

Long-Standing Woes on Vaccination

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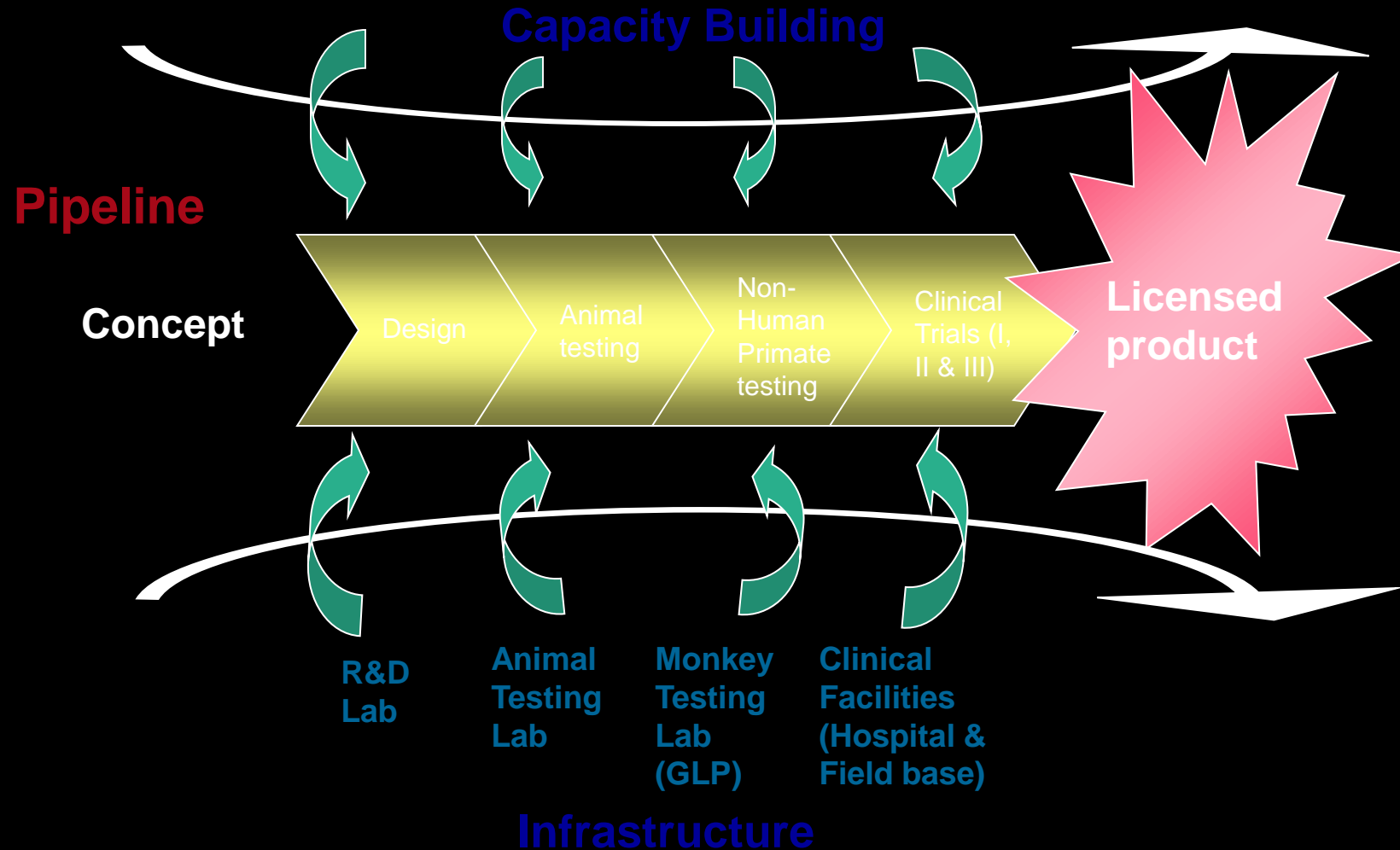
Hotel Jen, Pasay City.

Impact of vaccine Development and Production on Health and Economy

1. Improved human longevity and quality of life
2. Economic prosperity

The situation is quite different in developing countries. Here, we examine the situation in the Philippines.

STAGES OF Vaccine Research and Development



VACCINE Development in the Philippines

| <i>Institute</i> | <i>Product</i> | <i>Type</i> | <i>Indication</i> | <i>Status of Development</i> |
|------------------------------------|-------------------------|--|---|--|
| RITM | SJ Paromysin | Recombinant protein | Prevention of <i>S. japonicum</i> Infection | Process for up-scaling has been completed. Under going trials in Carabaos (Pre-Clinical Trial) |
| UP College of Public Health (UPCH) | Sj23 | Crude worm and recombinant antigens | Prevention of <i>S. japonicum</i> Infection | Has gone through testing in animals |
| SLMC | Dengue vaccine molecule | Peptide component, crude and recombinant molecules | Prevention of Dengue | Identification and characterization |
| IBMBH | Oral vaccine | Gene extract | Prevention of enteric infections | Design stage |
| UP –MSI | Influenza vaccine | Recombinant | Prevention of Human Influenza | In vitro and in vitro testing |

- *If the Philippine government support for vaccine development of the country remains the same, these promising candidate vaccine molecules formulated in the laboratory will be like those many dreams that have been brought to Monalisa's doorstep:
"They just lie there and they die there"*
- *For a candidate vaccine molecule developed in the laboratory to reach large scale production, the product has to be up-scaled to clinical grade materials for clinical trials.*

Future direction for vaccine development in the Philippines

1. Accelerate training of scientists in vaccine development.
2. Vaccine development in the country should be directed to vaccines that are affordable and country needs driven, rather than market-driven approach.
3. However, discovery of novel vaccine candidates for other diseases that are highly prevalent in the country should receive continuous support.

Future direction for vaccine production in the Philippines

1. Difficulties being encountered in the local production of BCG should be overcome to finally produce cGMP grade BCG vaccine.
2. The BCG vaccine facilities should be transferred to the new vaccine production plant.
3. One way of overcoming the difficulties is to establish collaborations with companies in other countries producing similar product, like in Brazil and Bulgaria.
4. When BCG production facilities are fully established it will become the nucleus from which other vaccines will be produced.

Future direction for vaccine production in the Philippines contd...

5. Vaccine up-scaling, cGMP certified up-scaling, cGMP filling line and labiling facilities are absolute requirements in a new vaccine production facility to bring candidate vaccine molecules to end users.
6. These vaccine production facilities can be docked beside the BCG production facilities.
7. When the above facilties are established, the following vaccines can be planed for local vaccine production: anti-typhoid fever, cholera, schistosomiasis and venom
8. 8. Vaccine production should be manage by a Foundation with legal structure free of the usual administrative constraints of government agencies.

Accelerating Vaccine Production in the Philippines

BCG Vaccine Production

Production of Antigen: DPT, Hepa B, hib, Tetanus Toxoid

Procurement of Vaccines in bulk

Pentavalent Vaccines Formulation

Filling, packaging and labelling



THANK YOU