Advances on HIV Prevention Tools Heralded At Conference

New York, July 22, 2010—While celebrating news that a vaginal gel had for the first time demonstrated effectiveness at protecting women against HIV protection, health experts at the biannual International AIDS Conference this week in Vienna also trumpeted a new era in the effort to develop the long-sought AIDS vaccine. “There is a renaissance going on in AIDS vaccine development,” said Seth Berkley, CEO of the non-profit International AIDS Vaccine Initiative (IAVI). Alan Bernstein, executive director of the Global HIV Vaccine Enterprise, an umbrella group, called it “an entirely new chapter in HIV vaccine research.”

Scientists have been energized by two major vaccine advances discussed at the conference. First, in a trial in Thailand that ended last year, an experimental AIDS vaccine proved 30% effective at protecting against HIV. The result was not sufficient to advance the experimental vaccine toward licensure. But the trial, a joint effort of the Thai and US governments, demonstrated that an effective AIDS vaccine can be made. Second, researchers at and affiliated with IAVI, The Scripps Research Center and the Vaccine Research Center of the US National Institutes of Health have identified, from the blood of HIV infected individuals, a number of potent new antibodies that neutralize many of the variants of HIV. Two of the antibodies attach to a site on HIV that had not been previously elucidated. These antibodies and their attachment sites on the virus give researchers important clues about how to design new vaccine candidates to elicit antibodies that would protect individuals against the many different varieties of HIV circulating in the world. Berkley said IAVI would be announcing still more antibody developments in the near future.

The optimism about prospects for an AIDS vaccine came amid excitement over the news, announced at the Vienna conference, that in a clinical trial in South Africa a vaginal gel containing an antiretroviral drug, one of a class of experimental products called microbicides, had proven 39% effective in reducing HIV infection in women. The study was conducted by the Centre for the AIDS Programme of Research in South Africa (CAPRISA). Researchers said the results of a separate ongoing trial of the same gel would help determine the regulatory path for the microbicide. “The licensure of a microbicide would give us a valuable new tool for reducing HIV infections,” said Berkley. “The results of the CAPRISA trial demonstrate the power of focusing science on an urgent need.”

The positive results in both HIV microbicide and vaccine development are fueling optimism among those in the AIDS prevention field. Philanthropist Bill Gates, whose foundation heavily supports AIDS treatment and research, noted that “even if we do everything possible” with current methods of HIV prevention “the most optimistic predictions suggest that we would only cut infections by half.” He added, “fortunately, we don’t have to assume that in the future we’ll be limited to fighting HIV with the tools we have today.” Gates referred to modeling work done at Imperial College in London that showed that in rural Zimbabwe, a targeted effort to implement current, effective prevention methods could cut HIV incidence by 38% by the year 2031. If microbicides and the use of antiretroviral drugs as prophylaxis were rolled out, incidence could be cut to 53%. An AIDS vaccine could reduce the incidence to 90% he said. “We could begin to write the history of AIDS.” Even a partially effective AIDS vaccine would accomplish that goal, he noted.
Also at the conference, the HIV Vaccines and Microbicides Resource Tracking Working Group released a report warning that flat funding for HIV prevention research may limit the ability of researchers to quickly move promising approaches forward. According to the report, global investment in HIV prevention research in 2009 was level at approximately US$1.165 billion. 2008 saw a 10% decline. The HIV Vaccines and Microbicides Resource Tracking Working Group is made up of AVAC: Global Advocacy for HIV Prevention, IAVI, the International Partnership for Microbicides, and the Joint United Nations Programme on HIV/AIDS.

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