IPRs & FUNCTIONAL FOODS

Canadian Agriculture Innovation Research Network
Public Institutions and Management of IPRs Workshop
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Presented by:
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Outline

- What kind of IP rights may result from a Functional Food Project?

- What are the IP considerations that should be built into a Functional Foods Project to ensure optimum IP rights are attained and maintained? (IP Management)
Functional Foods

Nutrient-Enriched Fruits
- Authentique d’Orléans: strawberry having 50% more antioxidants than other varieties

- natural cross-breeding process

- developed through joint research project of Agriculture Canada and Nutraceuticals and Functional Foods Institute (INAF)

- cited health benefits: prevention of cancer & a number of conditions associated with aging
Functional Foods

**Omega3 Products**
- eggs, milk products, juices

- cited health benefits: reduced risk of heart disease, lower blood trygliceride levels & vision development

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Patents

- IPR over:
  - Product
  - Method of Making Product; or
  - Process
  - e.g. Genetic innovation

- Issues:
  - Discovery vs. Invention
    - Nutraceuticals and herbal remedies
  - Inventive Step
    - Cross-breeding may not constitute innovation (*Pioneer Hi-Bred Ltd. v. Canada (Commissioner for Patents)*)
  - Patentable subject matter
    - Higher life forms may not be patentable (*Harvard College/Monsanto*)
Functional Food Patent Example

- **Omega3 Eggs Patent Claims**
  - Omega3 enriched chicken feed
  - Method of feeding chickens
  - Means of deodorizing fish oil
  - Method of reducing risk of heart disease in humans (feeding eggs to humans)
  - Omega3 enriched egg

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Plant Breeders’ Rights

- IPR over:
  - Sexually & Asexually Reproduced Plant Varieties
    - e.g. Plant variety produced from artificial cross-breeding

- **Right**: to sell and produce propagating material
- **Jurisdiction**: National
- **Term**: 18 years
Copyright

- IPR over:
  - Expression of an idea
  - Works related to functional food
  - e.g. Journal Articles, Publications, Product Labels (design & written components), Product Information

- Immediate & automatic right
- **Jurisdiction:** International
- **Term:** Life of the author plus 50 years
Trade Secret

- **IPR over:**
  - Confidential Info.
    - e.g. Results, Optimum Information, Methods, etc.

- **Right:** To take action against anyone who wrongfully discloses your trade secret

- **Jurisdiction:** Unlimited

- **Term:** Potentially forever
Trade Mark

- IPR over:
  - Trade Name, Trade Mark (word, symbol or design)
  - e.g. Brand, Label, Certification Mark

- **Right:** Exclusive right to use trademark in respect of particular wares or services
- **Jurisdiction:** National
- **Term:** 15 years (Renewable)
Trade Marks & Foods

- Geographical Indications
  - Basmati rice, Champagne, Bologna…
  - Link to region to prove authenticity
  - Push for international GI rights
  - Potential for significant effect on branding and marketing of products (Kraft Parmesan Cheese)
Trade Marks & Foods

- Certification Marks
  - Organic Foods and Kosher Foods
  - Standard of Quality ascribed to the product
  - Important factor for sales
# IP Management: Planning

<table>
<thead>
<tr>
<th>Type of IP</th>
<th>IP Issue/Consideration</th>
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<tbody>
<tr>
<td>All Types</td>
<td>Ownership</td>
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<tr>
<td></td>
<td>- employee contracts, university policy, etc.</td>
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<tr>
<td>Patents &amp; Copyright</td>
<td>Disclosure</td>
</tr>
<tr>
<td></td>
<td>- timing may affect attainment of Patent</td>
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<tr>
<td>Patents</td>
<td>Documentation</td>
</tr>
<tr>
<td></td>
<td>- Lab books, progress reports, etc.</td>
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<tr>
<td>Trade Secret</td>
<td>Confidentiality</td>
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<tr>
<td></td>
<td>- employee contracts, non-disclosure agreements, etc.</td>
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IP Management: Action

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<th>Type of IP</th>
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</thead>
<tbody>
<tr>
<td>All types</td>
<td>Establish Your IPR Goals</td>
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<tr>
<td></td>
<td>- Closely Held Rights?</td>
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<tr>
<td></td>
<td>* Exclusive License</td>
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<td></td>
<td>- Free Flow of Information?</td>
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<td></td>
<td>* Non-exclusive license, open source…</td>
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<td></td>
<td>* Assignment of IPRs</td>
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<tr>
<td>Trademark</td>
<td>Certification of Product</td>
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<td></td>
<td>- Seek mark that will certify quality</td>
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<tr>
<td>Trademark</td>
<td>Geographical Indication</td>
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<tr>
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<td>- Is geographical affiliation possible?</td>
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IPRs & Functional Foods: Strategy

- IP rights should be a consideration from the start of a functional food project & throughout its progression

- **Ask:**
  - What IP rights may be obtained?
  - What needs to be done to obtain and sustain the rights? (Planning)
  - How will those IP rights be utilized? (Action)