

Agreements, IP, and Academic Innovation

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Nov. 10th, 2025

Outline

Introduction to PCI

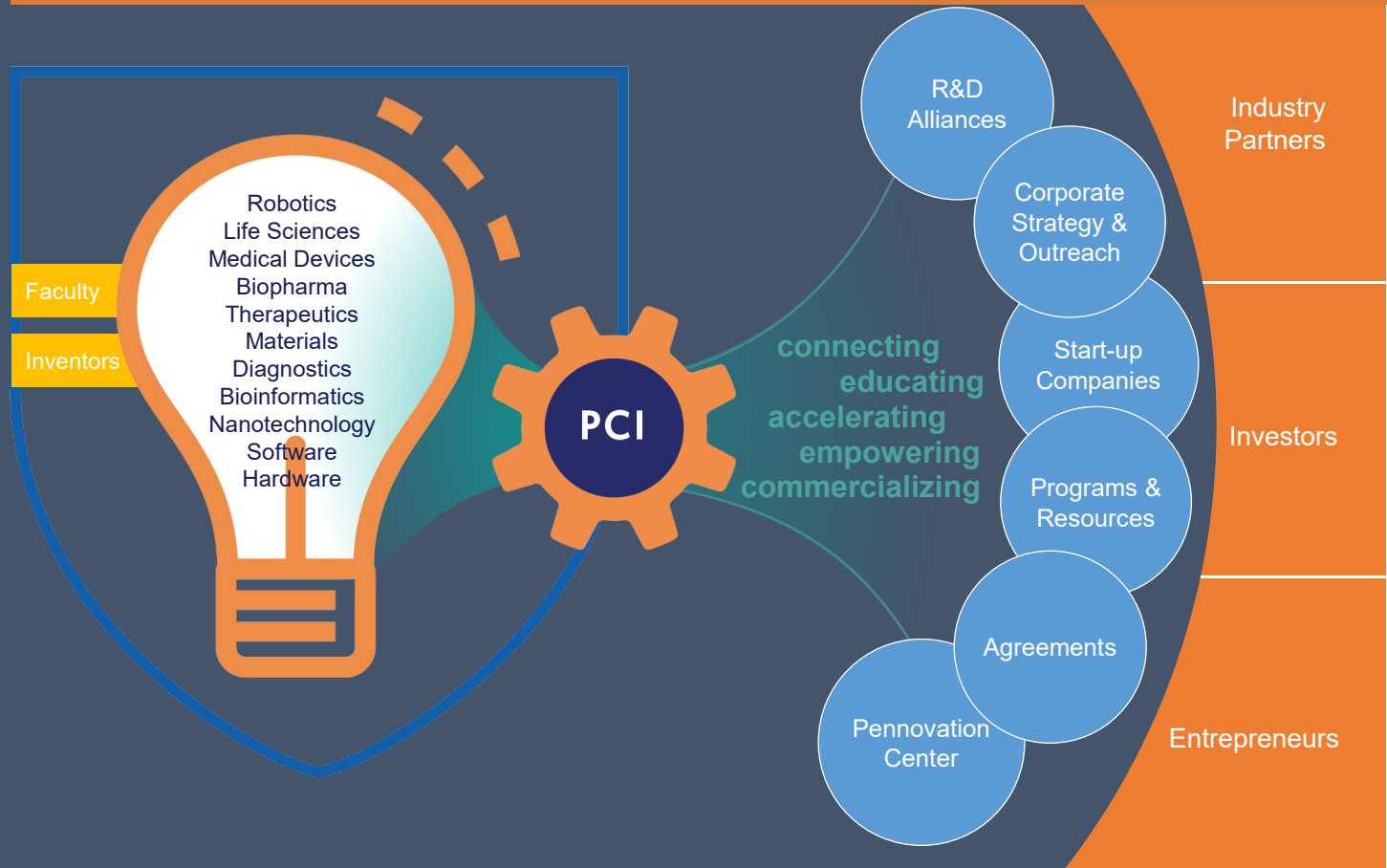
Working with commercial parties: Penn's process

Types of agreements processed by PCI

Main negotiated terms in research agreements

PCI's Mission

**to work in partnership with Penn faculty, staff and students
to advance these discoveries and ideas
towards new products, services and/or businesses
that provide benefits back to Penn, its inventors and society.**





