Cornell Research Enterprise

>$985M – FY2017 research expenditure

>$602M

Cornell University,
Ithaca - 11 Colleges and Schools

>$383M

Weill Cornell Medicine
NYC  Qatar

Roosevelt Island - NYC
Center for Technology Licensing

- University-wide Technology Transfer Program

- Catalyze Technology Commercialization

- Promote New Venture Formation and Growth

- Support Industry Alliances
Center for Technology Licensing

FY2018 FACTS & FIGURES

392 IP DISCLOSURES

$21.0 MILLION IN REVENUE

79 LICENSES & OPTIONS

279 PATENTS ISSUED

9 STARTUPS
3 NEW BUSINESSES IN NEW YORK STATE
Technology Transfer Process

Technology Evaluation → IP Protection → Marketing/New Venture → License Negotiation → License Management

- Startup idea incubation
- Networking
- Team development
- Company formation
- License negotiation
Intellectual Property Rights

Intellectual Property

- Patents
- Copyright
- Plant Variety Protection
- Trade Secrets (know-how)
- Trademark

Tangible Property

- Proprietary Materials
- Software Code
- Data
Patent Rights

The right to exclude others from making, using, offering for sale, or selling the products enabled by the invention in the Country, or importing the patented product into the Country. *(Not the right to make, use, offer for sale, sell or import)*

- Utility patents: 20 years from filing date.
- Design patents: 14 years from grant.
- Plant patents: 20 years from filing date.
Claims

- Define (in words) what is legally protected in the patent
- To cover a commercial product or service, not a scientific findings
- With scope that can prevent others from circumventing (designing around) the patent
- Enforceability: Infringement of claims should be detectable

Application Process

Provisional 12 months  →  PCT Application 18 months  →  National Phase  →  Prosecution

Provisional 12 months  →  US Utility Application
Invention vs. innovation – a patentable invention is defined by law and must meet the 3 criteria of utility, novelty, and nonobviousness.

Inventorship vs. Authorship – both are defined under US law.

Prior Art – anything known publicly anywhere before the date your patent was first filed ("priority date")
- Includes the inventor’s own publications
- Papers, conference presentations, thesis publication, internet, arXiv

New America Invents Act (March 2013) – first inventor to file

Publicly disclosing your invention before filing a patent application can limit where or if we can file at all.
Keys to better patents

- What distinguishes your invention from the prior art? Clear understanding is critical.
- Detailed description of your invention & documentation (invention disclosure form)
- Proactive assistance during patent prosecution (3-5 yr. period)
- Variations, modifications and alternatives
- How would you design around your own invention? (Different embodiments)
- Review your invention as if you were reading someone else’s
- Disclose early and often & stay in communication with CTL
During prosecution the patent office examiner will issue ‘Office Actions’

- The invention (as claimed) will likely be deemed not patentable under one or more of the 3 criteria for patentability
- Need for inventor’s technical expertise is often critical to overcome rejections
- Do not discard or dismiss negative data
- Be aware of length of time & cost to issuance: 3-5 years; >$20K for US patent alone
If CTL proceeds with filing a patent application on your disclosure, we will in most cases start by filing a provisional application.

- Inexpensive application provides for one year period to decide to convert to a full (utility) or PCT application (PCT application allows filing in most major countries in the world).
- Allows for 12 additional months of patent pending status (makes life of patent 21 years).
- If provisional is not “converted” after 12 months, the application is abandoned and it will never see the light of day.
- If it is converted to a utility or PCT application, the application will be published and in the public domain (even if later abandoned).
How do Universities Commercialize?

Patent, IP

Licensing, startup
Commercialization Potential

- **Different from scientific peer review**
  - We don’t scrutinize your science

- **We assess technologies through a different lens**
  - What problem(s) does your invention solve?
  - What are potential commercial applications?
  - Platform technology or improvement to an existing solution?
  - What is the potential market size? Is there an existing market?
  - Are there competing technologies?
  - What are the next steps in developing the technology?
  - Startup vs. licensing to established company?
  - What businesses may be good industry partners to commercialize your invention?
  - Can your invention be ‘policed’?
Marketing inventions

- In concert with inventors CTL will:
  - Generate marketing materials (Value Proposition!)
  - Identify target companies, entrepreneurs, investors
- Web postings, cold calls, email campaigns
- Network, network, network!
- CTL Technology Showcase Events
- Industry Forums
- Industry Advisory Group (IAG)
  - “Friends of Cornell” with various backgrounds and experiences working in industry
  - provide recommendations, information, referrals
The inventor’s role

• Inventors – do not underestimate your role in marketing & licensing success!
  
  – Anecdotal evidence: 80% of university licensing deals begin with the researcher's existing industry relationships (although CTL’s marketing hit rate is higher)
  
  – Make industry contacts at conferences and let CTL know about them
  
  – You are not “just” a scientist at the conference; you are also “selling” your invention
Financial terms:

- Long term: Royalty on product sales
- Short term: License fees, equity in the startup
- Patent cost reimbursement for exclusive licenses

Non-Financial terms:

- Field-of-use
- Due diligence: ensure progress to grow the company

Process

- Timing
- Conflict of Interests
- Transparency & communication
Questions?