



# ALLIANCE FOR MICROBICIDE DEVELOPMENT

**04 April 2008, Volume 9, Number 14**

The Alliance for Microbicide Development *News Digest* is an **unedited** compilation of:

- Media coverage of microbicides;
- Abstracts of articles on microbicides and relevant science in peer-reviewed journals;
- Material on other reproductive health and HIV prevention technologies, including HIV vaccines; and
- Matters of policy and politics with importance for microbicide research, development, and advocacy.

Its purpose is to:

- Raise awareness around the range of opinions and information about microbicides disseminated in the press and scientific journals; and
- Provide a neutral, objective basis for decision-making and evidence-based advocacy.

The *News Digest* is produced in a web-based format. Readers can view complete issues of the Digest or search by keyword for individual articles at <http://www.microbicide.org/publications/>. If you would like to be removed from the *Digest* distribution list, please send an email to [digest@microbicide.org](mailto:digest@microbicide.org). We welcome comments, questions, and ideas about other microbicide-relevant topics we might cover, services we might provide, and better ways of providing them!

## **Areas covered in this News Digest:**

### **1. MONTHLY MICROBICIDE PIPELINE UPDATE**

- [April 2008](#)

### **2. ALLIANCE UPDATES AND COMMUNITY NEWS**

- [Multiple Digest Emails](#)

### **3. MEDIA COVERAGE OF MICROBICIDES**

- [Ideology distorts AIDS funding bills](#)
- [Social values could hold key to HIV prevention](#)
- [And now here is the virus forecast](#)
- [A-mazing antibodies](#)

#### **4. PUBLISHED RESEARCH: MICROBICIDE-SPECIFIC**

- Acceptability of tenofovir gel as a vaginal microbicide among women in a phase I trial: a mixed-methods study
- Dilution of microbicide gels with vaginal fluid and semen simulants: effect on rheological properties and coating flow
- Effects of physiological fluids on physical-chemical characteristics and activity of topical vaginal microbicide products
- Polyurethane intravaginal ring for controlled delivery of dapivirine, a nonnucleoside reverse transcriptase inhibitor of HIV-1
- PRO-2000, an antimicrobial gel for the potential prevention of HIV infection
- Risk compensation in HIV prevention: implications for vaccines, microbicides, and other biomedical HIV prevention technologies
- VivaGel (SPL7013 Gel): a candidate dendrimer-microbicide for the prevention of HIV and HSV infection

#### **5. PUBLISHED RESEARCH: RELEVANT BASIC AND TRANSLATIONAL SCIENCE**

- Building community partnerships: case studies of Community Advisory Boards at research sites in Peru, Zimbabwe, and Thailand
- Improving defences at the portal of HIV entry: mucosal and innate immunity
- Long-term drug prevention trials
- Maintaining confidentiality of interim data to enhance trial integrity and credibility
- The HIV-1 envelope glycoprotein GP120 features four heparan sulfate binding domains, including the coreceptor binding site

#### **6. EPIDEMIOLOGY**

- Nigeria: 61 percent of new HIV/AIDS infections are women-NACA

#### **7. HIV/AIDS VACCINES**

- Grim outlook for an AIDS vaccine
- Vaccine partnerships to tackle neglected diseases

#### **8. OTHER PREVENTION APPROACHES**

- Malawi launches youth sexual health and HIV action plan
- HIV-positive women not likely to reveal condition
- China launches nationwide AIDS prevention program
- Cuba: Women talk to women about HIV/AIDS prevention

#### **9. NON-HIV STIS AND REPRODUCTIVE HEALTH**

- Screening for genital and anorectal sexually transmitted infections in HIV prevention trials in Africa

#### **10. POLITICS AND POLICY**

- Report claims clinical trials miss many populations
- Tender for female condoms withdrawn
- Uganda: Bukonya roots for condom machines
- Deadly denial - confronting AIDS in Asia

## 11. HIV/AIDS FUNDING

- House votes to continue and expand President's global effort against AIDS

## 12. ANNOUNCEMENTS

- Miriam K. Were Awarded the Hideyo Noguchi Africa Prize 2008
- Modern Mucosal Vaccines, Adjuvants, and Microbicides

## 1. MONTHLY MICROBICIDE PIPELINE UPDATE

April 2008

[www.microbicide.org](http://www.microbicide.org)

The most recent summaries of Ongoing and Planned/Funded Clinical Trials are now available on the Alliance homepage.

- **Microbicide** Candidates in Ongoing Clinical Trials: Summary as of April <http://www.microbicide.org/microbicideinfo/reference/Microbicide.Ongoing.Clinical.Trials.Summary1Apr08.pdf>
- **Microbicide** Candidates and Ancillary Devices in Planned and Funded Clinical Trials: Summary as of April 2008 <http://www.microbicide.org/microbicideinfo/reference/Microbicides.Planned.Funded.Clinical.Trials1Apr08v2.pdf>

Currently, there are 12 **microbicide** candidates in clinical development and over 40 confirmed products in preclinical development. As a continued effort to maintain the most up-to-date information, we urge you to visit the Alliance website at [www.microbicide.org](http://www.microbicide.org) or contact Stephanie Tillman, Alliance Writer/Research Associate, by email ([stillman@microbicide.org](mailto:stillman@microbicide.org)) or by phone (301-587-3302) with any updates, questions, or comments.

[Return to Table of Contents](#)

## 2. ALLIANCE UPDATES AND COMMUNITY NEWS

### Multiple Digest Emails

**EDITOR'S NOTE:** *Due to a technical problem, multiple past Digest issues may have been sent out to members of the Alliance listserv. Please excuse the duplication and know that we are working to resolve the problem.*

[Return to Table of Contents](#)

### 3. MEDIA COVERAGE OF MICROBICIDES

#### "Ideology distorts AIDS funding bills"

**Date:** 30 March 2008

**Source:** *Baltimore Sun*

**Author(s):** Serra Sippel

<http://www.baltimoresun.com/news/opinion/letters/bal-ed.le.30mmar30,0,5735199.story>

*Letter to the Editor*

Without pitting HIV prevention budgets against research budgets for vaccines and **microbicides**, it is important to recognize that effective interventions for combating global AIDS exist now ("Enough is enough," Opinion - Commentary, March 25). However, the lack of political will to initiate such interventions could prove fatal to those efforts.

Legislation to reauthorize the President's Emergency Plan for AIDS Relief has been introduced in both the House and Senate. But public response to both bills has largely ignored dangerous, ideologically driven funding restrictions within these bills.

In their current form, both bills include directives that would require organizations receiving U.S. HIV-prevention assistance to give a disproportionate share of money to programs that stress abstinence and fidelity rather than condom use as a way to fight AIDS.

The Senate bill fails to recognize family planning as a key component in the prevention of HIV.

The House bill would limit funding for programs that integrate family planning services with HIV testing, counseling and education to organizations that currently receive U.S. family planning funding.

Those organizations must comply with the "global gag rule" that denies any U.S. assistance to organizations that use their own funds to practice or provide counseling about abortion.

U.S. taxpayer dollars should be used to promote sound, effective, evidence-based strategies for HIV prevention rather than ideological approaches that curry favor with a particular political base.

Our senators and representatives should go back to the drawing board and make urgently needed corrections to the proposed legislation that would save more lives.

#### "Social values could hold key to HIV prevention"

**Date:** 28 March 2008

**Source:** *Cape Times*

**Author(s):** Dominique Herman

<http://www.capetimes.co.za/index.php?fArticleId=4323680>

The billions spent on failed biological tools to stop HIV infection, such as **microbicides**, should rather have been spent on "human behavioural stuff", according to the president of the Southern African HIV Clinicians Society, Francois Venter.

"We have to fix human behaviour. The solution to the HIV crisis is probably in our social values," Venter said in a hard-hitting talk in Cape Town on Wednesday night.

It was estimated that half of all South Africans will eventually be infected with HIV and this showed how the prevention policy had failed. The failure was due to healthcare workers not offering patients what they needed, but preaching "a moral message" of stopping smoking, better nutrition and "believing in Jesus".

Consequently, three-quarters of those who tested positive were lost to follow-up, until their white blood cell counts dropped to a critical point and they returned desperately ill. "When are we going to start offering something that patients value?" Since anti-retroviral therapy (Art) roll-out, there had been 1.8 million new infections. There were four new infections for every one person starting on Art.

