
HIV VACCINES AND THE COMMUNITY

The Community Advisory Board Bulletin

Volume 6, Issue 2 September/October 2003

Special Report: CAB Retreat 2003



(Left) Parrish Marcenaro, CAB representative from Lima, Perú, takes notes during the Scientific Update session on Saturday morning of the CAB Retreat held from August 14–16, 2003 in Seattle, WA. Parrish presented about ways in which a community member can stay abreast of the ever-changing information on HIV vaccines.



(Left) Beverly Jackson, CAB representative from San Francisco, describes how her CAB helped put on a local community forum for the African-American community.

(Below) Robert Hill (left) from Birmingham, Alabama, Christine Stegling (2nd row) from Gaborone, Botswana, and Evelyn Sellers from Washington, D.C. watch Kevin Shancady's presentation on how to review a protocol. The session was intended to give participants the tools to review a protocol and an informed consent document. Retreat presentations were developed in a train-the-trainer format. Prior to arrival, participants agreed to lead at least two local trainings, one of which would occur before the HVTN Full Group Meeting held from October 22–24, 2003 in Seattle, WA.



(Above left to right) Kagiso Tlhobogang, from Jwaneng, Botswana, and Nedson Chilembwe, from Blantyre, Malawi, listen to presenters Serenity Enriquez and Beverly Jackson outline some of the issues and barriers adolescents may face during their involvement in HIV vaccine trials. Currently, the Network is not testing in adolescents.

Retreat Attendees Examine Ethical Issues

By Thomas Gibson, CAB member at-large

The HVTN CAB Retreat 2003 included a discussion on ethical considerations in HIV preventive vaccine research. The goal of the presentation was to help attendees gain skills in leading a conversation on ethics with their local CAB.

A vaccine trial must be conducted ethically in order to be successful and to protect the rights of participants. CAB members can make a difference by bringing ethical issues to the attention of the study staff. We learned that CAB members do not have to be experts in the field of ethics in order to lead a discussion on them. Although most can agree that some things are “right” and some things are “wrong,” there are a lot of things that are somewhere in between. CAB members can contribute to the success of vaccine trials by identifying these gray areas and commenting on whether they believe the methods of conducting a trial seem appropriate.

Each attendee was required to read certain materials prior to the retreat. One of these readings was a document originally created by the Gaborone, Botswana HVTU for a full-day workshop entitled *Understanding Some of the Challenges in the Process of Developing Informed Consent in Botswana*.

The discussion of the article began with how different perceptions on individuality, community, and authority vary from country to country, and even within a country.

One person noted that authority figures in Botswana (i.e., police, teachers, doctors, clergy) are treated above the law and go unquestioned. Interestingly, U.S. folks typi-

The article noted that the concept of “Botho” is the deeply rooted notion of the sense of belonging that is central to the Tswana culture. Interactions with others in the community are central to one’s identity.

cally treat these authoritative figures with caution.

The article noted that the concept of “Botho” is the deeply rooted notion of the sense of belonging that is central to the Tswana culture. According to Botho, one’s identity emerges

out of the good things that one does for the community. Interactions with others in the community are central to one’s identity. It is believed that a group is as important as the individual.

Interestingly, many of the African attendees (representing three different sub-Saharan countries) had similar concepts within their respective cultures. In fact, one mentioned that a concern with this social contract is that some people may

join vaccine trials because of their desire to please the community. In other words, community members may participate in a trial because they believe that a vaccine is a community need, even though they are neither interested in the trial nor interested in learning about the risks and benefits of participation. Countries outside of Africa, such as Thailand, also have societal concepts similar to Botho.

The discussion proceeded to focus on a document published by UNAIDS titled *Ethical Considerations in HIV Prevention Vaccine Research*. This document discusses 18 different ethical considerations. Each consideration is extremely detailed, yet offers some brief and understandable “guidance points.” It is clear that such guidance points can be used by CABs to learn more about ethics, as well as to help analyze vaccine protocols. Retreat attendees were given a copy of the UNAIDS booklet in hopes that they could choose a few of the guidance points that they believe would be of particular interest to their community. This would allow for a community-specific ethical discussion at a local CAB meeting.

