

CTL IP Series

IP Series #3: Successful Patent Applications: It's All in the Timing

4/20/2022

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LICENSING
AT CORNELL UNIVERSITY

CTL IP Series



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Cornell CTL – IP Series

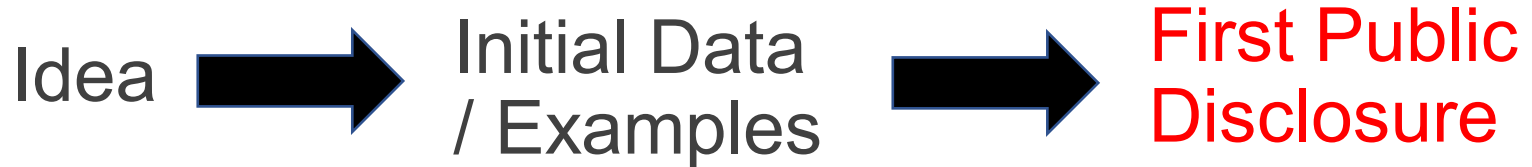
3: Successful Patent Applications–It's All in the Timing

April 20, 2022

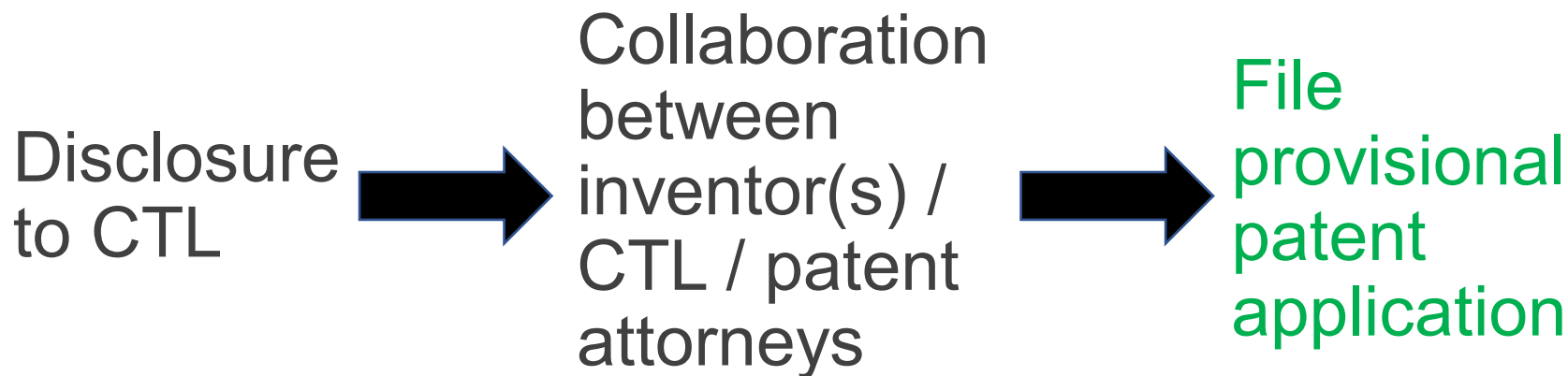
Carin R. Miller, JD, PhD and
Paul J. Roman, Jr., JD, PhD



