Canadian Pharmaceutical and Biopharmaceutical Market

- Top filing countries for many pharmaceutical and biologic patentees remain the US, Europe, Japan and Canada

- Reasons:
  - Relatively wealthy population
  - Private and public drug reimbursement plans
  - Robust generic industry
  - Protections afforded to innovator companies
Overview

• Canada’s Linkage Regulations: the *Patented Medicines (Notice of Compliance) Regulations*

• Data Protection for Pharmaceuticals

• Pricing of Patented Medicines by the Patented Medicine Prices Review Board (PMPRB)

“Bolar” Exemption and NOC Regulations

• Canada’s *Patent Act* has a “safe-harbour” provision for uses of a patented invention reasonably related to regulatory approval
  • Not patent infringement, similar to US “Bolar” exemption

• To balance the “safe-harbour” provision, the *Patented Medicines (Notice of Compliance) Regulations* [“NOC Regulations”] link drug regulatory approval of a subsequent entry product to innovator patent status
  • Similar to aspects of the Hatch-Waxman Act
NOC Regulations

- Subsequent entry manufacturer must successfully address patents listed on the Patent Register before marketing authorization (Notice of Compliance, NOC) will be granted for the generic drug or subsequent entry biologic (SEB)
  - Can wait until expiry of all listed patents
- Innovator must commence a court proceeding under the NOC Regulations within 45 days (non-extendable) after being served with a Notice of Allegation (NOA), if patents are to be asserted

NOC Proceedings

- Once prohibition proceedings are started, a “statutory stay” of up to 24 months is commenced during which time the Minister of Health cannot grant a NOC to the generic or SEB manufacturer
  - There is likely no other effective interlocutory relief in Canada
- Key: patents must be listed on the Patent Register
The Patent Register

- Similar to the U.S. Orange Book
- Maintained under the NOC Regulations by the Minister of Health through the Office of Patented Medicines and Liaison (OPML)
- Strict timing requirements for listing
- Relevance requirement for initial listing of a patent in relation to a New Drug Submission (NDS) or Supplemental NDS (SNDS)
- Can “carry-forward” patent listed in relation to a NDS or SNDS against a subsequent SNDS

Sample Patent Register Entry

<table>
<thead>
<tr>
<th>Drug Identification Number Search Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medicinal Ingredient</strong></td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Rasagline mesylate</td>
</tr>
<tr>
<td>Rasagline mesylate</td>
</tr>
<tr>
<td>Rasagline mesylate</td>
</tr>
<tr>
<td>Rasagline mesylate</td>
</tr>
</tbody>
</table>

1. Drug Identification Number (DIN)
Eligibility for Listing: Timing

- Patent must have a **Canadian** (includes PCT) filing date that precedes the filing date of related NDSs, SNDSs
  - Priority filing date of patent application irrelevant
- **IMPORTANT**: coordinate patent application filings with related Canadian regulatory filings

### Inextensible patent listing deadlines:

- **Scenario 1**: related NDS/SNDSs filed in Canada
  - Patent List(s) **must** be filed within 30 days of patent grant in respect of each related NDS and SNDS
- **Scenario 2**: no related NDS or SNDS filed in Canada
  - Patent List(s) **must** be filed together with each related NDS and SNDS
Form IV: Patent List

Patent Listing Deadlines

- No extensions of time for submitting a patent list
- If deadline missed, there might not be another opportunity to list the patent on the Patent Register
- **IMPORTANT**: communicate patent grant status to regulatory group
Relevance Requirement: NDS

- A patent is eligible for listing on the Patent Register in relation to a NDS, if the patent contains one claim for:
  - the medicinal ingredient;
  - the formulation that contains the medicinal ingredient;
  - the dosage form; or
  - the use of the medicinal ingredient,

which has been approved through the issuance of a NOC in respect of the NDS

Relevance Test: SNDS

- A patent is eligible for listing on the Patent Register in relation to a SNDS, if the patent contains one claim for:
  - the change in formulation;
  - the change in dosage form; or
  - the change in use of the medicinal ingredient,

which change has been approved through the issuance of a NOC in respect of the SNDS
Relevance and the OPML

- The OPML will review the claims of a patent and the NOC, Product Monograph and underlying NDS or SNDS to assess whether a patent is relevant to a submission
- The OMPL may require a high degree of “product specificity” as between patent claims and approved product
- If the OPML does not agree that a patent is eligible for listing, it is unlikely that the Federal Court or Federal Court of Appeal will reverse the decision based on decided cases to date

Sample Product Monograph - Product Details

"AZILECT" (rasagline mesylate tablets)
0.5 mg and 1 mg tablets
(as rasagline mesylate)

PART 1: HEALTH PROFESSIONAL INFORMATION

SUMMARY PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Route of Administration</th>
<th>Dosage Form / Strength</th>
<th>Nonmedicinal Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>0.5 mg and 1 mg tablets</td>
<td>Colloidal silicon dioxide monohydrate, starch, pregelatinized starch, stearic acid and talc</td>
</tr>
</tbody>
</table>

INDICATIONS AND CLINICAL USE

AZILECT (rasagline mesylate tablets) is indicated for the treatment of the signs and symptoms of idiopathic Parkinson’s disease as initial monotherapy and as adjunct therapy to levodopa.

