



University of  
New Hampshire

# Drug Discovery IP and Commercialization

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# Overview

- What is Intellectual Property/Intellectual Asset Management (IAM)?
- Patents
- Institutional Resources
- Commercialization Pathways
- Research and IAM

# Intellectual Assets and Management

- Intellectual Assets - a collective term for:
  - Intellectual Property
  - Intellectual Property Rights
    - Patents, Trademarks, Copyrights
  - Know-How
- Intellectual Asset Management:
  - Deriving maximum benefit from the knowledge that we create

# Patents

- Contract between government and an inventor:
  - A limited and temporary monopoly granted by the government in return for a full disclosure by the inventor of the details of their invention
  - Rights to exclude others from making, using, selling, offering to sell or importing the patented invention (35 USC 271)
- Criteria for patent protection:
  - Novel
  - Non-obvious
  - Useful

# What May Be Patented?

- Utility Patent
  - Any new and useful process, machine, manufacture, or composition of matter, and new and useful improvements (35 USC 101)
- Plant Patent
  - Any new and distinct, invented or discovered asexually reproduced plants (35 USC 161)
- Design Patent
  - Any new, original, and ornamental design for an article of manufacture (35 USC 171)

# Patent Process

- Complete an invention disclosure:
  - Work with IP personnel (IP/Innovation/Tech Transfer office, Legal Affairs, Patent Counsel)
  - Provide supporting materials (grant proposals, data, publications, presentations, relevant literature)
- Provisional Patent Application (PPA):
  - Optional
  - Holds priority date for 1 year
  - Not examined by USPTO
  - Useful if public disclosure is to occur soon
- Nonprovisional Patent Application
  - Must be filed within 1 year of PPA
  - Reviewed by USPTO
  - Application published 18 months after filing (includes PPA filing date)
  - Cannot be filed if invention has been sold or offered for sale
- International PCT – foreign patent protection

# When Do You File a Patent Application

- Prior to a public disclosure
  - Includes publications, conferences, funded grant applications
- Business case for patent application
  - Patentability
  - Marketability
- Timing

# Patent Considerations

- Compatibility of public disclosure with professional obligations (academia, industry)
- Requires full disclosure of your invention
- Patent applications are expensive and can take 3-4 years before granted/rejected by the USPTO
- Patents have a limited duration
- Defend patent



# Why Pursue Patents

- Freedom to operate
- Treat as real property (bought, sold, traded, or leased/licensed)
- License
- Cross-license to defend against infringement
- Force competitors to design around patent
- Build value of company/university
- Create perception of innovation
- Create prior art against others

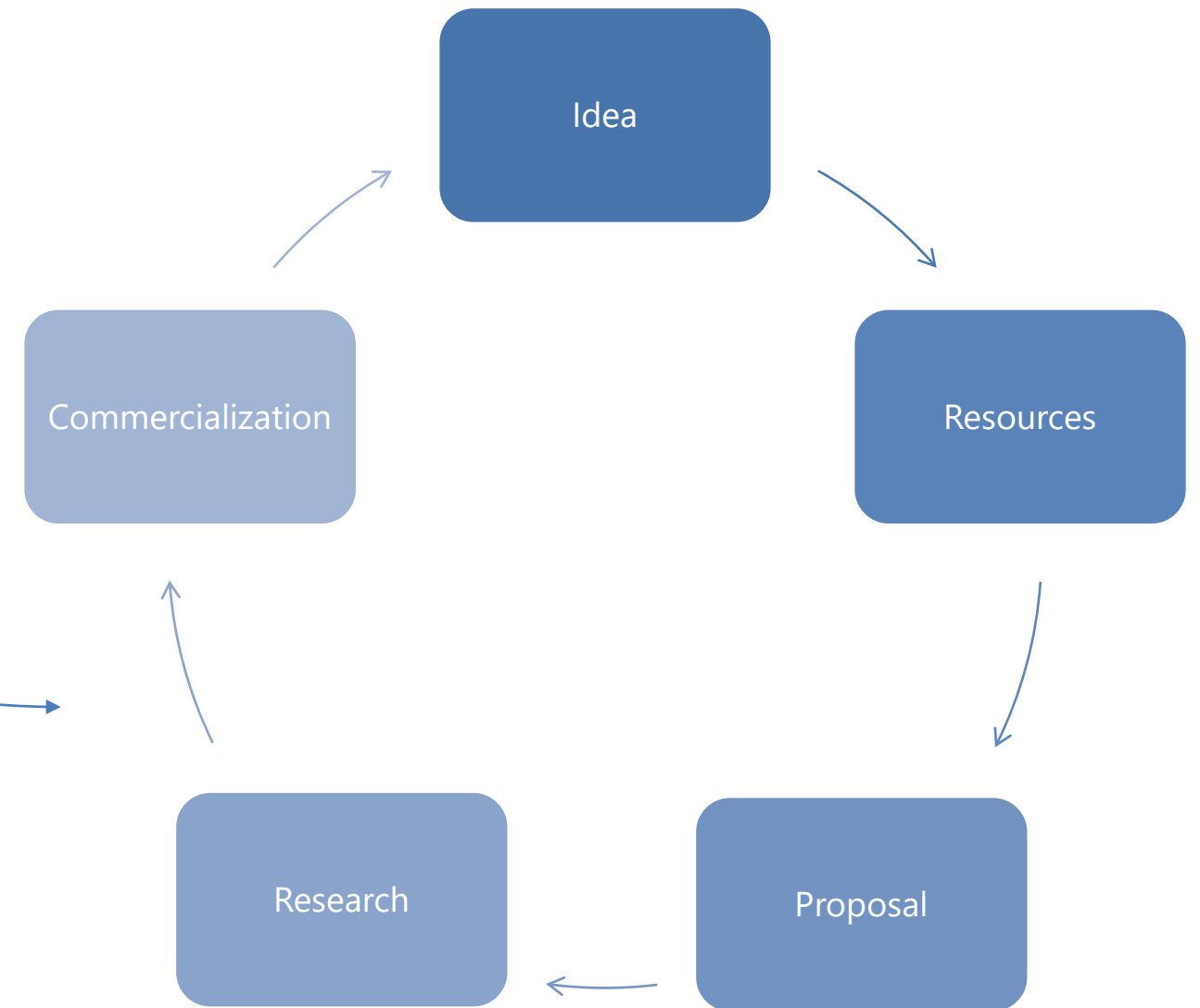
# Commercialization Pathways

- Funding
  - Goals: proof-of-concept; develop commercial applications; idea to innovation
  - Sources: SBIR/STTR; NIH Concept to Clinic: Commercializing Innovation (C3i) Program; I-Corps (NSF, NIH, NASA); state programs
- License of IP rights
  - Exclusive
  - Non-exclusive
- Licensee
  - Established company
  - Start-up (including spin-out companies)

# Institutional Resources and Processes

- Research Development office
- Innovation/Tech Transfer/IP office
- Entrepreneurship offices & competitions
- Customer Discovery training (e.g., I-Corps™)
- Intellectual Property policy
- Other related policies
  - Financial Conflict of Interest in Research (FCOIR)
  - Conflict of Interest
  - Conflict of Commitment
  - Ownership and Management of Data

# Leveraging IAM Throughout the Research Lifecycle



## Goals:

- Validated research ideas
- High-quality partnerships
- Competitive external research funding
- Innovative outputs
- Translation from idea to impact

# Thank You!

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