



# Intellectual Property and Commercialization

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**McGill**

# Is Your Idea the Next Google or Facebook?

It depends.....



# Agenda

- **What is Intellectual Property**
  - Ownership and rights
  - Patent types
- **Overview of McGill's IP policy**
- **IP and Sponsored Research**
- **Commercialization**
  - Office of Sponsored Research
  - From invention disclosure to licensing or a spin off
  - Stats
  - Considerations

# What is Intellectual Property?

- **Definition**
  - Any product of human intellect that is unique, novel, non-obvious and valuable
- **Types of intellectual property (IP)**
  - Copyrights
  - Patents
  - Trademarks
  - Design registrations
  - Integrated circuit topographies
  - Trade Secrets
  - Know-how



# Copyrights

- Original works
- Acquired when created
- Granted for the life of author plus 50 years in Canada
- Can be registered

# Patent

- Right to exclude others from commercial use
- Incentive for inventors
- 20 year life
- Country specific:
  - United States: First to invent
  - Rest of the world: First to file

# Patent

- **Criteria**
  - Subject matter
  - Novel
    - Prior art, public disclosure
    - US and Canada allow one year grace
    - Japan under certain restrictions
    - Rest of the world requires absolute novelty
  - Non obvious / Inventive
    - Someone of ordinary skill would not know how
  - Useful



# What is patentable Vs what would McGill patent?

- Patentable
  - Almost anything
- McGill's criteria
  - Likelihood of commercial success
  - Strength of patent claims
  - Freedom to operate
  - Inventor's participation
  - No ego patents

# Trademarks

- Words, symbols and graphics
- Can last indefinitely
- Country specific



# Design Registrations and Integrated Circuit Topographies

- Design registrations
  - Feature, shape, configuration, pattern etc.
  - Must be registered
- Integrated Circuit Topographies
  - Registering the layout



# Trade Secrets and Know How

- Trade secret
  - Recipes, databases, marketing plans, etc...
- Know how
  - A skill or ingenuity known only to a limited number of people



# McGill's IP Policy (1)

- 14 pages on how McGill deals with IP
- Approved by the Board of Governors and overseen by a Senate Committee in May 2001
  - Currently being revamped
- Developed through consultation with all stakeholders
- <http://www.mcgill.ca/research/researchers/policies/>
- So what do you need to know .....

# McGill's IP Policy (2)

- Applies to academic staff, administrative and support staff and students
- Governs the use and distribution of IP
- Directs how McGill and the inventors can benefit financially from the commercial development



# McGill's IP Policy (3)

- You can choose whether or not to commercialize your IP
  - Exception if work is developed under a research contract
- If your invention is outside your research area or you developed it independently from McGill staff or resources
  - No obligation to McGill

# McGill's IP Policy (4)

- Yes students have rights !
  - Granted under Canadian Law
  - But there are some restrictions
- Applies to students only if:
  - They have contributed with one or more author to a work
  - They have contributed with one or more inventor to an invention
  - They have created an invention they wish to develop with the help of the University



# McGill's IP Policy (5)

- Copyrights
  - Authors own copyrights
    - Exceptions are: software, sponsored research, specific arrangements and McGill's right to use for research and teaching
  - Moral Rights
    - Owned by author but maybe waived under contract
- Software and Inventions
  - Jointly owned with McGill and/or third party
    - Exceptions are: result of activities covered or not by contract of employment, sponsored research, consulting agreement, outside of field of academic research and teaching
  - Learnware dealt with on a case by case basis



# IP and Sponsored Research

- IP
  - Background IP
    - Belongs to each: industrial partner and McGill
  - Foreground IP
    - Created during the project, can be jointly owned
  - McGill's IP rights
    - Maintain right for research use and teaching
- Confidential Information
  - Non disclosure agreements
- Publication
  - Right to review prior to submission