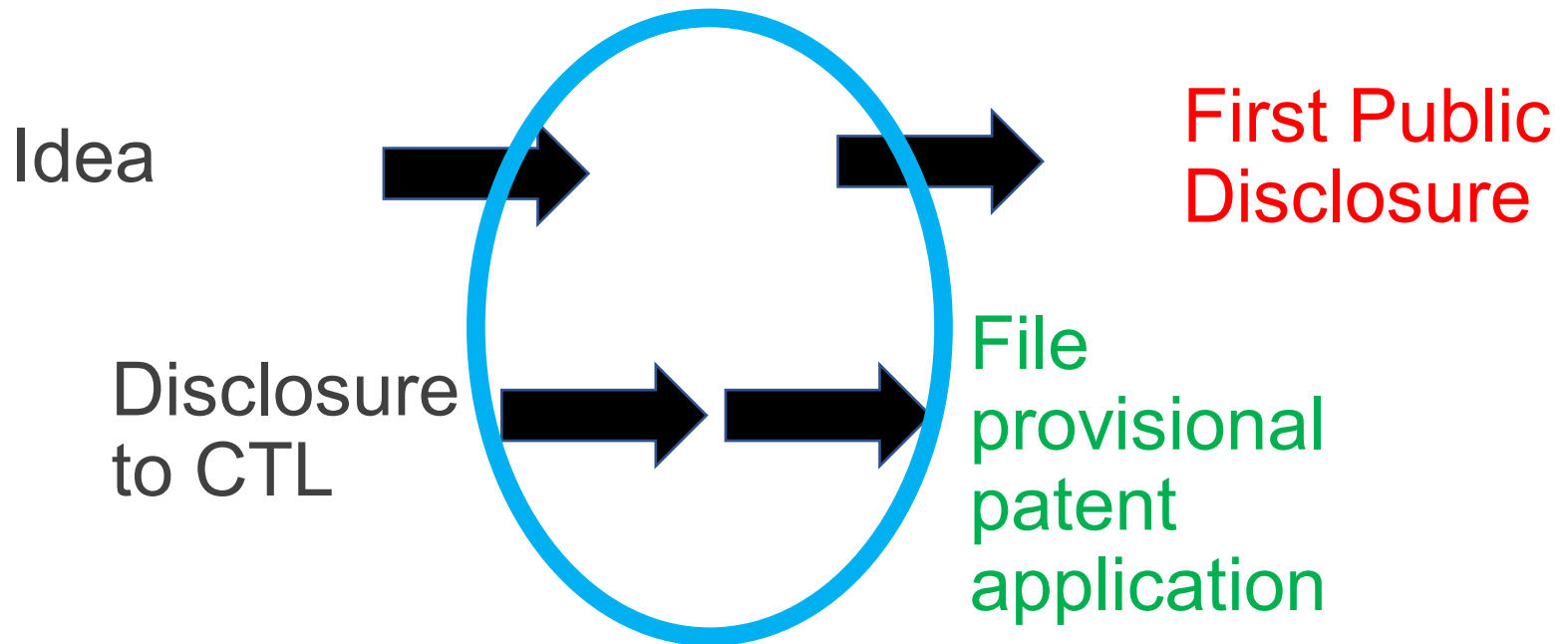
Research Timeline



Patent Timeline



Research / Patent Timeline



Research Timeline – The Beginning

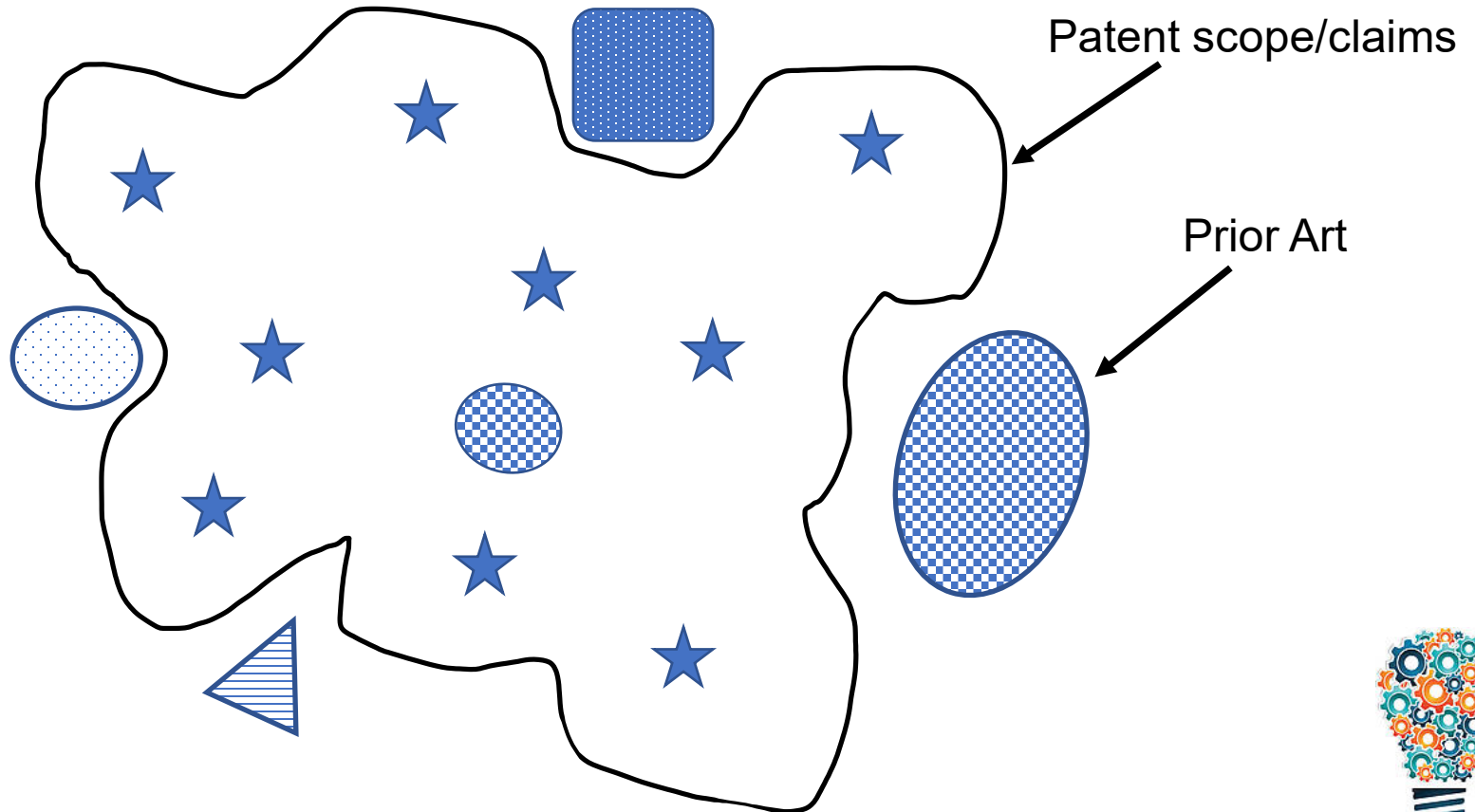


Research – The Beginning