"What is going on that we will be treating in 10 years someone who is infected tonight? We need an emergency approach to prevention. There is not a single hint at the moment that the HIV rate is going down, except maybe in teenagers," he said.

In South Africa, half of all deaths a year were Aids-related. By 2025, the best forecast for life expectancy would be 59 years and the worst 50 years. The fact that there would be two million Aids orphans by 2010 was an "absolute national catastrophe and crisis by itself" - especially considering there was no social welfare system in place to deal with it.

While promoting the use of condoms was the major thrust of the HIV prevention campaign in South Africa, people were still not registering that they had to use them every time they had sex. And there was no focus on the high risk groups: married women and widows.

"We do not understand the sexual dynamics of this country," Venter said.

Only 2% of the population have tested for HIV.

"Everybody thinks they're immune," he added. Four-fifths of those with HIV in the world lived in southern Africa and one-fifth in South Africa.

A World Health Organisation report recently warned that the world "must be scared" if South Africa does not get its HIV problem right, he said. Another future problem was that while medicine took care of tuberculosis, pneumonia and gastroenteritis - the top three killers in South Africa apart from Aids - there would be "a flood" of cardiovascular diseases from the fourth and fifth top killers - the lifestyle diseases, hypertension and diabetes.

## "And now here is the virus forecast"

**Date:** 21 February 2008

**Source:** *The Economist*

[http://www.economist.com/science/displaystory.cfm?story\\_id=10717931](http://www.economist.com/science/displaystory.cfm?story_id=10717931)

On February 18th a glimmer of hope died. The Population Council, a big international charity, announced the results of one of the largest trials yet undertaken of a vaginal **microbicide** intended to protect the user from infection with HIV, the virus that causes AIDS. It failed. Carraguard, whose principal ingredient is a gel derived from seaweed, proved no more effective than a placebo in an experiment involving 6,000 South African women.

AIDS kills over 2m people a year. A way of stopping it spreading is urgently required. Yet according to Nathan Wolfe, a virologist at the University of California, Los Angeles, things need never have got this bad. If there had been, in the 1970s, a programme searching for unrecognised diseases in Africa then AIDS would have been noticed long before so many people had started dying from it. **Microbicides** and other interventions could have been tested when only hundreds of thousands were infected, rather than tens of millions. AIDS would still have been horrible, but not nearly as horrible as it has become.

To try to stop this happening again, Dr Wolfe is attempting to create what he calls the Global Viral Forecasting Initiative (GVFI). This is still a pilot project, with only half a dozen sites in Africa and Asia. But he hopes, if he can raise the \$50m he needs, to build it into a planet-wide network that can forecast epidemics before they happen, and thus let people prepare their defences well in advance.

Dr Wolfe outlined his ideas, and the research that has led him to believe they are feasible, to this year's meeting of the American Association for the Advancement of Science (AAAS) in Boston. He began his work nearly a decade ago in Cameroon, in a project reminiscent of the 19th-century animal-collecting expeditions that pushed into the forest to look for new species. Except that his quarry is viruses, not butterflies and birds.

...

**EDITOR'S NOTE:** *The full text of this article is available for public access at the above website.*

## "A-maizing antibodies"

**Source:** *Science*. 2008 Mar 28;319(5871):1735.

**Author(s):** Lisa D Chong

<http://www.sciencemag.org/cgi/content/full/319/5871/1735c>

Monoclonal antibodies that block the binding of HIV to cellular receptors have been shown to neutralize the virus in vitro, to protect monkeys from HIV challenge, and to prevent viral transmission through mucosal tissue. But such antibodies can be produced only at high cost and low capacity through expression in mammalian cells and are

therefore not optimal for commercial manufacture. Two studies describe the purification of the anti-HIV antibody 2G12 from genetically engineered maize on a large and cost-effective scale. Rademacher et al. used a fluorescent marker protein to identify and breed transgenic plants that accumulated a high amount of 2G12 in the seed endosperm, the plant's specialized storage tissue. Ramessar et al. purified the antibody from 2G12-expressing maize without using protein A-affinity chromatography, a step typically used for antibody isolation, but toxic if protein A leaches into the final product. Despite differences between mammalian and plant-specific processing of protein-linked carbohydrate, both studies found that glycan modification of maize-produced 2G12 antibodies did not alter antibody binding to the gp120 subunit of the envelope protein of HIV. The HIV-neutralizing properties of mammalian cell- and maize-produced 2G12 were comparable, with the latter being somewhat more potent. Maize-produced 2G12 could be an effective prophylactic mucosal **microbicide**, and large-scale plant cultivation and prolonged seed storage in the absence of cold temperatures make this method of antibody production economically attractive.

Plant Biotechnol. J. 6, 189 (2008); Proc. Natl. Acad. Sci. U.S.A. 105, 3727 (2008).

**EDITOR'S NOTE: A subscription is required to view this article at its original location.**

[Return to Table of Contents](#)

#### 4. PUBLISHED RESEARCH: MICROBICIDE-SPECIFIC

##### "Acceptability of tenofovir gel as a vaginal microbicide among women in a phase I trial: a mixed-methods study"

**Author(s):** Rosen RK, Morrow KM, Carballo-Diequez A, et al

**Reference:** N/A 17(3):383-92.

<http://www.ncbi.nlm.nih.gov/pubmed/18328009>

**Published Abstract:** Objectives: In this phase I safety trial of tenofovir gel, a candidate vaginal **microbicide** for human immunodeficiency virus (HIV) prevention, a mixed-methods design was used to gather acceptability data among women participants. The impact of acceptability factors on use of the gel and the relationship between qualitative and quantitative acceptability data are explored. Methods: Participants included low-risk, HIV-uninfected, and clinically stable HIV-infected women. Participants were enrolled into cohorts stratified by HIV serostatus, sexual activity, gel concentration, and frequency of use. Quantitative data were collected via interviewer-administered structured questionnaires. Qualitative data were collected via semistructured small group discussions. Results: Although 94% of participants stated they would "probably" or "definitely" use tenofovir gel, a range of responses emerged on multiple domains relevant to **microbicide** acceptability during the qualitative discussions. Lubrication, leakage, sexual pleasure, and the possibility of covert use were central to women's qualitative assessments of tenofovir gel. Conclusions: Quantitative results indicate that tenofovir **vaginal gel** was acceptable to almost all users, while qualitative findings indicate that acceptability is complex, varies among users, and is likely shaped by a variety of contextual factors that manufacturers will need to consider to optimize use-effectiveness. Because of the differences in the qualitative and quantitative responses, the authors argue that future trials of candidate **microbicides** should include strategic collection of mixed-methods **microbicide** acceptability data.

## "Dilution of microbicide gels with vaginal fluid and semen simulants: effect on rheological properties and coating flow"

**Author(s):** Lai BE, Xie YQ, Lavine ML, et al

**Reference:** N/A 97(2):1030-8.

[http://www.ncbi.nlm.nih.gov/pubmed/17724667?ordinalpos=5&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/pubmed/17724667?ordinalpos=5&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum)

**Published Abstract:** **Microbicides** are agents applied topically to the vagina to prevent HIV transmission. **Microbicide** products formulated as semi-solid dosage forms or "gels" coat vulnerable tissue to deliver active ingredients. Effective **microbicide** delivery vehicles must have appropriate rheological properties to ensure appropriate deployment in vivo. **Microbicide** products become diluted by fluids in the vagina after application; dilution affects vehicle rheological properties and mechanics of vaginal distribution, thus affecting efficacy. To simulate the changes that might occur after application, this study analyzed the effects of small dilutions (10-30%) with vaginal fluid and semen simulants on three semi-solid vaginal formulations: a cellulose lubricant (KY Jelly), a polyacrylic acid moisturizer (Replens), and a carrageenan prototype **microbicide** (Carraguard). Rheological behavior was characterized using cone-and-plate rheometry. Data were fitted to either the power-law, Carreau, or Herschel-Bulkley model. Rheological parameters from these fits were input to models of coating flow due squeezing, and the simulated area coated output from these models was used to compare the responses of the different formulations to the two diluents for varying degrees of dilution. There were differences in the responses of the three materials to dilution. Even small dilutions altered the rank order of vaginal coating rates compared to the undiluted formulations.

