

## ***Innovation and Technology Transfer for Global Health***

***'Bridging the Gap in Global Health Innovation – From Needs to Access'***

**A conference supported by  
The Bill and Melinda Gates Foundation  
Oxford  
9 -13 September 2007**

### **SESSION SUMMARIES – FINANCING FOR INNOVATION AND TECHNOLOGY TRANSFER<sup>1</sup>**

*This session was chaired by Jose Miguel Flores. It discussed the importance of entrepreneurship, examples of new initiatives promoting innovation in different ways, and appropriate funding structures. Policy makers need to be more aware of the challenges associated with financing models and to deal with these upfront. Different technologies and different stakeholders require different incentives. Due consideration needs to be given to local involvement and buy-in, considering local needs and local contributions to sustaining the effort.*

#### ***Who Really Pays?: Prof. Adrian Towse, Office of Health Economics***

There are many trade-offs to consider to enable donors to make investment decisions. PDPs have a role as an efficient investment in managing risk and access to markets. There are also different funding initiatives to consider that exist to help to bear risk and enable more efficient product development. Push and pull mechanisms which can incentivise investment in research and development (R&D) and address market access issues were presented, including the advanced market commitment mechanisms (AMCs).

#### ***Axios Partnership in Tanzania: Dr. Anne Reeler, Axios International***

The Axios model is based on pharmaceutical products that are made available to the poor either for free or at reduced prices. Axios supplies health institutions almost a hundred countries. Axios engages in supply chain management and logistics around chronic diseases. There has been so much involvement in acute disease management that the healthcare system is particularly challenged by chronic disease.

Axios uses a phased approach to capacity building, initially providing technical support to enable local stakeholders to define action plans and build capacity so that once the donor or partner withdraws its support local ownership is in place to ensure sustainability of the initiative. This emphasis on local ownership and capacity building is very important but suffers from limited support at the policy level. Scientists and technicians need to understand better how to influence national policy in order get projects scaled up.

#### ***The Chile Foundation, Mr. Marcos Kukla, Chile Foundation Case Study***

Fundación Chile is a private non profit institution whose mission is to bring innovation to the key sectors of the Chilean economy. It has been called the most entrepreneurial company in Chile. Over the last 30 years, Fundación Chile has

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created more than 70 companies in the most diverse sectors and technologies, which have lead to the development of industries such as Salmon Farming, where today Chile is the second biggest worldwide exporter.

It utilises several different models: transfer and adaptation (start-up companies created and developed looking for examples of success elsewhere), transfer and internal/in-house R&D, R&D management in networks, and packaging technologies for license. The key asset that the company has for value creation is its extensive network, which connects developers with suppliers and support entrepreneurship through the different models of technology transfer and capacity building.

***The Intersection of Economics and Access: Mr. Andrew Farlow, University of Oxford***

The intersection of economics and access was explored with reference to a range of global health problems. The sustainability of health systems is an issue, particularly in the context of “brain drain” and the infrastructural difficulties that exist in many developing countries. Policy decisions about health services in developed countries that pull in health workers from poorer countries have an impact on health services in these other countries and these should be considered more carefully.

There are limitations of the financing models currently designed to incentivise funding into developing countries, to front-load investment for R&D, and to encourage stable supply of products and prices. Concerns over the sustainability of these models include the fact that the flow of financing into immunisation later will fall off as it is repaid and if levels still need to be sustained a new generation of politicians will have to support a policy idea that they did not instigate. Additionally, the transaction costs have proven to be higher than expected. Current incentive models focus on discovery and development and have not yet adequately focused on the delivery aspect which policy makers are advocating.

***Funding for Biotechnology in Africa: Prof. Diran Makinde, African BIO***

The New Partnership for African Development (NEPAD) is an African led, multi-national organisation. By working from the country level but pooling the approaches across Africa, NEPAD is able to be highly involved in targeted policy making, to promote innovation and support appropriate allocation of finances.

Funding gaps and uncertainty of the sustainability of existing funding is hindering innovation. NEPAD is working to increase awareness of the importance of areas such as biotechnology and to encourage public commitment to invest in R&D. There also needs to be alignment between biosafety frameworks and regional technology development efforts. NEPAD is promoting innovation through local capacity building programmes, which support technology transfer. The focus will be on building in-country capacity rather than risking brain drain through outward exchanges. It is important that an African needs-driven agenda is established to enable this capacity building and the sustainability of technology transfer and innovation.

***Discussion***

Financing mechanisms and their relative strengths and weaknesses were discussed, particularly around the appropriateness of the selection of pneumococcal disease as the pilot AMC. Optimal models of innovation and technology transfer between public sector, research institutes and the market place were debated, especially in the context of encouraging entrepreneurship and appropriate ownership.

Tensions exist between top-down and bottom-up capacity building approaches. Axios' focus on local ownership, delivery and influencing policy is highly beneficial for example, however it is difficult to scale-up such initiatives due to factors such as limited government capacity to focus on the delivery agenda, IP structures and market mechanisms which already exist.