



# What Type of Innovation is Required and How Can We Incentivise the Private Sector to Deliver It?

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# Conclusions

- Innovation has many attributes
- What is known / needed varies by disease
- R&D process has been changing
- 3 potential incentive mechanisms (APC, TIPR, TFT / PRV)
  - Transferability to incentivise small companies
  - Applicability to drugs, vaccines, diagnostics
  - Ability to match innovation need
- Are complementary to PPPs



# Characteristics of innovation in pharmaceuticals

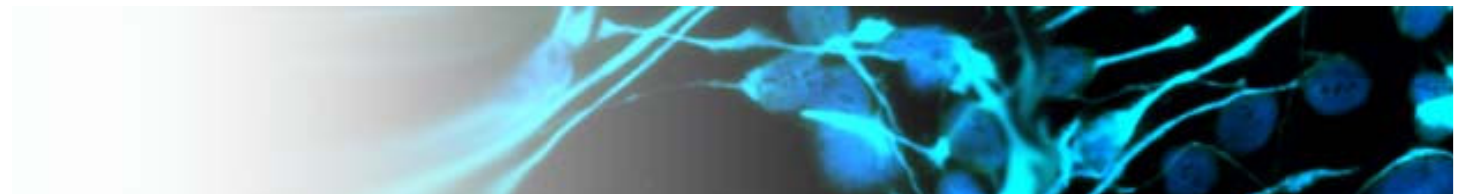
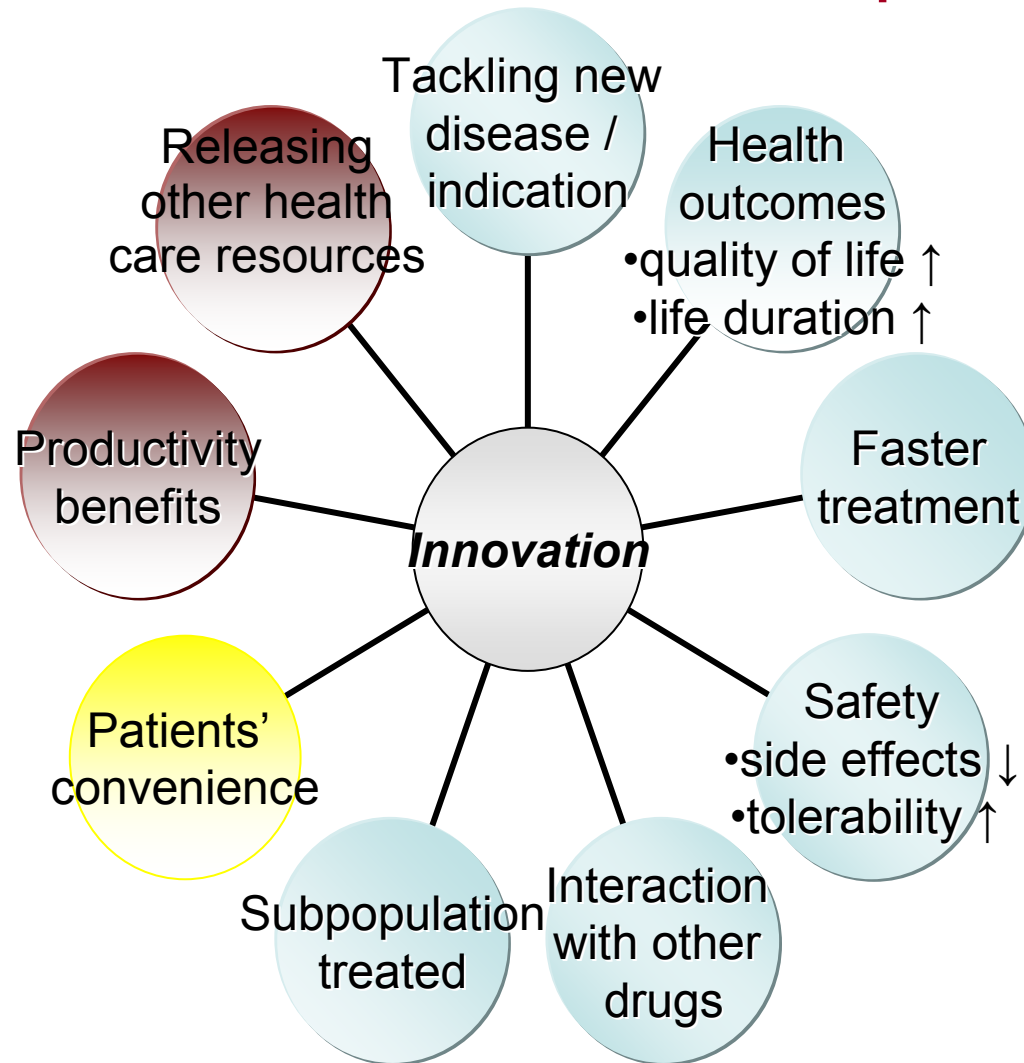
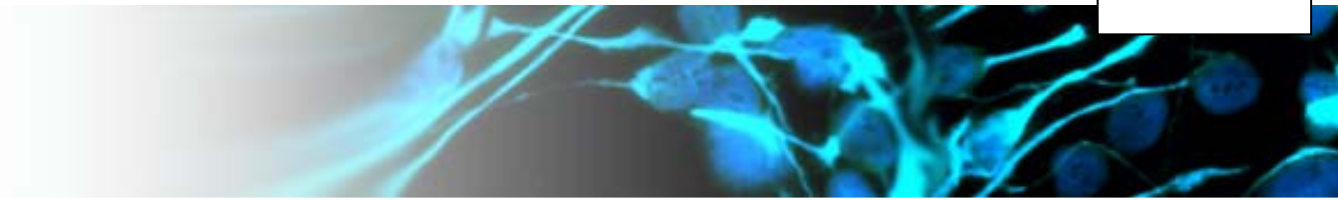
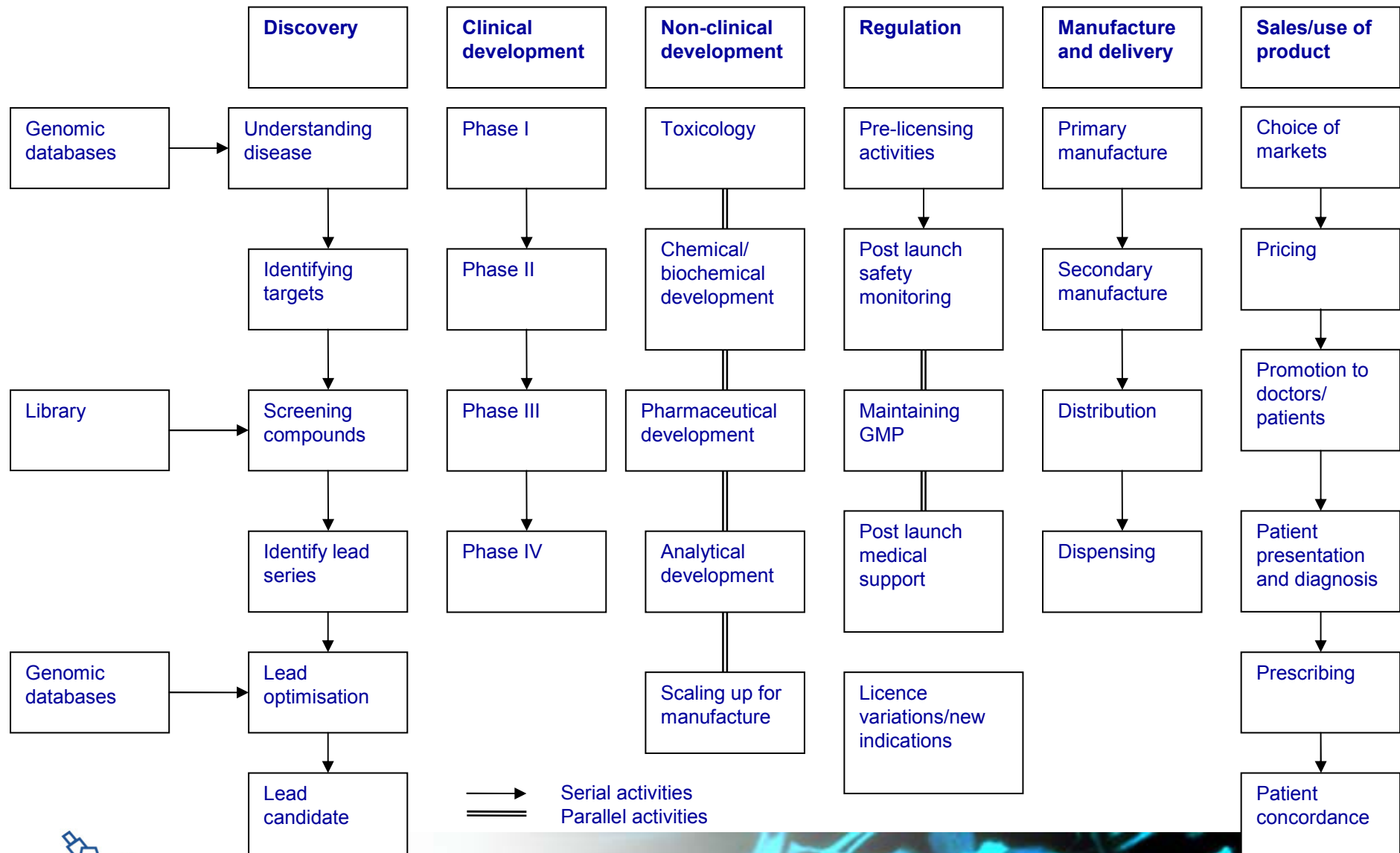