# Commercialization

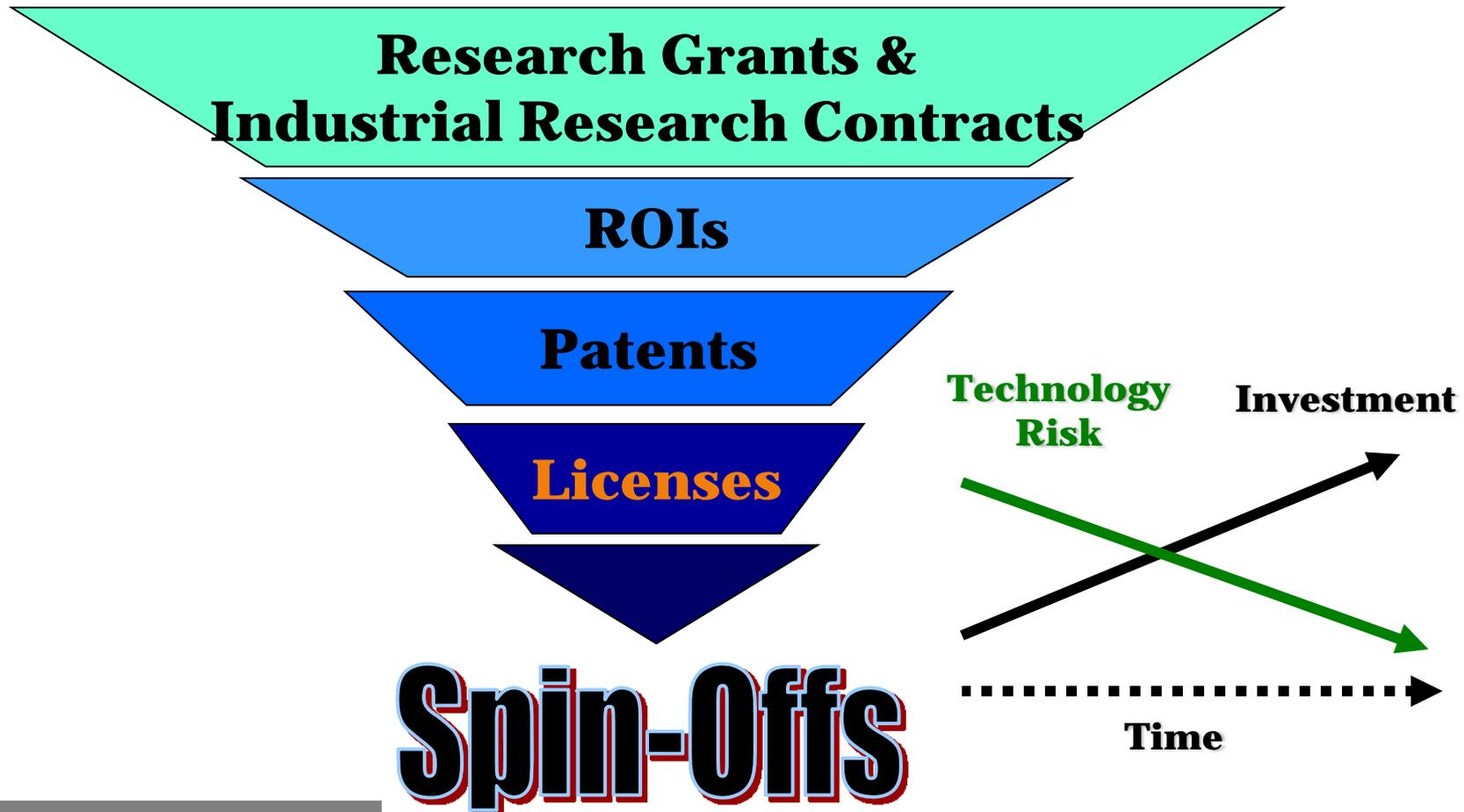
- Why commercialize university IP ?
  - Industrial validation of research resulting in real world applications
  - Benefits to society
    - Incentive to innovate
      - Peer and industrial visibility
    - Generate employment
    - Support SMEs not only large companies
    - Create economic benefits
  - Criterion for promotion and advancement
  - Become stinking rich !



# Office of Sponsored Research

- **Former OTT +**
  - Commercialization group
  - Research and Contracts Group
- **Commercialization Group**
  - Receives and assesses reports of inventions
  - Manages McGill's intellectual property
  - NDA's, MTA's related to commercial endeavours
  - Licenses, options and spin-offs
    - Transfer of inventions and software from McGill and affiliated hospitals to the industry

# The commercialization funnel



# The Process (1)

- Report of Invention disclosure to OSR's Commercialization Group
  - <http://www.mcgill.ca/research/researchers/ip/reporting/>
- Assignment of an Officer
  - initial meeting within 30 days
  - 90 day review period
  - Brief analysis
    - Technical
      - Benchmark with state of the art
      - Feasibility
    - Commercial
      - Market size, maturity
      - Likelihood of success, unmet need
    - Patentability
      - Prior art , freedom to operate



# The Process (2)

- Summary report presented by researcher and officer to an unbiased Commercialization Committee. The outcome:
  - Decline
    - Reassignment to inventor
  - Defer
  - Proceed
    - Preparation of a development and commercialization plan by researcher and officer and filing of provisional patent application
    - Go/NoGo review and decision in 12 months

# Why you may not want to disclose...

- “If I disclose I can’t publish”
- Too much paperwork involved
- Time consuming
- No guarantee my invention will be protected
- “I don’t have the funds to patent”
- Patents are not yet formally recognized for tenure or by academic peers



