

The Uganda AIDS Vaccine UPDATE

a newsletter of UVRI - IAVI HIV Vaccine Program

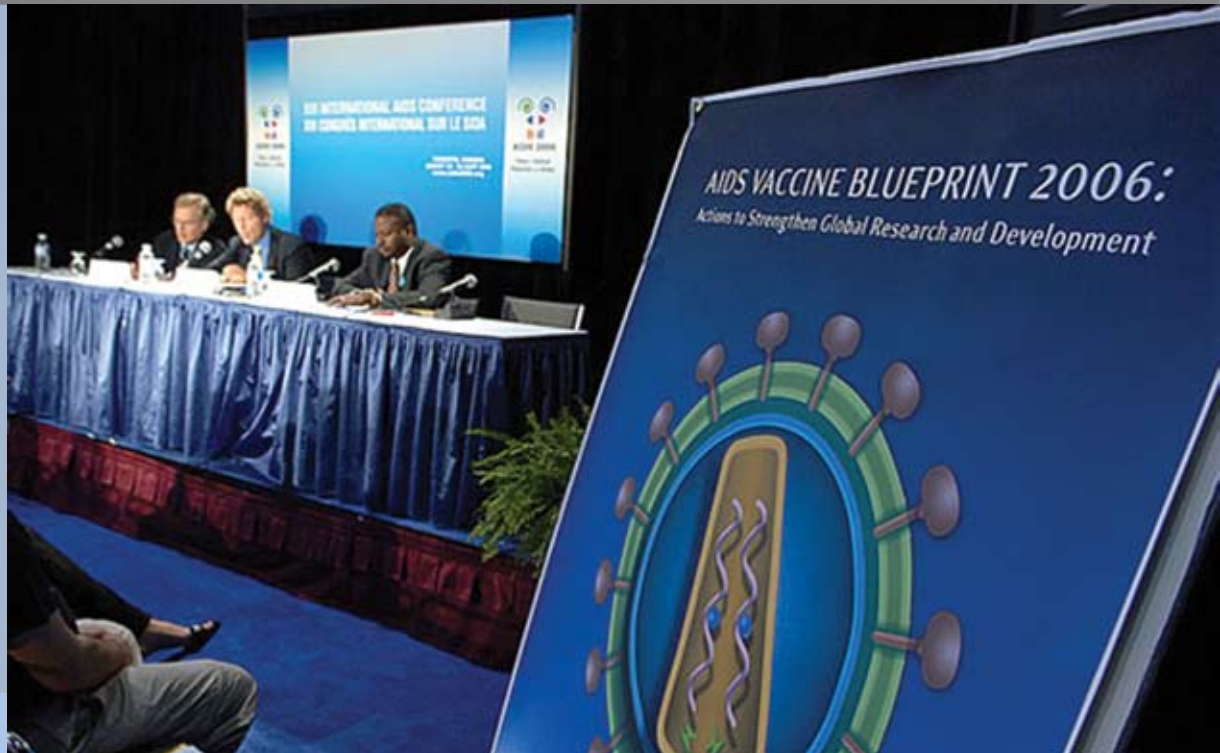
Issue 10

October - December 2006



The Republic of Uganda

Uganda Virus
Research Institute



LOOKING TO THE FUTURE: Drs Stephen Lewis (L), Seth Berkley (C) & Pontiano Kaleebu (R) at the launch of the AIDS Vaccine Blueprint 2006 at the XVI International AIDS Conference in Toronto, Canada in August 2006.

Highlights

03

Dr Kaleebu
Exclusive
Interview

05

Young
Scientists
Shine

07

UVRI
Grows
Stronger

10

Did you
Know?

12

UVRI-IAVI Team
Rediscovered...

IAVI Celebrates 10 Exciting Years

"I am happy to meet you at last; Me too, I am happy to finally link a face to the hundreds of emails we have exchanged."

Such was the talk at the recently concluded International AIDS Vaccine Initiative (IAVI) Global Team Meeting held at the Marriot Hotel in Brooklyn, New York, USA, to celebrate 10 years since IAVI initiated its work in 1996.

The three-day meeting was planned to review where we have come from, where we are today and critically think through where we want to be in the next 5 years and beyond.

Founded in 1996 and operational in 23 countries, IAVI is a global not-for-profit organization working to speed the search for a vaccine to prevent HIV infection and AIDS. In Uganda, IAVI started its operations after signing a Memorandum of Understanding with the Government of Uganda through the Ministry of Health in 2001 and has since been operating at the Uganda Virus Research Institute (UVRI), advancing the HIV vaccine research agenda.

When IAVI was created in 1996, the world was devoting only limited attention to vaccine

research, even though the virus was rapidly spreading and beginning to devastate many people in Africa. With IAVI's leadership, the field of HIV vaccine research and development has grown and evolved, marked by a shift in attention to the pressing need for vaccines in developing countries where 90% or more of new infections continue to occur.

"The issue of AIDS and the issue of the need for a vaccine is about the whole world. It's not just about people dying in Africa; it is not just about particular stigmatized communities. It is, it has to be, about a global fight, it has to be about an international effort, and this is the genesis of IAVI," Geoff Lamb, IAVI Board Chair.

continued on pg 4 ▶



This publication is funded by a grant from the European Union. The views herein are not necessarily those of the EU.

From the EDITOR'S DESK

Emmanuel Mugisha



Dear Readers,

It's been a solid 10 years since IAVI initiated its work, and IAVI has spearheaded lots of developments in HIV vaccine research during this period. When IAVI was born in 1996, the world was devoting only limited attention and resources to vaccine research,

even though the pandemic was rapidly spreading and beginning to devastate larger portions of Africa.

With IAVI's leadership, the field of HIV vaccine research and development has grown and evolved. And now with more resources and support from governments, organizations and individuals, and with more commitment to form global research consortia, the future of HIV vaccine research is even more promising.

Here in Uganda, the UVRI-IAVI HIV Vaccine Program is proud to be marking 5 years.

In this issue, you will briefly see where IAVI has come from, where we are today and where we want to be in the next couple of years. You will also get to know what some of the world's top leaders say about HIV vaccines and where their future lies. This issue also highlights the recently launched "AIDS Vaccine Blueprint 2006"; the 2nd Annual Scientific Conference at which young Ugandan scientists shone; and the best ways of understanding home-based voluntary counselling and testing among other things.

