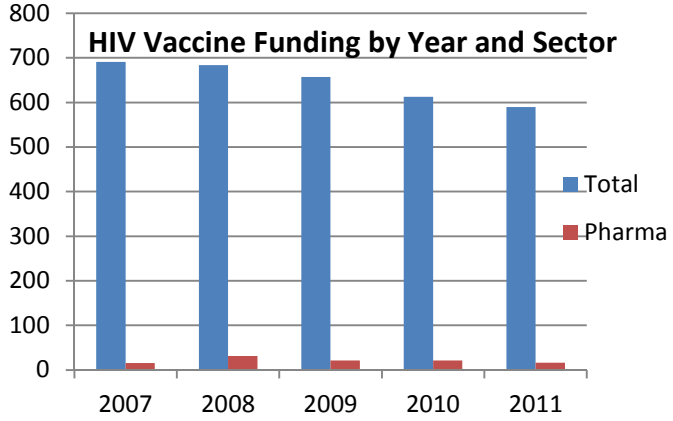
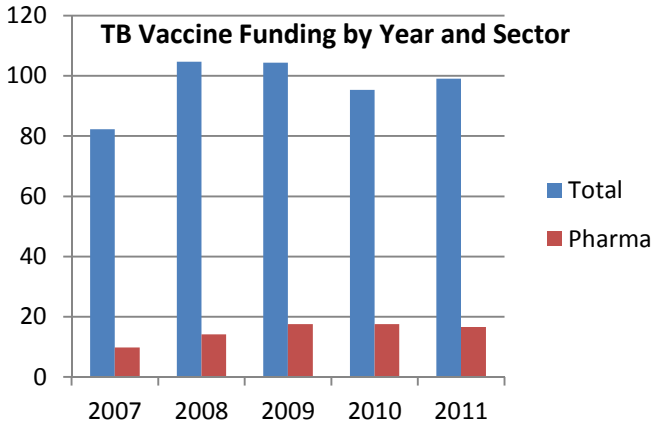
Innovation for vaccines against poverty diseases: The need for new support mechanisms