>\$500M

Licensing revenue

Filed patent applications

696

650

Executed commercial agreements

Industry-sponsored research funding

\$54M

99

Issued U.S. Patents

PCI-facilitated startup companies

26

398

Invention disclosures



WHAT'S OFFERED:

PCIV broadly supports Penn faculty in entrepreneurial efforts with advice/information on the start up process and direct support

PROGRAMS: (participation at sole discretion of faculty):

- UPstart
- UPadvisors
- Venture WarmUP

OUTPUT:

- > 200 company projects launched since 2010
- 84 companies received funding
- \$954M in cumulative funds raised
- 8 exits

PCIV Team



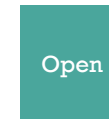
Bhavana Mohanraj
Interim Exec. Director
PhD, Bioengineering



Yi-Yen Chen
Associate Director
PhD, Developmental Biology



Melisa Lopez-Anton
Assistant Director
PhD, Biomedical Science



Executive Director
(recruiting)



Mackenzie Greenfield
Administrative Coordinator

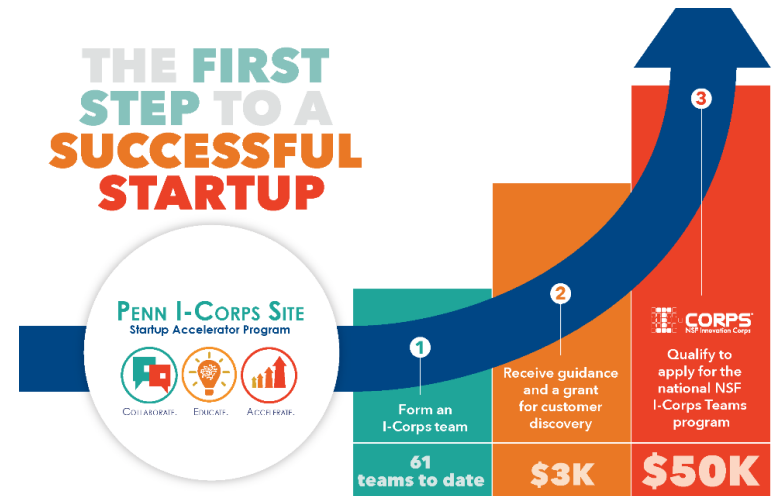


PENN I-CORPS

educate. collaborate. accelerate. 

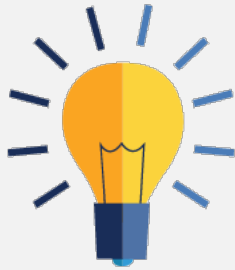
- NSF (National Science Foundation) program designed to facilitate commercialization of university research

- Short courses for faculty/student teams
- Focus on articulating solid business model for startup
- \$3k funding
- Qualifies for \$50k National NSF follow-on program
- Path to SBIR/STTR funding



LEARN MORE: www.pci.upenn.edu/icorps/

COMMERCIALIZATION PROCESS

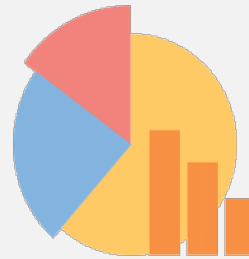


1. Invention



2. Disclosure

Inventor Portal



3. Assessment

Technology Licensing
Officer (TLO)
IP protection strategy &
starts to assess the
commercial value



4. Intellectual Property

patents, copyright,
trademarks

Supporting PCI
Programs



Detkin IP Clinic

COMMERCIALIZATION PROCESS (CONT)



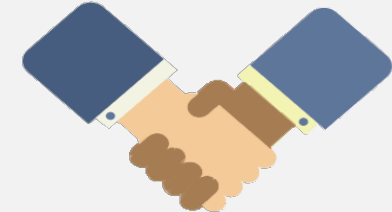
5. Commercialization Strategy

best commercialization strategy:
licensing to industry,
starting a company via PCI Ventures or
pursuing a corporate partnership