We wish to convey our sincere gratitude to all those who have been and continue to be part of the global fight against the AIDS pandemic. We can't thank you enough.

The Uganda AIDS Vaccine Update is Published Quarterly by UVRI-IAVI HIV Vaccine Program.

EDITORIAL BOARD

1. Rev. Fr. Christopher Kiwanuka
Tel: 0712-812 306
2. Rev. Sam Ruteikara
Tel: 0772-710 141
3. Dr. Tumusiime Rushedge
Tel: 0772-365233
4. Ms. Andrea von Lieven
Tel: 041-322 377/8
5. Mrs. Rose Tumusiime
Tel: 0772-517 116
6. Mr. Angelo Aubrey Kagwa
Tel: 041-322 377/8
7. Mr. Simon Sigirenda
Tel: 041-322 377/8
8. Dr. Fiona Kalinda
Tel: 041-322 377/8

Design and Print

visualeffects ltd
u4 printers arcade
29a-29b nasser road
p.o. box 8977 kampala - uganda
tel: +256 312 264423
e-mail: info@visualeffects.co.ug



For further information or to request additional copies please contact:

Emmanuel Mugisha
P. O. Box 49, Entebbe, Uganda
Tel: 041 - 322 377/8
E-mail: emugisha@iavi.org
www.iavi.org/uganda

The Editor welcomes your views and comments, please send them to: information@iavi.or.ug for consideration for future newsletter issues.

WHERE IS HIV VACCINE RESEARCH HEADED TO?

ANGELO KAGGWA had an exclusive interview with UVRI-IAVI Principal Investigator, *Dr PONTIANO KALEEBU*.



QUESTION :

Scientists have for the last 20 years been searching for a vaccine to end the 25-year AIDS pandemic which has claimed more than 25 million lives. However,

after all these years in the laboratories, no vaccine has been developed. *United Press International's* Ed Susman in the US quoted Jules Levin, a long-time AIDS activist and Executive Director and Founder of New York-based National AIDS Treatment Action Project as saying, "We are not going to find an AIDS vaccine. We are only wasting a lot of resources. It's time we stopped spending money on the vaccine and looking at other forms of prevention." [We know that this does not reflect the views of all AIDS Activists. - Editor] Where does this leave the world's best hope against the deadly HIV/AIDS?

ANSWER: Contrary to the views of this activist and many others who think like him, there has been success on many fronts in the search for an AIDS vaccine. Although no vaccine has been discovered yet, we've made advances to keep us hopeful. There are now vaccines that are giving good defence responses (immune responses). These are in Phases 1, 2 and 2B trials. For one vaccine type, research is going on to find out how effective they are in Phase 2B, a larger scale trial. Also, there are now new clues in understanding the HIV associated defensive responses (protective immune responses) eg individuals who are exposed to the virus but remain uninfected and those who can control the amount of the virus (viral load). In addition, we're also moving towards better harmonization of tests (assays) used in vaccine trials. All this is boosted by more funding to do basic research. This has been availed by the National Institutes of Health (NIH), Center for HIV/AIDS Vaccine Immunology (CHAVI), the Collaboration for AIDS

Vaccine Discovery (CAVD), the Bill and Melinda Gates Foundation etc. Tony Fauci, head of NIH reminded us in the last AIDS Vaccine meeting in Amsterdam that the AIDS vaccine will be different from the vaccines we know. This vaccine may not be as perfect as the polio or measles vaccine but if it can reduce HIV transmission, slow progression and in the long run slow the epidemic, this will be an achievement. We know there are still many unknowns; we are still behind as far as knowing how to make the human body produce antibodies that kill the virus (induction of neutralizing antibodies), finding immunity at surfaces through which HIV is mostly transmitted (mucosal immunity) etc. However, with more funding, collaborations, and enthusiasm, we will continue making advances.

Anybody who says let's give up is not focussed. Give up and do what? Just look on and spend money on perfumes, better cars etc and then tell future generations that we gave up. I cannot be part of that thinking.

QN. IAVI launched the "AIDS Vaccine Blueprint 2006: Actions to Strengthen Global Research and Development" at the recently concluded XVI International AIDS Conference in Toronto. What exactly is this blueprint?

ANS. This publication looks at current challenges and how they can be addressed. The Blueprint gives new ideas on how this can be done, for instance;

a) The need for linked multidisciplinary scientific teams dedicating more time to solving the challenges and linking these research efforts to vaccine

development in an industrial-like approach.

- b) Conducting several smaller preliminary trials in say 500 high risk populations to establish the safety and effectiveness but also some information on effect of early viral load levels (viral set point) allowing advancement of more promising products in a shorter time frame to larger trials.
- c) Creation of several Regional Networks of excellence in developing countries where people are trained to do high quality trials, to complement the existing centers.
- d) Expanding the existing vaccine pipeline, for example developing vaccines that can induce neutralizing antibodies and mucosal immunity. The vaccines being tried now are almost of the same type.



Dr Pontiano Kaleebu, UVRI-IAVI PI & Head, MRC/UVRI Basic Sciences Programme.

e) Build and sustain long term political support and commitment notably the African Union, the G8 and the UN assembly.

QN. At the same conference, United Nations Radio quoted Mrs Hilde Frafjord Johnson, an IAVI Board Member and former Minister of International Development for Norway as saying that she is not satisfied with current efforts [to speed up the development of an AIDS vaccine], and that AIDS is not "sexy" enough for

► *continued on pg 4*

► continued from pg 3



Prince Bahati (L), Drs Fiona Kalinda (C) & Anthony Kebba (R) at the AIDS Vaccine Conference in Amsterdam, September 2006.

politicians to pay attention to. What role should the politicians play in the quest for the AIDS vaccine?

ANS. It's very true that most politicians, especially in Europe and America, have not given their full commitment to the fight against HIV/AIDS. What Mrs Johnson was saying is, if AIDS was mostly affecting the middle class American or European, the politicians would have sprung up. Unfortunately, it mainly affects the marginalized gay communities, poor women and children in the third world. As such, its impact is not so attached to them. On their role, politicians, as policy makers should design policies that are favorable, in addition to availing the much needed funds for this cause.