Hopefully, local CABs will have the opportunity to review and discuss the Botswana article, the UNAIDS booklet on ethics, and an “ethics quiz” that was distributed to attendees. Please speak with your CAB representative that attended the CAB Retreat to view these documents. Enjoy! ☘

Ethical considerations in HIV preventive vaccine research

UNAIDS guidance document



This document can be found online at www.unaids.org in four languages or you can order this free booklet by sending an e-mail to mirandaa@unaids.org.

Highlights from Retreat: CAB and Research Participant Diversity

By Benjamin Perkins, Community Relations and Program Manger, Boston HVTU

Community educator Benjamin Perkins and Soweto CAB member Gloria Malindi led a discussion about CAB and research participant diversity issues. The discussion began with these three questions:

- What is diversity?
- What kinds of diversity are there?
- Is it important? Why?

The purpose of the discussion was to give retreat attendees an overview of the issues so that each participant could lead a discussion with his/her local CAB on the challenges and opportunities posed by the issue of diversity. The session raised some serious questions about the nature and importance of diversity. Ultimately, the goal is for CAB members to have a solid understanding of their site-specific diversity concerns so they can better advise their site on recruitment and CAB diversity.



Ben Perkins and Gloria Malindi

Diversity within the Soweto Context

Focusing on experiences from the Soweto CAB, Gloria gave retreat attendees an overview of the specific challenges faced by CAB members and the Soweto community at large. Such challenges included the enormous incidence and prevalence of HIV as well as social problems such as alcoholism, drug abuse, and teen pregnancy. Gloria also mentioned the social, psychological, and spiritual effects of generations of racism and colonialism. All of these variables factor into the landscape of South Africa in general, and Soweto in particular.

How is the challenge of diversity met in the Soweto CAB? Gloria answered this question by speaking about the strategies they employ, including recruiting people into voluntary counseling and testing, holding vaccine discussion groups (a place where community members can be educated about the current state of HIV vaccine research), other workshops, community forums, and awareness/consciousness raising efforts. These efforts must take into consideration differences in age, social standing, race, educational level, medium of communication, and other variables.

Transformative Model of CAB Membership

One critical element of the Soweto CAB is its philosophy on a “transformative approach.” Simply put, when CAB mem-

bers are recruited they are asked about their background, hopes, and goals. The CAB believes that in order to obtain the best possible CAB member, it is critical to understand that each individual has a personal story that has made him/her decide to join the CAB. Also, the Soweto CAB recognizes that participation on the CAB will impact other parts of each person’s life. This interaction is transformative, bringing about change in the individual’s life and the CAB as a whole. More importantly, one might argue, the goal of this philosophy is to create model citizens, individuals who can and do participate in all aspects of society.

Role of Soweto CAB

CAB members play an integral part in ensuring that clinical trials are ethical and that the respective communities are protected. As such, CAB members come from many walks of life to ensure adequate participation from a range of community groups. However, the CAB does understand that its role is to advise and not to actively recruit participants.

Key messages

After many questions about the Soweto CAB and its operations, the discussion closed with Ben suggesting that there were at least three key messages that individuals should take away from the discussion:

- * **Diversity issues are different for different sites (context-driven).** As such, each site has its own particular strengths and challenges.
- * **Diversity presents both challenges and opportunities.** In other words, diversity has tremendous benefits, but one needs to be realistic and understand that diversity is often a continual struggle. We need to be aware of both, and do our best.
- * **Diversity is a journey, not a destination.** Because there are countless ways to understand and define diversity, one never really “arrives” at diversity; there is always more work to be done. Yes, it is important for us to celebrate our successes with CAB and trial participant diversity, but we must always be humble knowing that we are undoubtedly leaving someone behind. ☘

HVTN Trial Update: Three new HVTN protocols set to begin

By *Lisabeth Bull, HVTN Administrative Assistant*

After a long period of planning, the HVTN has begun to achieve a steady pace of trial inaugurations. In the last bulletin, we detailed three trials that started in recent months, and now we are presenting three more trials that are soon to begin. After a burst of activity internationally with our past three trials, all of the trials discussed below will only be conducted in the continental United States

Two of the vaccine trials use products developed by the Vaccine Research Center (VRC). Like the HVTN, the VRC was founded and is supported by the U.S. government's National Institutes of Health (NIH). The VRC is a research institution that works to develop candidate HIV vaccines. Since both the VRC and the HVTN were created by the NIH to help speed the work of developing an HIV vaccine, the two have a close relationship.