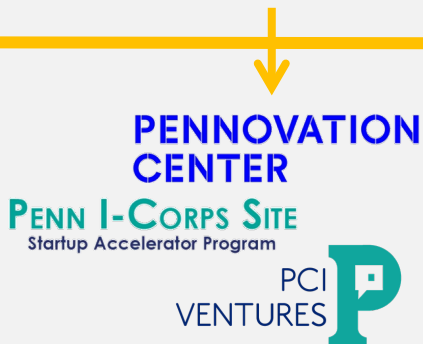
6. Marketing

- market analysis to identify potential clients and partners, designs and
- creates marketing materials
- lists the technology on our website



7. Agreements and/or Business Relationships

an option and/or license to
the technology, an MTA or
SRA, or a new venture project

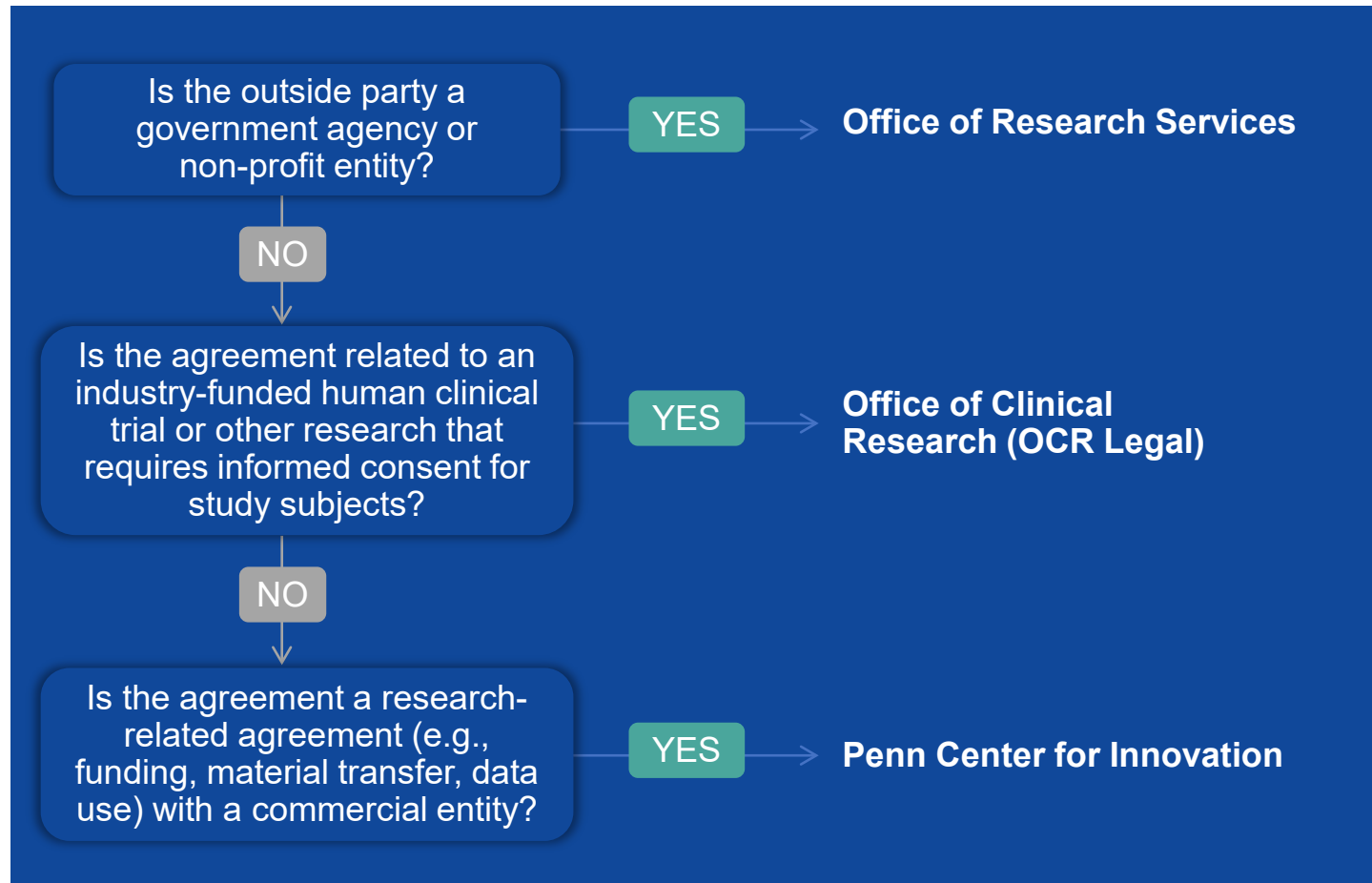


Working with commercial parties

- Additional source of funding
- Industry-driven real-world challenges and impact
- Collaboration opportunities
- Access to materials, equipment, and expertise
- Increased student interest, experience and job prospects
- Resulting intellectual property may have financial and economic benefit
- Co-development of technologies increases chances of translational success
- Potential startup creation



Where to start?



