

**Intellectual Property**

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UM Ventures



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**IP**

- Types & Rights
- UMD's IP Policy
- UMD resources



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**Types of Intellectual Property**

- Trademarks
- Copyright
- Trade Secrets
- Patents



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## Trademark

- Brand name/logo intended to identify source of goods
- Use in commerce
- Use of UMD marks require permission:

<https://osc.umd.edu/licensing-trademarks/>



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## Copyright

- Original works of authorship fixed in any tangible medium of expression
  - (1) literary works;
  - (2) musical works, including any accompanying words;
  - (3) dramatic works, including any accompanying music;
  - Etc.
- Does not protect underlying ideas or functionality (scope of patents)
- Rights to reproduce, prepare derivatives, distribute copies, perform, display, transmit
- Software code protected as a literary work
- Life of the author + 70 years
- For company works, protection lasts for the shorter of 95 years from publication or 120 years from creation.



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## Trade Secret

- Formula, pattern, compilation, program, device, method, technique, or process
- Economic value
- Is not generally known
- Is not readily ascertainable by proper means by competitors who can obtain economic value from its disclosure or use
  - Crime to steal a trade secret
- Reasonable efforts to maintain secrecy



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### Patents: Inventions

- Many inventors report stories of every day events that made them think of some problem in a new way.
  - The inventor of VELCRO® reported that he thought of the invention while removing burrs from his pet's fur after walking in the woods.
- Accidental invention stories
  - Microwave, Viagra, silly putty
- Most inventions result of research in finding solution to a problem



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### Patent rights

- A patent is a right granted by the government through the US Patent & Trademark Office that allows an inventor to **prevent others** from making, using, selling, importing into the US the inventor's creation without permission. This negative right lasts about twenty years.



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### Patents

- Utility
  - process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof
  - New, useful, non-obvious
- Plant
  - asexually reproduced, distinct and new variety of plant
- Design
  - new, original, and ornamental design for an article of manufacture



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## Who is an inventor?

- One who contributes to the conception of the invention
  - Conception is the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention. An idea is sufficiently definite and permanent when only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation
- Joint inventors
  - Do not have to work together
  - Do not have to make same type or equal amount of contribution
  - Do not have to contribute to each claim




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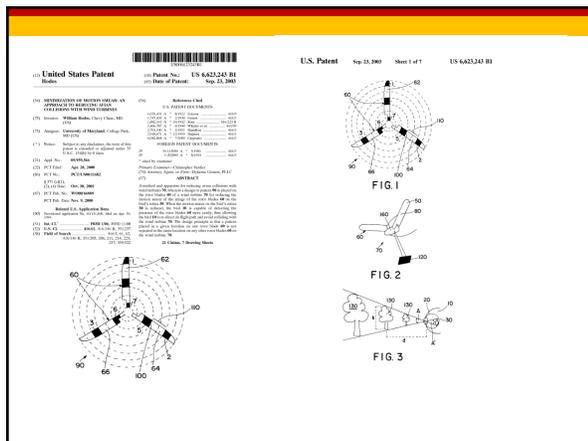
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## Who owns IP?

- It depends!
- For each situation, must look to:
  - Inventor/creator and his/her employment status;
  - Federal law;
  - University policy; and
  - Contract terms and conditions (including visiting scientist agreements).




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### Federal Law: Bayh-Dole Act

- Universities elect to **retain rights to inventions** made from government-funded research
- Universities are encouraged to **collaborate with commercial entities** to promote the use of university research
- Universities **encouraged** to license inventions to small business firms-500 employees or less
- Universities must **share licensing income with their inventors** and **use royalty income to further research activities**




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### IP Ownership: Inventors/Creators

1. First look at each inventor/author and their employment status.
2. Then look at the assignment obligations of *each* inventor/author.
  - a. Where there is more than one assignee, then the IP is jointly owned.
3. Then ask the following questions:
  - Is the inventor UMD personnel or student, or none of the above?
  - Was IP made under a sponsored research agreement (SRA), using significant university resources, commissioned by the university, or created under another agreement?