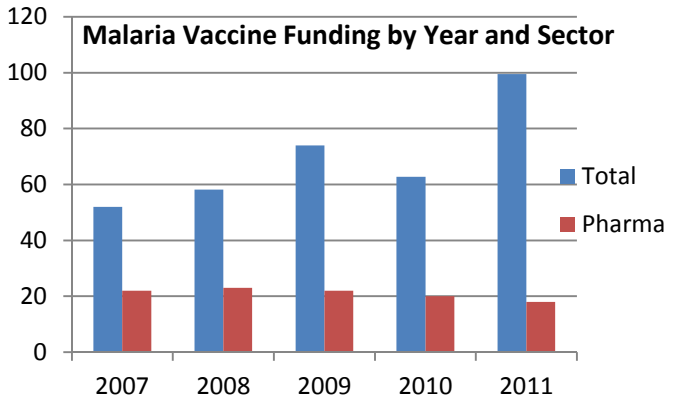
Martin Friede, Jean-Paul Prieels,

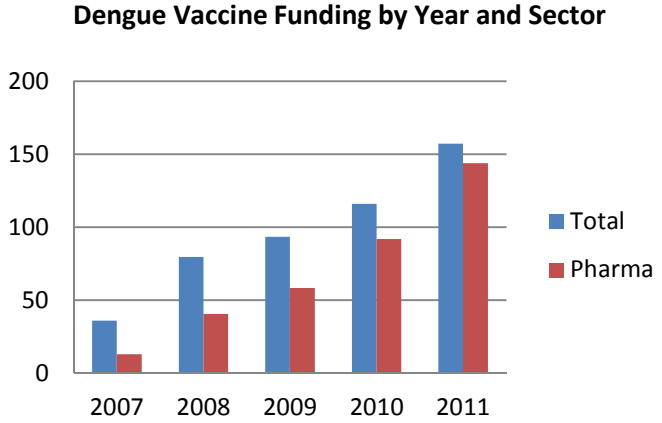
Anneleen Spooren, Mathieu Mottrie

Vaccine funding by year and sector









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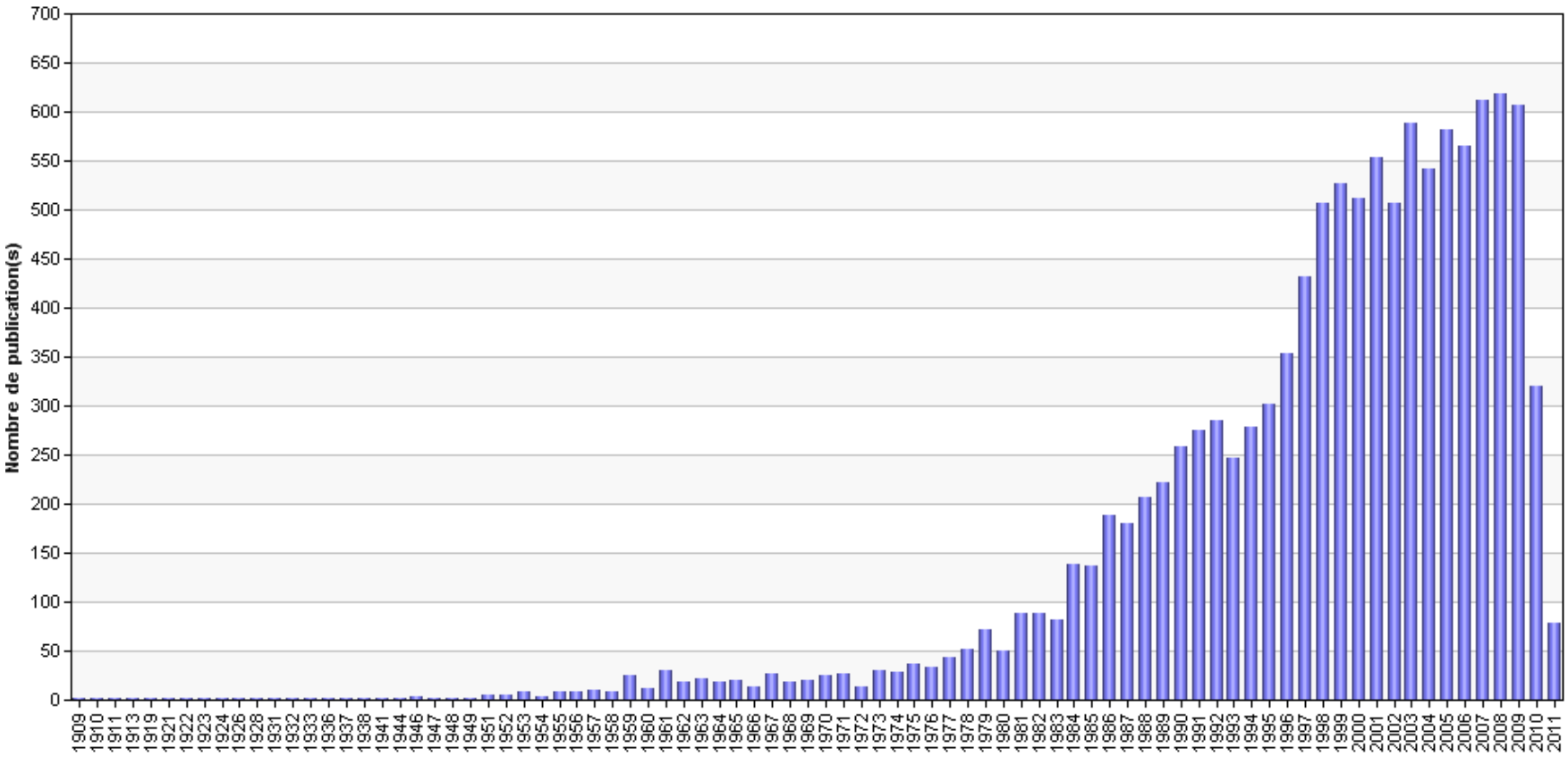
Vaccine innovation, as measured by patent filing, by year