# Additional considerations (1)

## Who is an inventor?

- Someone who has created something new or contributed intellectually
- What is an intellectual contribution?
  - Enabling an idea vs. “demonstration of the idea”
  - Enabling is if someone of “ordinary skill-in-art” could make or use without undue amount of research or experimentation
- Authorship does not equal inventorship



# Additional considerations (2)

## Best practices

- Come see us early
- Keep good records
- Keep your discussions within McGill
- Think about NDAs and MTAs

## Not so good practices

- Coming at the 11th hour with an article, abstract or presentation you want to protect
- Not include all inventors or include non-inventors

# Practical Issues Related to Software (1)

- Open-source distribution is not considered commercialization
- Can you really commercialize your software ?
  - Did you use some open-source code, under which OS license ?
  - Did you have access to or do you need some software licensed for academic purposes only ?
  - Did you properly identify all authors/collaborators ?
  - Does your software infringe some patent rights ?
  - Who paid you to develop the software ? Do they have some rights to the software ?
  - Disclosure is much less of an issue than with patent, but software distribution certainly is.



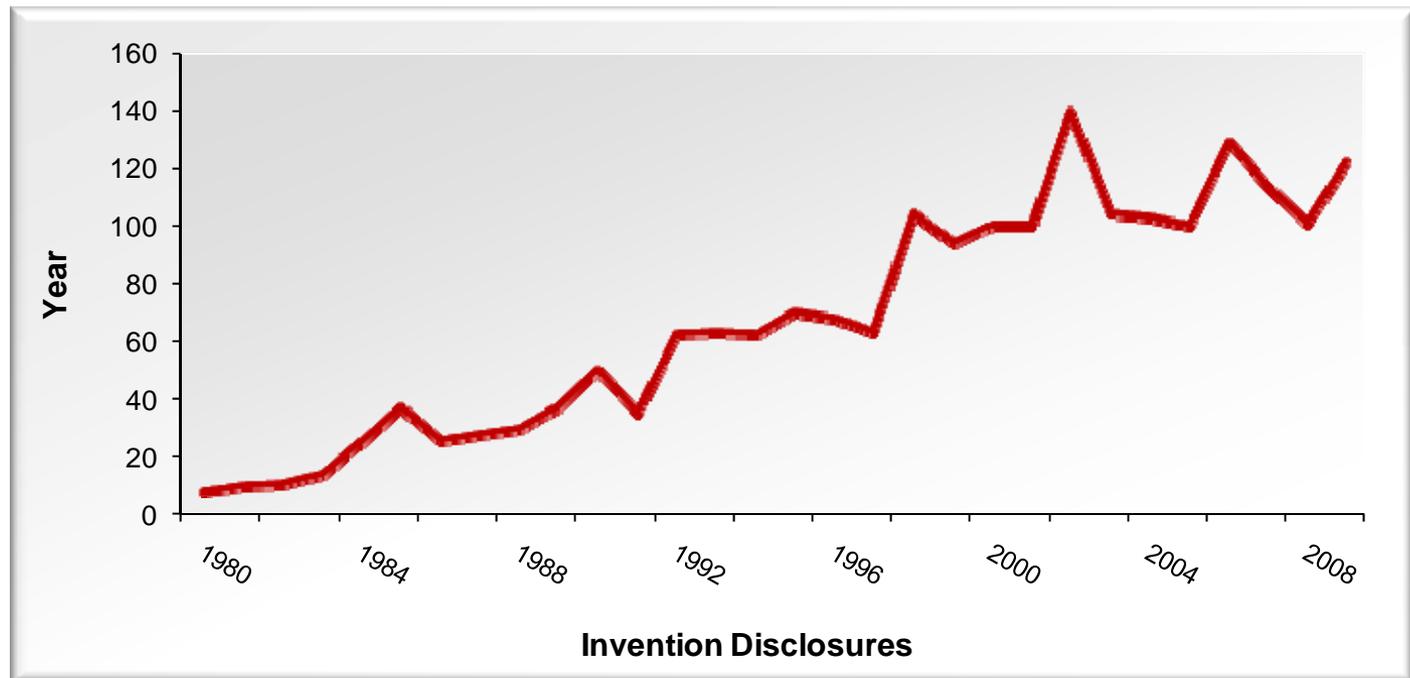
# Practical Issues (2)

- **Software Commercialization Models**
  - End-user licenses: software licensed as is, with no warranty and no tech support commitment of any kind. How much would you pay for this?
  - In some cases, software can also be patented
  - License can be given only to the compiled version, to be used as a library with public interfaces
  - License to a third-party that will “productize” your software. The value: proof of concept + significant savings in software development time