## "Effects of physiological fluids on physical-chemical characteristics and activity of topical vaginal microbicide products"

**Author(s):** Sassi AB, Isaacs CE, Moncla BJ, et al

**Reference:** N/A Epub ahead of print.

<http://www.ncbi.nlm.nih.gov/pubmed/17922539?dopt=Abstract>

**Published Abstract:** The increased incidence of HIV infection in women has identified a need to develop a female controlled method to prevent sexually transmitted infections (STIs), including HIV. Formulations have been developed in our laboratory for two potential **microbicide** drug substances, 3-O-octyl-sn-glycerol (3-OG) and UC-781. A major concern for **microbicide** product development is dilution by vaginal fluids following application thereby reducing antimicrobial activity. We investigated the effect of product dilution on **microbicial** activity and the product's chemical and physical properties by using vaginal fluid (VFS) and cervical mucus simulants (CMS). 3-OG and UC-781 were individually formulated into three semi-solid drug containing products: Hydroxyethylcellulose, Methylcellulose/Carbopol, and Liposome. Viscosity, osmolality, pH and in vitro activity against HIV-1 were evaluated. Results showed that pH was not affected when products were diluted with VFS; however, increases in pH were observed following CMS dilution. Viscosity was significantly decreased for all the dilutions tested excepted for some of the liposome products. Hydrogel products maintained greater activity against HIV-1 than Liposome products. The

effect of dilution on anti-HIV activity varied based upon excipient choice and chemical characteristics of the active agent. These in vitro assessments can identify the potential for changes in product's physical-chemical characteristics in vivo which may result in diminished product performance.

### **"Polyurethane intravaginal ring for controlled delivery of dapivirine, a nonnucleoside reverse transcriptase inhibitor of HIV-1"**

**Author(s):** Gupta KM, Pearce SM, Poursaid AE, et al

**Reference:** N/A Epub ahead of print.

[http://www.ncbi.nlm.nih.gov/pubmed/18338805?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/pubmed/18338805?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum)

**Published Abstract:** Women-controlled methods for prevention of male-to-female sexual transmission of HIV-1 are urgently needed. Providing inhibitory concentrations of HIV-1 reverse transcriptase inhibitors to impede the replication of the virus in the female genital tissue offers a mechanism for prophylaxis of HIV-1. To this end, an intravaginal ring device that can provide long duration delivery of dapivirine, a nonnucleoside reverse transcriptase inhibitor of HIV-1, was developed utilizing a medical-grade polyether urethane. Monolithic intravaginal rings were fabricated and sustained release with cumulative flux linear with time was demonstrated under sink conditions for a period of 30 days. The release rate was directly proportional to the amount of drug loaded. Another release study conducted for a week utilizing liposome dispersions as sink conditions, to mimic the partitioning of dapivirine into vaginal tissue, also demonstrated release rates constant with time. These results qualify polyether urethanes for development of intravaginal rings for sustained delivery of **microbicial** agents.

### **"PRO-2000, an antimicrobial gel for the potential prevention of HIV infection"**

**Author(s):** Fletcher PS, Shattock RJ

**Reference:** N/A 9(2):189-200.

<http://www.ncbi.nlm.nih.gov/pubmed/18246522>

**Published Abstract:** Indevus Pharmaceuticals Inc, under license from Paligent Inc, is developing PRO-2000, an antimicrobial gel for the prevention of HIV infection. The company is also investigating its potential to prevent the transmission of other sexually transmitted diseases. In February 2005, Indevus launched a pivotal phase III trial for the prevention of HIV infection in women. At that time, further phase III trials in 12,000 African women were scheduled to begin in 2005. A second phase III trial began for the prevention of sexually transmitted infections, including HIV, herpes, Chlamydia and gonorrhea, in Africa in October 2005.

## "Risk compensation in HIV prevention: implications for vaccines, microbicides, and other biomedical HIV prevention technologies"

**Author(s):** Eaton LA, Kalichman S

**Reference:** N/A 4(4):165-72.

<http://highwire.stanford.edu/cgi/medline/pmid;18366947>

**Published Abstract:** Studies investigating the effects of biologic HIV prevention technologies have been reported with promising results for slowing the spread of the disease. Although they can reduce the rate of HIV transmission at varying levels of efficaciousness, it is vital to anticipate their impact on subsequent sexual behaviors. Risk homeostasis theory posits that decreases in perceived risk, which will occur with access to HIV prevention technologies, will correspond with increases in risk-taking behavior. Here we review the literature on risk compensation in response to HIV vaccines, topical **microbicides**, antiretroviral medications, and male circumcision. Behavioral risk compensation is evident in response to prevention technologies that are used in advance of HIV exposure and at minimal personal cost. We conclude that behavioral risk compensation should be addressed by implementing adjunct behavioral risk-reduction interventions to avoid negating the preventive benefits of biomedical HIV prevention technologies.

## "VivaGel (SPL7013 Gel): a candidate dendrimer-microbicide for the prevention of HIV and HSV infection"

**Author(s):** Rupp R, Rosenthal SL, Stanberry LR

**Reference:** N/A 2(4):561-6.

<http://www.ncbi.nlm.nih.gov/pubmed/18203424/>

**Published Abstract: Microbicides** are compounds that applied vaginally or rectally, protect the user from sexually transmitted infections. Although no commercial product is yet available, many candidates are under development. A leading candidate, VivaGel (SPL7013 Gel) is the product of nanotechnology. The active ingredient is SPL7013, a dendrimer that was designed specifically with HIV and HSV antiviral activity and human safety in mind. SPL7013 has demonstrated efficacy against human immunodeficiency virus and herpes simplex virus in in vitro and animal models. VivaGel appears to be well tolerated in both animals and humans. This review summarizes the studies of VivaGel and its active ingredient, SPL7013.

[Return to Table of Contents](#)

## 5. PUBLISHED RESEARCH: RELEVANT BASIC AND TRANSLATIONAL SCIENCE

### "Building community partnerships: case studies of Community Advisory Boards at research sites in Peru, Zimbabwe, and Thailand"

**Author(s):** Morin SF, Morfit S, Maiorana A, et al

**Reference:** N/A 5(2):147-56.

<http://ctj.sagepub.com/cgi/content/abstract/5/2/147?etoc>

**Published Abstract:** *Background* Differences in resources, knowledge, and infrastructure between countries initiating and countries hosting HIV prevention research trials frequently yield ethical dilemmas. Community Advisory Boards (CABs) have emerged as one strategy for establishing partnerships between researchers and host communities to promote community consultation in socially sensitive research. *Purpose* To understand the evolution of CABs and community partnerships at international research sites conducting HIV prevention trials. *Methods* Three research sites of the HIV Prevention Trials Network (HPTN) were selected to include geographical representation and diverse populations at risk for HIV/AIDS - in Lima, Peru; Chitungwiza, Zimbabwe; and Chiang Mai, Thailand. Data collection included review of secondary data, including academic publications and site-specific progress reports; observations at the research sites; face-to-face interviews with CAB members, research staff, and other key informants; and focus groups with study participants. Rapid assessment techniques were used for data analysis. *Results* Two of the three CABs developed new strategies for community representation in response to new studies. All three CABs expanded their original function and became advocates for broader community interests beyond HIV prevention. The participation and input of community representatives, in response to critical incidents that occurred at the sites over the past five years, helped to solidify partnerships between researchers and communities. *Limitations* Rapid Assessment is an exploratory methodology designed to provide an understanding of a situation based on the integration of multiple data sources, collected within a short period of time, without a formal examination of transcribed and coded data. Case studies, as a method, are meant to draw out what can be learned from a single case but are not, in the scientific sense, generalizable. *Conclusions* In developing countries, CABs can be dynamic entities that enhance the HIV research process, assist in responding to issues involving research ethics, and prepare communities for HIV research.

### "Improving defences at the portal of HIV entry: mucosal and innate immunity"

**Author(s):** Shattock RJ, Haynes BF, Pulendran B, et al

**Reference:** N/A 5(4):e81.

<http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371%2Fjournal.pmed.0050081>

**Published Abstract:** *This is the second in a series of articles arising from the 2007 Global HIV Vaccine Enterprise workshops. The first was published in December 2007 (PLoS Med 4(12): e348. doi:10.1371/journal.pmed.0040348).*

The workshop on Improving Defences at the Portal of Entry: Mucosal and Innate Immunity was held in June of 2007 in Durham, North Carolina, United States, with the goal of identifying key scientific issues in mucosal (section I) and innate (section II) immunity, as it pertains to immune protection against HIV infection, that have emerged since the Enterprise Strategic Plan was first published in 2005 [1].