Table 6.2 Characteristics of innovation needed for neglected diseases

Health technology		Disease	Global Market	Scientific knowledge	R&D progress	Private sector capacity	PPP involvement	Access pathway
Vaccine	Multivalent	Pneumonia	●	●	●	●	○	●
	Protein		●	○	○	○	○	●
		Malaria	●	○	○	●	●	●
Diagnostic		Pneumonia	○	●	●	○	○	○
		Malaria	●	●	●	○	○	●
		VL	○	●	●	○	○	○
Drug	Fixed dose combinations Formulations to use in infancy and pregnancy New chemical entities	Malaria	●	●	●	●	●	●
			●	●	●	●	●	●
			●	○	○	○	●	○
	Fixed dose combinations Formulations with improved administration method New chemical entities	VL	○	●	●	○	●	○
			○	●	●	○	●	○
			○	●	○	○	●	○



Figure 5.1 Major sub-components of R&D activity through to consumption



**Table 6.1 . Design characteristics of the three schemes**

**Design issues: Advance Purchase**

**Transferable Fast Track (PRV) Transferable IPR**

**Credibility**

- overcomes time inconsistency
- no track record on delivery

- overcomes time inconsistency
- uncertain value of *potential* blockbuster

- overcomes time inconsistency
- little uncertainty for manufacturers of potential benefits

- uncertainty about future regulatory environment

- track record on additional IPR

**Setting price**

- only rewards success
- donors set the price

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- legislation sets the price/reward

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- rewards serendipitous/philanthropic innovation that may have occurred anyway

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- potential for a “ratchet effect” on price

- additional value of speeding potential blockbuster to market

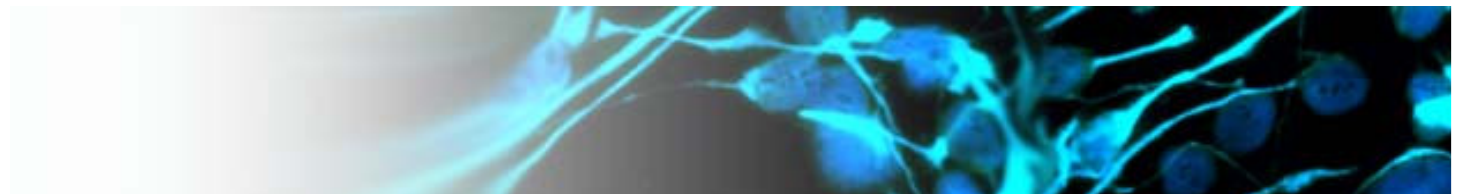
- deadweight loss due to delayed generic entry

- equity issue in terms of who pays



**Table 6.1 . Design characteristics of the three schemes**

Design issues: Advance Purchase	Transferable Fast Track (PRV)	Transferable IPR	
<b>Specification</b>	<ul style="list-style-type: none"> <li>• marketing authorization required</li> <li>• specification set by donors</li> </ul>	<ul style="list-style-type: none"> <li>• marketing authorization required</li> <li>• legislation to set eligible diseases and indications</li> </ul>	<ul style="list-style-type: none"> <li>• marketing authorization required</li> <li>• legislation to set eligible diseases and indications</li> </ul>
<b>Subsequent entrants</b>	<ul style="list-style-type: none"> <li>• rules for subsequent entrants</li> <li>• difficult to get incentives right</li> <li>• better products are used</li> </ul>	<ul style="list-style-type: none"> <li>• any product meeting legal criteria</li> <li>• gets reward, overpayment danger</li> <li>• better products are used</li> </ul>	<ul style="list-style-type: none"> <li>• any product meeting legal criteria</li> <li>• gets reward, overpayment danger</li> <li>• better products are used</li> </ul>
<b>Ensuring use</b>	<ul style="list-style-type: none"> <li>• company has to deliver product</li> <li>• may be co-payment</li> <li>• need health system to deliver</li> </ul>	<ul style="list-style-type: none"> <li>• company has to offer free licence</li> <li>• fund needed to buy at manufacturing cost</li> <li>• need health system to deliver</li> </ul>	<ul style="list-style-type: none"> <li>• could require licence offer</li> <li>• fund needed to buy at manufacturing cost</li> <li>• need health system to deliver</li> </ul>



# Strengths and weaknesses

- APCs can most easily be fine tuned and hence may be most cost-effective
- TIPR has most credibility with the industry
- TFT /PRV delivers efficiency gains to developed countries
- All can be made complementary to existing “push” approaches such as PPP funding
- They are not mutually exclusive measures
- Could be designed to address different innovation needs