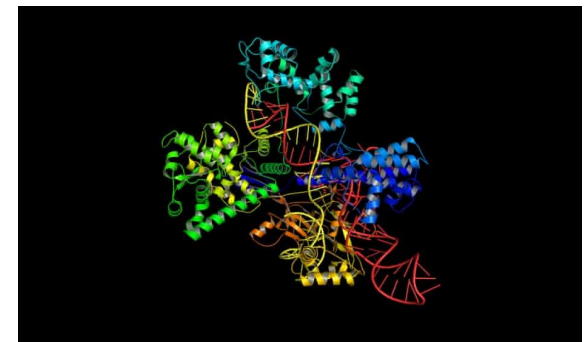
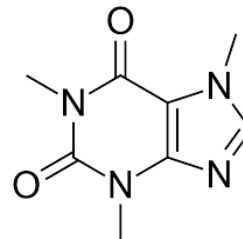
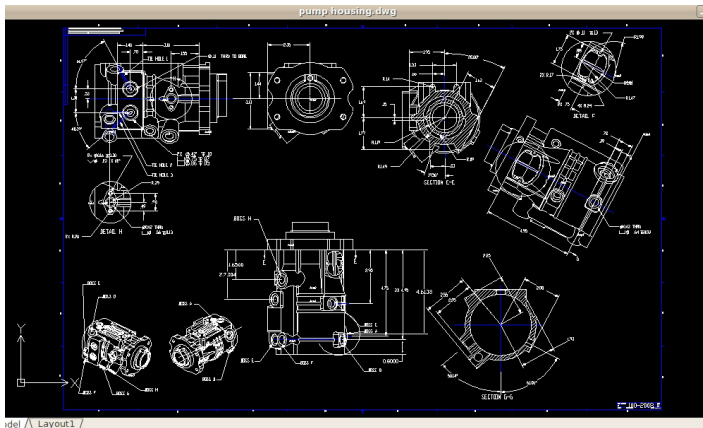
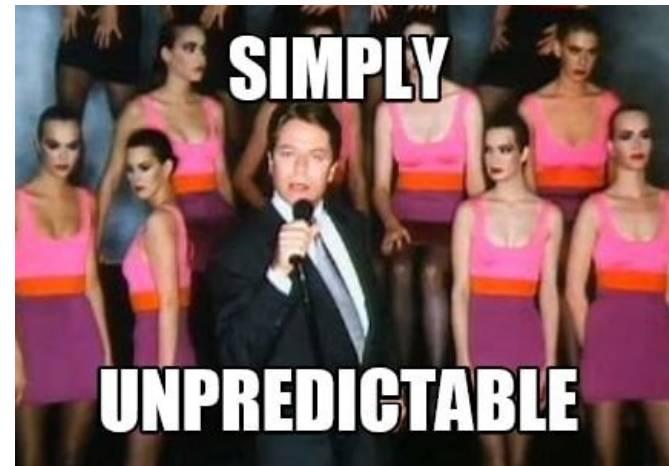
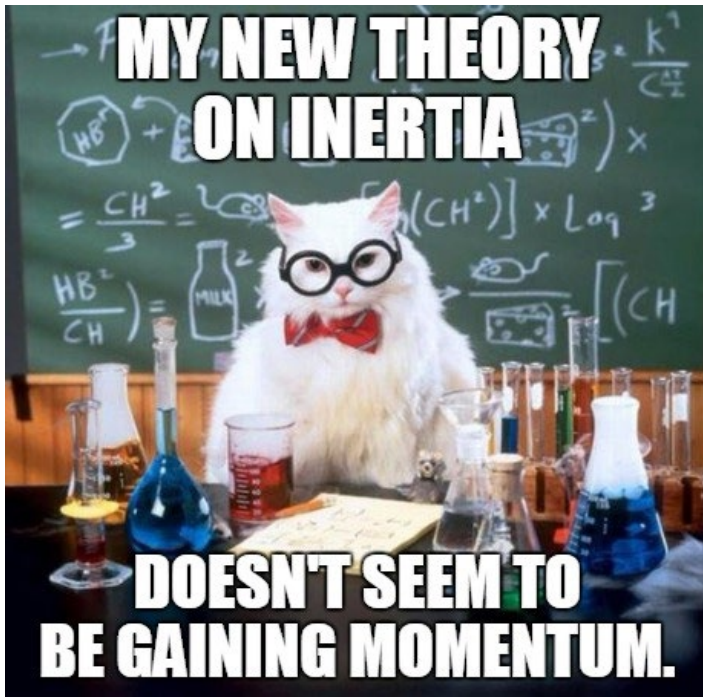


