
Patents in the Time of SARS: Patents and Epidemics

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Outline

1. Introduction

- a) Patents and Public Health
- b) The Reality of Patents
- c) Patents and Epidemics

2. An Example

3. Solutions

4. Further Questions



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Patents and Public Health

- Tense moments:
 - Access to medicines
 - E.g. ARVs for HIV
 - Access to testing technologies
 - E.g. genetic diagnostic testing
 - Access to medical procedures
 - E.g. U.S. cataract surgery
 - Access to building blocks of research



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Patent Law: What you wanted to know but were afraid to ask

- Patents are a govt granted monopoly over an innovation
- Patents are territorial
 - Most (Canadian) innovators patent in the US and Europe first, then Canada if operate there
- Patents can be offensive or defensive
 - Business strategy



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Patent Law contd.

- Patents are granted to be licensed
 - Most important question is whether exclusive or non-exclusive licensing available
- Patents (and licenses) expensive to get
 - Especially since obtained in many jurisdictions
- Patents take a long time to get



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Patent Law contd.

- Just because you have a patent doesn't mean it's worth anything
 - Junk patents found invalid on infringement
 - Proprietary bargaining chip
- Patents can be revoked, challenged or repossessed in some jurisdictions
- Patents play favourites
- Patents are one part of a larger regulatory regime



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| Patents | Epidemics |
|--|---|
| Slow to obtain and share | Easily caught and shared |
| Once you have it, who knows if you have it | Once you have it, unfortunately you have it |
| Territorial/national | International |
| One agency | Multiple agencies (even nationally) |
| Private interest | Public interest |



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One Story: SARS

- Pneumonia caused by coronavirus
- First identified in China in November 2002
- Spread by international travel to 19 countries
- Including Canada
- Between 01/11/02 and 31/07/03
 - 8098 cases and 774 deaths attributable to SARS



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SARS

- Hallmark of international scientific collaboration
- Sequenced the virus BUT
- National agencies and groups filed patents on parts or whole of gene code
- 4 main players BUT note over 200 other patents filed on SARS thus far



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“The [patent] filing is to ensure that it is available to all, as opposed to making any kind of effort to delimit its distribution... We’re making sure the market is not cornered”.

Dr. S. Abraham, BCCA



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Creative Solutions

1. Dedicate technology to the public domain
2. Open source
3. Tweaking patent law
 - Morality
 - Experimental use exceptions
 - Compulsory licensing
4. **Defensive patenting**



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Problem

Access to diagnostic, therapeutic, and other follow-on products fragmented.
Limited incentives to develop.