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### UMD IP Policy: Definitions

- Traditional Scholarly Work Includes: course notes, course materials (on-line or in a traditional face-to-face setting), lecture notes, literary works, non-fiction books, textbooks, professional articles and presentations, musical scores and librettos, dramatic and choreographic works, photographic, graphic, sculptural and architectural works; films, other audiovisual works, sound recordings, models, and designs.
- Administrative Work Includes: all © works other than Traditional Scholarly Works created by Personnel in performance of an admin duty to the university or as a work-for-hire

• <https://president.umd.edu/sites/president.umd.edu/files/files/documents/policies/IV-320A.pdf>




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**UMD IP Policy:**  
**Traditional scholarly works**

- Personnel:
  - Personnel owns © unless:
    - Required deliverable or created in performance of a contract
    - Work commissioned by the university
    - Work created for university purposes with use of Significant University Resources
    - If not holding © would result in a breach of contract, be contrary to law or policy
    - Work created using Significant Univ. Resources w/o permission



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**UMD IP Policy:**  
**Traditional scholarly works**

- Students:
  - Student owns © unless:
    - Work created in capacity as Personnel
    - Required deliverable or created in performance of a contract
    - Work created outside scope of academic/research activities using Significant Univ. Resources w/o permission
    - If not holding © would result in a breach of contract, be contrary to law or policy



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**UMD IP Policy:**  
**Inventions, Software, Data, Materials**

- University owns if:
  - made in the performance of sponsored research, univ. administered research, or supported by univ. funds
  - Made for personal purposes using Significant Univ. Resources w/o permission
  - If not owning would result in a breach of contract, be contrary to law or policy



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**UMD IP Policy:**  
Inventions, Software, Data, Materials

- Students own if:
  - Made in performance of academic/research activities




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**UMD Policy:**  
Overview of IP Ownership

For UMCP Personnel & Students, if:

- IP not created under SRA
- IP not created using UMD or foundation funds,
- IP not created for **personal purposes** using Significant University Resources\* without permission
- Other contract, law, regulation, policy does *not* give UMCP ownership

→ Personnel owns the IP

\*UMD student:

- Student owns IP they create, conceive, reduce to practice in performance of **academic/research activities** whether or not they use Significant Univ. Resources




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**Rights to use IP**

- Owner
  - Patents: right to exclude others from making, using, selling, importing
  - Copyright: rights to reproduce, prepare derivatives, distribute copies, perform, display, transmit
  - Data/Materials: some IP rights + contractual rights
- Owner may grant permission to others to some or all of these rights
  - License
- Exploiting rights without permission = **infringement**




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### Exceptions: © Fair Use

- Fair use exception carves out an area in which individuals other than the owner of a copyrighted work can use the work without infringing on the copyright:
  - Criticism
  - Commentary
  - News reporting
  - Teaching (may include multiple copies for classroom use)
  - Scholarship
  - Research



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### Fair Use, cont.

- Fair use factors:
  - Purpose and character of the use, including whether for commercial or nonprofit purposes
  - Nature of the copyrighted work
  - Amount and substantiality of the portion used in relation to the copyrighted work as a whole
  - Effect of the use upon the potential market for or value of the copyrighted work



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### Caveats

- **No** fair use exception for patents
- Licensing jointly owned IP
  - Patents: no duty to account to joint owners
  - Copyright: duty to account to joint owners
- License & assignment language in contracts
  - Publishing, NDAs, internships, consulting, employment



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## Open Source Software

- © in the written code
- Author grants permission, through Open Source License (OSL) for others to exploit ©
  - Make copies, distribute, make derivatives, etc.
- <https://choosealicense.com/appendix/>




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## UM Ventures' role

- Marketing
- Licensing
  - Assist in the formation of start-up businesses
- Ensure IP rights
  - patenting
- Government Reporting
- Royalty Distribution




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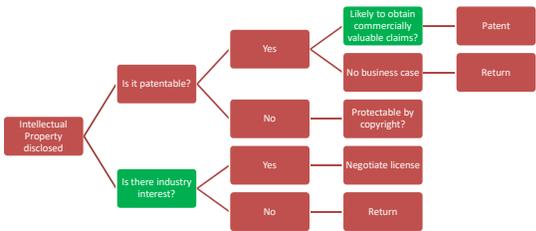
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## Technology Evaluation



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graph LR
    A[Intellectual Property disclosed] --> B{Is it patentable?}
    A --> C{Is there industry interest?}
    B -- Yes --> D{Likely to obtain commercially valuable claims?}
    B -- No --> E[Protectable by copyright?]
    D --> F[Patent]
    D --> G[Return]
    C -- Yes --> H[Negotiate license]
    C -- No --> I[Return]
    
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### Creator responsibilities

- Keep good records
  - Lab notebooks
  - Emails
- Obtain applicable permissions when incorporating 3<sup>rd</sup> party works into your own
- Disclose timely to UM Ventures where applicable
- Assist in patent process and update UM Ventures on public disclosures
- Formalize research/collaboration agreements



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### UMD resources

<b>UM Ventures</b>	<b>MTECH</b>	<b>AIE</b>	<b>Dingman Center for Entrepreneurship</b>
↓	↓	↓	↓
Entrepreneur Office Hours			
Venture Fairs/Pitch Competitions			
I-Corps			Dingman Center Angels
Startup Support + IPEC			
MII	TAP		



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### Questions?

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<https://www.umventures.org/>



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