Patents and your Data

★ Your Data/Examples



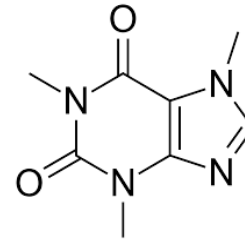
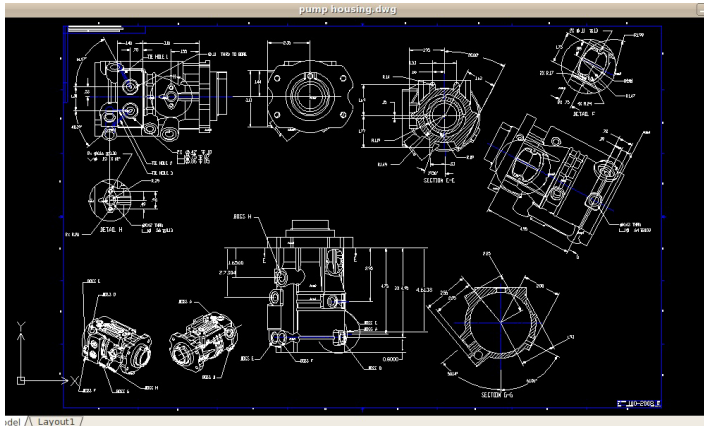
Which of these does your research fall into?



Predictable v. Unpredictable Arts

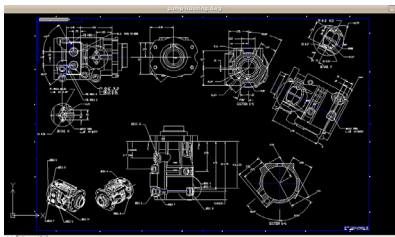


Why does it matter?

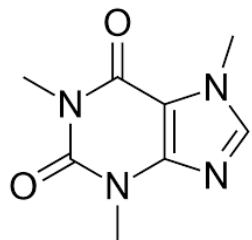
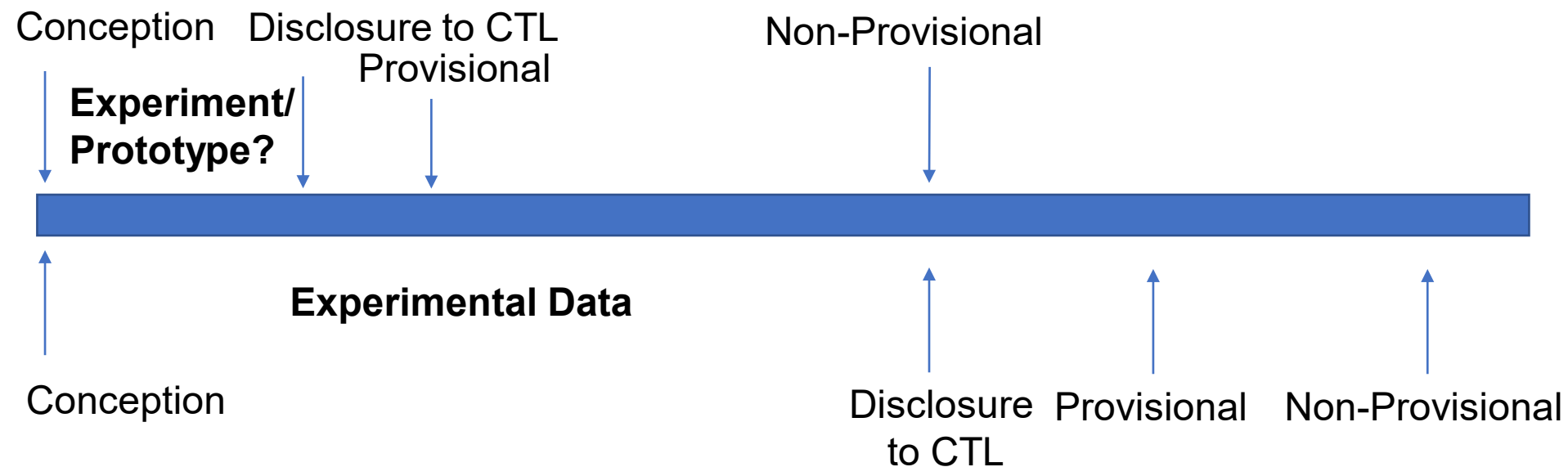


Evidence/Data needed to support a patent filing





Timeline – Predictable Arts vs. Unpredictable Arts



Research – Experiments / Data

- Main considerations:
 - How much (and what) is sufficient for invention disclosure to CTL?
 - How much (and what) for supporting patent application?
 - IP requirements (Patent application requirements – written description and enablement)
- Public Disclosure (paper publication, presentation abstract/proceedings publication, presentation, thesis defense, job interview, etc.)