QN. The XVI International AIDS Conference, at which more than 30,000 participants took part, was considered a huge success. What are some of the key successes that AIDS vaccine research can boast of?

ANS. Much as the AIDS vaccine was acknowledged as the best hope for stopping this epidemic, many speakers cautioned the delegates that more science, time, and resources are needed if this is to be realized. Emphasis was instead put on other interventions like microbicides, Pre Exposure Prophylaxis (PrEP), circumcision, condoms etc. The presence of powerful speakers like former US President Bill Clinton, Bill and Melinda Gates and their interest in AIDS vaccines did give a boost to vaccine research. However, no headline research outcomes were presented in HIV vaccines.

QN. The Bill and Melinda Gates Foundation had prior to the Toronto Conference availed up to USD 287 million towards AIDS vaccine research. IAVI is one of the beneficiaries of this huge funding. What exactly does IAVI aim at achieving with these funds?

ANS. IAVI will be part of the consortium called the Comprehensive T-cell Immune monitoring headed by Dr Richard Koup at the Vaccine Research Center in the USA. IAVI laboratories in London and UVRI, Entebbe are among the four in the world that were identified to participate as Central laboratories in the area of training and validation of the T cell assays. Dr Jill Gilmour of IAVI will play a major role and Dr Josephine Birungi, our staff will lead the activities at UVRI-IAVI. IAVI Labs will on top of training and validation of assays be reference laboratories for some future vaccine trials. Also, IAVI's Dr Tim Zamb is part of the T-cell consortium, in which some money will be used to support work at the new IAVI Lab in Brooklyn, New York. Tim and his team will be looking at vector design among other things.

QN. While at the Amsterdam AIDS Vaccine Conference, head of NIH, Dr Tony Fauci advised researchers "to think outside the box". What does this mean in regard to HIV vaccine development?

ANS. This means a vaccine for HIV/AIDS will be different from other vaccines that we know of. Many people infected with viruses where we have vaccines could recover from these infections and we were able to correlate this recovery with development of an immune response. Nearly all those infected with HIV go on to develop AIDS and eventually die. HIV cannot be eliminated - it is a persistent virus and we do not know what correlates with protection. We therefore need to appreciate that the HIV/ AIDS vaccine will be different.

It also means that we may have different vaccines because of the diversity of HIV. We may even think of a vaccine that uses the in-borne protective mechanisms (innate immunity) as opposed to defensive body cells (antibodies or T-cells). In

all aspects, the HIV/AIDS vaccine may be different and therefore we need to think outside the box as we search for it.

QN. What are some of the most outstanding outcomes of the Amsterdam Conference to HIV vaccine research and development?

ANS. We saw some really promising vaccines. Some new vaccines appear to be immunogenic (giving good immune responses) eg the one being developed by the Karolinska University in Sweden working with the US Military. This vaccine will be tried in Tanzania. The other one is being developed by the EuroVacc Consortium in Europe. The vaccine produced by the Vaccine Research Center also continues to show good quality immune responses. There is hope for an AIDS vaccine ☐

► continued from pg 1

Ten years into its mission, IAVI is the largest global non-profit organisation focused solely on the development of an HIV vaccine as part of a comprehensive response to the AIDS crisis. Meshing scientific, policy, and advocacy initiatives, IAVI has emerged as a leading product-centered "public-private partnership" in the global health field, significantly advancing the field of vaccine research and development as well as addressing access to a safe, effective, preventive vaccine where it is most needed.

"The issue of AIDS and the issue of the need for a vaccine is about the whole world. It's not just about people dying in Africa; it is not just about particular stigmatized communities. It is, it has to be, about a global fight, it has to be about an international effort, and this is the genesis of IAVI," said Chief Guest and IAVI Board Chair Geoff Lamb.

The global team meeting was attended by IAVI staff and its network of partners from all over the world. Uganda was well represented by IAVI staff and partners from Medical Research Council and the Uganda AIDS Commission.

Remarkable is what it was, as we look to a better and more product-centered future, and as the search for the much-needed HIV vaccine goes on! ☐



Young Ugandan Scientists Shine at Munyonyo Conference

By Dr Fiona Kalinda



The 2nd Annual Scientific Conference that took place at Speke Resort Munyonyo from 7th to 9th September 2006 saw vibrant

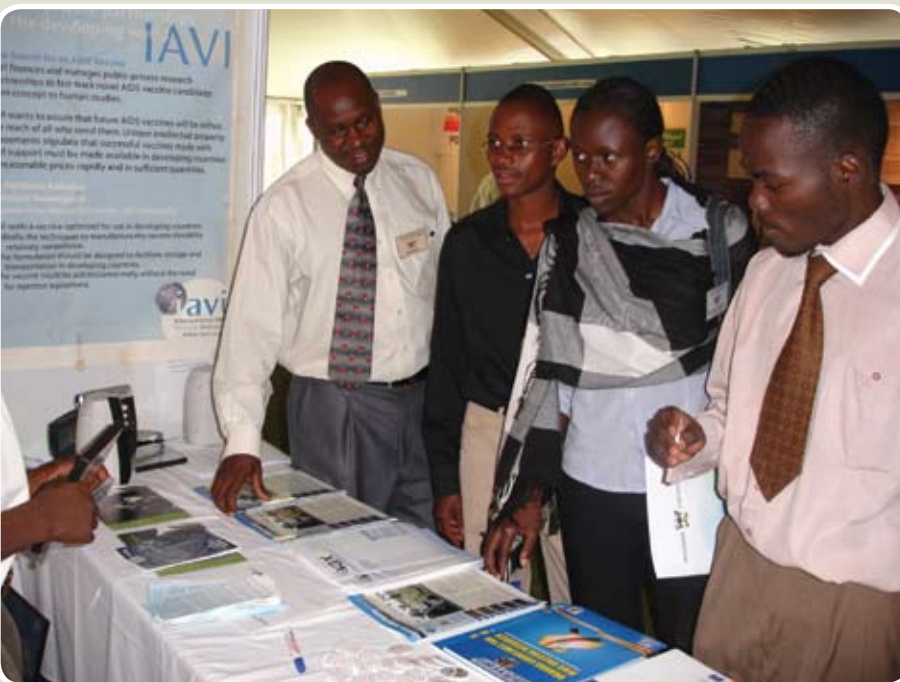
young Ugandan scientists presenting high quality research findings about different health challenges we face daily. This conference whose theme was **"Coping with Health Challenges in the 21st Century"** was jointly organised by Makerere University Faculty of Medicine and the Institute of Public Health.

