Faculty Research Forum: Innovation at Princeton

October 23, 2020
Protecting and Commercializing University Intellectual Property

Tony Williams
Office of Technology Licensing
Our Mission and Services

• To provide a service to faculty and researchers
  • Helping you turn your inventions into products & services
    • Protecting your Intellectual Property
    • Licensing to established companies
    • Enabling you to pursue entrepreneurial activity
  • Negotiating and executing legal agreements related to Princeton research
    • MTAs, CDAs, Sponsored Research, and more
  • To see Princeton technologies make an impact in the world

patents.princeton.edu
Come Talk with us!

John F. Ritter
Director

Chris Wright
Licensing Associate

Laurie Tzodikov
Associate Director

Prabhpreet Gill
Licensing Associate

Anthony Williams
New Ventures Associate
How to Engage with OTL

- Invention Disclosure form available at https://patents.princeton.edu
How do we Assess an Invention?

- Decisions are based on:
  - Can we get valuable, enforceable IP protection?
  - Probability of commercial success
  - Commitment of the faculty and researchers to work with the OTL in translating the technology

- **NEVER** on the quality of the research

- Patents only one form of IP protection
How do we Market an Invention?

• First step is research
  • Are we solving a real market problem?
  • What is the size and nature of the market(s)?
  • What will it take to commercialize a product?

• Leverage networks – both ours and yours

• Later step is licensing
  • Grants a company the right to use Princeton University IP in return for royalties, fees and/or sponsored research funding

patents.princeton.edu
An increasing % of OTL’s Licenses are to Startups

Engineering and Devices
- Aculon
- Twinleaf
- Feasible
- Healthy Photon
- TigerOptics
- Tendo Technologies
- Hearth Labs
- Arable
- Luminous

Biotechnology & Pharmaceuticals
- Bionano Genomics
- GPB
- Orthobond
- Chiromics
- Forge Life Science
- Optimeos
- ProteoDesign

Information Technology
- Optimal Dynamics
- PCA
- FFChain Labs
- Myota

Materials
- Nanoflex
- Universal Display Corporation
- Andaluca Technologies
- HIT Nano
- BMSEED
- Vorbeck
How can OTL Help Launch a Startup?

**Funding**
- Faculty New Ventures Assistance Fund
- SBIR/STTR Assistance
- Angel & Venture Capital Networks

**Business Planning**
- Market Discovery support
- Executives-in-Residence

**Team Building**
- Academic Venture Exchange
- Alumni networks

**Intellectual Property**
- IP Strategy Support
- Licensing on favorable terms

**Operations**
- Incorporation
- Service provider networks

**Space**
- Princeton Innovation Center

patents.princeton.edu
External Research Funding Players

- Sponsor – Source of funds (ex: Federal agency, company, foundation)
- DFR – Office of the Dean for Research
  - ORPA – Office of Research and Project Administration
  - CEFR – Corporate Engagement and Foundation Relations
  - OTL – Office of Technology and Licensing
- OGC - Office of the General Counsel
- Limited submissions committee (faculty, co-ordinated by CEFR)
- Office of Advancement
External Research Funding Sources

- Federal agency -> PI
  -> Company -> PI
  Direct grant. (ORPA)
  Flow thru. (CEFR, ORPA)

- Company -> PI
  Contract (CEFR, ORPA: Terms, IP, 65% Indirect costs)
  -> PI Unrestricted Gift (CEFR: no terms or IP, no indirect)

- Foundation -> PI
  Grant (CEFR, ORPA)

- Hybrid ex: Intel -> NSF -> PI, Facebook -> SSRC -> PI
Princeton University Funding Highlights

The combined corporate and foundation new awards reached its highest level in 2020.

Key Figures

<table>
<thead>
<tr>
<th></th>
<th>FY15</th>
<th>FY20</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation new awards</td>
<td>$42M</td>
<td>$61M</td>
<td>45% ↑</td>
</tr>
<tr>
<td># Foundation new awards ($50K+)</td>
<td>104</td>
<td>99</td>
<td>5% ↓</td>
</tr>
<tr>
<td>Corporate new awards</td>
<td>$10M</td>
<td>$30M</td>
<td>200% ↑</td>
</tr>
<tr>
<td># Corporate new awards ($50K+)</td>
<td>45</td>
<td>84</td>
<td>87% ↑</td>
</tr>
</tbody>
</table>

Funding from foundations was robust at $61M. Although the dollar amount for new awards increased, the number of grants was slightly fewer than in previous years.

In FY20, new awards from industry had a moderate increase with a total of more than $30M.
5 Best Practices for Getting Corporate Research Funding

› Make Yourself Known
› Listen
› Think Applications
› Know Your Intellectual Property (IP)
› Cultivate Collaborative Relationships
PRINCETON ENTREPRENEURSHIP COUNCIL

Anne-Marie Maman
Executive Director
What has been happening on and off campus?

- Alumni Entrepreneurs Fund – June 2014
- Faculty New Venture Fund – Nov 2016
- Princeton Innovation Center – June 2017
- Tiger Entrepreneurs Conferences
  - Boston - Nov ’17
  - California – April ‘19
  - Entrepreneurial Content at Thrive – Oct ‘19
  - NYC – Nov ’19
  - Engage 2020 – Nov ’20
  - Empower 2021
- Faculty Innovation Award – Nov ’20
- New Faculty, Postdoc & Grad Student education
Upcoming Events
entrepreneurs.princeton.edu

Oct 22: Tiger2Tiger: Getting VC Deals Done in an All-Digital World

Nov 4-6 Engage 2020
55 Sessions on a variety of Innovation and Entrepreneurship Topics

Nov 19: Funding: How to Read a Term Sheet

Jan ’21 Wintersession

Mar 21: Team Building and Product/Market Fit
PEC Mentoring

Topic Based Advising

Searchable by expertise tags

22 Alumni Mentors

Direct online scheduling

Partnered with KC LCA and PAA
● For Princeton and non-Princeton startups
● Princeton University spinout tenancy is strong
● Series of Educational Events
HOW TO ENGAGE

Sign up for our newsletter at entrepreneurs.princeton.edu

Follow us on social media @princeton_pec and princetonentrepreneurs

Listen to our podcast The Princeton Spark

Sign up for updates on our upcoming Ecosystem Map
entrepreneurs.princeton.edu/map-launch

Get entrepreneurial advice at entrepreneurs.princeton.edu/officehours