusive, royalty-bearing license if desired.



These companies are just a few of the hundreds that have partnered with the University through the MN-IP program to develop novel solutions that meet their business needs.

UNIVERSITY STARTUPS

VENTURE CENTER LAUNCHES 100TH STARTUP

In June 2016, OTC's Venture Center announced it had launched its 100th startup since its founding 10 years ago, marking a milestone in the University's efforts to assist faculty and staff in forming new companies to commercialize their inventions. Launching new companies is one of the primary ways the University turns research discoveries into commercial products that fuel the economy and contribute to the public good.

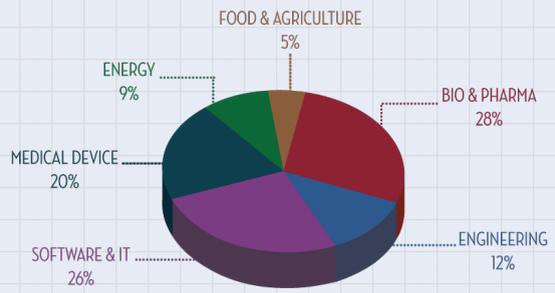
The startups have allowed the University's entrepreneurial faculty to drive innovation across a wide range of fields, with companies based in agriculture, energy, engineering, pharmaceuticals and medical devices. Three out of four startups are based in Minnesota and 82 percent are still active today, well above the national average. In total, the companies have raised more than \$219 million in investment capital.

The Venture Center has developed a broad range of programs that support entrepreneurial faculty and has cultivated networks of partners both within and beyond the U to promote new company creation and advance business development.

The expertise of OTC staff and the support of its Business Advisory Group, 140 local business executives who volunteer their time, have helped the University excel at startup creation despite a statewide trend of declining investment in entrepreneurship.



COMPANIES BY YEAR

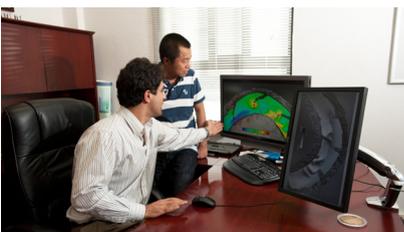


COMPANIES BY INDUSTRY AREA

The University of Minnesota launched a record 17 startup companies in FY2016. Read about all of our startups at z.umn.edu/umnstartups



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UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

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