Innovation and Technology Transfer Infrastructure in Public Research Organisations and Roles of TTOs

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Contents

- IP Ownership and Rights
  - Concept of ownership and entitlement
  - Who owns IP generated by publicly funded research
  - What about privately funded research?
  - Is there a difference?

- Revenue Sharing
  - How are revenues from research commercialization shared amongst faculty, research performers, government and other stakeholders
A*STAR Innovation & Enterprise Model

Research Institutes

Exploit-Technologies (TTO)

Industry

Invention Creation

Invention Diffusion

Invention Usage

RCAs / P3 Programmes

TICI

Tech Disclosures

Spin-offs

Licenses

Talent

Incentives

Funding

Infrastructure

Education
Developing an IP Strategy - Context

- IP Strategy cannot be developed in a vacuum
- Need to address organization's needs and objectives
- Sound IP strategy will assist organization achieve its goals
Mission and Objectives

• Be aware of the environment in which your organization operates

• What are your organization's mission and objectives

• What sort of IP does your organization create
Identify Organizational Objectives

• Is IP creation and commercialization a primary or secondary objective
• Generate income from commercialization
• Help Industry
• Attract investments
• Raise organization's profile

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Identify IP

• Identify IP rights held by organizations

• Assess strengths of each IP right
  - Life span
  - Coverage
  - Validity

• Conduct IP audit if information not readily available

• FTO – is this essential?
Align IP with Organizational Objectives

- Consider protection methods
- Establish IP management structures and teams
- Issue of costs and resources vs. benefits
- Revenue generation vs. open dissemination
- Management support
Formation of IP Strategy

• **Identify:**
  - Core IP – IP that is core to your business
  - Surplus IP – IP that is no longer aligned with organizational objective/strategies
  - IP Gaps – IP required to better support current strategies

• Constant review against organizational goals and objectives

• Keep an eye on the costs!
Making IP Protection Decisions

- Not all IP needs protection
- But documentation necessary
- Decision depends on nature of subject matter, purpose, value and role it plays in overall organization objectives
- Think about long-term cost implication
- IP is not always a silver bullet solution
- Could be a poison pill?
A*STAR IP Policies

1. Centralization of IP at A*STAR
2. Rewards and revenue sharing
3. Conflict of interest
4. Patent and technology Licensing
A*STAR’S Policy - IP Management

- Object is to provide for the centralization of the ownership of all intellectual property rights ("IPRs") created by the various Research Institutes ("RIs") such that all IPRs shall be owned by A*STAR.

- IP ownership and licensing models adopted depend on several considerations, including:

  1. Securing A*STAR RI’s freedom to operate and protect against lawsuits.
  2. Technologies involved.
  3. Maximizing potential use of A*STAR BIP and FIP.
  4. Generally allocate ownership according to inventorship, but will consider financial and other contributions made by both sides in determining licensing and access terms.
Owners, Inventors & Creators

• General Rule
  – First inventor/creator = first owner

• Employment Rule
  – If IP is created in the course of employment, it belongs to the employer and not the employee

• Commissioned works
  – IP remains with the author/ devisor unless agreed otherwise
  – Issues with independent contractors; consultants, students
Employee Inventions

• 4 issues to consider:

1. What are the normal course of duties of the employee?
2. What duties are outside the normal duties which were specifically assigned to the employee?
3. Were inventions in issue made in the course of those duties?
4. If so, were the inventions reasonably expected to result?
The case arose out of two patents owned by Madey, who had been employed by but subsequently terminated as a laboratory director at Duke University.

The patents were obtained prior to his taking up an appointment at Duke.

After his termination Duke continued to use patents and Madey sued Duke for infringement of his patents. Duke defended on the grounds that the work it was doing was the subject of government licenses and that it was protected by the experimental use exception.

- The district court held that to the extent that the patents were being used by Duke to fulfill government contracts, there could be no claim of patent infringement and that the only recourse was an action for compensation before the Court of Claims.