The effectiveness of AZILECT was demonstrated in patients with early Parkinson’s disease who were receiving AZILECT as monotherapy and who were not receiving any concomitant dopaminergic therapy. The effectiveness of AZILECT as adjunct therapy was demonstrated in patients with Parkinson’s disease who were treated with levodopa.
**Prosecution Tips**

- Coordinate the filing of patent applications and related regulatory submissions to meet timing requirements.
- Regularly review and **add** claims to pending patent applications, where possible, that are **specific** to the medicinal ingredient, formulation, dosage form and uses of related NDSs and SNDSs, as appropriate.
- Consult with regulatory group to confirm language to be used in related NDSs and SNDSs, and draft Product Monograph(s), for consistency with patent claims.

**“Frozen” Patent Register**

- Generic/SEB manufacturer only has to address patents **listed** on the Patent Register at the time it files its abbreviated submission.
- **IMPORTANT:** Obtain patents before NOC issues for the related drug.
  - Potential for lengthy pendency before Patent Office.
  - Consider advancing prosecution (including a Special Order), data protection.
Patent Term Restoration

- Canada currently does not provide any restoration of patent term due to regulatory delays
- A Comprehensive Economic and Trade Agreement (CETA) is being negotiated between Canada and the European Union - the EU has proposed that Canada adopt Supplementary Protection Certificates (SPCs)

Data Protection

- Independent of patent status
  - *Food and Drug Regulations* govern
- Data protection applies to innovative drugs:
  “a drug that contains a medicinal ingredient not previously approved in a drug by the Minister and that is not a variation of a previously approved medicinal ingredient such as a salt, ester, enantiomer, solvate or polymorph”
Data protection and the NOC Regulations

- 6-year “no-file” period
  - Generic or SEB manufacturer cannot file its abbreviated or SEB submission for a period of 6 years after the date of the first NOC for the innovative drug
  - Potential patent listing safe harbour

- 8-year “no-grant” period
  - Minister cannot grant a NOC to the generic/SEB manufacturer for a period of 8 years after the date of the first NOC for the innovative drug
  - 8½ years if pediatric extension applies

- The EU has proposed in the CETA negotiations to extend the terms to 8 + 2, with a further 1 year for new indications

Extract from the Register of Innovative Drugs
Orphan Drugs

- Canada does not presently have orphan drug legislation
- Health Canada is developing regulations for an orphan drug framework
- Current data protection provisions and NOC Regulations should apply
  - It is unclear whether an orphan drug would be given any other market exclusivities

PMPRB Jurisdiction

- PMPRB controls price over which patented medicine is sold in Canada
- Broad jurisdiction
  - “merest slender thread” of a connection between patented invention and medicine sold in Canada
- Patent grant triggers jurisdiction
  - Once granted, PMPRB assumes jurisdiction over price at which medicine sold during laid-open period
Prosecution Tip

- Patent may not be relevant to a commercial product but nevertheless patent grant may trigger or extend PMPRB jurisdiction

- **IMPORTANT:** Consider implications of PMPRB jurisdiction before the issue fee is paid on an allowed patent application

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Summary Regulatory-Patent Interface

- Drug for sale or to be sold in Canada
- Patent Act
- Data Protection
- Patents attracting PMPRB Jurisdiction ≠ Patents Listable on Patent Register
**Sample Decision Tree**

- File Canadian or PCT Patent Application
- File Related Regulatory Submission
  - Prosecution
    - Eligible for Patent Listing? Amend claims?
    - Data Protection? Expected NOC date?
      - Threat of generic competition? Advance examination?
    - Extend PMPRB jurisdiction?
  - Allowance
    - Pay issue fee? Amend claims? Extend PMPRB jurisdiction?

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**Useful Links**

- Patent Office: [www.cipo.gc.ca](http://www.cipo.gc.ca)
- Health Canada
  - NOC Database: [http://webprod5.hc-sc.gc.ca/noc-ac/index-eng.jsp](http://webprod5.hc-sc.gc.ca/noc-ac/index-eng.jsp)
- Judicial Decisions
Thank You

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