The VRC is testing several variations of its DNA plasmid vaccine to find out which variation of this vaccine candidate will be most likely to work. HVTN 044 will test to see whether the vaccine candidate will produce a stronger immune response when combined with an adjuvant (something that helps the vaccine work in the body). The other VRC trial, HVTN 052, will test to see if the vaccine candidate produces a stronger immune response in two or three doses.

As the HVTN continues to launch Phase I trials, it will become common to see multiple trials that investigate slight differences in a single vaccine candidate. This process allows investigators to compare variations that might effect how the vaccine works or how it is given. Phase II and III trials can then proceed with the vaccine candidates that are easiest to administer and for the body to tolerate as well as those that produce the strongest immune response.

The third trial planned to start within the next few months is HVTN 049, which has been developed by Chiron Corporation. This vaccine uses a prime-boost strategy, where an initial vaccine is given to "awaken" the immune system followed by a second vaccine that ignites an immune response. In this particular case, the prime is a DNA plasmid while the boost vaccine is based on a recombinant protein. The trial itself has a complicated structure that will simultaneously test different dose amounts and combinations.

The prime-boost strategy is another protocol variation that people will hear more about as the HVTN adds to its list of ongoing trials. HIV is a very complicated virus, and there is a

strong belief that any effective vaccine will need to stimulate the immune system in multiple ways. The prime-boost strategy, which allows for different vaccine approaches to be combined, has shown some promise in animal models.

HVTN 044	
VRC	DNA plasmid/ cytokine adjuvant
4 dose amounts	
8 injections in 8 months 1 year follow-up	2 injections per visit 1 per arm
70 participants	23 per site
3 sites	Baltimore, MD Boston, MA New York, NY

The main part of the vaccine candidate for HVTN 044 is called VRC-HIVDNA009-00-VP. While this name is longer than might seem practical to non-scientists, it helps investigators understand the vaccine candidate. This product is a DNA plasmid vaccine, in which the plasmid 'holds' synthetically-produced HIV genes (in this case *gag*, *pol*, and *nef* from clade B HIV, and *env* from clades A, B, and C).

The trial will test the DNA plasmid vaccine candidate by itself and with the adjuvant. There will be two control groups, one that receives a placebo and one that receives only the adjuvant (no vaccine). Seventy people will participate with about 23 per site. The study will take a total of about two years and will be conducted at three U.S. sites.

HVTN 052	
VRC	DNA plasmid
1 dose amount	2 versus 3 dose schedule
2-3 injections in 12 months/ 1 year follow-up	
180 participants	

HVTN 052 uses the same DNA plasmid vaccine candidate used in HVTN 044. This trial, however, will look at the different dose schedules that might be used. Scientists look for a way to give the fewest injections possible while still deliver-

(Three New HVTN Protocols: Continued on page 7)

Notes from the Retreat: How to Review a Protocol

By Andrew Lambert, HVTN International Projects Manager

In previous issues of the HVTN CAB Bulletin, there were two articles to help community members understand how a protocol is developed and the process by which CABs have access to protocols. This article focuses on how to review the protocol itself, once it has received FDA approval and has been sent to the local site's Principal Investigator (PI). But first, a brief recap on the stages of protocol development and where community members have a voice in the whole process.

PROTOCOL DEVELOPMENT

STAGE	COMMUNITY INPUT
<i>Informed Consent Working Group (ICWG):</i>	The ICWG has two CAB members that assist in updating the informed consent template. This template is the foundation used to develop all HVTN protocol informed consents.
<i>Protocol development:</i>	Two CAB members sit on each protocol team with at least one representative present at the face-to-face meeting. At the meeting, the CAB rep, along with other protocol team members, focuses on creating a protocol specific informed consent document using the template. The two CAB members are also expected to sit on the Protocol Working Group and be available to answer any questions a local CAB may have regarding the protocol.
<i>FDA approval and final protocol sent to site PI:</i>	The sites can make further changes to the informed consent to meet their own institutional and regulatory requirements. CABs have the opportunity to look at the site-specific informed consent and give feedback to the Principal Investigator before it is submitted to the local IRB (Institutional Review Board).

Knowing there has been community input from the beginning of the protocol development process, a CAB member may ask, "What is my role as an individual CAB member in looking at the local informed consent document?" One very important role of a CAB member is to help the site improve its ability to make sure participants understand the study for which they are being asked to volunteer. One of the best ways to do this is to look at the informed consent as if one were a potential participant—reading it for understanding, clarity, and cultural appropriateness. Being able to point out these unclear aspects of the informed consent to the local PI and staff helps the site improve its ability to better inform and educate potential participants. Below is a guided list of questions a CAB member could use when reviewing an informed consent.