The International AIDS Vaccine Initiative (IAVI) is proud to have been part of this noble cause not only as one of the sponsors but also as active participants.

Many organisations, UVRI-IAVI inclusive, exhibited their work at this conference which was opened by H.E the President Yoweri Museveni, represented in the person of the Minister of State for Health - General Duties, Hon Richard Nduhuura.

The President emphasized the challenges of the 21st century including infectious diseases, lifestyle-associated diseases, poverty, mental health, migration of well trained health workers to other countries in search of "greener pastures"; and challenges of research recommendations being translated into policy among other issues. The President also pledged his support for Makerere University's decision to have a college for health sciences.

Makerere University's Vice Chancellor, Prof Livingstone Luboobi assured the participants that the University Council was doing all it could about the unfilled vacancies [that Scientific Committee Chairman, Prof. James Tumwine had earlier talked about] in the Faculty of Medicine by revising the recruitment criterion. He commended the HIV/AIDS research work of the Institute of Public Health and the Medical School, citing that their results often influence policies. He thanked the President for supporting research, but decried the problems of limited funding, inadequate human resources and lack of adequate research facilities.



VACCINE LITERACY: Emmanuel Mugisha (L) explains HIV vaccine research to Makerere University Medical Students during the 2nd Annual Scientific Conference at Munyonyo.

The presence of young researchers who will form the pillar of research in the years to come is an assurance that the future of science in this country is bright!

Among the numerous scientific papers presented were presentations on mental health, health care systems, HIV/AIDS care including studies on adherence to ART, and Paediatric ART in sub-Saharan Africa; challenges of laboratory services in 21st century Uganda; social research and diseases of lifestyle etc.

Other interesting presentations were on prevalence and concentration of germs (campylobacter) in ready to eat broiler chicken from commercial food establishments; quality and safety of ice cream in Kampala; as well as seroprevalence of brucellosis among cattle keepers in Mbarara District.

Uganda Virus Research Institute's Director, Dr Edward Mbidde, in his eloquently presented keynote address on the **"Challenges of Cancer in the 21st Century"**, informed the participants of the growing burden of cancer in Uganda. He highlighted cancer of the cervix in women, cancer of the oesophagus, liver prostate and breast cancer as the most prevalent. With the present scourge of AIDS, related cancers like Kaposi sarcoma are on the increase. He emphasized that change in social behaviour and lifestyles including diet of roast meats, alcohol and fatty fast foods that many Ugandans have resorted to, has predisposed them more to some of these conditions. He also mentioned environmental factors like pollution and physical inactivity leading to obesity as the other challenges.

UVRI-IAVI HIV Vaccine Program Principal Investigator, Dr Pontiano Kaleebu presented a paper on the latest stand in HIV vaccine development. He highlighted recent developments in the HIV vaccine world and talked about the recently concluded international conferences like the XVI International AIDS Conference

► continued on pg 6

► continued from pg 5

in Toronto (August 2006) and the 5th International AIDS Conference in Amsterdam (August 2006). He discussed the correlates of protection, current vaccine products and trials, progress on promising vaccines, planned trials in Uganda, new challenges faced, as well as the African AIDS Vaccine Program and its activities. He informed the participants that globally 27 products had so far been tested, with 32 trials in 2006 alone. He also mentioned the VRC DNA Primer Ad5 boost which is the largest trial concept in

Africa, with more than 600 participants. It involves HIV vaccine trials network of the Makerere University Walter Reed Project (MUWRP) and IAVI. He also mentioned the planned vaccine trials, including V002 (IAVI/MRC) and *Pave 100* which will enrol 12,000 volunteers globally, 8,000 in Africa in 2008. Among the challenges currently facing vaccine research, he pointed out identification of suitable populations.

A fruitful conference it was! It was a time of sharing and learning. The presence

of young researchers who will form the pillar of research in the years to come is an assurance that the future of science in this country is bright!

Bravo to all the presenters, especially the students who, as the conference chair Dr Moses Joloba put it, cut their teeth in preparing and presenting their scientific work. Bravo to the organisers of the conference, the sponsors, exhibitors and very importantly the participants! □

Together we can win - Entebbe Hospital vows!

By Simon Sigirenda



The health of a nation is key to its survival and development. Entebbe hospital is one of the many health providers that have come up in Uganda to meet the need for a

healthy nation.

Like the slogan 'Together we can win', says the hospital administration believes that the quest for good health must be a collective effort - a healthy person may not remain healthy in an unhealthy environment.

Entebbe Hospital is a high profile hospital. In the minds of many Ugandans is the historic role of Entebbe as a seat of the colonial administration: Entebbe International Airport; and the State House all make Entebbe Uganda's de facto second city after Kampala.

With a bed capacity of 150 patients, the hospital has an average in-patient occupancy rate of 90 to 100 patients per day. The average out-patient department (OPD) attendance is 4,500 to 5,000 patients per month.

In order to promote Voluntary Counseling and Testing (VCT) uptake among the population surrounding Entebbe Hospital, a VCT centre has been established with support from IAVI and MRC.

"The community's response in utilizing VCT services is positive," the Hospital Superintendent Dr Moses Muwanga revealed, adding that VCT services started

in a container but beginning October 2006, static VCT services will be provided in a new building, which will also house HIV vaccine research activities. Construction of this building took place using funds provided by IAVI for that purpose, with MRC implementing the activities.

The hospital also has plans to expand VCT outreach services to surrounding areas like Kigungu, Katabi and Nakiwogo. This will take the services closer to the people who need them, leading to higher utilization. Again, the hospital will do this in collaboration with IAVI and MRC.