- On the experimental use issue the district court placed the burden on Madey to show that the University’s use did not meet the experimental use exception.

64 USPQ2d 1737 (Fed. Cir. 2002).
Case 1 : Duke University V Madey

- Federal circuit reversed on both issues.
- On the government license issue - insufficient evidence to conclude if work was carried out under government contract was “for the United States” as required by 28 USC 1498(a).
- Experimental use issue – Court rejected argument that as a non-profit educational establishment Duke’s activities were inoculated against patent infringement as long as they were solely for research, academic or experimental purposes. Federal Circuit held that experimental use exception was a very narrow one for example “to satisfy idle curiosity or for strictly philosophical enquiry”. The court went on to state:

“regardless of whether a particular institution or entity is engaged in an endeavor for commercial gain, so long as the act is in furtherance of the alleged infringer’s legitimate business and is not solely for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry, the act does not qualify for the very narrow and strictly limited experimental use defense. Moreover, the profit or non-profit status of the user is not determinative”.

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Case 2: University of Western Australia v Dr Gray

- Dr Gray was appointed by UWA and was required “to teach, to conduct examinations” and “to undertake...and generally stimulate research among the staff and students”.
- In the years that followed Dr Gray was the inventor of various inventions in relation to microsphere technologies for targeted cancer treatment and a series of patent applications were filed. The patent applications were subsequently acquired by Sirtex Medical Limited. Dr Gray had a substantial shareholding in Sirtex.
- **No implied term in contract regarding IP ownership**
- UWA had claimed ownership of the microsphere patent applications, on the basis that it was an implied term of Dr Gray’s contract of employment that IP developed in the course of his employment belonged to UWA.
- Justice French dismissed UWA’s claim and held that any presumed general operation of such an implied term, in the case of academic staff who perform research and use university facilities, is ill founded **unless the staff have a contractual duty to produce inventions.**
Case 2: University of Western Australia v Dr Gray

- **A duty to research may not include a duty to invent**
- The critical question in IP ownership disputes amongst researchers, scientists and engineers in a variety of institutional settings had always been the role for which the employees were employed. Importantly, Justice French held that a duty to *research* does not necessarily carry with it a duty to *invent*, on the basis that academic staff conducting research for a university are given a choice whether to invent or not to invent. Given the nature of, and the public purposes served by, universities he also held that there is no basis for universities to imply into their contracts of employment with academic staff a duty not to disclose the results of research where such disclosure could destroy the patentability of an invention.

- **UWA’s IP Regulations**
- Justice French further considered the validity of IP Regulations made by UWA purporting to allocate ownership of the intellectual property generated by its academic staff. In his opinion, these were not valid. While UWA is empowered by the *University of Western Australia Act 1911 (WA)* to make regulations relating to the control and management of its own property. Justice French held that it is not authorized by the Act to make regulations acquiring property from others or interfering with their rights.

[2008] FCA 49, the Federal Court
Revenue Sharing

- Deductions from net cash receipts of commercialization income:
  1. 15% for Exploit Technologies (overhead & commercialization cost)
  2. First $100k allocated to inventors
  3. Balance is allocated as
     a. 1/3 Inventor (s)
     b. 1/3 Research Institute (s)
     c. 1/3 A*STAR
1. Recognition and to incentivize A*STAR’s researchers for their efforts
2. Motivate researchers to innovate and meet the needs of the market
3. Encourage researchers to actively participate in the marketing and realization of their innovation.
4. Compliments the patent system
5. A*STAR’s revenue sharing policy is aligned with our national R&D framework

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Technology Transfer Structures

- There is no “one size fits all” approach
- Managing IPR requires institutional, financial and human resources
- Tech transfer offices - fairly recent phenomenon
- Governments are providing more support to PRO patenting and licensing in many countries
- Countries (eg Denmark, Germany, Korea, UK) experimenting with regional or sector-based technology transfer offices:
  - Advantage: economies of scale, portfolio diversification
  - Disadvantage: difficulty in developing close working relationships with researchers

Source: OECD extract

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Thank you!