- http://www.wipo.int/patentscope/en/programs/patent_landscapes/reports/vaccines.html

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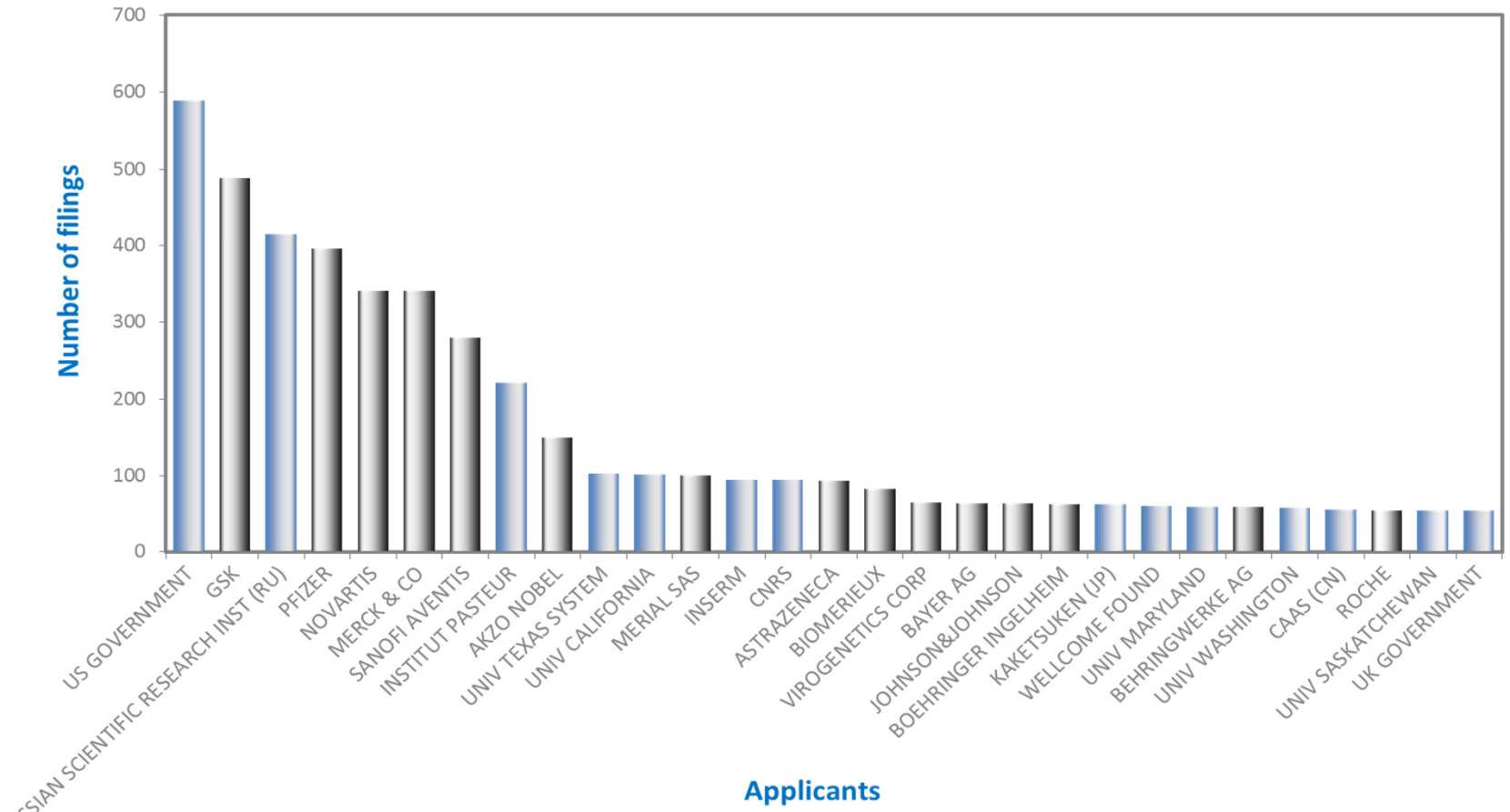
Vaccine patent applicants by size of portfolio



