Innovations & New Ventures at Northwestern
TODAY’S GOALS

1. Who are we & what do we do at Northwestern?
2. What does the invention disclosure process look like?
3. What should research administrators know about INVO?
4. How can you learn more about what we do at INVO?
To catalyze the translation of Northwestern innovations to benefit the public and to promote economic growth

- Become a source of impactful innovations and products that improve lives
- Become a magnet for entrepreneurial talent
Our Activities

Technology Transfer
- IP Support (Consultation, Filing, Office Actions, etc.)
- Technology Evaluations
- Marketing Efforts

Innovation & Entrepreneurship Programming
- Workshops
- Seminars
- Mentoring
- Internships
- Coordination with Classes, etc.

Space
- The Garage
- Faculty Hub
- University Memberships (mHub, 1871 & MATTER)

Funds
- N.XT Fund ($10M)
- NuSeeds Fund ($4M)
Technology transfer activities focus on moving technology from the University to the public domain.

BAYH-DOLE ACT of 1980
NEW PRODUCTS

Change in IP Ownership

BAYH-DOLE ACT
Impact of Bayh-Dole on IP*

**Pre-Bayh-Dole**
- <250 issued patents/year
- 30k university patents
- 5% led to new products

**Post-Bayh-Dole**
- 5-6k issued patents/year ('12-'14)
- 80k university patents ('94-'14)
- 10-15% new products ('12-'14)

**Significant Economic Impact of Bayh-Dole Act**
- 5000 startup companies
- >$500B GDP increase
- 3.8M US jobs

*AUTM US Licensing Activity Survey Highlights 2012-2014
FY16 STATS

203 DISCLOSURES
15.7 MILLION IN LICENSING REVENUES, DOLLARS

169 AGREEMENTS
2.2 MILLION IN EQUITY SALES, DOLLARS

11 STARTUPS
3.2 MILLION IN RESEARCH FUNDED BY STARTUPS

488 FILED PATENTS
130 ISSUED PATENTS
An **INVENTION DISCLOSURE** is Northwestern’s record of an invention, the inventors involved, sponsorships, & other public disclosures and publications.

Inventors should plan to submit their invention disclosure **3-4 weeks prior to a public disclosure**

- Posters/abstracts/proceedings
- Journal articles, book chapters
- Conference presentations
- Some departmental seminars & thesis defenses
- Some grant proposals

**DISCLOSING AN INVENTION TO INVO DOES NOT PROTECT AN INVENTION. A PATENT APPLICATION MUST BE SUBMITTED TO THE USPTO**
1. PROTECT COMMERCIAL POTENTIAL
   INVO can provide feedback on how to proceed in the commercialization process

2. PROTECT INTELLECTUAL PROPERTY
   If IP protection is appropriate, INVO can maximize IP protection if invention is disclosed in advance of public disclosure.

3. FULFILL NU’S RESPONSIBILITY TO REPORT TO RESEARCH SPONSORS
   INVO must report all inventions to respective public and private research sponsors

4. IMPROVE MARKETING WITH INDUSTRY PARTNERS
   INVO can help provide industry with insight into available technologies and the research that is taking place at the university.
Forms

Disclosure Forms

- **Invention**
- **Copyright** - Includes but not limited to literary and artistic works
- **Software** - Includes but not limited to source code
- **Research Tool**
**Definition of Inventorship vs Authorship**

**Accuracy of Grant Information**
- Describe the invention in a less technical manner.
- What is the relevance to the public?

- Describe the invention in a more technical manner.
- This helps our team and outside counsel to understand how this invention is distinct from other inventions.
- Note work that is similar and differentiate. Better to disclose information upfront.
Provide COMPLETE contact information.*

- Name should be a LEGAL name—what’s on a passport and legal documents.
- For patent filing, we need to include the country of citizenship.
- Please inform us of any address changes for future correspondences & royalty checks.
- Electronic signature is acceptable.

*This disclosure is submitted pursuant to the Northwestern University Patent and Invention Policy and is subject to all the terms of that Policy. http://invo.northwestern.edu/policies/patent-invention-policy

If this invention is accepted by the Innovation and New Ventures Office at Northwestern University, INVO hereby agrees to execute all necessary documents, assigning to Northwestern all rights in any patent application filed on this invention.

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**INVENTOR 1**

- Name (as it will appear on any patents)
- University/Institute
- Cell Phone
- Home Address
- Citizenship
- Signature
Life of a Patented Technology

1. Disclosure Submission
2. Invention Assessment
3. Provisional Patent App
5. International Patent App
6. US Issued Patent
7. Foreign Issued Patent

Prior Art Analysis

Enabled application? Identifiable market? Non-problematic FTO?

Licensee on horizon? Licensee willingness to pay?
Send relevant updates to IM, such as future public disclosures or technology development.

Important Take-Homes

- Complete the disclosure as thoroughly as possible
- Be available to meet with IM to discuss your technology.
- Respond to IM as quickly as possible as they may have time-sensitive questions.
1. **Explore Additional Sponsored Research Opportunities**
   INVO coordinates with other offices to review IP stipulations. Ideally, several weeks are needed to review these agreements.

2. **License Technology to Existing Company**
   INVO helps identify and negotiate license agreements. If there’s interest, IMs contact faculty to discuss.

3. **Create University Startup**
   INVO has Startup Guide online.
Northwestern Licensees (Past & Present)

- Stryker
- Motorola
- Olympus
- Bristol-Myers Squibb
- Novartis
- Genentech
- Sigma-Aldrich
- MedImmune
- Siemens
- Imtech
- Thermo Fisher Scientific
- Santa Cruz
- Genzyme
- Pfizer
- Abbvie
- 3M
- Regeneron
- Boehringer Ingelheim
- Covance
- Biogen
- Amgen
- Bayer
- GSK
- GlaxoSmithKline
- Biogenex
- Kensey Nash
- Amc10
- Novo Nordisk
- Abbott
- Johnson & Johnson
- Astellas
$56M+  SBIR/STTR Funded Active Startups (2006-2016)

$306M+  VC-Backed Startups

$2.72B+  Acquired Startups
Recent Issues for Discussion

Pre-Award

• Commercialization Plan or IP Provisions – Reach out to INVO/Invention Manager early

Disclosures – Key items

• Employee ID to identify personnel @ NU – our system is linked to myHR
• Funding accuracy
  • Corrections result in costly fees to NU – each one can be hundreds of $
  • When possible, include grant Project Award Summary as an attachment to disclosure

Agency Requests

• If you are ever asked from an agency about reporting, please reach out to INVO early
• iEdison Reporting – INVO takes care of this; Please reach out to INVO/Invention Manager if asked by agency
• Foundation/Private funding compliance – INVO takes care of this; Please reach out to INVO if asked by agency
Ways to Learn More about INVO

WEBSITE: Visit www.invo.northwestern.edu
INVO NEWSLETTER: Sign up on our home page
SOCIAL MEDIA: Follow us on Twitter (@INVOatNU)
STUDENT OPPORTUNITIES: INVO Practicum Interns and N.XT Associates
THANK YOU