Entebbe Hospital offers a lot more services: family planning; accessory services like the laboratory which does HIV testing; x-ray and ultra sound; dental services; hope after rape; sickle cell services; eye clinic; ear clinic; diabetic clinic; and the TB clinic.



QUALITY CARE: Patients wait to be attended to on a busy clinic day at Entebbe Hospital.

The antiretroviral (ARV) Clinic has been in existence for the past one year.

To enhance its capacity to provide good services, Entebbe Hospital has facilitated its staff to train in caring for patients on antiretroviral therapy. Although the clinic runs on Thursdays, the increase in demand for ARVs is expected to lead to increase in the number of service days.

In terms of collaborations, Entebbe Hospital has fruitful working relations with different partners. These include; the Mother and Baby Study (MABS) which deals with intestinal worms in pregnant mothers and follow up after birth; DART - a study on antiretroviral drugs and how they should be administered [MABS and DART are MRC funded projects]; a TB program under the Centers for Disease Control and Prevention (CDC) and the IAVI/MRC HIV vaccine research project.

The collaborations have been so beneficial to Entebbe Hospital. Its infrastructure has been improved. Existing buildings have been renovated and new ones built. A mortuary has been constructed to solve the acute problem of space previously experienced by the hospital. Some hospital staff such as Counselors have trained in research oriented skills and neo natal care, thereby increasing their competence in handling the hospital clients' needs.

In his own words, Dr Muwanga said, "A healthy body is key to a productive population therefore the public should utilize these free services at the hospital."

Dr Muwanga believes that the hospital will continue improving its services as more funds are availed, as the case was recently when government, through the Ministry of Health gave the hospital a grant to carry out renovations on existing buildings, in preparation for the Commonwealth Heads of Government Meeting (CHOGM), which Uganda is hosting in 2007! □

The UVRI: Strong, getting stronger by the years

By Angelo Kaggwa

When I first heard of the Uganda Virus Research Institute (UVRI), the first image I had of it was of a place with no life at all, but a few scientists buried in large books and once in a while checking on their samples in large freezers. What a picture!!

It's interesting what you see when you get to this huge complex housing four main programs and lots more sub projects.

"Virus", as it's popularly known, has a long history dating as far back as 1936. Established by the International Division of the Rockefeller Foundation of the United States, it was then called the Yellow Fever Research Institute, as the original studies centered on yellow fever.

The UVRI is a government institution under the Ministry of Health, which aims to carry out scientific investigations concerning communicable diseases especially viral diseases of public health importance and to advise government on strategies for their control and prevention.

The institute has grown from strength to strength since inception. Four main programs have come on board to complement the work the institute has boasted of in its 70-year history. The Rakai Health Sciences Program (formerly Rakai Project) was the first in 1987, followed by Medical

Research Council (MRC)-UK in 1988. In 1997, the Centers for Disease Control and Prevention (CDC)-Atlanta started, after which the International AIDS Vaccine Initiative (IAVI) started its work in 2001, as the latest entrant.

Besides those four major collaborations, there are many other divisions within the UVRI. They include the Division of Entomology, which deals with insects that transmit diseases (mainly mosquitoes that transmit yellow fever and malaria); Arbovirology, which deals with viruses that are transmitted by insects; Quality Assurance and Quality Control, which focuses on the quality of HIV testing; the Expanded Program for Immunization (EPI) Division which mainly gives laboratory surveillance to the Uganda National Expanded Program for Immunization and Zoology and Ecology which mainly deal with plague and rodent-borne diseases. The Division of Immunology, which deals with understanding the role of immune responses in disease progress and vaccine development, is also being revamped with assistance from MRC whereas the UVRI Clinic is a resource for research participants.

As the divisions carry out their activities, they collaborate with many partners including the Ministry of Health (MoH), World Health Organization (WHO), UNICEF, CDC, the Wellcome Trust, Notre Dame University (USA), the Presidential Malaria Initiative (PMI) - a President Bush initiative, Sokoine University-Morogoro and scientists in Madagascar.

UVRI's Director, Edward Katongole Mbidde (MBCHB), thus said, "The institute has really grown. You can see from the collaborations and the magnitude of the research being carried out here." On the UVRI clinic, Dr Mbidde said, "It provides us the opportunity to be relevant to the surrounding communities to whom care is provided." This clinic provides care for staff and their families, Voluntary Counseling and Testing (VCT), immunization to children and health education to the local communities. A new building to house the clinic, with financial support from UVRI collaborators was recently opened.



About research, Dr Mbidde says that since there is no strategy that is one hundred per cent effective in prevention and treatment of HIV/AIDS, research in these areas has to continue in order to protect the vulnerable and marginalized societies and people especially women and children. "That's why the UVRI and its partners are involved in interventions such as vaccines, microbicides and in other clinical trials in different populations and communities."

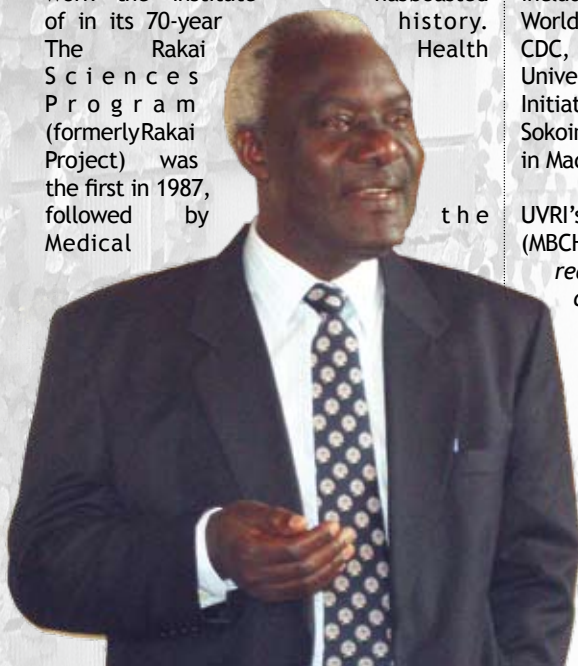
On HIV vaccine development, Dr Mbidde said, "Vaccines have always been developed for three major reasons - demand, lack of cure for disease and benefit for millions [of people] at risk of infection. All these are very pertinent to HIV/AIDS today. The unfortunate bit about HIV is that the people most at risk are not strong lobbyists for

"The institute has really grown. You can see from the collaborations and the magnitude of the research being carried out here,"
Dr Mbidde.

vaccines and yet those with HIV are strong advocates for treatment."

