Technology Transfer for Researchers

Sponsored Research
IP Regimes

Marcel D. Mongeon

TRENT UNIVERSITY

McMaster University

Outline

- IP Primer
- Sponsored Research
  - Some suggestions for negotiating positions

TRENT UNIVERSITY

McMaster University

Intellectual Property – Outline

- Need a rough understanding of IP regimes to understand where opportunities are
- Different rules for patents and copyrights

TRENT UNIVERSITY

McMaster University

IP Regimes

- Copyright
- Patents
- Trade-marks
- Trade secrets
- Others
  - Plant Breeders Rights
  - Industrial Designs

TRENT UNIVERSITY

McMaster University

Copyrights

- The ‘deal’
  - Protects an Original Expression
  - The author should direct the use

TRENT UNIVERSITY

McMaster University

Copyright – Subject Matter

- Copyright has traditionally been able to keep up with media changes
- Current Challenges are the internet and multi-media
- In academe developing areas are:
  - Alternative delivery methods
  - Software

TRENT UNIVERSITY

McMaster University

Copyright – Formalities

- National laws protect
- International conventions give some automatic protection – no need for © or a notice
- No need to register but it gives certain presumptions
- Term based on life of author plus years

TRENT UNIVERSITY

McMaster University

Copyright – Ownership

- Owned by author unless written agreement to contrary
- Issues with teaching material
  - Distance education
  - Web sites
- The problems with temporary staff and contract workers
- Standard licence back

TRENT UNIVERSITY

McMaster University

Patents

- The ‘deal’:
  - Inventor must make a full disclosure
  - In return they receive a monopoly for a fixed period of time

TRENT UNIVERSITY

McMaster University

Patents – Subject Matter

- Definition of Invention in *Patent Act* (Canada):
  - any new and useful art, process, machine, manufacture or composition of matter
- Specific exclusions from court decisions:
  - Medical methods of treatment
  - higher forms of life (Oncomouse)
  - Scientific principles
- Other rules in other countries

TRENT UNIVERSITY

McMaster University

Patents – Formalities

- Patents require an application in each country
  - Application in very specialized language
- Examination of application
- Term is 20 years from application
- Many countries require maintenance fees

TRENT UNIVERSITY

McMaster University

Patents – Types of Applications

- Formal application in each country
- Some countries have informal application systems
  - US Provisional
- International Applications – PCT
  - Still need to be ‘converted’ into national applications

TRENT UNIVERSITY

McMaster University

Patents – Costs

- Filing Fees are about US$500 per country
- Big costs are agent's fees
- Total worldwide lifetime cost can easily be US$500,000!

TRENT UNIVERSITY

McMaster University

Patents – Ownership

- Original inventors own
  - Who is an inventor?
- Policies may change this rule
- University challenge:
  - Have you identified all of the inventors? (Grad. Students?)
  - Will they take action if you forgot them?

TRENT UNIVERSITY

McMaster University

Patents – Inventorship

- No definition in Act of ‘Inventor’
- US and Canadian case law is different
- In Canada:
  - Conception with ‘sound prediction’ of success
- Contrast brainpower and horsepower

TRENT UNIVERSITY

McMaster University

Trade-marks

- The ‘deal’:
  - Protects name that goods and services are sold with

Trade-marks – Subject Matter

- Any way someone can distinguish their goods from those of someone else
  - Principally “word marks” and “design marks”
  - Also can include “Get-up”; Colours; Smells

TRENT UNIVERSITY

McMaster University

Trade-marks – Formalities

- National systems
- Non-registration
  - If the national law recognizes it protection usually just in the trading area
- Registration
  - Protection is wider
- Special provision for universities

TRENT UNIVERSITY

McMaster University

Trade-marks – University Situation

- Usually a bookstore responsibility
- Use of name now being sought in TT context
- When will you allow use of your name by industry?
  - Prospectuses
  - Advisory Boards

TRENT UNIVERSITY

McMaster University

Trade secrets

- The ‘deal’:
  - Don’t tell; contract with others not to tell

TRENT UNIVERSITY

McMaster University

Trade secrets – Formalities

- Contracts:
  - Non-disclosure agreements
  - Confidentiality agreements
- Subject matter:
  - Just about anything
  - Examples
    - Coca-Cola recipe
    - New computer algorithms

TRENT UNIVERSITY

McMaster University

Trade secrets and Universities

- Conflict between our traditional mission of free dissemination of information and industrial needs
- Can we live up to our obligations?
  - Should the university sign a non-disclosure agreement?
  - What extra steps are you ready to take to safeguard information?