Penn System used by Agreement Type

RIS

(<https://researchservices.upenn.edu/systems/research-inventory-system/>)

Non-Monetary Module

CDAs

Data Use Agreements

Equipment Loans

MTAs

Master Research Agreements

Non-monetary CRAs

Fee for Service Module

Fee for Service Agreements

Facility Use Agreements

PennERA

(<https://researchservices.upenn.edu/areas-of-service/pennera/>)

Contracts where funds are coming into Penn for research or clinical activities:

SRAs

Monetary CRAs

Veterinary or Human Clinical Trials

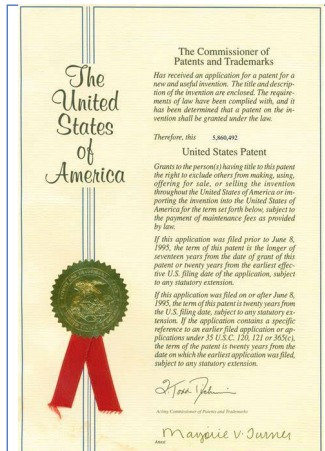
Types of Agreements handled by PCI's Corporate Contracts Team

Agreement Type	Agreement Description
Collaborative Research Agreement (CRA)	Projects where both Penn and researchers from a Company are collaborating (these can be monetary and non-monetary)
Confidential Disclosure Agreement (CDA or NDA)	Unpublished data/information are being shared by and/or with Penn, typically ahead of a SRA, CRA or license agreement
Data Use Agreement (DUA)	Penn is either providing or receiving data for further research
Equipment Loans	Company is providing Penn equipment
Facility Use Agreements	Company wants to utilize a special facility or equipment (i.e. the Singh Center)
Fee for Service (FFS)	Penn is being paid to perform services for a company
Master Research Agreement	Penn and company anticipate multiple projects and desire to have a framework in place that will govern these projects
Material Transfer Agreement (MTA)	Materials are being exchanged between Penn and a company for the purposes of a research project
Sponsored Research Agreement (SRA)	Company provides funds to conduct research at Penn
Veterinary Clinical Trial Agreement (V-CTA)	Penn receives funding to conduct either an investigator or company initiated clinical study

Intellectual Property

Intellectual Property

PATENTS



COPYRIGHT

Software

Data
compilations

Questionnaires

KNOW-HOW

Valuable info, protocols
and other documents

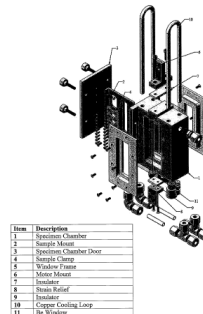


Figure 1: Schematic representation of the supports chamber.

TRADEMARK

TM

In the US patent system, there are

- utility patents,
- design patents, and
- plant patents.

Typically, at Penn invention is

- a method or process,
- a machine,
- a composition of matter (e.g. a drug for treating cancer),
- an article of manufacture (e.g. hammer or saw),
- an improvement thereof.

A utility patent typically **lasts 20 years** from the first filed application.