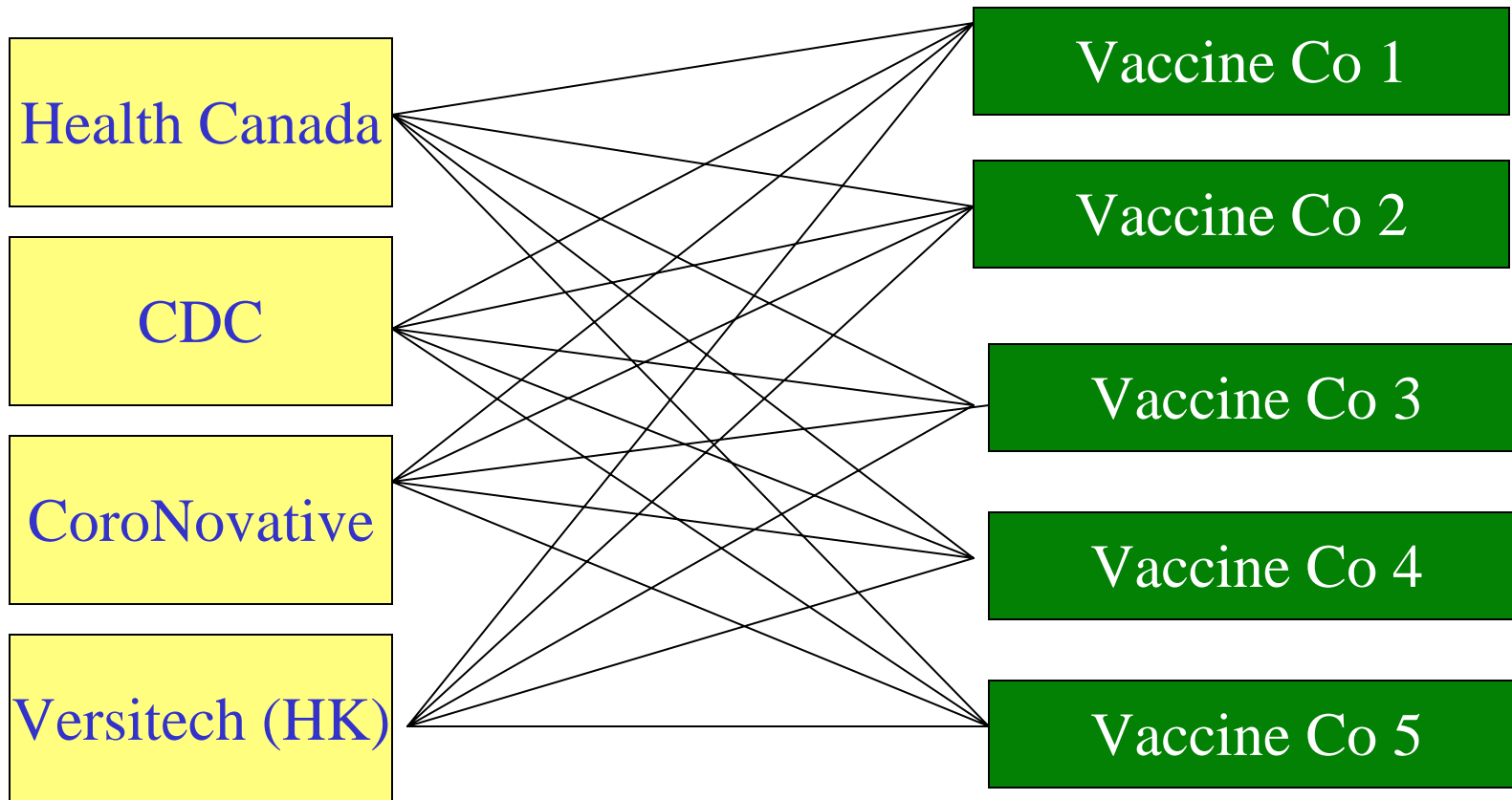


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Picture it



Problems

1. Unclear who owns what and where
2. Will market develop for products (should one invest in defending patent?)
3. Should one invest in creating products?
 - Will licensing be exclusive or non-exclusive?
 - Who to license from?
 - Will sales recoup licensing costs?
4. 'Consumers' bear costs of uncertainty