What is the purpose of the study?	<input type="checkbox"/> How could this vaccine candidate help prevent HIV/AIDS?
What is the length of the study?	<input type="checkbox"/> How long will the study participant be involved? <input type="checkbox"/> When will study results be available to the participant? <input type="checkbox"/> What information will be available to the participant during the trial?
What is the control group?	<input type="checkbox"/> What educational efforts will be used for both vaccine and control recipients? <input type="checkbox"/> What are the anticipated risks for either group?
What are the inclusion/exclusion criteria?	<input type="checkbox"/> Who is eligible to participate? Are there any groups excluded that should not be? <input type="checkbox"/> Are there aspects that make participation difficult for any particular group? <input type="checkbox"/> Do they seem reasonable? How could they be changed?
How often are clinic visits?	<input type="checkbox"/> What is included in the visits? How long will they take? <input type="checkbox"/> Are the descriptions of clinic visits clear?
Is the participant be compensated for participation?	<input type="checkbox"/> What will he/she be given? <input type="checkbox"/> Is it reasonable? Coercive? Appropriate for community standards?
How will the participant be protected?	<input type="checkbox"/> What are the non-medical risks? <input type="checkbox"/> Who supervises the trial?
How will protocol amendments be handled?	
When and where is the trial being conducted?	
What does the vaccine candidate contain?	<input type="checkbox"/> Why is the product believed to be safe? Has it been given to humans before?
What happens to volunteers if they become HIV-infected because of their behavior during the trial?	

(How to Review a Protocol: Continued on page 7)

O Comitê de Acompanhamento Comunitário de São Paulo — The São Paulo CAB

Por Judit Lia Busanello e Cristiane Goncalves, Núcleo de Educação Comunitária

O Estado de São Paulo é responsável por quase 50% dos casos de AIDS notificados no Brasil. O Programa Estadual de DST/AIDS de São Paulo iniciado em 1983 foi a primeira resposta governamental à epidemia no País. O HVTU de São Paulo localiza-se no Centro de Referência e Treinamento em DST/AIDS (CRT) que desde 1988 é a sede da Coordenação do Programa de DST/AIDS da Secretaria de Estado da Saúde de São Paulo.

O CAC de São Paulo está constituído desde o ano de 2000, quando a HVTU-São Paulo, ainda não desenvolvia nenhum protocolo específico do HVTN.

A constituição do CAC se deu baseado nas relações já existentes de articulação e parceria com as ONGs que atuam na luta contra a Aids, desenvolvidas pelo CRT e pela CE de DST/Aids. Mesmo que o HVTU não tenha efetivado nenhum protocolo com produto vacinal e o CAC não esteja acompanhando diretamente o Projeto HM (Pesquisa Sócio comportamental: Viabilidade de Testes de Vacinas Anti-HIV/Aids Entre Homens e Mulheres Heterossexuais sob Alto Risco no Rio de Janeiro e em São Paulo, Brasil) ele se manteve ativo e participativo desde sua constituição.

Os membros do CAC fazem parte, em sua maioria, de importantes organizações da reconhecida história brasileira de combate a epidemia. Atualmente, há sete participantes, representando o Fórum de ONGs Aids do Estado de São Paulo, o GAPA, o CEP/CRT (Comitê de Ética e Pesquisa do CRT), a Ouvidoria do CRT, o Fórum que reúne instituições que trabalham com prevenção entre HSH



(Homens Que Fazem Sexo com Homens). Contamos também com um membro que faz parte do Global CAB do HVTN.

Há representações do Fórum de ONGs/Aids-SP, que é uma instância que congrega mais de 100 instituições de todo estado. Esse é um espaço político importante de articulação e decisão. A sede do CAC está se estabelecendo na sede do Fórum de ONGs.

No ano de 2002, o CAC de São Paulo contribui com as atividades da equipe de pesquisa da unidade e participou dos dois encontros anuais do HVTN. No corrente ano, destaca-se a participação dos membros na avaliação do termo de consentimento livre e esclarecido do protocolo 050 que será iniciado no mês de outubro.

Para o resto deste ano e para o ano de 2004, há diversas atividades onde a participação do CAC será efetiva. Dentre elas, destacamos os seminários temáticos para discussão dos aspectos éticos, sociais e biológicos que envolvem protocolos de vacinas.

