SAAVI awards first AIDS vaccine grants

The South African AIDS Vaccine Initiative (SAAVI), a public–private initiative to produce a national HIV/AIDS vaccine (*Nature Med.* 5, 252; 1999), has announced its first award recipients. Four research proposals were selected from a total of ten, and each will receive substantially more funding than that meted out by the country's other grantgiving bodies, which typically dispense R300,000–500,000 (US\$50,000–83,000) per project.

Each proposal was evaluated by two non-South African referees. Two basic science projects (both targeting clade C which is the predominant HIV subtype in South Africa), one "Education and Advocacy" program and one "Ethical Issues in HIV/AIDS Vaccine Development" project were selected for funding. A fifth program of "Immunological Support" is to be subjected to further review before a funding decision is taken.

The projects have been allocated a combined total of R7 million from the R20 million SAAVI budget. William Malegapuru Makgoba, president of the South African Medical Research Council. which oversees SAAVI, told Nature Medicine that the remainder of the money will be held in reserve because SAAVI is hoping to support Phase I clinical trials in South Africa of the North Carolina company AlphaVax's Venezuelan equine encephalitis virus vaccine—a project that received \$4.6 million funding from the International AIDS Vaccine Initiative last year (Nature Med. 5, 5; 1999).

Both SAAVI basic research projects are lead by female scientists, a sign of changing times in South African research. Anna-Lise Williamson from the Health Sciences Faculty at the Observatory Cape Town, principal investigator and coordinator of one of the selected projects, told *Nature Medicine* that her team will receive R3 million for the first year, and is using *env* and *gag-pol* genes from a local HIV clade C isolate to construct vaccines based on recombinant BCG- and plant-derived virus-like particles.

"If these approaches are successful the technology already exists in South Africa to produce candidate vaccines, and they will be relatively inexpensive," says Williamson. The vaccines will be compared to modified vaccinia Ankara (MVA) and DNA vaccines expressing the

same HIV subtype C genes. Combinations of different vaccines will then be assessed, using one to prime, and the other to boost, the immune response.

The second basic research project centers on a more unconventional approach and is lead by Estrelita Janse van Rensburg, head of the department of Medical Virology at the University of Stellenbosch. Her group receives R2 million and will focus on the development and production of HIV proteins by recombinant strains of filamentous fungi, *Aspergillus* sp. and *Pichia stipitis*. "The idea is to use the recombinant fungus vaccine in a prime-boost strategy, in combination with a subtype C DNA vac-

cine," says van Rensburg.

Rensburg's team also plans to clone *env* and *gag* genes of clade C isolates and, through collaboration with the US Department of Microbiology in the Faculty of Science, will establish fungal eukaryotic expression systems for the production of HIV proteins. In parallel, they will genotype the HLA of the lymphocytes used to determine the best, 'common' HIV-derived CTL epitopes. The predominant HLA types in South Africa are presently unknown and their elucidation will help not only South African vaccine R&D but also worldwide efforts.

Each project must re-apply for funding annually, and Makgoba has to submit a progress report to the Ministry of Health and the president every four months.

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PACHA adopts more lenient stance to government efforts

The President's Advisory Council on HIV/AIDS (PACHA), an advisory panel on AIDS research and policy, has a history of criticizing the government agencies charged with developing an AIDS vaccine and implementing policy for those infected with the virus (*Nature Med.* 4, 477; 1998). However, there was a more conciliatory tone at this year's annual meeting held in Washington, D.C. on 4–5 October, and the 35-member panel went so far as to voice some support for current government initiatives in HIV/AIDS research and prevention.

One of PACHA's recurrent complaints in recent years has been the foot-dragging in staffing AIDS research leadership positions at the National Institutes of Health (NIH), including the absence of a director for the NIH's new Vaccine Research Center (VRC). However, Gary Nabel, who was appointed to the post in March (Nature Med. 5, 362; 1999) addressed the group on the first morning of the meeting. He discussed VRC's structural organization, HIV vaccine development strategies, and noted that the hiring of several staff members with backgrounds in the pharmaceutical and biotechnology industries, a move PACHA had strongly urged previously, is

Although one speaker challenged that, at present, the VRC is just Nabel, a secretary, and some good will, Nabel assured *Nature Medicine* that, in the absence of a

functional building on the NIH campus, his laboratory at the University of Michigan has become an off-site NIH laboratory. "We're in a position now where we can implement some [research] ideas," he says. For example, his laboratory could develop constructs for HIV vaccine research. The new building will be operational next year with around 120 laboratory scientists and support personnel.

The VRC's FY99 budget was \$18.5 million and its FY00 budget is projected at \$22 million. Nabel expects that when the VRC is fully operational, the annual budget will be around \$30 million; but comments from PACHA members that this is a small amount of money if the center is to be involved in clinical trials, he agreed that PACHA was "right to be concerned that our costs can be higher."

Although PACHA has long requested that White House Office of National AIDS Policy increase its control over AIDS vaccine development initiatives, that has not happened. And with NIH making its leadership role in the development of an AIDS vaccine even clearer, as evidenced by Nabel's presence at the PACHA meeting, most do not believe PACHA's request, which once filled many basic scientists with angst, will reach fruition.

Deborah Birx, director of the U.S. Military HIV Research Program—a cooperative agreement between the