Defining the earliest events in mucosally transmitted HIV-1 infection is of central importance for characterizing the precise virus-host interactions that must be altered by vaccine-induced immune responses. Mucosal transmission of HIV-1 infection is mediated by exposure to infectious virus and/or cells within mucosal secretions, can occur within minutes, is established within hours, and can be disseminated to draining lymph nodes within days (reviewed in [2,3]). Transmission itself is dependent upon transfer of infectious virus across the mucosal epithelium, providing access to subepithelial dendritic cells (DCs), macrophages, and/or T cells that express both CD4 and coreceptors CCR5 and CXCR4 [4,5]. Multiple mechanisms for mucosal HIV-1 transmission have been proposed (reviewed in [6]), however, none of these mechanisms, the receptors involved, nor their modulation by immune responses (adaptive and/or innate) have been fully defined. A broad consensus from the meeting was that a preventative vaccine must effectively target the earliest events in the establishment HIV infection. It was recognized that adaptive memory responses may be too slow to counteract such events and that robust mucosal protection may require components of both the innate response (active within minutes or hours) and adaptive effector immune response (humoral and/or T cell, active within days). On the basis of the major roadblocks to advances in the field, nine scientific priorities were identified to facilitate characterization of the correlates of mucosal protection (adaptive and innate) and to harness and develop the technology to enable an effective HIV-1 vaccine.

...

**EDITOR'S NOTE:** *The full text of this article is available for public access at the above website.*

### "Long-term drug prevention trials"

**Author(s):** Meinert CL

**Reference:** N/A 5(2):168-76.

<http://ctj.sagepub.com/cgi/content/abstract/5/2/168?etoc>

**Published Abstract:** A randomized trial is a randomized trial. The basic ingredients do not change with different purposes whether for treatment or prevention of disease. Likewise, the problems and difficulties are mostly the same. But there are differences in approach and philosophy depending on whether for treatment or prevention of disease. One thing setting prevention trials apart from treatment trials is the risk-benefit calculus of the two classes of trials. Treatment trials are undertaken to 'cure' or ameliorate disease, whereas, prevention trials are undertaken in the hope of preventing or delaying onset of disease. The risks of harm in treatment trials is contemporaneous with prospects for benefit making the calculus reasonably straightforward. But that time relationship does not exist in long-term drug prevention trials where the risks from treatment start accruing on initiation of treatment, but where the prospect of benefit is down the road and comes, if all, in the form of disease avoided. This separation of risk versus benefit makes for difficult decisions as to how long to continue a trial in the absence of a difference in the test-assigned versus the control-assigned group. Other differences relate to choice of study treatments, choice of outcome measure, approach to recruitment and age cutoffs, and issues related to monitoring.

## "Maintaining confidentiality of interim data to enhance trial integrity and credibility"

**Author(s):** Fleming TR, Sharples K, McCall J, et al

**Reference:** N/A 5(2):157-67.

<http://ctj.sagepub.com/cgi/content/abstract/5/2/157?etoc>

**Published Abstract:** *Background* For clinical trials of interventions that could affect mortality or major morbidity, Data Monitoring Committees have an important role in safeguarding patient interests and enhancing trial integrity and credibility. In trials overseen by an independent DMC it is widely recognized that interim data should remain confidential to the DMC and to the statistical group preparing reports. However, we have found that the principle of confidentiality is not always followed in practice, particularly where the interim data include complete results on a short-term outcome measure. *Purpose* To discuss the reasoning and evidence supporting the principle of confidentiality of interim data with emphasis on the setting where the interim data include complete results on a short-term outcome. *Methods* We review the reasons why wider access to interim data can increase the risk of false positive or false negative conclusions and discuss the types of harm which can occur. We provide illustrations and insights from recent experiences and discuss the level of consensus in the research community. *Results* The arguments in favor of early release of interim data include the need to provide reliable data in a timely manner to patients and physicians, the potential to increase the enthusiasm of trial investigators, and to restore equipoise. However interim data, even where these include complete results on a short-term outcome measure, provide an unreliable and biased assessment of the overall benefit-to-risk profile of the trial treatments. Pre-judgment based on over-interpretation of such interim data can affect recruitment, treatment delivery, and follow-up, risking the ability of the trial to achieve its goals. *Conclusions* In order to preserve the integrity of a trial and safeguard the interests of patients, interim data, including complete data on short-term outcomes, should remain confidential to the DMC and the statistical group responsible for preparing interim reports until the trial has achieved its primary objectives.

## "The HIV-1 envelope glycoprotein GP120 features four heparan sulfate binding domains, including the coreceptor binding site"

**Author(s):** Crublet E, Andrieu JP, Vives RR, et al

**Reference:** N/A Epub ahead of print.

<http://www.jbc.org/cgi/content/abstract/M800066200v1?maxtoshow=&HITS=2&hits=2&RESULTFORMAT=&andorexacttitle=and&andorexacttitleabs=and&fulltext=microbicide%2C+microbicides&andorexactfulltext=or&searchid=1&usestrictdates=yes&resourcetype=HWCIT&ct>

**Published Abstract:** It is well-established that the HIV-1 envelope glycoprotein surface unit, gp120, binds to cell-associated heparan sulfate (HS). Virus infectivity is increased by such interaction and a variety of soluble polyanions efficiently neutralize HIV-1 in vitro. This interaction has been mainly attributed to the gp120 V3 loop. However, although a number of evidence suggested that this particular domain does not fully recapitulate the binding activity of the protein, the ability of HS to bind to other regions of gp120 has not been completely addressed, and the exact localizations of the polysaccharide binding sites are not known. To investigate in more detail the structural basis of the HS-gp120 interaction, we used a mapping strategy, and compared the heparin binding activity of wild type and mutant

gp120, using surface plasmon resonance based binding assays. Four heparin binding domains (HBD 1 to 4) were identified, in the V2 and V3 loops, in the C-terminal domain and within the CD4 induced bridging sheet. Interestingly, three of them were found in domains of the protein that undergo structural changes upon binding to CD4, and are involved in coreceptor recognition. In particular, Arg419, Lys421 and Lys432, which directly interact with the coreceptor, are targeted by heparin. This study provides a complete account of the gp120 residues involved in heparin binding, and identified several binding surfaces that constitute potential target for viral entry inhibition.

[Return to Table of Contents](#)

## 6. EPIDEMIOLOGY

### "Nigeria: 61 percent of new HIV/AIDS infections are women-NACA"

**Date:** 27 March 2008

**Source:** *Vanguard (Lagos)*

**Author(s):** Inalegwu Shaibu

<http://allafrica.com/stories/200803270355.html>

The National Agency For The Control of AIDS (NACA) has revealed that an estimated sixty one percent of Nigerians that are newly infected with HIV/AIDS are women and young girls. The Director General of NACA, Professor Babatunde Oshotimehin who gave the information in Abuja at a One-day workshop organised by the agency to strengthen its relationship with the National Council of Women Societies (NCWS), said the country stands the risk of losing an important part of her population to the scourge of HIV if the situation is not quickly addressed.

He said, "We have to appreciate why it is important for women to be in the fore front of the battle against the spread of HIV/AIDS. Today, Africa houses seventy percent of HIV/AIDS infections, with sixty-one percent of new infections in Nigeria being women and young girls. "Today, the burden of the disease in terms of care and support of those living with the virus, is the responsibility of the women, across our continent. So when you look at the statistics and you look at how the disease affects our women, it is important that we put women at the centre of the control of this virus."

He called on women all over the country to take up the fight against the spread of HIV/AIDS, while decrying the gender distance between men and women even though majority of the transmission of the HIV virus occur between men and women. The NACA boss said women are getting more infected than men because of their inability to speak out against some of sexual practices that has put them in disadvantaged positions.

His words, "It is also important to note before we forget that most of the transmission of the virus occurs between women and men. We also appreciate that with the gender distance between our men and our women, it is difficult for our women to protect themselves or to ensure that they will not get infected." "In our culture, it is hard for a wife to say no to our husband. We are talking here to women of substance who are enlightened. But when we go down to our homestead, where these women don't have the education you have, it becomes even more difficult to negotiate safe sex." He added that the spread of the disease could be easily tamed if women are giving more right to negotiate sex with their partners.