Dr Mbidde said that there is hope for an AIDS vaccine since each vaccine trial that comes provides incremental knowledge as are other studies where people are observing natural phenomena. These, he says, complement each other in designing better vaccines for the world.

In terms of infrastructure, CDC has completed



THE SMILE BEHIND THE WORK: Dr Edward Mbidde, UVRI Director.

▶ continued on pg 11

TRAINING THAT MAKES A DIFFERENCE FOR IAVI PEER LEADERS



PRACTICAL SKILLS: Peer Leaders discuss best ways of mobilization during the training.

Everybody the world over agrees with the fact that effective communication has a great impact on fostering change. Information can transform lives, nations and institutions.

The UVRI-IAVI HIV Vaccine Program aims at raising knowledge and promoting awareness about HIV and HIV Vaccine research among various communities so as to build support and advocacy. The input of community mobilizers can not be overlooked if this is to be achieved, for they assist in the dissemination of key HIV vaccine messages.

Consequently, the Program organized a three-day refresher Peer Leaders' workshop at Golf View Inn, Entebbe, from 19th to 21st July 2006. The course was conducted in collaboration with AIDS Information Centre, with funding from the European Union.

At the end of the course, peer leaders were able to explain basic facts on HIV/AIDS; describe the work of UVRI-IAVI Vaccine Program; explain the benefits of VCT; demonstrate ability to counsel clients interested in HIV testing;

It was an "eye-opening" training as one of the participants put it, one that they believe will help them make their communities better.

demonstrate ability to mobilize the community to participate in vaccine trials; and to explain their roles in the UVRI-IAVI vaccine program.

The course facilitators employed many teaching methods among which were; lectures, group discussions and role plays. The Vax Lit, an HIV vaccine education booklet, was very instrumental in most of the vaccine-related discussions as it turned out to be a very practical guide.

One of the sessions was dedicated to discussing the most Frequently Asked Questions (FAQs) by the people in the communities. This session provided good input for updating the current FAQs. The peer leaders also made contributions in regard to ways in which community outreach can be continued even when trials are not going on.

Among the key issues that the peer leaders raised were; proper identification to smoothen their work; the need for IAVI to operate beyond Wakiso and Kampala; IAVI's lack of recognition in more remote communities, which calls for increased awareness; the possible role of traditional herbalists in vaccine research and development; the need for more VCT skills by the peers leaders; and the plight of disabled people in vaccine development among others.

It was a worthwhile training that went a long way in re-enforcing the knowledge that the peer leaders had about HIV/AIDS vaccines and empowering them with better communication and mobilization skills. It was an "eye-opening" training as one of the participants put it, one that they believe will help them make their communities better.

The peer leaders' role in vaccine research and development was re-echoed all through the workshop. It was made clear that without peer leaders, there are no volunteers and thus no vaccine researchers.

The Community Development Team, particularly, has been involved in training mainly to nurture initiatives that will introduce the knowledge and skills needed to recruit volunteers and also to generate more awareness in the communities from which the Program recruits volunteers in addition to managing community expectations. In the past, such training has been organized for health professionals like medical doctors, nurses and clinical officers and other professionals like journalists.

VAX Primer: Understanding Home-Based Voluntary Counseling and Testing

How can home-based or mobile services for HIV counseling and testing improve community responses?

Voluntary counseling and testing (VCT) services are a key component of HIV prevention, treatment, and care programs. Individuals learn about behaviors that put them at risk of HIV infection and how they can reduce this risk through the counseling process, and this information can be a catalyst for people to alter their behaviors.

Individuals who undergo VCT also find out whether or not they are HIV infected (see November 2005 *Primer on [Understanding HIV Testing](#)*). VCT services, therefore, are often the primary entry point for infected individuals into treatment and care programs. These important outcomes make VCT programs a critical part of the community's response to HIV/AIDS.

There are various types of VCT services, including those given before enrollment in a vaccine trial or research study or sessions specifically tailored for couples (see April 2005 *Primer on [Understanding Research Voluntary Counseling and Testing](#)* and October 2005 *Primer on [Understanding Couples Voluntary Counseling and Testing](#)*). These almost always occur at community health clinics or clinical trial sites, but the stigma associated with HIV in many communities, as well as the distance people are required to travel to clinics in rural areas, can prevent people from seeking these services on their own. Since VCT is such a powerful tool in getting people information on HIV and access to treatment if needed, researchers have looked for ways to maximize the number of people utilizing these services. One of these approaches is taking VCT services directly to people in their homes or neighborhoods. Such home-based or mobile VCT services, while limited, have been successful in getting more people to be tested for HIV infection.

The process

The VCT services administered in people's homes are conducted similarly to those in clinics. Community healthcare workers

are trained to provide HIV counseling and testing and must obtain consent from all individuals before administering VCT. The only difference is that these healthcare workers go door-to-door offering these services.

Some organizations, such as The AIDS Support Organization (TASO) in Mbale, Uganda, couple their home-based VCT services with at-home care programs. So when field officers deliver antiretrovirals (ARVs) directly to the homes of infected individuals they also offer VCT services to other family members in the household.

Others, like the AIDS Information Centre (AIC) in Uganda, have implemented a stand alone home-based VCT program in an effort to increase the number of people being tested for HIV. National surveys in the country reported that although 70% of people want to be tested for HIV infection, only about 10% have actually participated in VCT.

A pilot project, funded by the US Centers for Disease Control and Prevention (CDC) was started by AIC in 2004 in the districts of Tororo and Busia in Uganda in an attempt to reach as many people as possible in these districts and offer them home-based VCT services. Trained outreach teams visited each home and offered all family members information so they could decide if they wished to participate. Adults in the household were given the choice to receive these services individually, or as couples. Anyone who was found to be HIV infected during this process received referrals to treatment and care programs in their community.

Judging success

Many organizations have found that offering home-based VCT programs is an effective way to increase access to treatment and prevention services. The AIC program lasted for one year and during this time over 5000 individuals received VCT services in their homes, which was more than double the study's target. The outreach teams visited more than 2000 homes in these two districts of Uganda and in 65% of them at least one household member agreed to participate in VCT.