Trata-se de um CAC atuante, com acúmulo importante de conquista na história do combate da epidemia no país, tornando a experiência de São Paulo diferenciada por poder contar com o acompanhamento de um CAC com estas características. ✂

By Judit Lia Busanello and Cristiane Goncalves, Community Educators

Approximately 50% of all documented cases of AIDS in Brazil occur within the state of São Paulo. The State Program on STD/AIDS of São Paulo, which initiated its activities in 1983, represented the first governmental response to the epidemic in the country.

The São Paulo HVTU is located in the Center of Reference and Training on STD/AIDS (CRT). Since 1988, CRT has been the headquarters for the State Program on STD/AIDS of São Paulo.

The São Paulo CAB was developed in 2000 at a time when the São Paulo HVTU did not have any active HVTN protocols. The creation of the CAB was facilitated by positive previous relationships between CRT and the non-

(The São Paulo CAB: Continued on page 7)

(The São Paulo CAB: Continued from page 6)

governmental organizations (NGOs) that work to fight against AIDS. The CAB has been active and productive since its foundation, even though the HVTU is not currently conducting an HIV vaccine trial. The CAB did get a chance to provide input into a study called Project HM (Social Behavioral Research: Feasibility of HIV/AIDS Vaccine Trials in High Risk Heterosexual Men and Women in Rio de Janeiro and São Paulo, Brazil).

The majority of CAB members come from important and renowned organizations that combat the AIDS epidemic. Currently, the CAB is composed of seven members representing the Forum of AIDS NGOs of São Paulo, GAPA, the CRT Ethics Committee, the CRT *Ouvdoria*, and the Forum of MSM organizations. The CAB also has a member who regularly participates on the HVTN Global CAB.

In 2002, the São Paulo CAB participated in various research activities as well as two HVTN Full Group Meetings. This year, CAB members reviewed the informed consent document for protocol HVTN 050, a trial that is set to begin in October. Next year, the CAB has planned some diverse activities, including thematic seminars that will focus on ethical, social, and biological aspects of HIV vaccine trials.

The São Paulo site has the privilege of having an active CAB formed by members who have a long history and many conquests in the fight against AIDS. ✂

(How to Review a Protocol: Continued from page 5)

It is also recommended that local CAB members hold a role play with local site clinicians to experience the informed consent process. A mock consent session will allow the CAB to get an idea of what type of information a volunteer is given prior to signing the informed consent document and agreeing to participate. This scenario will also give CAB members a better comprehension of how the trial will be conducted and allow them to suggest other methods of explaining the trial to a potential participant (i.e., visual depictions, demonstrations, metaphors, etc.).

Concurrently, the site staff will obtain valuable practice and advice on how to improve their ability to help potential participants understand a trial. In short, CAB meetings can be used to make sure members are informed about upcoming trials at their site, while working together with site staff to arrange time to review informed consent documents in a timely manner that works for everyone. ✂

(Three New HVTN Protocols: Continued from page 4)

ing a safe and effective vaccine. The trial will test two injections of four milligrams of the vaccine versus three injections of the same quantity of the vaccine.

There will be 180 participants in HVTN 052. No adjuvant will be given. The trial will run in the continental U.S., with sites yet to be identified. The trial will last about two years.

HVTN 049

Chiron Corp.

DNA/PLG and recombinant protein

3 dose amounts

2-part trial with 8 groups

4-5 injections in 9 months

168 participants

17 per site

The vaccine product for HVTN 049 consists of two parts. The prime part is a DNA vaccine. Unlike the other two trials, pieces of HIV DNA are ‘carried’ into the body by tiny particles called PLG (polyactide coglycolide). The PLG helps the body recognize the DNA pieces. The boost part of the vaccine candidate is made from a protein called gp140. This protein, which is found on the outer coat of HIV, will hopefully lead the body to create an immune response against the virus. Combining DNA and protein vaccines into one may create both a cellular and neutralizing antibody response.

HVTN 049 will include 168 people, with about 17 people per site. It is a two-part trial; Part A includes about 36 people in three different groups and will test for the best dosage of the DNA vaccine while Part B includes 132 people in four groups and will test for the best schedule. ✂

UNDERSTANDING DNA VACCINES

DNA is made up of a long series of genes. Most current HIV vaccines use individual genes cut out of the DNA. These individual genes then produce proteins that help the body learn how to recognize and hopefully fight HIV.