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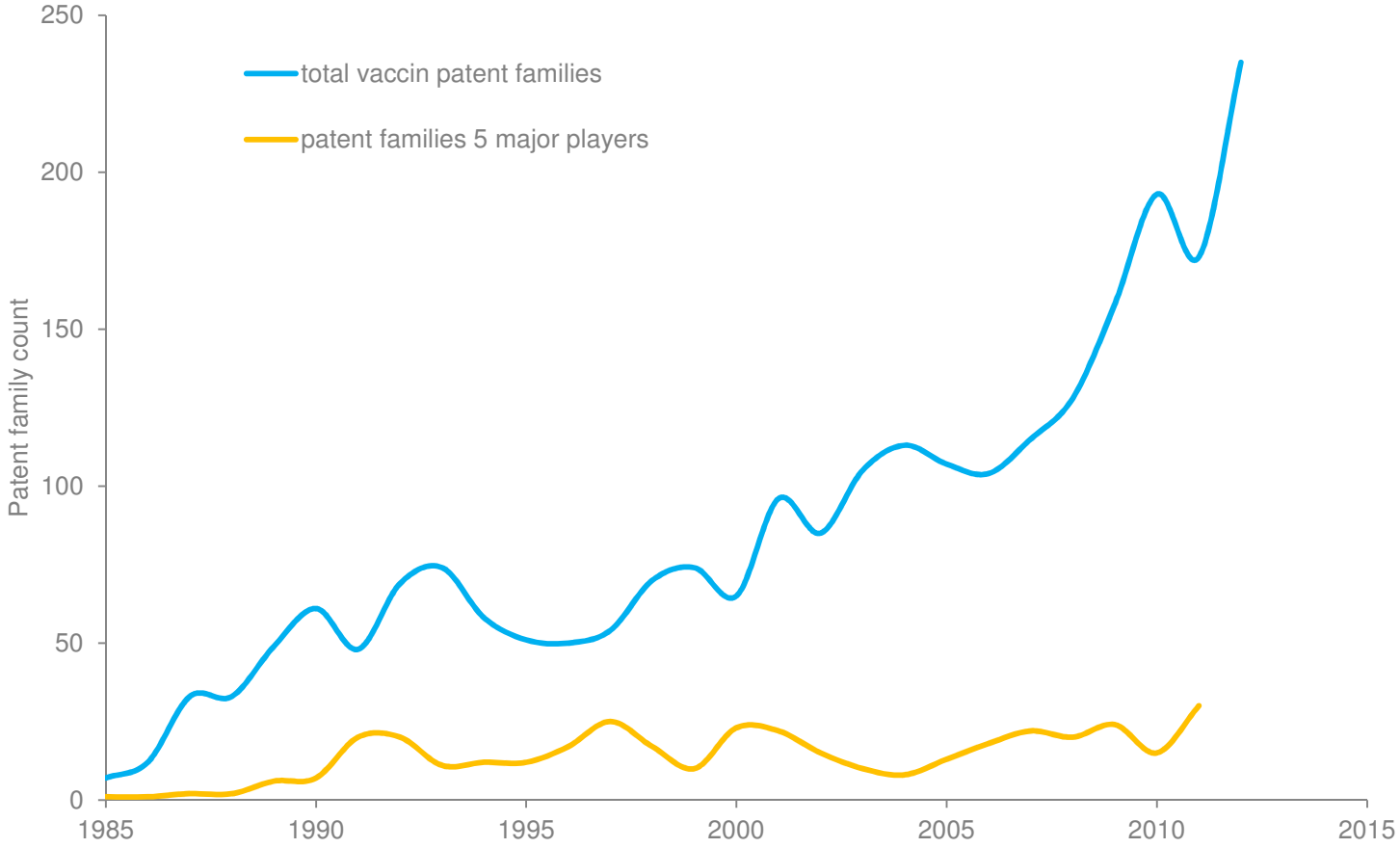
Innovation on TB, malaria, HIV , RSV, Dengue vaccines
'major manufacturers' versus 'others'