The results of this program were presented at the International AIDS

Society meeting on HIV Pathogenesis and Treatment, which took place last year in Rio de Janeiro, Brazil, and the CDC plans to use this program to create guidelines that will allow additional home-based VCT programs to be started in Uganda.

The AIC concluded that stigma seemed to be much less of an influence on a person's decision to undergo HIV testing when VCT services are administered in the home, instead of in clinics. Home-based VCT services could also be a promising strategy for reaching disempowered individuals, especially women.

Another option is providing just the test results and post-test counseling at home. In settings where rapid tests are unavailable, people sometimes do not return to the clinic to find out the results of their HIV test. In a study conducted by the Medical Research Council in Entebbe, Uganda, researchers found that offering test results in a person's home was an effective way to ensure that people received them.

Mobile units

Another method for bringing VCT services directly to communities is to utilize mobile VCT units. The Foundation Agency for Rural Development, a non-governmental organization in Nairobi, Kenya, uses bicycles to bring VCT to local communities. Four mobile sites are set up in different areas throughout the city and each week several individuals undergo VCT. Like home-based services, these mobile units can reach people who may be unable to travel to a clinic to receive VCT.

From community to country

The most ambitious home-based VCT program is currently taking place in Lesotho, where on World AIDS Day last year the president announced plans to take VCT services door-to-door in an effort to reach every household in the country by 2007. To meet this challenge the government trained 6500 healthcare workers to provide VCT services. Prior to this universal HIV testing initiative, it was estimated that only 1% of the population had accessed VCT.

This article was reprinted from the June 2006 issue of *Vax*, published by the International AIDS Vaccine Initiative (IAVI) www.iavi.org/iavireport.



Did you know?

The AIDS virus has infected more than 39 million people globally, more than 60 percent of them in sub-Saharan Africa. It kills more than 4 million people every year and has killed 25 million people since it was identified in the 1980s.

The United Nations AIDS agency, UNAIDS, estimates that \$11.4 billion will be needed annually for HIV prevention by 2008, more than twice what is now spent.

Preventing the spread of the virus is essential to controlling the disease, even as effective treatment becomes more widely available. The number of people getting medicines in the hardest-hit countries rose by about 450,000 a year between 2003 and 2005, but over the same period, 10 times more people became infected every year. The cost of treating all infected people is estimated to be about \$13 billion a year, assuming the lowest drug prices and no new infections.

THEY SAID IT...



The United Nations' Special Envoy for AIDS in Africa, **Stephen Lewis** - "The quest for a vaccine is the single most important quest in the world. If you want to end the pandemic definitively, conclusively, you need (a) vaccine."



IAVI CEO, **Dr Seth Berkley** - "The current strategies to deal with the epidemic including prevention, treatment and mitigating the consequences are only partially effective and are unsustainable. New prevention technologies are required, and of these, only an AIDS vaccine can end the pandemic...All evidence suggests that a vaccine is possible. There is progress being made. It's slow but it's steady."



Cate Hankins, the United Nations' chief HIV scientist - "With HIV prevention, we may always have to use two methods or more. We don't see anything coming in and trumping everything else. People can't think a vaccine's going to do everything for them."



Prof. David Serwadda, Director of the Institute of Public Health, Makerere University, Kampala - "The development of effective new HIV prevention approaches could help millions avoid crippling illness and death. But unless we prepare now to make new, lifesaving tools accessible in developing countries, this scientific triumph will turn into a moral failure."



Former U.S. President **Bill Clinton** - "The more we learn about the biochemistry, the more frustrating it is. But it's hard to imagine a world totally without AIDS, without a vaccine, if not a cure. So I thank the people that are not too tired to continue this work and not too frustrated who believe there has to be an answer here and are determined to find it."

WORMS, AN INVISIBLE KILLER!

By **Simon Sigirenda**

"My stomach is grumbling, what could that be?" Many people are heard asking.

"Millions of people worldwide are infected by worms that happily live in human bodies for as long as one lives." This was revealed by Sarah Coutinho, a Nurse/Counselor with the UVRI-IAVI HIV Vaccine Program during a Continuous Medical Education (CME) session for UVRI-IAVI staff held on 14th August 2006 at the Trials Unit in Entebbe. Coutinho disclosed that these worms usually enter people's bodies through eating contaminated food and water or through the nose and skin. Sometimes the worms can be inhaled through the nose or passed on through physical contact eg the lice.

"These worms may cause malnutrition, liver failure, weight loss in adults and stunted growth in children and

long term retardation of mental and physical development among other complications," Coutinho revealed, adding that the complications of intestinal worms may be so severe, sometimes to the point of causing death.

Coutinho said that there are many signs and symptoms that can help one to know that infected worms, which are the following; appetite weight; stomach abdominal pain and constipation; cough and fever; vomiting and diarrhoea; anemia due to blood loss, scanty hair, fatigue, depression and lack of concentration. She also outlined the commonest types of worms that infect most people in the tropics as the roundworm, tapeworm, hookworm, whipworm and pinworm. Some of these can grow to an unbelievable



length of 35 meters in our bodies.

We learnt that many times worms affect people due to poor hygiene. To prevent infection therefore, it is important to wash all food, especially fruits and vegetables in clean water before eating; wear shoes or slippers; avoiding use of water from potentially contaminated sources like ponds and streams; proper disposal of urine and stool; provision of clean sources of drinking water and generally maintaining good hygiene at home, work, school, market place etc.

It was a worthwhile session, as Winnie Okura, one of the Trials Unit staff remarked: *"It was good for me personally - so enlightening a talk it was! We need more of these."*

Credit goes to the Clinic staff, especially Sarah Coutinho and Dr Fiona Kalinda for putting together this very informative talk.

Physicians train in Clinical Trial Monitoring

By Dr Annet Nanvubya



Dr Annet Nanvubya (inset) and other participants at the Training.