The national president of NCWS Mrs. Ramatu Bala Usman in her remarks said the involvement of the women in the fight against HIV/AIDS would help reduce the spread of the disease. She said, "It is in our collective interest to fight the spread of HIV/AIDS because we are the most infected and affected. We have about 250 groups that are affiliated to us and with all of them we will carry the campaign to the grassroots. The Society is not just composed of educated elites but the also include the uneducated women in the rural areas. It is easier for us to penetrate the rural areas because we speak their language and they understand us more."

[Return to Table of Contents](#)

## 7. HIV/AIDS VACCINES

### "Grim outlook for an AIDS vaccine"

**Date:** 30 March 2008

**Source:** *The New York Times (Op-Ed)*

[http://www.nytimes.com/2008/03/30/opinion/30sun3.html?\\_r=1&ei=5088&en=0b5e9791e1ca8460&ex=1364616000&partner=rssnyt&emc=rss&pagewanted=print&oref=slogin](http://www.nytimes.com/2008/03/30/opinion/30sun3.html?_r=1&ei=5088&en=0b5e9791e1ca8460&ex=1364616000&partner=rssnyt&emc=rss&pagewanted=print&oref=slogin)

Back in 1984, federal health officials, flush with excitement over discovery of the virus that causes AIDS, famously predicted that they would have a vaccine ready for market within three years. Now, after almost a quarter-century of toil and struggle, the effort has crashed in failure. No one yet knows whether a vaccine to prevent the disease will ever be possible.

David Baltimore, a Nobel-winning biologist, sounded a note of despair in an address to the American Association for the Advancement of Science in February. He noted that the virus has evolved in a way that makes it virtually impossible to attack by priming the immune system, the usual goal of a vaccine. Repeated efforts have failed, he said, leaving "no hopeful route to success." The best hope, he said, may lie in the biological equivalent of a "Hail Mary" pass - a wholly new approach that would combine gene therapy, stem cells and immunologic therapy to thwart the disease.

At a conference at the National Institutes of Health last Tuesday, AIDS experts assessed how to proceed after the failure of the most promising vaccine candidate in two large clinical trials last year. Early results showed that those who received the vaccine may actually have been more likely to become infected with the virus than those who did not.

At least one organization that treats AIDS patients has called for giving up on a vaccine and shifting the money to testing, treatment and prevention. That is too defeatist. Federal health officials are rightly determined to increase financing for basic laboratory research, curtail big clinical trials of existing vaccine candidates, and funnel money to researchers with novel ideas. There is little doubt that a vaccine would be the most effective and cheapest way to shrink the AIDS epidemic.

## "Vaccine partnerships to tackle neglected diseases"

**Source:** *Nat Rev Drug Discov.* 2008 Apr;7:277-8.

**Author(s):** Bethan Hughes

<http://www.nature.com/nrd/journal/v7/n4/full/nrd2564.html>

At the end of February, the non-profit Novartis Vaccines Institute for Global Health (NVGH) was launched in Siena. The institute, which is offering access to Novartis' technology and expertise in vaccine development to potential academic and industry partners with vaccine inventions, will initially focus on the prevention of diarrhoeal diseases.

"There are 3 types of neglected diseases," says Rino Rappuoli, Global Head of Novartis Vaccines and Diagnostics in Siena, Italy, "the first category includes diseases where more basic research is needed before a candidate vaccine can be generated, the second includes diseases for which a candidate vaccine can be created but drugs already exist that could cure the disease and the third - which is where we have put our priorities - are diseases with high mortality, without good drug treatment options, that we believe we can address with available vaccine technology."

Novartis already has experience with such non-profit ventures - in 2002, it set up the Novartis Institute for Tropical Diseases (NITD), a drug discovery research institute that is currently engaged in 27 public-private partnerships (PPPs). Paul Herrling, Head of Corporate Research at Novartis and Chairman of the NITD Board, attributes the high number of collaborators to the appeal of accessing Novartis' technology. "The fact that a pharma company makes available their drug discovery or vaccine knowledge for non-profit indications makes it very attractive for some of the funding agencies who have the money and the mission but don't usually have access to a professional organization."

Regina Rabinovich, director of infectious diseases development at the Gates Foundation, USA, agrees that industry is an important partner. "Traditionally, innovation has come out of academia but turning that into a product requires corporate partnership," she says.

The Gates Foundation has been instrumental in the development of PPPs to tackle global health problems. "This method of activity probably began 8 or 9 years ago," says John Boslego, director of vaccine development at the non-profit organization PATH (Program for Appropriate Technology in Health) in the USA, "but started much more in earnest in the past 3 or 4 years ... driven by the presence of funding from the Gates Foundation."

Rabinovich's portfolio alone includes more than US\$1 billion in grants for product development partnerships for the prevention, treatment, and research of infectious diseases. When selecting projects, Rabinovich follows set criteria to ensure that the disease to be tackled is a global health priority, followed by 'landscape analysis' which looks at how the proposed solution compares with technology in that area. Finally, the potential partner is evaluated to determine what their organizational viability is in terms of management and if they are able to deliver project commitments. Rabinovich explains, "Money is an important ingredient that allows everyone to participate in a project, but without leadership commitments projects will not succeed."

For corporate partners, leadership is particularly important because, even if a product has received grant funding or non-diluting capital, it is a challenge to keep progressing non-profit projects. PATH addresses this issue by focusing

on development of products that have value in the developed and developing world. Boslego says, "We think it is a win-win situation to help a company to develop a commercially viable product that would also be an addition to the health armamentarium for the developing world."

Like the NVGH, PATH aims to translate academic inventions into products. Boslego continues, "We work with established manufacturers and sponsors such as big pharma or smaller biotechnology companies to get the technology developed and advanced to a point where it can either be manufactured large-scale by the developed world or transferred to the developing world for eventual manufacture for those populations."

Although PPPs such as NVGH and PATH aim to create proof-of-concept products that can be manufactured large-scale by other sponsors, Alice Dautry - President of the Pasteur Institute in Paris - cautions that, even if you have a fantastic vaccine, without concurrent capacity building in the countries there will not be long-term sustainability. This includes building research in the countries, training local doctors and researchers to run clinical trials and follow the impact of vaccination campaigns, and working with the ministries of health to ensure there will be take-up of the vaccines. From his extensive experience in vaccine development, Rappuoli is aware of the importance of engaging governments, "If you don't, you get to a point where you have a vaccine but nobody will use it," he explains.

Dautry also emphasizes that it is critical to correctly diagnose the infectious disease and feels that diagnosis is another area that has been neglected. Citing an example from the Sahel region in Africa, where there are regularly epidemics of meningitis due to different strains, she notes that misdiagnosis could result in people being vaccinated against the wrong strain, which would lead to lost money, effort and credibility. "Once you have convinced mothers to bring their children and the vaccine does not work, you will not get them back next time - you have lost a generation." She concludes, "We must not be blinded by the idea that a big foundation or pharmaceutical company alone will solve these problems. Building a new vaccine is very important but in the long term it is not enough... it must be a global effort of all players, public, private and governments."

[Return to Table of Contents](#)

## 8. OTHER PREVENTION APPROACHES

### "Malawi launches youth sexual health and HIV action plan"

**Date:** 01 April 2008

**Source:** *The Daily Times (Malawi)*

**Author(s):** Deborah Nyangulu-Chipofya

<http://www.dailytimes.bppmw.com/article.asp?ArticleID=8900>

Government through Ministry of Youth Development and Sports last Thursday launched a National Plan of Action for Young People in Lilongwe. The document is aimed at improving sexual and reproductive health and prevention of new HIV infections among people aged between 10 and 24. The 67 page action plan has six main strategic objectives, which it would address in order to meet its main goal.

The objectives include improving policy environment and sexual and reproductive health (SRH) and HIV programmes for young people, enhancing skills for adoption of safer sexual practices among young people and increasing utilisation of youth friendly sexual and reproductive health services. The last three objectives include increasing accessibility of integrated SRH and livelihood skills development tertiary institutions, strengthening programming and coordination for SRH and HIV prevention and strengthening institutional capacity to sustain evidence based SRH and HIV prevention programmes.