- **Novelty** - *Is it new, i.e. not already described in any publication or patent?*
- **Utility** – Have a plausible, useful purpose?
- **Nonobviousness** – Would a person of "ordinary skill in the art" not have easily thought of it?
One reference combined with one or more other references renders the invention obvious
 - Teaching away
 - Unexpected results
 - Failure of others or long-term need
- **Enablement** – show it works, must teach others how to make and use the invention
- **Written Description:** Must describe what the invention is

Diving into Common Corporate Contracts

Confidential Disclosure Agreements

- CI: in or out or 2-way
- Purpose (potential collaboration, license, etc)
- Definition of scope of CI
- Restrictions: can't use or disclose received CI
- Marking "Confidential"
- Disclosed orally: summarized in writing, marked "confidential" within 30 days.
- Term: typically, 5 years

* Consulting CDA



- Materials: in or out
- Define Scope of Work
- Unauthorized Use Inventions and Results: inventions and results created outside of the Scope of Work or after the terms has expired
- Publications - company gets to review to remove potential CI
- *Inventions: for incoming MTAs Penn grants the Company an internal research license to the IP that “necessarily use or necessarily incorporate the Material”
- Return or destroy received materials upon termination or expiration
- Human materials: patient consent, IRB protocol, and internal approvals

Penn Medicine Guidance: <https://irb.upenn.edu/homepage/biomedical-homepage/guidance/research-with-penn-patients/sharing-data-specimens/>

- Data: in or out
- Define Scope of Work
- Return or destroy at the end

- Human data: IRB, patient consents, internal approvals

University policy: <https://isc.upenn.edu/security/AI-guidance>

Research Agreements

Collaborative Research Agreements
Sponsored Research Agreements

Corporate Contracts Agreement process

1. Planning

Principal Investigator and scientific contact at company agree upon research plan, time frame, budget*, payment schedule, publication plans etc.

2. Submission

- If funded by company: submit to Penn ERA
- If not funded by company: submit to Penn RIS
- PI must disclose if they have significant financial interest in the company. Refer to the University's policies re what constitutes a significant financial interest and submission policies to the RIO.

3. Departmental Approval

- Departmental Chair and Dean of School will approve. (In some cases, additional approvals must be obtained, also.)

4. Negotiation

- Negotiator is assigned
- Negotiator's objective: to put an agreement in place that is consistent with Penn policies and guidelines

5. Agreement

PCI finalizes the agreement and notifies PI and ORS who help to administer the executed contracts

*inclusive of all direct and indirect research costs (indirect expenses are calculated in strict accordance with Penn policies and federally established rates)

Most Frequently Negotiated Provisions in Research Contracts

Intellectual Property	Publication Rights
Results and Reports	Indemnification, Warranties and Liability

Intellectual Property in Research Contracts

- Penn Intellectual Property definition:
 - means all inventions, whether patentable or not, conceived and reduced to practice (as determined by United States patent law) in the conduct of the Sponsored Research during the term of this Agreement, including all United States and foreign patent applications claiming said patentable inventions, including any divisional, continuation, continuation-in-part (to the extent that the claims are directed to said patentable inventions), and foreign equivalents thereof, as well as any patents issued thereon or reissues or reexaminations thereof. For clarity, Penn Intellectual Property also includes all significant copyrights and copyrightable software created in the conduct of the Sponsored Research during the term of this Agreement.
- Ownership –
 - Penn owns the IP that it creates
 - Joint IP is jointly owned
- Disclosure –
 - The PI is obligated to disclose Penn IP to both Penn and the Sponsor
 - Sponsor then has up to 30 days to request that we file and prosecute a patent application, which would be at their expense

- Prosecution
 - Penn prefers to control prosecution of the IP it generates.
- Option
 - Penn can grant a Sponsor an option to negotiate a commercial license to any Penn IP for which they have paid the IP expenses.
 - The parties have 6 months from the date the IP was disclosed to the Sponsor to execute a license agreement.
- Licenses to Penn IP
 - Penn's SRAs and CRAs do not automatically grant any licenses to Penn IP to its Sponsors.
 - Companies may ask for some form of license to be included in the contract. These can range from internal research licenses to commercial licenses

- Penn's position on publication:
 - We retain the *first right* to publish the results but also allow the Sponsor a time period to review any such publication ahead of time (generally 30 days) to
 - (i) determine whether any company confidential information that may have been included and
 - (ii) identify and Penn IP that they want Penn to file on.
 - Sponsor needs to maintain our results and IP confidential until we've had the ability to publish or sufficiently protect our IP.

- All negotiations are unique
- Devil is in the details
- Our goal is to enable Penn investigators while complying with University policies and practices
- Reach out with any concerns or questions

Celebration of Innovation 2025

10th annual Celebration of Innovation on
Tuesday, December 2, 2025

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