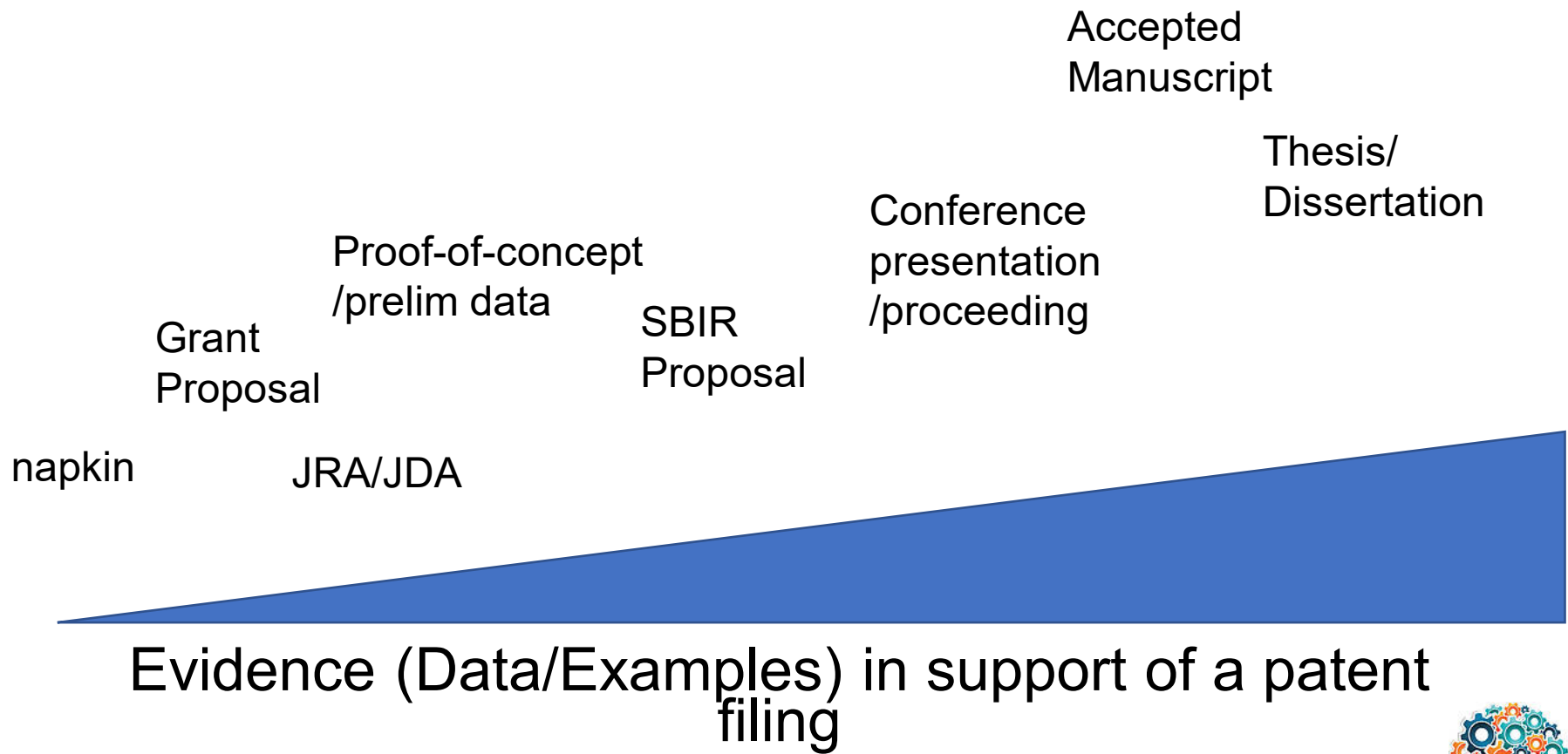


Experiments / Data Sources

- Napkin – thought experiment
- Grant Proposal
- Proof-of-Concept / Preliminary Data
- JRA/JDA
- SBIR Proposal
- Conference proceeding/presentation
- Corpus of a paper/presentation – accepted manuscript
- Thesis/Dissertation