Minister of Youth Development and Sports Simon Vuwa Kaunda said the action plan should be taken seriously because if things are left as they are now among the youth, Malawi would not achieve the Millennium Development Goals by 2015. Kaunda said the biggest problem in the fight against HIV so far has been lack of coordination and harmonisation among groups and programmes aimed at fighting the scourge.

"Each one of us now is working as an island. If this goes on, we'll not achieve what we want and young people will continue suffering while millions of dollars are being spent on HIV/Aids programmes," said Kaunda.

Minister of Finance Goodall Gondwe, who attended the launch upon invitation from Vuwa Kaunda said things have changed nowadays and we do not only have to worry about the youth's health and growth but we have to look at ways of reducing their deaths. Gondwe bemoaned that Malawi has lost many young professionals like ministers and doctors who can hardly be replaced.

"I am trying to stress how a gathering of this kind is important because it will help prevent the country from losing its flowers and jewels of the future," said Gondwe. Gondwe also pledged that his ministry would do everything possible that funds are readily available for the smooth implementation of the action plan.

According to the action plan report, Malawi is one of only 10 countries in sub-Saharan Africa which has an adult HIV prevalence rate of over 10 percent, with 12 percent of the population of the 15-49 age group living with HIV/Aids.

### **"HIV-positive women not likely to reveal condition"**

**Date:** 31 March 2008

**Source:** *Cox News Service*

**Author(s):** Sarah Krouse

[http://www.ajc.com/health/content/health/stories/2008/03/31/HIV\\_WOMEN01.html](http://www.ajc.com/health/content/health/stories/2008/03/31/HIV_WOMEN01.html)

HIV-positive women often do not reveal their diagnosis to sexual partners, to close friends, or to potential employers because of the stigma attached to the disease, according to a survey released Monday.

"Despite 25 years of progress in diagnosing and treating the disease, one in five Americans would not be comfortable with having an HIV-positive woman as a close friend," said Susan Blumenthal, senior policy and medical adviser for the American Foundation for AIDS Research, or amfAR.

Factors such as fear of contracting the disease, the belief that HIV/AIDS is a result of promiscuity or moral fault, and the severity of the disease all contribute to the stigma associated with HIV/AIDS, participants at a news conference said. Shame and blame were identified as two major obstacles for the 15.4 million HIV-positive women and girls

worldwide.

"Women are the ones living in secret," said Regan Hofmann, editor in chief of POZ Magazine, a publication for people living with or affected by HIV/AIDS. "Women are terrified, women of all colors, of all socio-economic statuses."

Laura Nyblade, senior social scientist for the International Center for Research on Women, said, "Women are extremely vulnerable in social circles." She said because society has "an irrational fear of contracting AIDS from everyday contact," women often do not share their diagnosis for fear of being rejected by their friends and peers.

The amfAR survey revealed that a majority of Americans are uncomfortable with having an HIV-positive woman as a health-care or child-care provider. The panel discussed the importance of education and reaching out to policy makers to help remove the stigma associated with HIV/AIDS.

Hofmann said sex education must also be changed in order to reduce this stigma.

"The federal government prevents sexual education other than abstinence in some states, which is fine, but many young people think vaginal sex is the only real kind of sex. We need to redefine what this abstinence is. We have a lot of re-educating to do," she said.

An important part of preventing more women from contracting HIV is discussing the disease, according to Hoffman.

"We did it with breast cancer, no one talked about it for so long. We can do it with HIV," she said.

"Women often times don't want to hear about heterosexual women with HIV because it then becomes something real that they have to worry about," said Hoffman. She stressed the importance of dialogue, especially the promotion of protected sex and discussing HIV status with future sexual partners.

**EDITOR'S NOTE: amFAR's Fact Sheet on Women and HIV/AIDS is available at [http://www.amfar.org/binary-data/AMFAR\\_PDF/pdf/000/000/182-1.pdf](http://www.amfar.org/binary-data/AMFAR_PDF/pdf/000/000/182-1.pdf), and a presentation of the report results is available at [http://www.amfar.org/binary-data/AMFAR\\_PDF/pdf/000/000/181-1.pdf](http://www.amfar.org/binary-data/AMFAR_PDF/pdf/000/000/181-1.pdf).**

## **"China launches nationwide AIDS prevention program"**

**Date:** 28 March 2008

**Source:** *Xinhua News Agency*

[http://www.chinadaily.com.cn/china/2008-03/28/content\\_6574756.htm](http://www.chinadaily.com.cn/china/2008-03/28/content_6574756.htm)

The Red Cross Society of China (RCSC) launched a three-year nationwide AIDS prevention and care program here on Friday, aiming to reduce vulnerability to HIV and its impact in the country.

The initiative comes in response to an escalating nationwide HIV epidemic, said Yang Xusheng, director of the HIV Prevention Office with the RCSC.

"It's clear the spread of the virus, increasingly through sexual transmission, is being fuelled by a continuing lack of awareness about the disease," Yang said.

The program will try to increase awareness of the disease through various activities, including education and community mobilization that will cover a population of 27 million people through 2010, said Jiang Yiman, RCSC vice-president.

He said the program would also provide home-based support and care to 90,000 HIV infected people and their family members.

The program is aimed at preventing further infection of the disease and reducing discrimination to HIV carriers in the society.

"As a global leader on many issues, the wisdom and determination with which China addresses many dimensions of HIV -- medical, social, economic, human rights -- will influence others around the world to adopt evidence-based policies and practices," said Mukesh Kapila, Special Representative of the Secretary General of International Federation of Red Cross and Red Crescent Societies.

According to the Ministry of Health's latest assessment, China has about 700,000 people living with HIV/AIDS, including about 85,000 AIDS patients.

### **"Cuba: Women talk to women about HIV/AIDS prevention"**

**Date:** 26 March 2008

**Source:** *Inter Press Service News Agency*

**Author(s):** Dalia Acosta

<http://www.ipsnews.net/news.asp?idnews=41738>

Prevention of sexually transmitted infections (STIs), including HIV, the AIDS virus, has become the centre of the lives of a small group of women in the province of Pinar del Rio, in the west of Cuba.

Coordinated by the Women's Project in the Provincial Centre for Prevention of STIs and HIV/AIDS, they design educational strategies for villages and towns in the province, and advise the activists who promote responsible sexual behaviour among the local population.

"Our work is to explain all the problems related to AIDS and STI prevention, and also how women can become health promoters in their homes and neighbourhoods," Martha Bermudez, one of the 10 women making up the team of experts, tells IPS.

"One of our main commitments is to take this message home with us. We have to talk to our children and their friends when they get together in our houses, but also to our neighbours and other community members, not just to the young people," she says.

Bermudez, 62, is also the provincial coordinator for the University for Older Adults, a government educational programme that runs about 900 centres on this Caribbean island, where 16.2 percent of the population is over 60.

To talk about prevention, almost any place will do: a village, tobacco factory, university or temporary detention centre for sex workers. The aim is for the women "to feel comfortable in the learning environment, so we promote a family atmosphere," says psychologist Gilma Gomez, the project coordinator.

The idea is not to transfer pre-packaged knowledge, but to stimulate a debate "on what women want and need to know about their situation with respect to HIV, as sexual beings and as educational agents transmitting information to other generations, using completely participative methods."

"Women in our province have a high level of knowledge about the nature of HIV and AIDS, and the main STIs, but they are not aware of specific factors that make them vulnerable and put them at risk of contracting the virus, as women," Gomez says.

In Pinar del Rio, as in the rest of Cuba, most HIV-positive people are men, although in this province the proportion of HIV-positive people who are women, 29.2 percent, is higher than in the rest of the country, where 19 percent are women. "We are afraid that the epidemic will become increasingly feminised," she says.

This concern is based on the fact that some men who have sex with men also occasionally have sex with women. In addition, traditional gender relations "magnify the psychosocial vulnerability of women," she adds.

"The inequality in communication between spouses, women's low perception of risk - having a live-in partner gives them a sense of security - , 'machismo' which determines that the man rules over sexual relations, and women's conditioning to be submissive and obedient, are factors that put women in Pinar at a disadvantage with respect to HIV," Gomez says.

...