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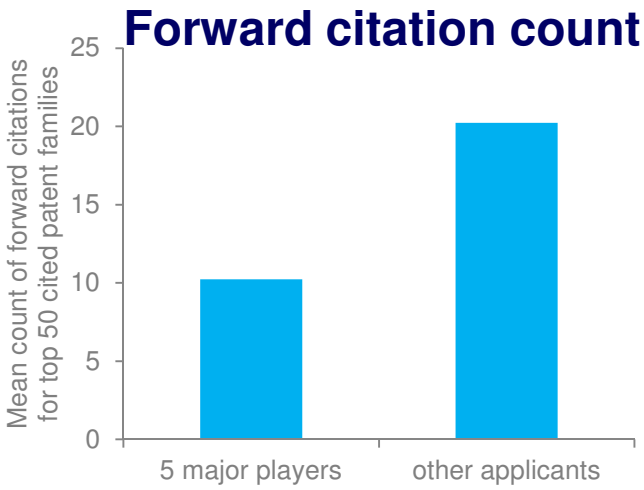
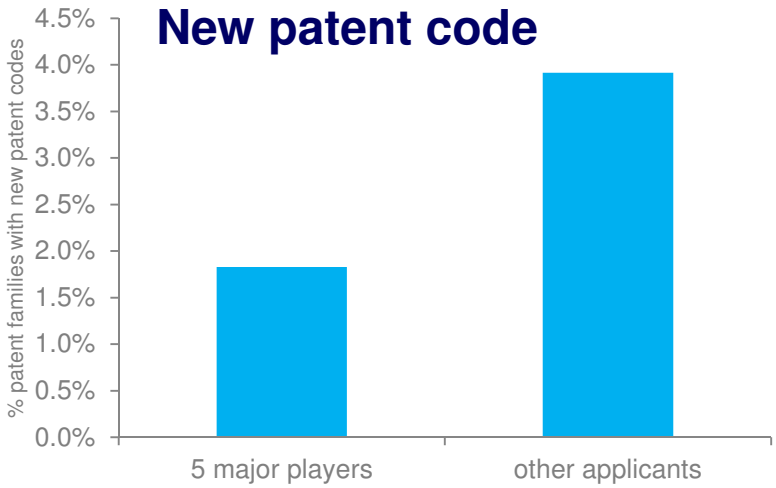
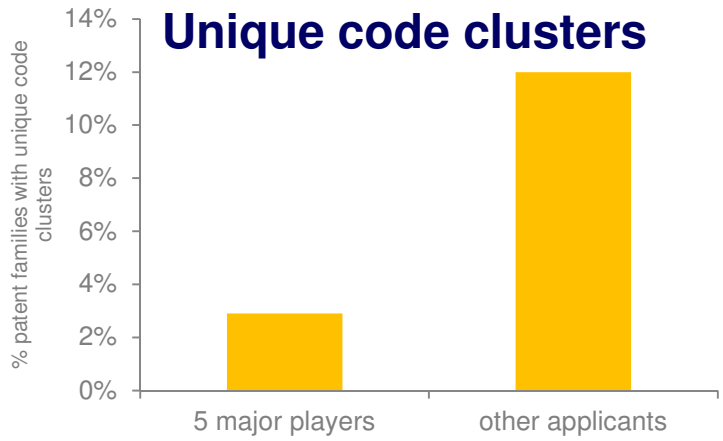
Measures of Innovation: 'major manufacturers' versus 'others'