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Patent Pools

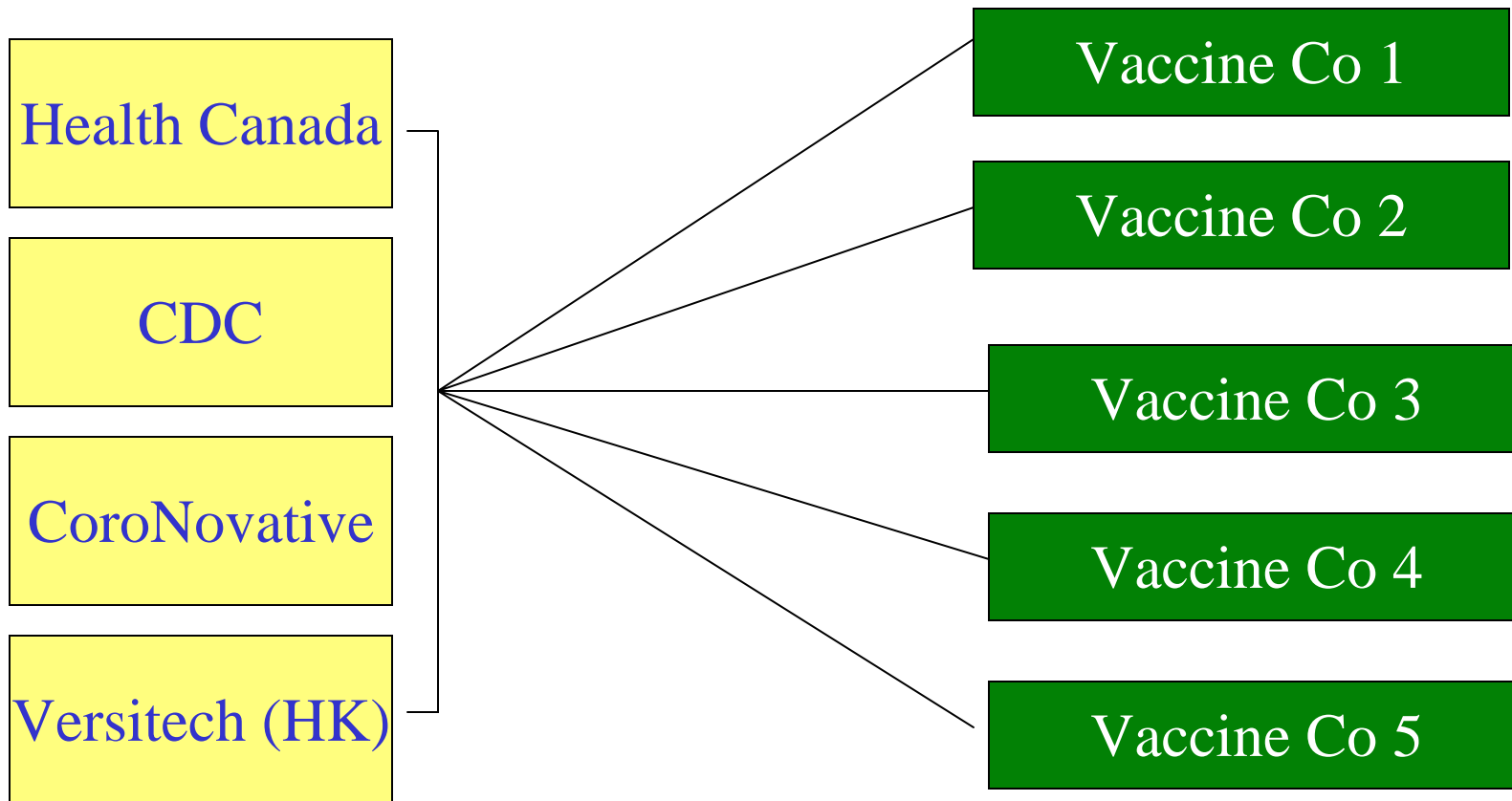


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Picture it



Patent Pools

| Advantages | Disadvantages |
|---|------------------------------------|
| Reduces risk, increased investment | Potentially anti-competitive |
| Potential for malaria, tuberculosis, avian flu | |
| Pushes innovation downstream | Not necessarily in public interest |
| Standard setting and coordination | Increased value of each patent |



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Future Questions

1. Institutions:

- Research agencies, academics, business, PO, public agencies
 - How are valuable patents managed?
 - Who makes decisions?
 - Should public health agencies be applying for and managing patents?
 - How should the PO decide who gets what?



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2. Public/private

- Who represents the public interest?
- What is the public interest?
- Should anyone profit?
- If so, to whom and how are profits distributed?
- Are the institution's needs consistent with public needs and priorities?



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“The royalties, were there to be any at some later date, would come back to basically foster further research here. That would be a goal of any office of our type.”

Dr. S. Abraham, BCCA



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3. National boundaries, international problem

- National patent systems
- National regulation
- National agencies have national constituents and accountability mechanisms

4. Are patents the most effective tools?

- Alternatives?
- Possible?



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