Fifty eight physicians from disease endemic countries in Africa, Asia, South America, and Eastern Europe were invited by the *Special Program for Research and Training in Tropical Diseases (TDR)* for a Clinical Trial Monitoring course from 18th to 25th August 2006 in Bangkok, Thailand. The selected physicians were those with interest in becoming TDR Clinical Monitors and generally in monitoring clinical trials, with a degree in medicine and experience in clinical research. I was privileged to be among the 58 who were selected out of the more than 200 applicants. Uganda was represented by three participants.

The course aimed at providing physicians with appropriate training in clinical trial monitoring under the principles of Good Clinical Practice (GCP). This introductory course described the roles and responsibilities of Clinical Monitors and their functions through interactive lectures and hands-on workshop training methods, with an emphasis on practical application of the regulations pertinent to clinical monitoring. A practical session saw us visit Mae sot Hospital in Bangkok.

We covered so many topics during the training among which were; regulatory and ethical requirements for clinical research; general clinical research methodology, specifically in reference to drug/diagnostic/vaccine development; adverse events and Serious Adverse Events reporting system; and study site and Ethics Committee audit requirement.

As trainees, we developed skills in various crucial aspects such as; how to conduct pre-study visits including evaluation of the capability of the investigator team and the facilities at identified study sites; how to conduct the study completion visit to certify the completeness of a protocol, recruitment of participants and adequate data recording; how to write monitoring visit reports; to mention a few.

I thank the International AIDS Vaccine Initiative (IAVI) and the *Special Program for Research and Training in Tropical Diseases (TDR)* for all the support they rendered me during the training, for every minute of it was worthwhile ☐

▶ continued from pg 7

The UVRI Strong...

new laboratories and so has MRC. MRC stores are nearing completion and they continue to expand their office building whereas IAVI started building a new storage facility.

Asked on the institute's way forward, Dr Mbidde called on the government and its development partners to adequately support research institutions, which he believes will prompt other players to fund research. He also recommended that the institute should diversify and look beyond the MoH for funding its research activities.

"We're conducting a lot of research to provide evidence to the policy makers at the MoH so that they can implement programs that are evidence-based. However, if we're



BEAUTY AT ITS BEST: The CDC building at the UVRI.

to achieve our goals, there is need to widen our collaborations beyond what we have now. In doing so, we may change the institute's name to one that is more appropriate to the nature of research the institute is conducting," Dr Mbidde revealed.

He lauded the fruitful collaborations within the UVRI and the harmony in which the different programs cut across each other's work. *"We're a family of people with different capabilities and capacities, but working together amicably for a common cause. My sincere gratitude to the top management team that harmonizes the issues that cut across all the programs."*

Dr Mbidde appealed to young people with vigor and interest to join research institutions to ensure a sustainable future of relevant quality research output to the institute and the country at large ☐

UVRI-IAVI Team rediscovers self

By Angelo Kaggwa

It's about 10 O'clock on 29 June 2006, and most of the UVRI-IAVI team members seem to be in a very good and relaxed mood. They move about and chat in small groups as they try to get acclimatized with this unusual environment for a Thursday morning. They should all be at the Unit doing what they do best - hastening the development of a vaccine for the deadly HIV/AIDS, but not on this day. Instead they are laughing, hugging and eating away, at the nice and quiet *Ranch on the Lake*, off Kajjansi, along the Kampala-Entebbe highway. This could only be IAVI's team building day!!

Rafter Cam Mc Leay and his team took good charge of the day. They guided the IAVI team through different tasks, most of which pointed to one thing - teamwork, as the day is meant to appreciate everyone's efforts on this team. The tasks ranged from negotiating obstacles on timber and beer shells to going through cobwebs and solving mystery problems entangled in ropes. Can you imagine! No one could go these alone. Many heads had to be put together to achieve the ultimate goal. Everyone needed someone to lean on.

After breakfast, the team put their brains together to discuss some of the most challenging issues in the previous period. These were later presented in form of a newspaper that had to be "sold" to the "readers". It was so much fun as each of the three groups presented their "newspaper" before the rest of the team members.



PARTY TIME: Our Clinical Program Manager, Andrea von Lieven can really enjoy when there is music!



TEAM WORK DOES IT: The UVRI-IAVI team demonstrates creativity and problem-solving at the team building event.

Some key messages came out vividly through the games played. The entangled ropes for instance helped the team understand that it is impossible to solve a problem one doesn't know. The game also made it clear that it's hard to solve a problem from a distance - one needs to get to the heart of it. It also clearly showed that problems cannot be solved by simply observing - something must always be done to overcome a challenge. Most of the tasks clearly brought out the fact that teamwork is important if any tangible results are to be realized.

After a sumptuous lunch, UVRI-IAVI Principal Investigator, Dr Pontiano Kaleebu formally welcomed three new team members to the IAVI family. First was Senior Trials Physician, Dr Fiona Kalinda, followed by Trials Monitor, Dr Apolo Balyegisawa and finally, Angelo Kaggwa, the Project's Documentation Officer. The new members expressed their delight at joining the team and pledged their allegiance to helping IAVI in its search for the much-needed HIV vaccine.

Cam and his team handed out certificates to each of the team members recognizing their crucial role in the day's activities. Special certificates were handed to those members who, like giraffes, stood

out in the different tasks. Aloysius Semaganda got one for creativity and Anne Marie Namuniina got a special one for her humility and reverence. Samuel Ddumba won a very interesting one - for endurance!

"It's all been exciting and provocative since we've done things we've never imagined we could do. The interaction was healthy since we chatted with people we rarely talk to at the Unit," said Aloysius at the end of the day.

Asked why this day is important, Peter Kiwanuka, the Project Administrator said, "We use this day to celebrate, to find practical solutions to some of our problems, and also to add value to the organization. It refreshes staff; helps us to refocus since it's a self-examination thereby identifying issues that people may not easily bring out at the Unit. It's some kind of SWOT [Strengths, Weaknesses, Opportunities and Threats] analysis. It's a day to appreciate everyone, for everyone's effort is key to IAVI. It can't be work, work and work alone all the time."

Dr Pontiano lauded the idea of having a team building day. "It allows you to discuss and interact on a few things outside the normal work. I liked the game of thanking colleagues. It's not usual to thank people for their individual role in the team," said a buoyant Dr Pontiano. What a day it was for the team - a real rediscovery of self! □