IP Parameters to Vaccines

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Perceived Basic IP on vaccines

- IP protecting
  - Organism (with specific modifications)
  - Antigen (sequence, DNA, purified form)
  - Conjugate
    - Adduct
    - Linkage method
    - Carrier protein

Often 'old' with limited remaining life
Other IP on vaccines

• Expression system
  – Organisms, regulatory sequences, fusion partners,..

• Platform technologies
  – DNA vaccines, Vectors, ...

• Purification process

• Formulation
  – Adjuvants, excipients, process
    • immunogenicity, stability, reactogenicity

• Delivery Devices
  – e.g. nasal, aerosol, flapulette, patch, cartridge…

Often 'younger' : extends life of patent on vaccine
Result

• A modern vaccine is protected by multiple levels of IP licensed from multiple partners
Implications

- Ensuring access to required IP necessitates negotiation with multiple partners
  - Some licences may not be available because of prior exclusive/co-exclusive agreements
    - Often technologies licensed as exclusive/co-exclusive
    - Access for public sector limited? How to proceed?
    - A single partner can cause dead-lock
  - Possibly multiple option/license fees
  - 'Working around' non-available licences requires extensive R&D
    - Time / opportunity cost / investment

- Access can depend on most limiting IP
  - Time / territorial / licence possibility