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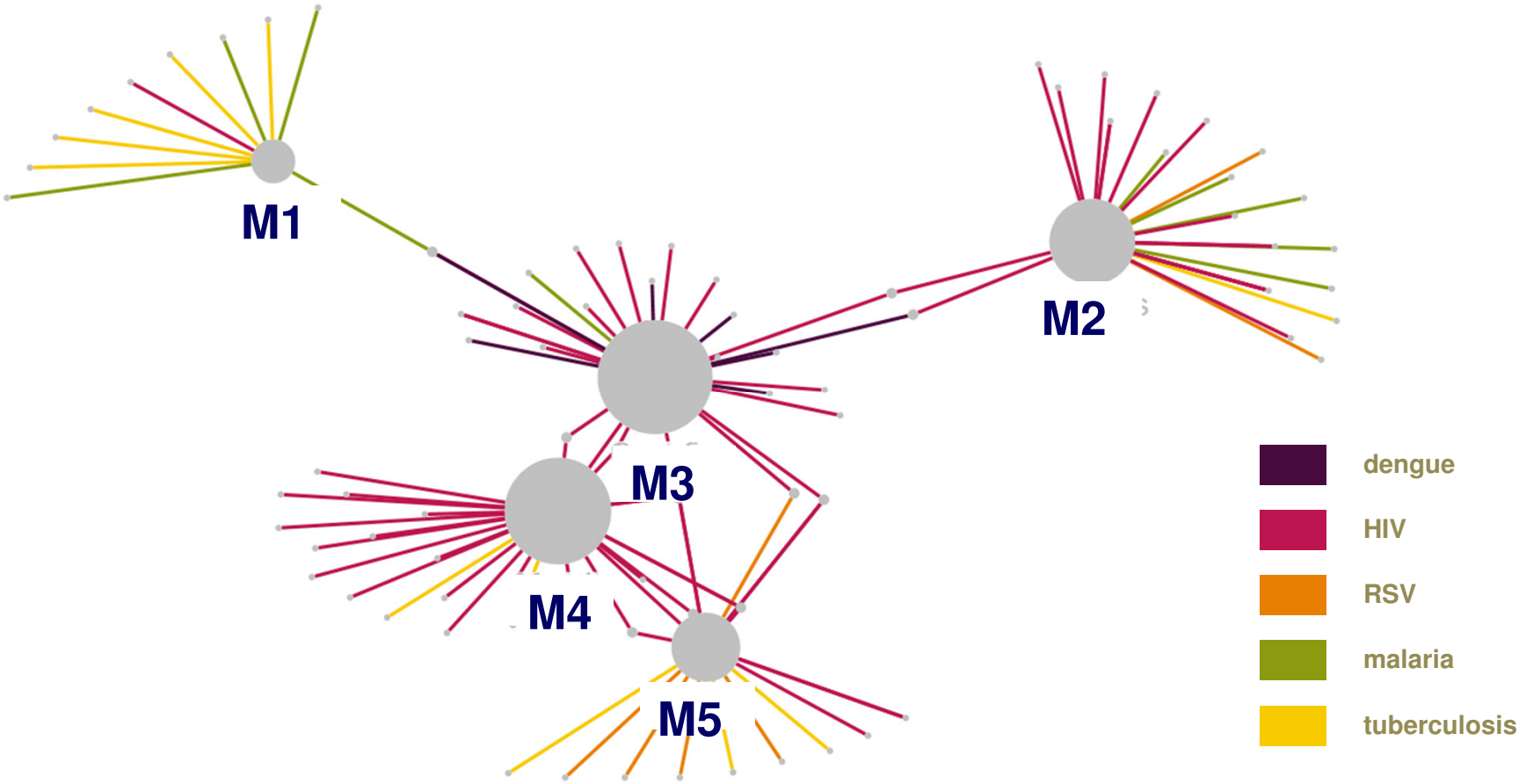
Collaborations between the major manufacturers