**EDITOR'S NOTE:** *The full text of this article is available for public access at the above website.*

[Return to Table of Contents](#)

## 9. NON-HIV STIS AND REPRODUCTIVE HEALTH

### "Screening for genital and anorectal sexually transmitted infections in HIV prevention trials in Africa"

**Author(s):** Grijsen ML, Graham SM, Mwangome M, et al

**Reference:** N/A Epub ahead of print.

<http://sti.bmj.com/cgi/content/abstract/sti.2007.028852v1>

**Published Abstract:** Objectives: Our objectives were (1) to demonstrate the value of routine, basic sexually transmitted infection (STI) screening at enrolment into an HIV-1 vaccine feasibility cohort study; and (2) to highlight the importance of soliciting a history of receptive anal intercourse (RAI) in adults identified as "high risk". Methods: Routine STI screening was offered to adults at high risk for HIV-1 upon enrolment into a cohort study in preparation for HIV-1 vaccine trials. Risk behaviors and STI prevalence were summarized, and the value of microscopy assessed.

Associations between prevalent HIV-1 infection and RAI or prevalent STIs were evaluated with multiple logistic regression. Results: Participants had a high burden of untreated STIs. Symptom-directed management would have missed 67% of urethritis cases in men and 59% of cervicitis cases in women. RAI was reported by 36% of male and 18% of female participants. RAI was strongly associated with HIV-1 in men (adjusted odds ratio [aOR] = 3.8, 95% CI 2.0-V 6.9), and independently associated with syphilis in women (aOR 12.9, 95% CI 3.4-V 48.7). Conclusions: High-risk adults recruited for HIV-1 prevention trials carry a high STI burden. Symptom-directed treatment may miss many cases, and simple laboratory-based screening can be done with little cost. Risk assessment should include questions about anal intercourse and whether condoms were used. STI screening, including specific assessment for anorectal disease, should be offered in African research settings recruiting participants at high risk for HIV-1 acquisition.

[Return to Table of Contents](#)

## 10. POLITICS AND POLICY

### "Report claims clinical trials miss many populations"

**Date:** 01 April 2008

**Source:** *The Washington Post*

**Author(s):** Alan Mozes

<http://www.washingtonpost.com/wp-dyn/content/article/2008/04/01/AR2008040102092.html>

A new analysis of the American clinical trial process suggests that the system for testing new drugs has routinely excluded or under-represented women, older people, minorities, disabled individuals and rural populations for decades.

"We've got a big problem," said Daniel S. Goldberg, chief policy adviser for the report. "And it's extremely urgent that we fix it. Because we're trying to figure out how to streamline health care and make people healthy, of course. And the fact that we have under-representation in clinical trials undermines both of these goals and undermines the quality of the evidence we come up with."

The report was conducted by the Chronic Disease Prevention & Control Research Center at Baylor College of Medicine in conjunction with the Intercultural Cancer Council, both based in Houston.

Part of a team of more than 300 analysts led by Armin D. Weinberg, Goldberg and his colleagues spent four years conducting an in-depth review of policy positions held by public, private and nonprofit clinical trial sponsors in the United States. Their research was funded by what is described as an "unrestricted educational grant" provided by Genentech Inc.

The team noted that about 80,000 clinical trials are conducted in this country each year, and that less than 1 percent of the American population -- 2.3 million men and women -- participate in such trials.

Additional trial problems, such as the lack of adequate training for members of institutional review boards, who are legally obligated to assess the structure of a proposed trial, were cited.

The report also admonished against the wasting of limited resources that results when government institutions and private industry duplicate each other's efforts in conducting trials focused on the same disease or treatment.

However, it is the continuing absence of specific constituencies in many trial populations that gets the lion's share of the criticism.

The research looked at cancer clinical trials and found that only 25 percent of patients in such trials were over the age of 65. In addition, older people were often excluded from studies focused on Alzheimer's, arthritis and incontinence, the researchers noted.

As evidence of the problem, Weinberg and his colleagues honed in on a study of clinical trial composition that found that, between 1995 and 1999, blacks, Asian-Pacific Islanders, Hispanics and Native Americans together made up for less than 10 percent of patients included in new cancer drug trials.

Under-representation of this sort, they say, leads to results that do not account for a host of factors -- genetic, cultural, racial, religious, linguistic, as well as variables related to age and gender -- that could have a huge impact on how well new drugs do in the real world.

To address these shortcomings, the team proposed nine policy solutions:

government regulatory changes; increased collaboration between government and private industry on clinical trial design; increased community involvement in patient participation; scientific journal oversight of patient breakdowns; new, specialized training for review boards; reallocation of research funding to avoid duplication and address disparities; increased public education; increased focus on easing the patient participation process; guaranteeing insurance coverage for all related costs.

"The bottom line is there has been a lot of discussion and attention paid in recent years to how clinical trials are put together, and, in particular, the need to account for differences in study patient populations," said Weinberg. "And that's the good news. But the bad news is that as a practical matter, it has yet to have a real impact on studies themselves."

"And the problem is that many people, when they take a pill, don't realize that it didn't come out of thin air," added Weinberg. "So, we hope that our work will help people appreciate how the process works, and that what we're talking about is the next generation and how we improve the products and type of therapies that we will have in the future."

Adil Shamoo, a professor of biochemistry and bioethics at the University of Maryland School of Medicine in Baltimore, agreed that trials must ensure proper patient representation. And he stressed that the problem stems from a lack of structural focus, rather than from any lack of potential volunteers.

"We have an extremely willing volunteer population in this country, so there is no question that proper trial representation is doable," said Shamoo, who is also the co-founder of the nonprofit Citizens for Responsible Care and Research, based in Columbia, Md. "And medicine is going to be given to millions of different people, so you do need that representation. Otherwise, you can have risks that you won't know about."

Other reports released this week buttress the findings of the Baylor team.

On Monday, Duke University researchers reported at the American College of Cardiology meeting in Chicago that although more women are being included in clinical cardiology trials, their numbers are still so low that it's questionable whether the results can actually be applied to women. And a commentary in the April issue of *The Lancet Oncology* stressed that more teens and young adults need to be included in trials of new cancer drugs, because they are currently under-represented.

### **"Tender for female condoms withdrawn"**

**Date:** 28 March 2008

**Source:** *The Mercury*

<http://www.themercury.co.za/>

Pretoria: Health minister Manto Tshabalala-Msimang's insistence on "jiffy bag" female condoms has landed her department in court - and with a hefty legal bill.

Following a court challenge by a condom marketing company, lawyers for Tshabalala-Msimang and finance minister Trevor Manuel have agreed to withdraw a multimillion-rand tender for the two-year supply of polyurethane female condoms to the state.

According to a Pretoria High Court order, they will also foot the bill for local company Isigidi's case against them.

Isigidi claimed that the controversial tender was "specifically prejudicial to the female public of South Africa" because it denied women access to latex condoms, which could be supplied for R20 million a year less than their polyurethane equivalents.

Isigidi's Leon Klugman told the court that senior health department official Eva Marumo had admitted to him that the polyurethane condom was an "inferior product but said that the minister of health would be upset if the requirements on the agenda would change".

Neither the health nor finance department has filed any response to Klugman's claim, which included his argument that latex condoms were safe, effective, "smaller, less noisy, had less of a 'jiffy bag effect'".

In court documents, Klugman said latex condoms were also shown to be more popular and sold in far greater numbers than polyurethane condoms, making it more likely that female condom users would be "more inclined" to use them.

He said: "If (Tshabalala-Msimang) were permitted to exclude the South African female public from having the more popular, user-friendly but still equally effective latex condom, there would be a substantial reduction in the use of female condoms and the consequent exposure of both males and females to the HIV virus."

**EDITOR'S NOTE: A subscription is required to view this article at its original location.**

## **"Uganda: Bukenya roots for condom machines"**

**Date:** 28 March 2008

**Source:** *New Vision*

**Author(s):** Anthony Bugembe, Raymond Baguma, Esther Kyabaki

<http://allafrica.com/stories/200803310078.html>

The Vice President, Prof. Gilbert Bukenya, has said that condom vending machines should be installed in public toilets so that sexually active, but shy young people can access them easily.

"I have travelled in different parts of Europe and in most of their loos (sic) there are condom-vending machines. I think we should do the same as one way of fully enforcing the ABC strategy against HIV/AIDS," Bukenya appealed.

Bukenya, who was opening the 5th Annual National Conference on HIV/AIDS at Speke Resort Munyonyo on Wednesday, said that young people fear being seen buying condoms. The 3-day conference, under the theme "Evidence- driven action for greater success," is organised by Uganda AIDS Commission and other NGOs. It has attracted over 1,00 participants, who include HIV/AIDS researchers, policy makers and activists.

