

INTELLECTUAL PROPERTY, OPEN INNOVATION & COLLABORATIONS

ROSS CUMMINGS 18 APRIL 2018

WHAT IS INTELLECTUAL PROPERTY?

- Bundle of different legal rights that protect creativity, imagination and ideas
- Used to prevent use/misuse or copying of your ideas or your creative output without your permission
- Different rights apply to different innovations and business strategies



BENEFITS OF IP



FORMS OF IP







- A state-granted time-limited monopoly provided in exchange for disclosure of new innovations
 - Aims to stimulate idea sharing and technology development
- A property right, which can be transacted like any other form of property
- A right to exclude, not a right to do
- A territorially-limited right



WHAT CAN BE PATENTED?

- Products/devices
- Methods
- Uses
- Processes
- Products obtained by specific processes
- Kits
- Dosage regimes

- Isolated molecules
- New chemical entities
- 1st and 2nd medical uses
- Modified molecules or microorganisms
- Methods of diagnosis



WHAT CAN'T BE PATENTED?

- Abstract ideas
- Business methods
- Mathematical methods
- Computer programs *per se*
- Presentations of information

Essentially biological

processes

Plant varieties

 Human embryonic stem cells

 Methods of treatment, surgery or diagnosis practised on a human or animal body



INDUSTRIAL BIOTECHNOLOGY

- Cannot patent plant/animal varieties or "essentially biological processes" for their production
 - Does not apply to microbiological processes or products
- Can patent biological material isolated from natural environment, even if previously found in nature
 - e.g. isolated genes, enzymes, microorganisms
- Can patent a microbiological process, or product obtained thereby, other than a plant/animal variety
- Equipment/materials used in biological processes



REQUIREMENTS FOR OBTAINING A PATENT

- Novelty
- Inventive Step
- Sufficiency
- Industrial applicability



IMPORTANCE OF DISCLOSURE...FOR NOVELTY

Most of the world – <u>absolute novelty</u>

Public disclosure in any form

United States – 1 year grace period

Europe - 6 month "grace period" (very narrow) in case of:

- Evident abuse
- Display by applicant at official International exhibition



IMPORTANCE OF DISCLOSURE...FOR SUFFICIENCY

- Invention must be described in sufficient detail to be carried out by a "person skilled in the art"
- Must be sufficient across scope of the claims
- Sufficient disclosure often requires <u>data</u>
- Raises difficult issues of timing when to file?



THE PATENT PROCESS







A plan to deal with:

- Development and ownership of IP
- Commercial exploitation of technology
- IP owned by third parties 'FTO'
- Enforcement of IPR



WHY DOES ESTABLISHING AN IP STRATEGY MATTER?

- Improves understanding of the business and decision making
- Protects investment in R&D and brand development
- Identifies and mitigates risk to the business
- Builds value
- Supports fund raising efforts
- When entering into negotiations or collaborations IP strategy should be on hand



THE BUSINESS PLAN





PATENT FILING STRATEGY

Important questions	Considerations
Why file a patent application?	Protection of commercial position
money or improve your position?	Technical scope of protection
What products/processes might be developed?	Geographic scope
When is the right time to file?	Funding
What will an investor/licensee want to see?	Policeability
Consequences of not filing?	Third party rights



OPEN INNOVATION

- Open and visible arrangements for managed sharing of knowledge, technology and IP
 - Contrary to industry 'silo mentality'
 - Can be market based with clear royalty fees and distribution sharing, e.g. patent pools
 - Benefits include faster development, adoption of standards, better terms for smaller companies
 - Access to previously closed off IP
- Not free IP giveaways
 - Come with rules and strings attached
- Normal IP considerations apply



OWNERSHIP OF PATENTS

- Very important to establish BEFORE any collaboration
- Ownership flows from inventorship
 - Who is an inventor? Anyone who <u>contributes to the</u> <u>inventive concept</u>
 - All inventors have a right to be named
- Ownership determined by statutory requirements and contractual agreements
 - Governed by local law



ESTABLISHING OWNERSHIP

Invention Disclosure Documents

- Written record of each inventor's contribution to invention
- Helps to correctly identify inventors
- Evidence of inventorship
- US patent invalid if inventor declaration is incorrect!





Important considerations in early stages of collaboration:

- Confidentiality agreements (NDAs)
- Material transfer agreements (MTAs)

Need agreement on ownership

- Who owns the rights to your collaborators' contribution?
 - Employer? University? Consultant?
 - Follow same rules for establishing inventorship and ownership

Potential difficulties with co-ownership

- Co-applicants have equal rights in invention
- Co-applicants can frustrate each other's actions





Consultancy agreements

What rights does the consultant have? What are they actually doing for you?

An agreement on ownership/filing rights is not the same as a assignment.

Assignment of IP must specifically identify the IP (e.g. patent application number)



FREEDOM TO OPERATE

- Patent is a right to exclude, not a right to do
- Must be aware of 3rd party rights
 - Beware of the cost of full FTO analysis
 - FTO analysis can quickly go out of date
 - Alternatives are available
 - FTO-light
 - Watches on competitors' patents
 - Simple key word/applicant searches
- Open innovation and collaboration can open up markets previously closed by providing FTO



TYPICAL AGREEMENTS?

- Are there any? All collaborations individual
- Typically trade of one asset for another, but which? – different terms for different agreements
 - Materials? MTA?
 - Know-how/trade secrets? NDA/conditions?
 - IP? Assignment/licence
 - Fee/royalty what terms?
 - Investment what terms?
 - Options/shares/employment? how structured/when?
 - Merger/acquisition? what terms and when?





What is your current 'position'?

- Is there an IP strategy?
- Who's in charge?!
- Identify existing IPR
- Ownership
- Mapping to commercial products/processes
- Source of innovation?
- Identify existing issues
- FTO position





Questions?

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CHALLENGES FOR IP MANAGEMENT

- Deadlines, deadlines, deadlines!
 - Filing, priority, publication, patent office responses, renewal fees, oppositions
- Invention capture and filtering ideas for new patent applications
- Mapping patents/claims to commercial goals
 - Keeping IP relevant to business strategy
 - Pruning an IP portfolio to keep costs down
- Keeping track of IP agreements/transactions



5 COMMON PATENT MISTAKES

Overly long specifications	 Increase cost of translation and official fees
Overbroad Claims	Slow down grantValidity issues
No search prior to PCT	Weak specificationMissed opportunity to correct mistakes
Ownership issues	UncertaintyRisk of invalidity
Lack of pruning	 Costly and unnecessary renewal fees