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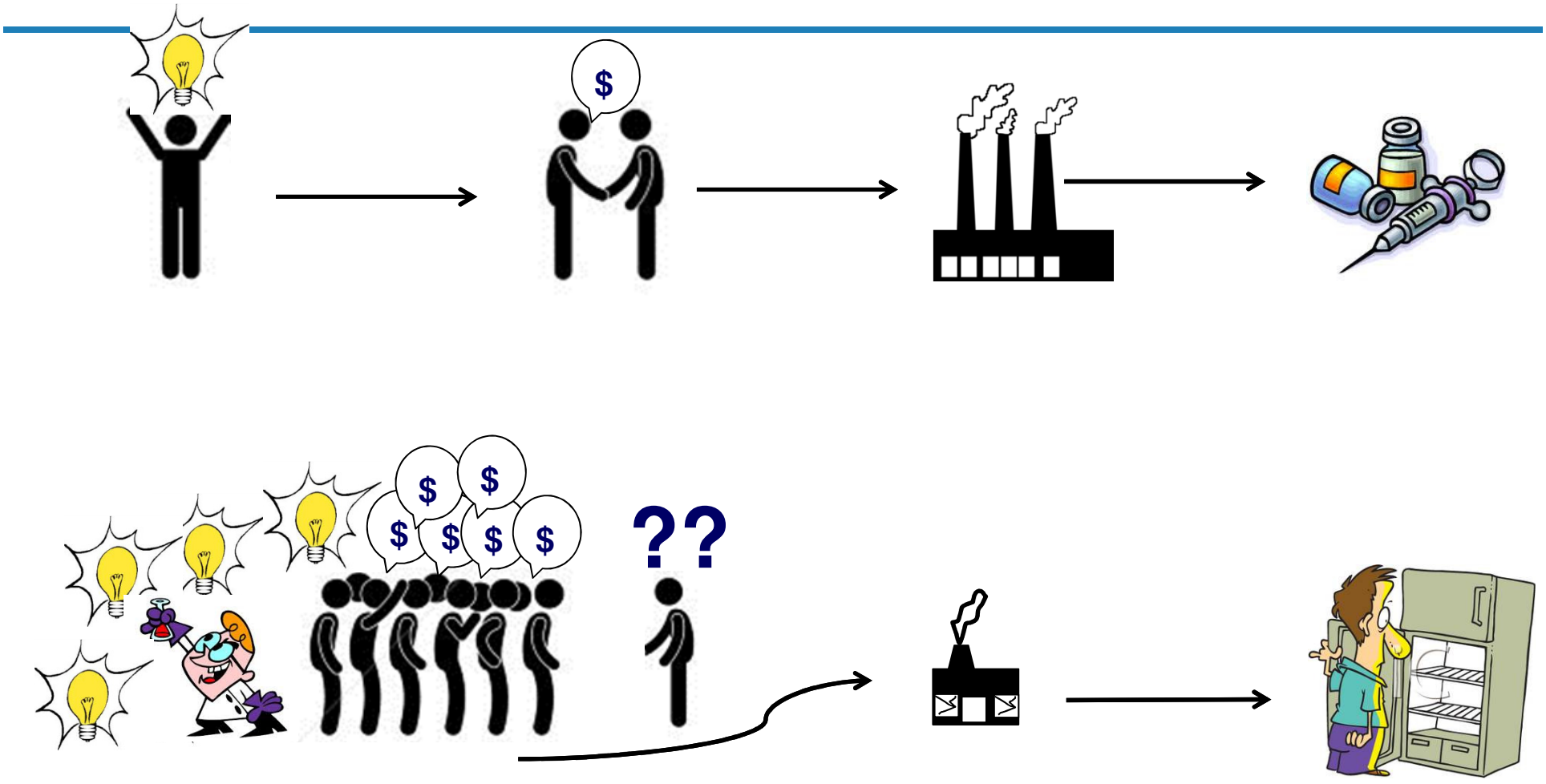
Increase in transactional costs

- Public sector funding of research (and Bayh-Dole) resulting in large dominant patent portfolios in public sector (esp TB, HIV, Malaria)
- Major Industry not innovating as much as others
- Many more patents to navigate than before
- Less technical certainty on any of the inventions

Increased transactional costs to ensure access to enabling technology : Barrier ?