Prof. Bukenya noted that the absence of Voluntary Counselling and Testing (VCT) services in rural areas of Uganda is the reason for the high HIV prevalence rates there. "The prevalence rate for HIV/AIDS is high in rural areas partly because the people there cannot access VCT services which are largely concentrated in Kampala. He said that increasing access to VCT services would enable people in rural areas know their sero-status. He also asked scientists and HIV/AIDS researchers to simplify their findings to enable policy makers and the general public understand them clearly.

Earlier, Dr. Alex Opio, the assistant commissioner for national disease control, said that many youths engage in premarital sex, risky and recklessbehaviour; such as non-condom use and having multiple sex partners. Dr. Opio recommended that the HIV/AIDS policy formulation should promote the use of condoms by increasing their accessibility and acceptability. "We should also promote youth-friendly services like using peers in influencing behavioural change. The price for inaction is high," Dr. Opio added.

State minister for health, Dr. Emmanuel Otaala said that few Ugandans know their HIV status yet this is the entry point into HIV prevention, treatment and care. "Only 12% of Ugandans have tested HIV yet countries that learnt from us are doing better. This is terrible yet we say that Uganda has been fighting HIV/AIDS for the last 25 years," he said, adding that religious leaders should sensitise couples about fidelity.

## **"Deadly denial - confronting AIDS in Asia"**

**Date:** 30 November 2007

**Source:** *UN Chronicle*

**Author(s):** Ban Ki Moon

[http://www.un.org/Pubs/chronicle/2008/webarticles/080327\\_aids.html](http://www.un.org/Pubs/chronicle/2008/webarticles/080327_aids.html)

As a Korean, and the first UN Secretary-General from Asia in more than 30 years, it's no surprise that I often speak of my home continent as a model for economic development. Yet when it comes to the AIDS epidemic, I am more disheartened than proud.

Across Asia, AIDS remains the most likely cause of death of people in their most productive years. At the rate we are going, the current 5 million Asians infected with HIV will grow to 13 million by 2020. Meanwhile the death toll mounts, with some 440,000 people succumbing to AIDS each year.

Asia's flourishing economic prosperity does not help groups that are most vulnerable to the disease. People living with HIV-including many in low-risk groups-are denied their basic right to health.

This is deplorable, considering how little is required to contain the epidemic and help those in need. A new UN-supported survey, "Redefining AIDS in Asia: Crafting an effective response," finds that annual investment of just thirty cents per capita can reverse the epidemic through prevention. That would translate into saving the lives of more than 200,000 people each year.

I know my continent has the resources, the technology and the ability to undertake this ambitious and life-saving mission. Asia's fast-growing economies have emancipated millions of poor people. Most countries on the continent are on track to achieve the Millennium Development Goals, our common vision for building a better world in the 21st century.

But if we fail to act, we could threaten the very prosperity that places Asia in a position to respond effectively now. We are in danger of spinning into a vicious circle where the AIDS epidemic grows so serious as to undermine economic growth and social resilience, leading to more and more infections at ever greater cost.

...

**EDITOR'S NOTE:** *The full text of this article is available for public access at the above website.*

[Return to Table of Contents](#)

## 11. HIV/AIDS FUNDING

### "House votes to continue and expand President's global effort against AIDS"

**Date:** 03 April 2008

**Source:** *The Washington Post*

**Author(s):** David Brown

<http://www.washingtonpost.com/wp-dyn/content/article/2008/04/02/AR2008040202497.html?wpisrc=newsletter>

The House of Representatives yesterday passed a five-year reauthorization of the Bush administration's global AIDS program, adding \$20 billion to the \$30 billion the president requested. The program, originally known by the acronym PEPFAR (President's Emergency Plan for AIDS Relief), provides money to treat people infected with HIV and to help support their families, as well as for a long list of activities aimed at preventing infection.

Although it contained controversial features, including a heavy emphasis on abstinence-oriented prevention strategies, the global AIDS program has been popular with lawmakers in both parties and has been praised around the world.

The reauthorization passed 308 to 116. A motion to send the bill back to committee, which was offered by lawmakers unhappy with the \$50 billion price tag, failed on a 248 to 175 vote. The Senate version of the bill is out of committee and is awaiting floor action.

"It's a very big bill and an expensive one, but it does a lot of important things," said Howard L. Berman (D-Calif.), chairman of the House Foreign Affairs Committee. "I was pretty happy we maintained the essence of the bipartisan coalition on final passage."

Ileana Ros-Lehtinen (Fla.), the ranking Republican on the committee, said on the House floor that the bill "strengthens our national security" because AIDS is "destabilizing governments and societies" in entire regions around the world.

The original program, unveiled by the president in his 2003 State of the Union address, is spending \$15 billion over five years. The reauthorized program would be bigger and broader in scope. About \$9 billion would go to fight tuberculosis and malaria, which are huge burdens in many countries where the AIDS epidemic is severe. Money would be used to buy food for AIDS patients and their families, provide clean water to communities, train health-care workers and provide "micro-credit" loans to women widowed by the disease or ostracized because they are infected.

Unlike the original PEPFAR, the renewed global AIDS bill would not stipulate the percentage of prevention spending that must be used to promote abstinence, but abstinence and sexual faithfulness would remain important strategies.

[Return to Table of Contents](#)

## **12. ANNOUNCEMENTS**

### **Miriam K. Were Awarded the Hideyo Noguchi Africa Prize 2008**

[http://www.mfa.go.ke/mfacms/index.php?option=com\\_content&task=view&id=198&Itemid=62](http://www.mfa.go.ke/mfacms/index.php?option=com_content&task=view&id=198&Itemid=62)

The 1st- Hideyo Noguchi Africa Prize for medical services was announced in Tokyo, Japan on Wednesday 26th March, 2008. The winners were Prof. Miriam K. Were of Kenya and Prof. Brian Greenwood of the United Kingdom. In the press release dated 26th March 2008, the foundation states "The Hideyo Noguchi Africa Prize for medical services is awarded to Miriam K. Were, whose efforts to bring basic medical services and health rights to women and children in the villages of East Africa has been a beacon of hope for millions of people in Africa and the world. Through her work with African Medical and Research Foundation (AMREF) and UZIMA Foundation, Were has been a source of

inspiration for all people on the African continent." The press release further states that the Hideyo Noguchi Africa Prize was established by the Government of Japan in July 2006 in memory of Dr. Hideyo Noguchi whose contribution to medical advancement and self-sacrificing activities in Africa remain a paragon of professionalism. The Prize aims to honour individuals with outstanding achievements in the fields of medical research and medical services to combat infectious and other diseases in Africa, thus contributing to the health and welfare of the African people and of all humankind. This Prize consists of a citation, a medal and an honorarium of 100 million yen and will be awarded every five years to coincide with the Tokyo International Conference on African Development (TICAD). In this case therefore, Prof. Miriam K. Were will be presented the award at a ceremony within TICAD IV scheduled in May 2008. The Ministry of Foreign Affairs of Kenya takes this early opportunity to congratulate Prof. Were for the well deserved Award in recognition of her outstanding achievement and contribution in numerous ways and fields for the welfare of mankind. Full details may be obtained in the following websites: [www.cao.go.jp/noguchisho/laureate-e.html](http://www.cao.go.jp/noguchisho/laureate-e.html) and <http://uzimafoundation.org/main/>.

### **Modern Mucosal Vaccines, Adjuvants, and Microbicides**

[http://www.meetingsmanagement.com/mmvam\\_2008/](http://www.meetingsmanagement.com/mmvam_2008/)

"Modern Mucosal Vaccines, Adjuvants, and **Microbicides** (MMVAM)" will take place 22-24 October 2008 in Porto, Portugal.

Organizers for the conference have extended the 28 March deadline for oral abstracts. These should now be sent as soon as possible to the MMVAM Secretariat, John Herriot, at [jherriot@meetingsmgmt.u-net.com](mailto:jherriot@meetingsmgmt.u-net.com).

Abstracts for Poster submissions are due by 19 September 2008. Please visit

[http://www.meetingsmanagement.com/pdf/MMVAM\\_2008.pdf](http://www.meetingsmanagement.com/pdf/MMVAM_2008.pdf) for more information about abstract submission and meeting specifics.

[Return to Table of Contents](#)