Timing of Provisional Filing is risk/timing of public disclosure



Experiments/Data – Electronic and Device Innovations

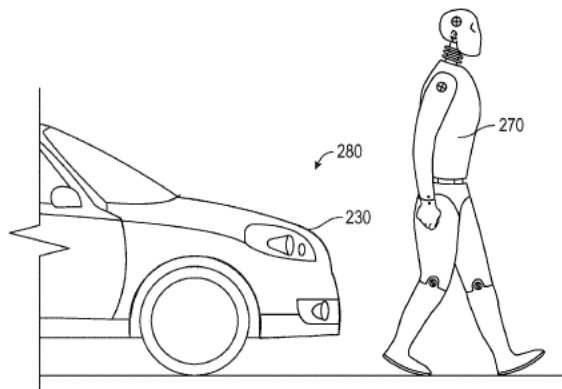


FIG. 6A

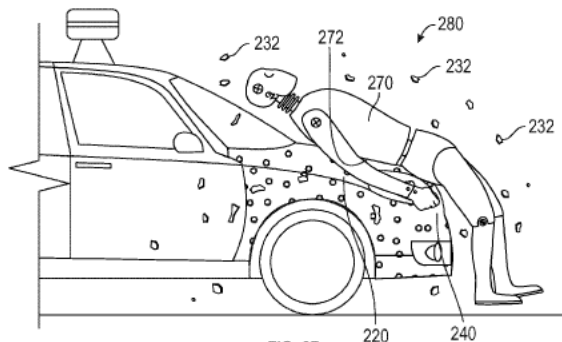


FIG. 6B

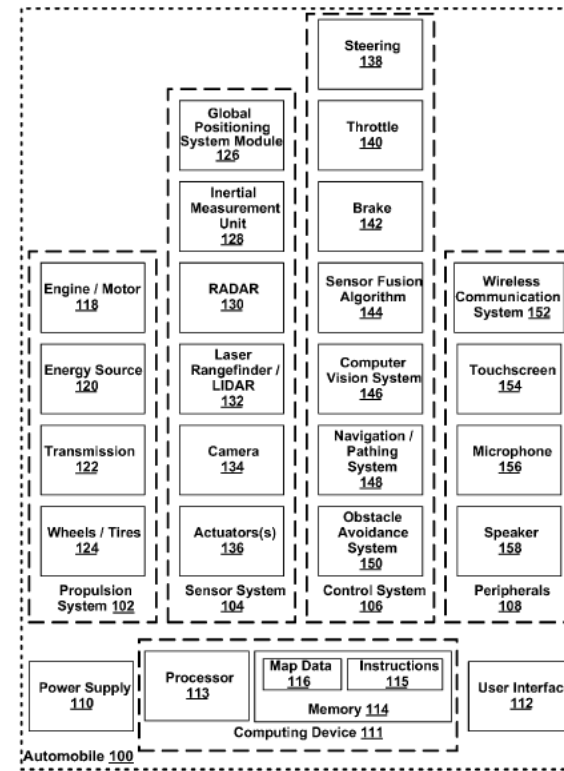
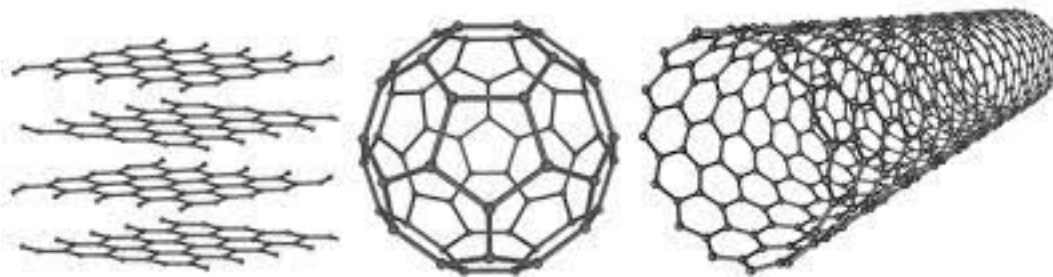
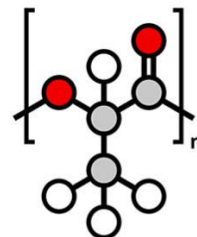
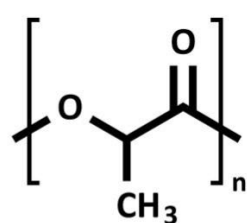
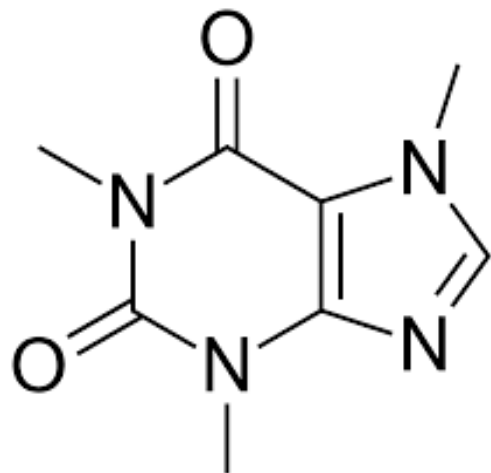


FIG. 1

U.S. Pat. No. 9,340,178



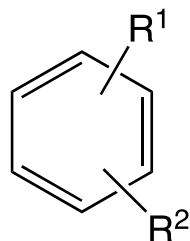
Experiments / Data – Chemical Innovations



Experiments / Data – Chemical Innovations

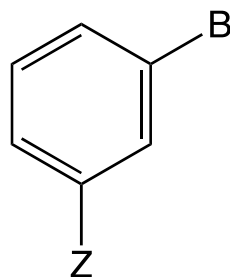
Patent Claims - Genus / Species Claims

Claim 1. A compound comprising the following structure:



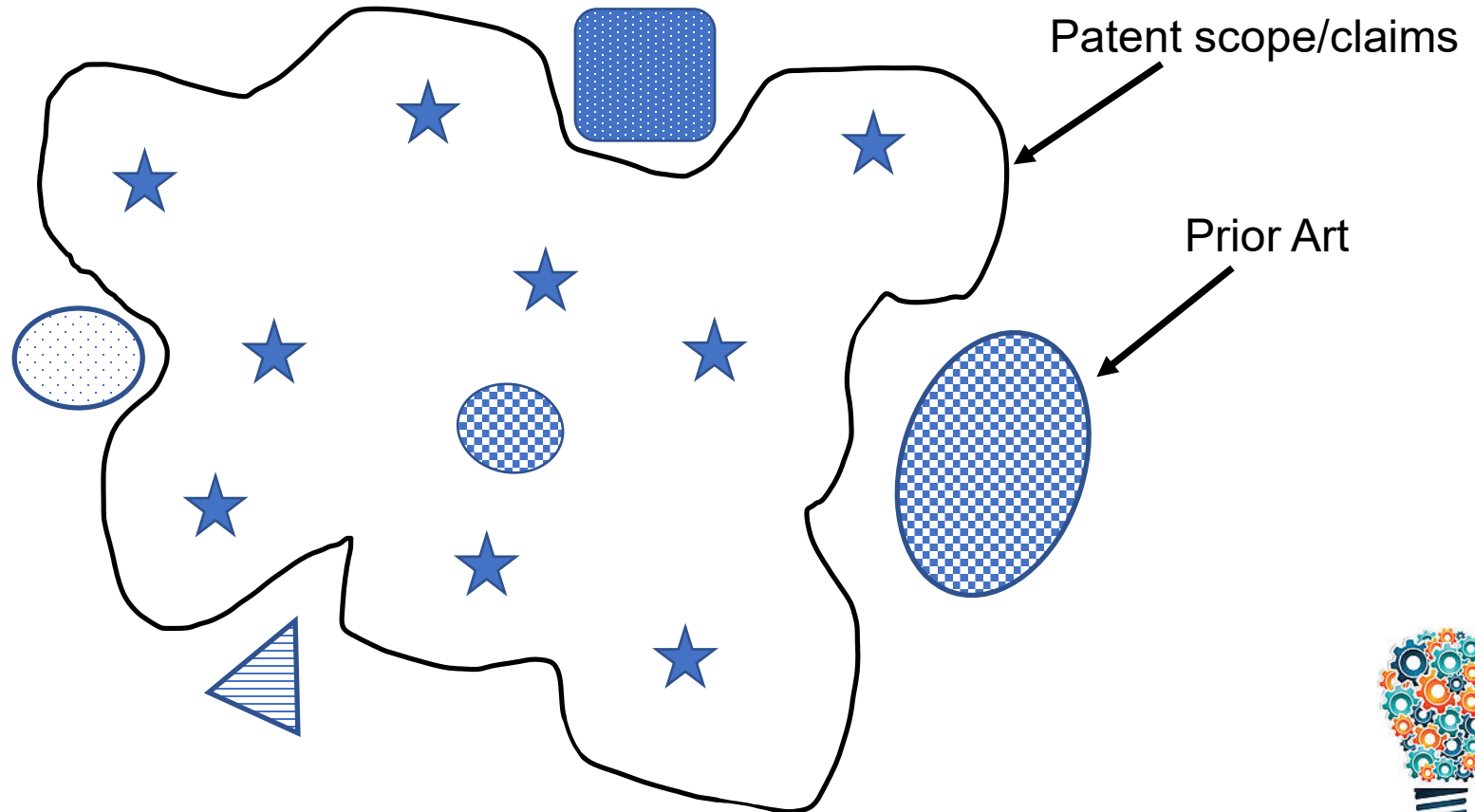
wherein R¹ is chosen from A, B, and C, and
R² is chosen from X, Y, and Z.