Effect on Business Models



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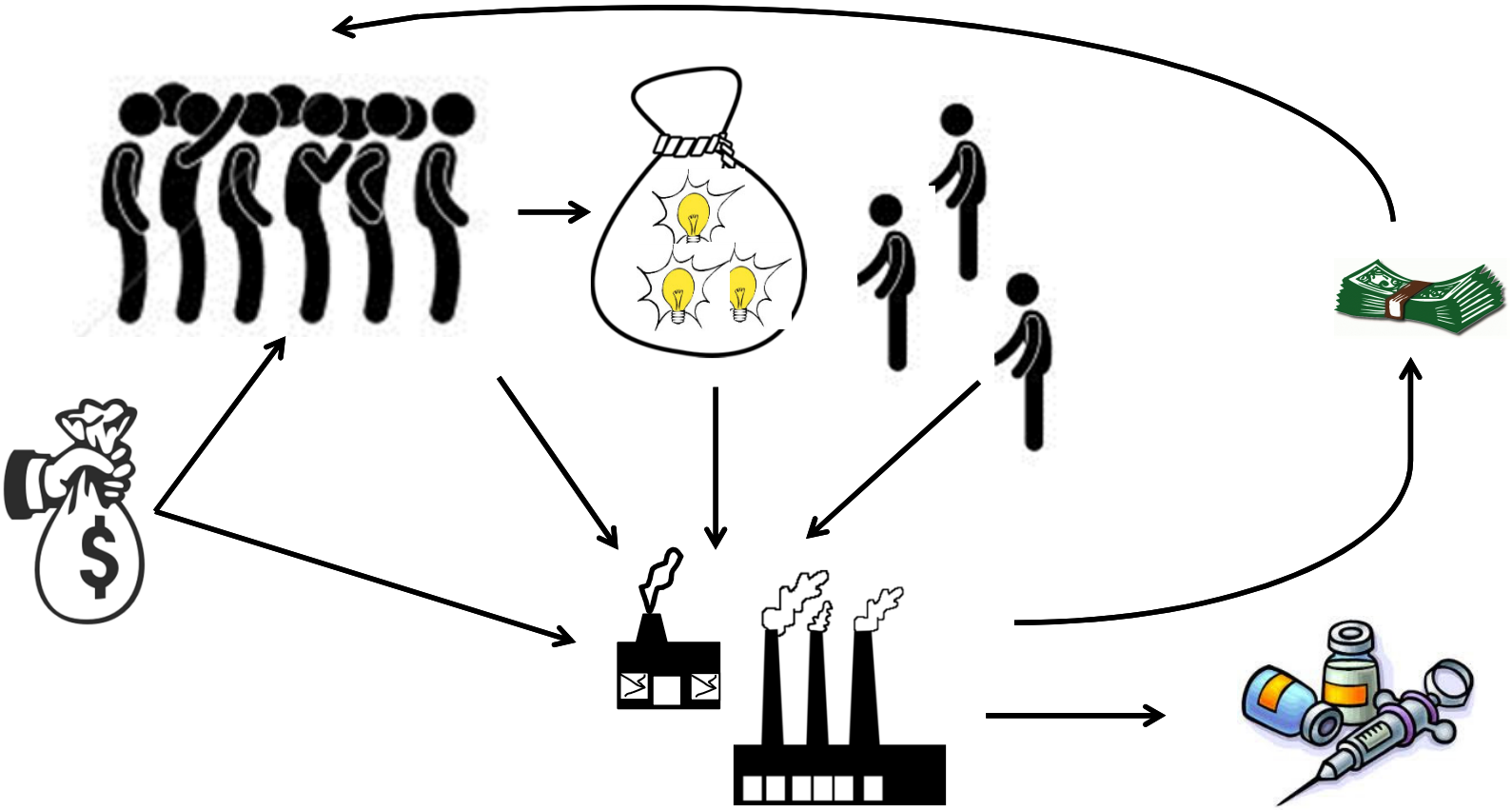
New innovation support mechanisms needed for TB, malaria, HIV,…



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Critical components

- A patent pooling or open access method
- Early collaboration of academia and SMEs with vaccine manufacturers (industrialized AND developing country)

- **Funders:** ensure appropriate management of IP, early partnership with industry.
- **Industry**: increase collaboration with other industry players, transparent benefit-sharing.