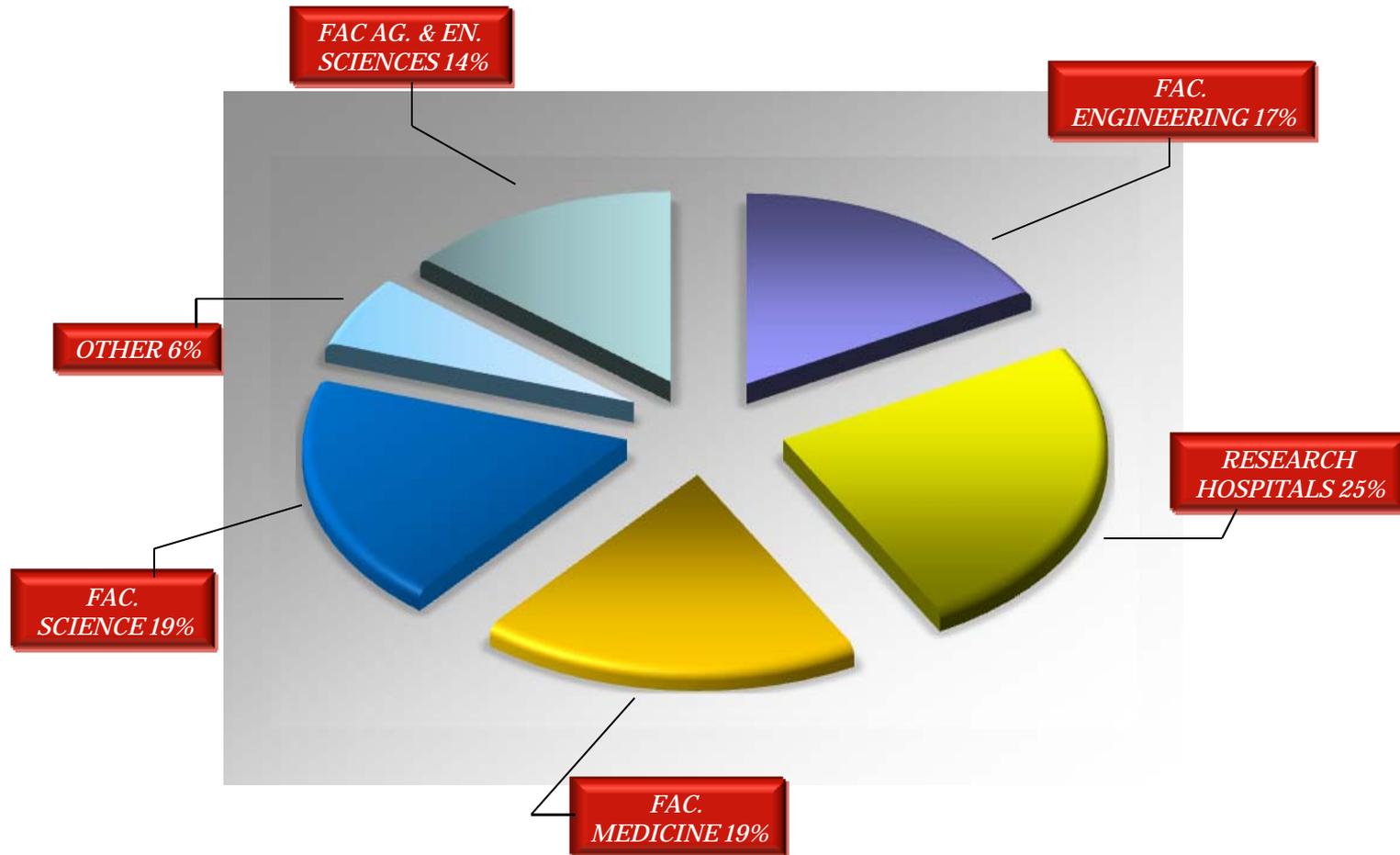


# Key Metrics: Inventions Reported Annually

- 1900 cumulative reported inventions
- Over 100 inventions reported annually



# Key Metrics: Inventions Reported by Faculty



# Spin-Offs and Key Discoveries



NexPlasmaGen

Adherex

- The genesis of major drugs in clinical practice is attributable to McGill research & innovation.
  - 3TC<sup>R</sup>
  - Gancyclovir<sup>R</sup>
  - Butorphanol
  - Carcinogenic Embryonic Antigen (CEA) assay
- McGill intellectual property is at the origin of over 50 start up companies; over 40 of which continue operations (10 IPOs).



TOPIGEN



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# Contact Us

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# Thank you for your attention!

## QUESTIONS ?



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# What happens then?

- Inventors assign their rights to McGill (ROI)
- McGill manages the commercialization
  - Cost, liabilities and agreements
- Team effort to market the invention
  - Go/NoGo milestones
- Net revenue is shared
  - First \$10k to inventors
  - 60% to inventors and 40% to McGill
- Reassigned Inventions
  - 80% to inventors and 20% to McGill for \$100k