

IAVI's Innovation Fund To Bring Novel Early-Stage Technologies to AIDS Vaccine Research

Flexible and Rapid-Response Funding for Pioneering Ideas

In an effort to expand the current AIDS vaccine pipeline and overcome the main technical and scientific hurdles facing the field, the International AIDS Vaccine Initiative (IAVI) has dedicated its research program to the evaluation and prioritization of the next generation of AIDS vaccine candidates. Most of the AIDS vaccines in testing target only one arm of the human immune system. Experts, including those at IAVI, believe this approach may lower viral load and slow the progression to AIDS but may not prevent infection entirely. IAVI aims to develop promising vaccines that elicit multiple, targeted immune responses and therefore hold the potential to provide greater protection from HIV infection.

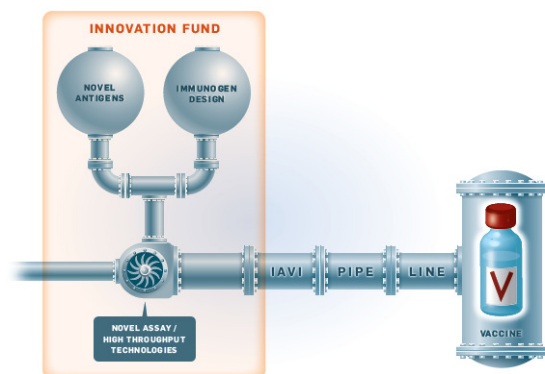
Identifying Breakthrough Concepts

IAVI's Innovation Fund, the most recent addition to its state-of-the-art program, aims to encourage experimentation on pioneering ideas in ways that other funding sources available today have not, thereby infusing AIDS vaccine science with novel approaches. Targeted primarily to small- and medium-sized biotech companies, the Fund is intended to attract fresh ideas from beyond the mainstream HIV field in an effort to accelerate the development of a preventive AIDS vaccine.

IAVI's Innovation Fund will have a risk tolerance commensurate with the urgency of the AIDS epidemic and a rapid evaluation and funding process for potential grantees. Moreover, IAVI can provide technical and scientific resources that may be needed to supplement grantees' projects, as well as additional funding and product development for successful projects. IAVI has established a strong research and product development infrastructure and a successful record of moving early stage technologies into clinical development. IAVI believes its Innovation Fund will play a vital role in converting the current pipeline into the ideal pipeline.

With an initial commitment of U.S. \$10 million, half of which will be financed by a U.S. \$5 million

grant to IAVI from the Bill & Melinda Gates Foundation, the Innovation Fund is a fundamental part of IAVI's strategy to proactively identify and fund nascent technologies in other disease fields that have potential applications for AIDS vaccine development.



IAVI aims to fund roughly 15 projects over three years. The Fund will identify opportunities primarily through a network of venture capital firms and select corporate partners, and target technologies for which proof of concept may not yet have been established. To encourage the cross-fertilization of ideas and optimize the chances of breakthroughs, the scope of the Fund will extend beyond the current state of the art in AIDS vaccine research into other areas of virology and immunology, as well as disciplines as diverse as cancer therapeutics, proteomics and systems biology.

It is clear from the past decade of AIDS vaccine research that HIV is a formidable adversary and one that will likely take time to trump. The world recently received disappointing news from one of two ongoing late-stage AIDS vaccine trials. In the wake of this development, the field must redouble its efforts to harness the most innovative thinking from within and outside the HIV vaccine arena to address fundamental scientific hurdles. The Innovation Fund is a critical part of IAVI's strategy to stimulate new thinking and action to break through the scientific barriers to a vaccine.

Managed by Dr. Magdalene Cook, who comes to IAVI from the biotechnology venture capital industry, together with a venture advisory committee, IAVI's Innovation Fund will provide efficient access to 'feasibility study financing'—seed funding for demonstration of preliminary proof of concept. Ultimately, IAVI aims to screen a number of technologies and identify promising programs that can rapidly be advanced into clinical testing using IAVI's existing product development infrastructure and more traditional, long-term funding model.

IAVI has a proven history in spearheading innovative AIDS vaccine research and development (R&D) initiatives. IAVI is also in a unique position to manage a high-risk, high-reward program of this type, given its ability to rapidly deploy financial, scientific and technical resources to support development of promising technologies.

IAVI's Innovation Fund features a relatively simple application process, few administrative requirements and a quick turnaround time of eight weeks between application and award.

Priority Technologies

The Innovation Fund will aim to bolster IAVI's broader strategy of dedicating significant R&D investments to overcoming the major obstacles in AIDS vaccine developments. These goals include identifying technologies that:

- Further the efforts to overcome two key scientific problems facing the AIDS vaccine field
 - How to induce broadly neutralizing antibodies against HIV
 - Identifying and delivering immunogens capable of controlling HIV infection
- Stimulate immunity in mucosal tissues, one of HIV's initial entry points
- Support any of the areas above, for example, high-throughput screening methodologies that expedite vaccine design or vaccine assessment.

Projects considered for IAVI's Innovation Fund must, first and foremost, have the potential to impact ongoing AIDS vaccine research, if successful. Second, they must have the ability to generate preliminary data demonstrating feasibility within the funding period of 12 to 18 months. Finally, priority will be given to projects

that are not currently funded and would not typically be eligible for funding through existing channels for AIDS vaccine development.

A History of Innovation

Innovation has been at the heart of IAVI's work since its founding. Over the past ten years, as IAVI built a comprehensive R&D infrastructure, the organization has introduced a series of unconventional approaches to vaccine development. Examples include the following:

- Parallel advancement of multiple AIDS vaccine candidates based on strains of HIV circulating in developing countries hardest hit by the epidemic
- A network of clinical research centers and laboratories in East and Southern Africa and India that operate at international standards
- A series of scientific consortia that pioneered new collaborative institutional arrangements, since adopted widely by the field, to address key scientific challenges
- The first product-driven, industrial-style AIDS vaccine development laboratory outside of the vaccine industry
- A proactive global surveillance program, the New Alliance Initiative, to identify state of the art vaccine technologies and candidates, with the aim of optimizing and diversifying the current clinical pipeline.

Through these and other mechanisms, IAVI has catalyzed progress in AIDS vaccine R&D: today, the landscape is marked by growing global efforts in the field. But at the same time, the field is characterized by a limited range of ideas to achieve the ultimate outcome of a preventive vaccine to blunt and ultimately end the epidemic. IAVI's R&D program aims to build on the past and simultaneously explore creative approaches that are new to the AIDS vaccine field.

IAVI's Innovation Fund aims to foster a much-needed breakthrough in AIDS vaccine research, by bringing early-stage ideas and products from the most innovative scientists and companies from around the world together to help solve one of the greatest public health challenges we face today.