

IAVI's mission is to ensure the development of safe, effective accessible, preventive HIV vaccines for use throughout the world.

Encouraging Industrial Participation in AIDS Vaccine Development

An AIDS vaccine for low income countries is an international public good which is not likely to happen without innovative international public action....There is growing consensus on the need for global partnership to ensure that AIDS vaccine development will move swiftly – but it will take a number of years, and much longer unless we act now.

> James Wolfensohn President, the World Bank

Making vaccines available simultaneously in the North and the South is a new paradigm for vaccine development, but one that is a cornerstone of IAVI's mission. Industry's participation in the AIDS vaccine effort is critical. However, there has been little incentive for companies to invest heavily in this area, particularly in vaccines designed for developing countries.

Industry brings many key resources to vaccine development, including appropriate technology, development expertise, efficient manufacture and distribution infrastructure and regulatory approval expertise. These areas require specific technical know-how and considerable financial resources, not usually available outside of industry. Yet several factors limit the private sector's willingness to invest in AIDS vaccine development. Vaccines are very costly to develop, and for HIV it is not yet known what vaccine approach is likely to work – making it highly risky for companies to move forward with a single vaccine candidate. Adding to the expense, vaccine candidates may need to be tailored to the virus strains circulating in the particular regions where they will be tested and used.

Yet, with the majority of the potential market in developing countries, a return on this investment is far from assured – all of which means that commercial market forces will not ensure vaccine development in a timely fashion. This market failure is not unique to HIV vaccines; many previous successful vaccine development efforts were the result of public sector investment in partnership with industry.

International AIDS Vaccine Initiative (IAVI) 110 William Street • New York, NY 10038-3901. USA Phone 212-847-1111 • fax 212-847-1112 www.iavi.org • info@iavi.org Nor do the problems end once an effective AIDS vaccine is at hand: recent experience with other new vaccines (such as hepatitis B and Hemophilis influenzae type B) is that it takes a decade or more after their approval in the North for them to become available in developing countries – an unacceptable paradigm for AIDS.

Improving market forces

IAVI works to encourage industrial participation in AIDS vaccine development. To do this, IAVI is developing ways to counter the perception of an inadequate profitable market for AIDS vaccines while providing public financing for development and testing, particularly for those vaccines with limited commercial potential.

The World Bank, G-8 leaders, the EC and other international partners are working with IAVI to establish Vaccine Development and Purchase Funds – financial instruments intended to encourage the commercial sector's investment in the AIDS vaccine enterprise. A Vaccine Purchase Fund would create a guaranteed paying market of known minimum size in the developing world. By encouraging industrial investment in vaccine development, the Vaccine Purchase Fund may help to mobilize private capital and allow market forces to work, incorporating the efficiency of the private sector in creating vaccines for the developing world.

IAVI also promotes legislation, such as *The Vaccines for the New Millennium Act* pending in the U.S. Congress, that would provide a purchase fund, tax breaks and other incentives for private industry to invest in vaccine development.

Improving the science of AIDS vaccines

One of the goals of IAVI's research and development program is to push the science of AIDS vaccine development forward enough for major pharmaceutical companies to become interested in and to begin to develop promising vaccine approaches. IAVI seeks out promising vaccine candidates for its Vaccine Development Partnerships and invests money and expertise in research that will move vaccine development ahead as quickly as possible.

Over the last decade, the global community has invested heavily in therapeutic treatments for HIV/AIDS and basic science to develop better treatments. The dramatic advances in understanding HIV that have been made reflect this investment. Yet the long-term need for better preventive technologies has not received adequate attention. Preventive vaccine development, the most cost-effective approach for dealing with viral diseases, is best accomplished through a partnership between the public and industrial sectors. Without a new private-public effort, the status quo will assure that vaccine development continues to be of relatively low priority and will allow the epidemic to continue unchecked with disastrous implications for human development and poverty in the developing world.