In DNA vaccines, the genes are usually either used by themselves (these are called ‘naked DNA’ vaccines) or inserted into DNA plasmids. DNA plasmids are small, ring-shaped DNA molecules, and scientists can stitch the HIV genes into them. Plasmids can reproduce efficiently, creating a large quantity of inserted HIV genes. These genes make proteins that may produce a strong immune response. In addition to these methods, scientists sometimes use additional strategies to help carry and express the DNA (gene) material.

Rochester CAB Member Tackles the Taboo of HIV and the Church

As published in the Kaisernet-work.org daily report on August 12, 2003, more than 10 churches in Rochester, Syracuse and Buffalo, participated in the statewide program "Breakthrough Sunday 2003" designed to raise HIV/AIDS awareness in the African-American community. The Buffalo-based GROUP Ministries, Inc. organized this event in which several pastors agreed to be tested for HIV in front of their congregation. The initiative was prompted by the rising number of HIV/AIDS cases in the African-American community, according to Michelle Boyd, community organizer for GROUP Ministries. African Americans account for 54% of all new HIV infections and 75% of new HIV infections among heterosexuals in the United States, even though they represent only 12% of the U.S. population.



Don Bruner, Rochester HVTU CAB member and Executive Director of the Black Men Latino Men Health Crisis, Inc.

The events in Rochester, NY were made possible through the work of two pastors and HVTU CAB member Don Bruner, whom among others, helped to organize multiple black ministries and several local HIV service provider agencies. On August 10, over 400 people attended Sunday morning services in Rochester and a total of 86 individuals volunteered to be HIV tested following the sermon. While the results were not given out immediately, those who were tested also received free HIV vaccine research information and encouragement to consider taking part in local HIV vaccine research efforts.

"The church is the nucleus of the community, of the city. HIV can affect people outside the church and inside the church," said one of the participating pastors. Plans are underway for expanding this event into a national "Breakthrough Sunday" in 2005. Other churches interested in joining the effort should call GROUP Ministries, Inc., Buffalo NY, at (716) 883-4367. ☘

CALENDAR OF EVENTS

CAB PROTOCOL WORKING GROUP CONFERENCE CALL:

Friday, October 3, 2003, 11 a.m. E.T./ 8 a.m. P.T.

Friday, November 7, 2003, 11 a.m. E.T./ 8 a.m. P.T.



GLOBAL CAB CONFERENCE CALL:

Thursday, October 9, 2003, 11 a.m. E.T./ 8 a.m. P.T.

Thursday, November 14, 2003, 11 a.m. E.T./ 8 a.m. P.T.



COMMUNITY EDUCATION/RECRUITMENT COORDINATION CALL:

There will not be a call in October due to the Full Group Meeting

Tuesday, November 18, 2003, 12 p.m. E.T./ 9 a.m. P.T.



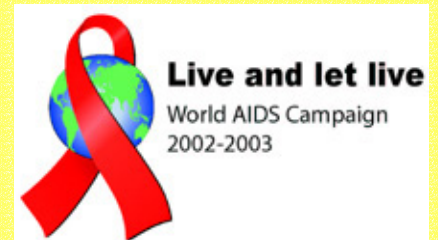
World AIDS Day—December 1, 2003

"Live and let live" is the slogan of the two-year World AIDS Campaign 2002-2003, which will focus on eliminating stigma and discrimination.

Stigma and discrimination are the major obstacles to effective HIV/AIDS prevention and care. Fear of discrimination may

prevent people from seeking treatment for AIDS or from acknowledging their HIV status publicly. The Campaign will encourage people to break the silence and the barriers to effective HIV/AIDS prevention and care (www.unaids.org).

Although World AIDS Day is not an HVTN-sponsored event, the Network does believe it is an important date and an excellent opportunity to talk to communities about the epidemic and the importance of voluntary testing. Eliminating stigma will be crucial if we are to persuade millions around the world about the need for HIV vaccine trials. ☘



Please send suggestions, questions, and article submissions to:

Seth Greenberg, Special Projects Coordinator
HVTN/FHCRC, 1100 Fairview Avenue North

P.O. Box 19024, Mailstop: J3-100

Seattle, WA 98109-1024

greenberg@hvttn.org



HIV VACCINE
TRIALS NETWORK