Claim 2, the compound of claim 1, wherein the compound is



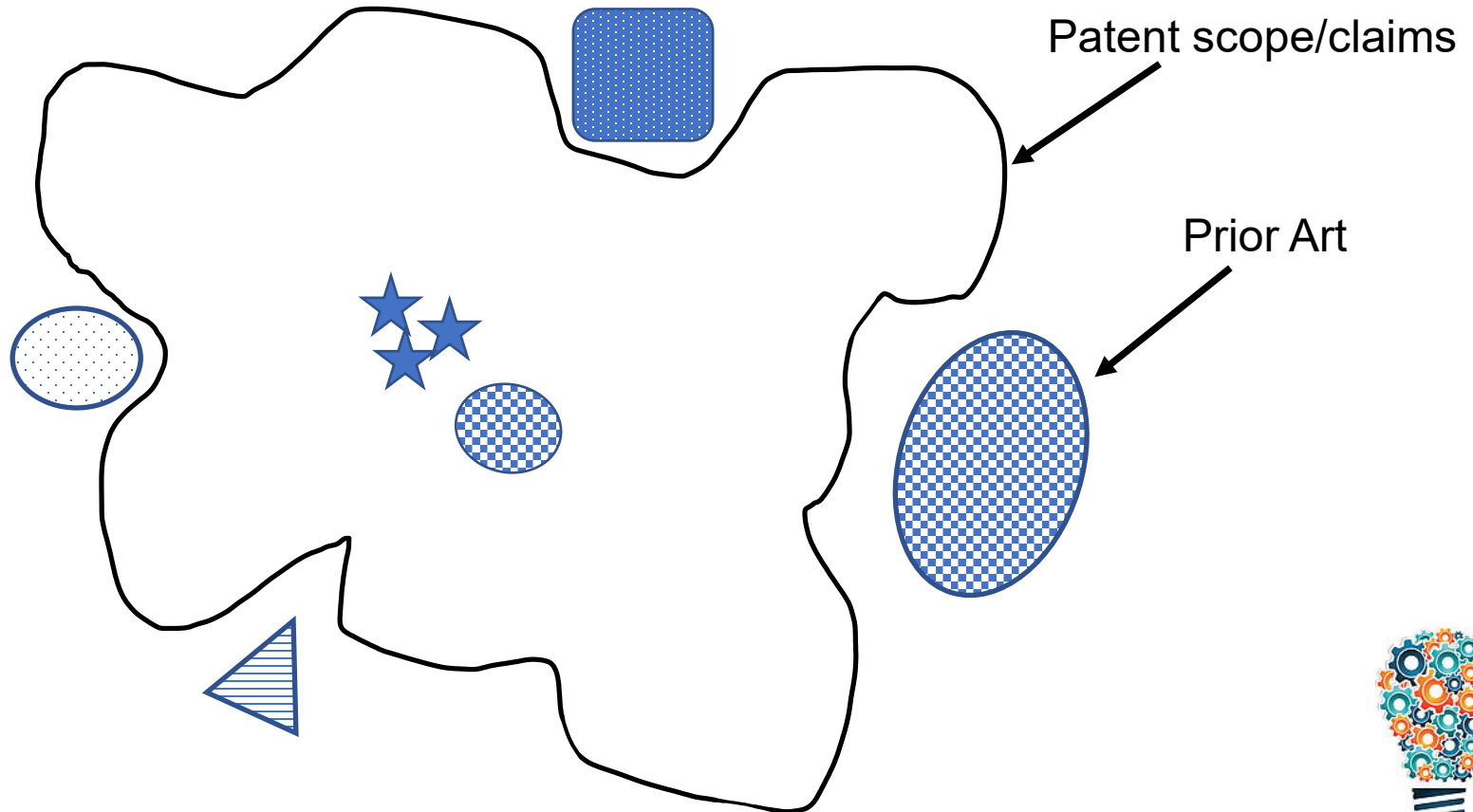
Genus v. Species v. Your Data

Your Data ★

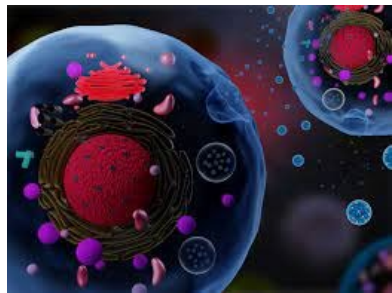
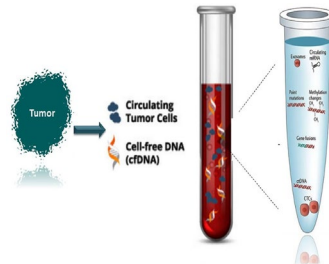
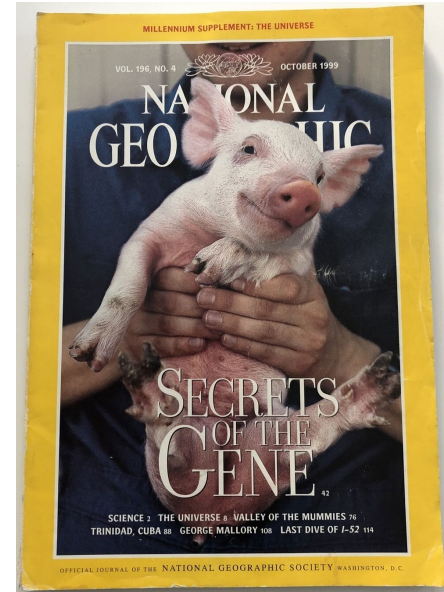
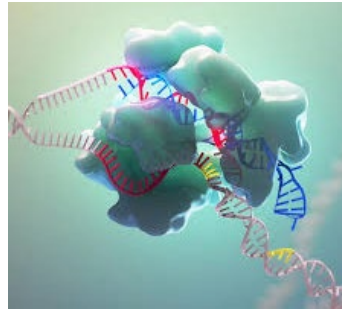


Genus v. Species v. Your Data Reality

Your Data ★



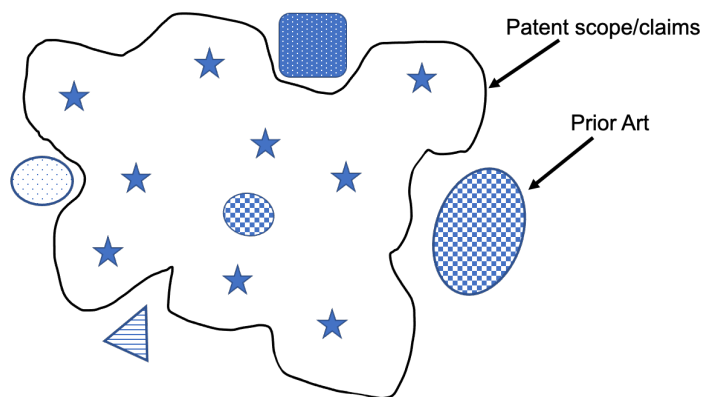
Experiments / Data – Biotech Innovations



Sufficiency of Disclosure for Biotech Innovations

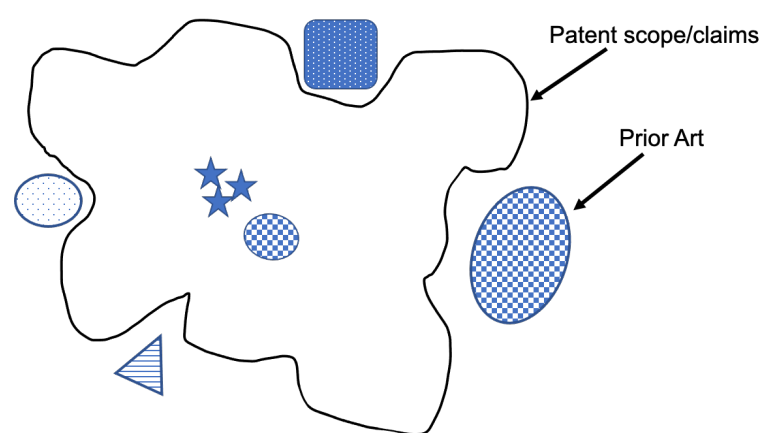
Desired

Your Data ★



Reality

Your Data ★

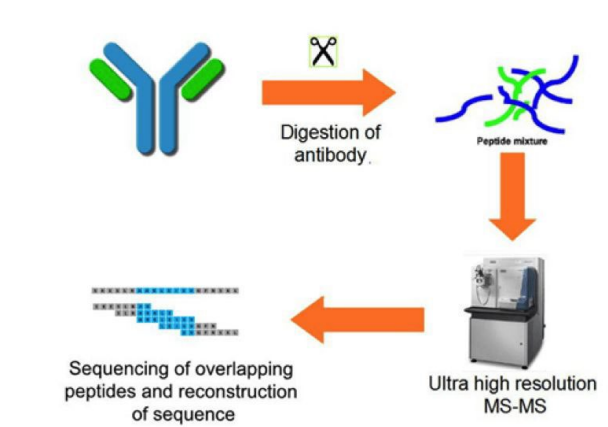


Evidence (Data/Examples) in support of a patent filing

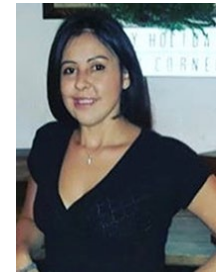
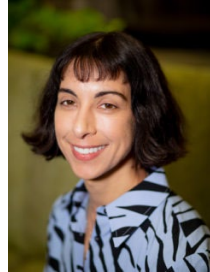


Sufficiency of Disclosure for Biotech Innovations

- Patentable subject matter (35 USC § 101)
- Enablement/Written Description (35 USC § 112)



Working with the CTL



CTL Class of '22



Invention Disclosure to CTL

- Inventor(s) file invention disclosure (<https://ctl.cornell.edu/inventors/inventor-forms/>)
- **Best Practice** – submit invention disclosure **prior to public disclosure** (e.g., paper submission/publication, submitting abstract for a presentation / presentation, thesis defense/publication, job interview, etc.)
- The earlier the better!
- Submission after public disclosure – loss of IP rights



CTL Evaluates Invention Disclosure

- CTL evaluates Invention Disclosure
 - Business evaluation
 - IP (Patent) evaluation