TRENT UNIVERSITY

McMaster University

Oddball Protections

- Integrated Circuit Topographies; Publicity Rights; Plant Breeder's Rights; Industrial Designs (US Design Patents)
- Why oddball?
  - If you don't specifically need in an area you will never use them

TRENT UNIVERSITY

McMaster University

Protected IP – What is it worth?

- Patents, TMs, Copyrights etc. cost money to register and police
- Just because you have a patent does not mean the world will beat a path to your door!
- Valuation depends on markets
- Probably the most important aspect of TT in a university

TRENT UNIVERSITY

McMaster University

Sponsored research

- Why do sponsored research?
- Industrial partners needed for some types of grants
- Reduce dependence on tri-council funding
- ‘Marketability’ generally

TRENT UNIVERSITY

McMaster University

Sponsored Research and IP

- Historically, tri-council policy was easy:
  - IP is owned and dealt with in accordance with individual university policy
- Assumption in looking at the 'system' is that all sponsorship has similar terms

TRENT UNIVERSITY

McMaster University

Some Sponsors Rules

- Not-for Profit Foundation

  "In the event of any inventions, discoveries or improvements which may be, or have been, covered by patent applications or patents, arising as a result of the work done under the Grant, the Foundation shall be deemed to have an interest in any patent rights covered by such patent applications or patents."

TRENT UNIVERSITY

McMaster University

More Rules

- Corporate ‘Grant’ Program

  “The university and the researcher agree that company is entitled to exploit any intellectual property resulting from the work and hereby grant to company and its affiliates (as defined by comapny from time to time) a royalty-free, fee-free, worldwide, irrevocable, non-exclusive licence to use such intellectual property”

TRENT UNIVERSITY

McMaster University

Analysis of foregoing rules

- If either of two previous examples results in a possible commercial project what will happen?
- Will there be anything?
  - Situation One?
  - Situation Two?

TRENT UNIVERSITY

McMaster University

Why do you care?

- If you lose the IP what are you going to do for the rest of your life?
- Don’t think it won’t happen!
  - McMaster case of Adenovirus vectors
- Do you want to pay for your own research tools?
- Publication hold-ups

TRENT UNIVERSITY

McMaster University

Our Canadian Funding Challenge

- No one funder ever provides enough for the entire project
- Should the last nickel get to call the shots?
- Alternately: if you do hit on something, will you be able to do anything?

TRENT UNIVERSITY

McMaster University

An example of the challenge

- A project can have the following funding:
  - CFI – industrial sponsor 1
  - NCE – group of industrial members
  - OCE – another group of members
  - ORDCF – industrial sponsor 2
  - Corporate Grant – sponsor 3
  - NSERC/CRD – sponsors 1, and 3
- If you try and commercialize something, how will you do it?

TRENT UNIVERSITY

McMaster University

Indirect Costs

- This is not a university tax
- Let's step back and ask ourselves a simple question:
  - Should we subsidize *any* research sponsors?
  - Alternately posed: are you ready to forego an annual raise because we didn't charge a sponsor the true costs of their research?
- cf. US situation:
  - They receive indirect costs on everything and government prevents cross-subsidies

TRENT UNIVERSITY

McMaster University

How to handle indirect costs

- Negotiating tactics:
  - Don’t talk price of line items (cf. buying a car)
  - Who says you need to provide all sponsors with detailed budgets?
- Management tactic:
  - Leave a surplus
  - Create a miscellaneous funds account

TRENT UNIVERSITY

McMaster University

In a perfect world

- All money would be properly burdened with all costs
- Reality:
  - Only those who price properly really enjoy financial freedom
  - We are in a race to the bottom undercutting each other

TRENT UNIVERSITY

McMaster University

Suggestions for Success

- On IP
  - What IP rights do you really need to give sponsors?
- On indirect costs
  - How can you internally hold the line on whatever you decide?
- Collectively
  - How can universities not undercut each other?

TRENT UNIVERSITY

McMaster University

Conclusion

- Questions?