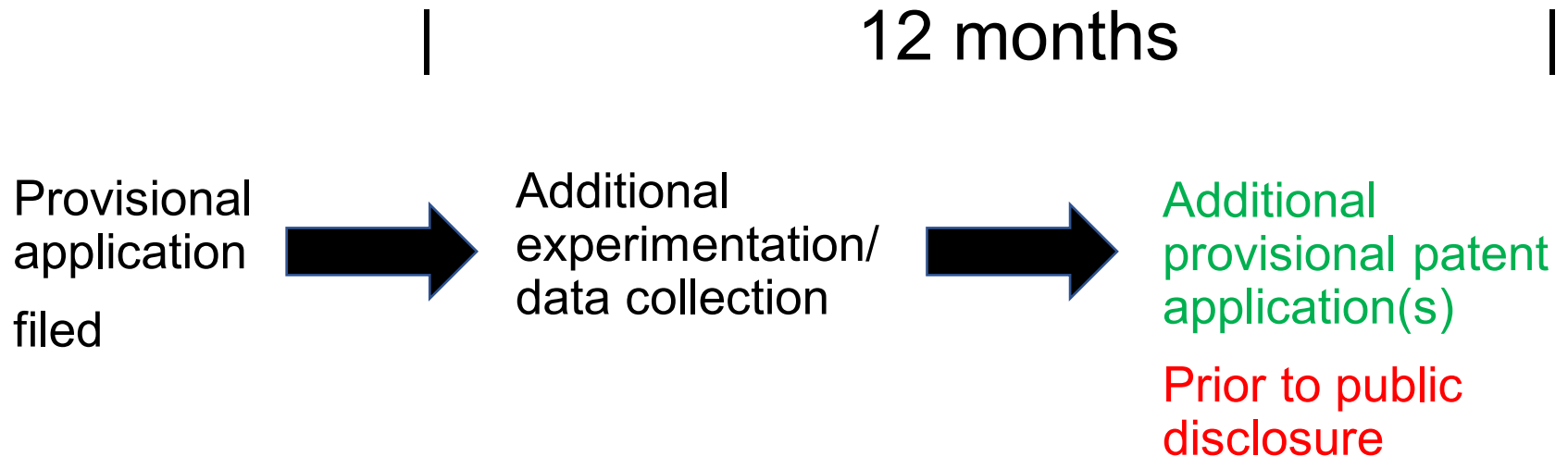
Patent Process

- CTL contacts patent attorney(s)
- **Best Practice** – CTL, inventor(s), patent attorney(s) work collaboratively to develop IP (provisional patent application)
- **Best Practice** – IP protected (submit provisional patent application) prior to public disclosure (e.g., paper submission/publication, submitting abstract for a presentation/presentation, thesis defense/publication, job interview, etc.)



Follow-Up (After First Patent Application)

Follow-Up (Serial Application(s))



Summary

- **Best Practices**

- Time to Disclose - Prior to public disclosure!
- Work with CTL and patent attorney(s)!
- Follow - up with CTL after initial IP filing!

- Disclose early!

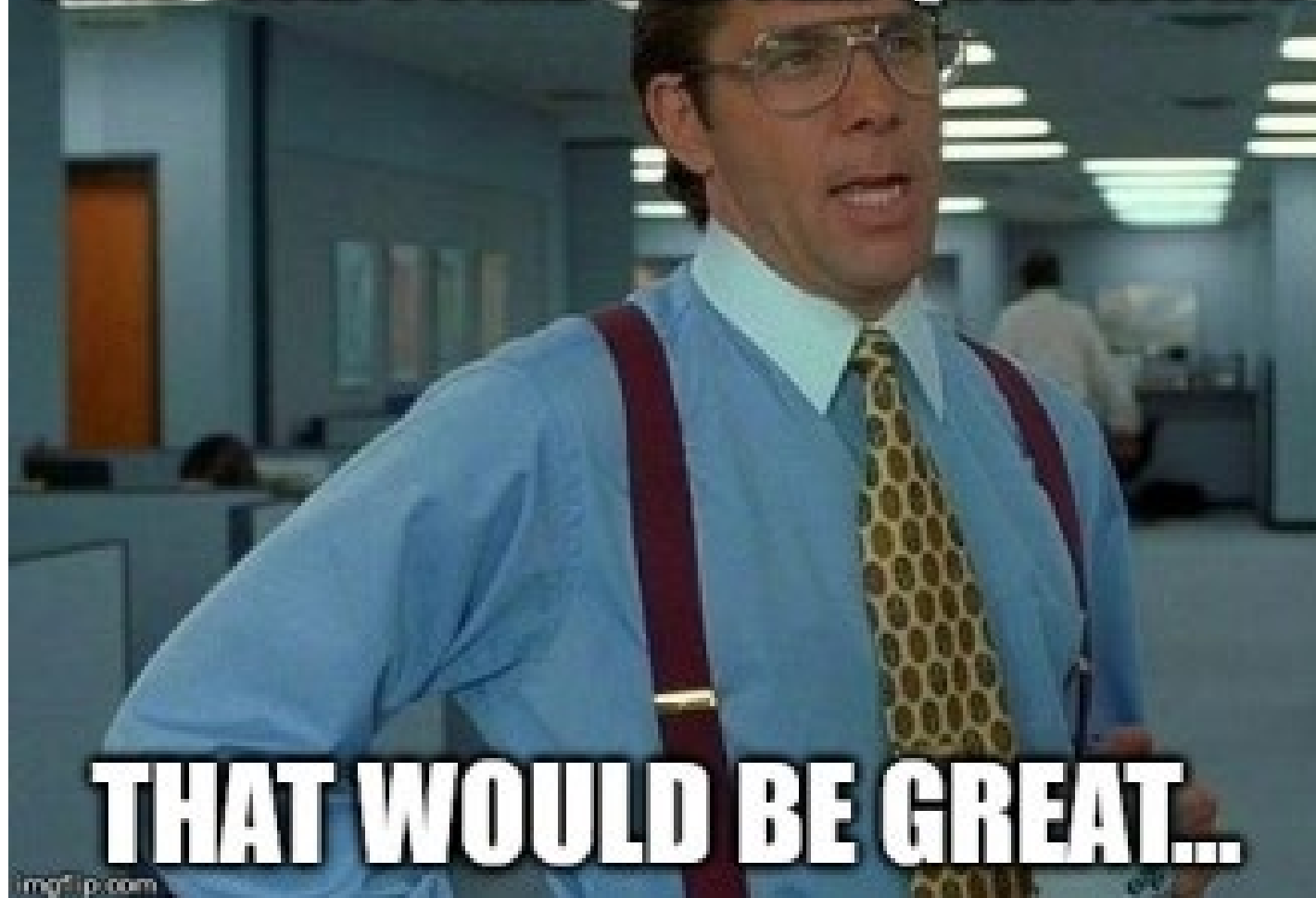
- When in doubt disclose to CTL!

- Even after a public disclosure!

- Follow - up with CTL after initial IP filing!



**YEAH IF YOU COULD JUST GO AHEAD
AND ASK SOME BETTER QUESTIONS**



THAT WOULD BE GREAT...

