



CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA



CAPRISA IS A UNAIDS COLLABORATING CENTRE FOR HIV PREVENTION RESEARCH

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In this issue...

The lead story for the May issue of the newsletter reflects on the past 30 years of AIDS. In the journal *Nature*, Prof Abdool Karim provides his opinion on what it will take to stop the epidemic.

On page 2 the CAPRISA 004 Leadership team is recognized for their contributions to global health and were awarded both the DIA's President's Award and the DST NSTF-BHP Billiton award.

CAPRISA congratulated the MTN003 VOICE trial team for reaching their enrolment target of 5000 on page 3 and news from the CU-SA Fogarty AITRP is provided on page 4



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Reflecting on 30 years of AIDS

Stigma impedes AIDS prevention

Medical advances cannot help those who deny they are at risk of HIV and avoid HIV tests. **Salim S. Abdool Karim** describes how such attitudes may be overcome.

As AIDS turns 30, promising discoveries are finally making it seem as if stopping the epidemic is possible. A Comment article by Salim S. Abdool Karim in the June 2, 2011 issue of *Nature* outlines some of the challenges outside the laboratory that still remain.

Dr Abdool Karim writes that some of the biggest challenges now facing the war against AIDS are social rather than biomedical. Worldwide, people deny that they are at risk of contracting HIV, or avoid finding out whether they carry the virus. For instance, in Kenya, in 2007, only 17% of those testing HIV positive reported knowing that they were infected. "Our ability to overcome this denialism will determine

whether we ... slow, and eventually stop, the HIV pandemic"

"We must not allow the fourth decade of the AIDS epidemic to be the decade of missed opportunity. Every prevention programme should involve a combination of interventions tailored to the risks and vulnerabilities of the people receiving them."

Dr Abdool Karim argues that behavioural and biomedical scientists must work together to establish the factors that prevent people from making the best choices in terms of prevention and treatment, and to make advice and information more effective.

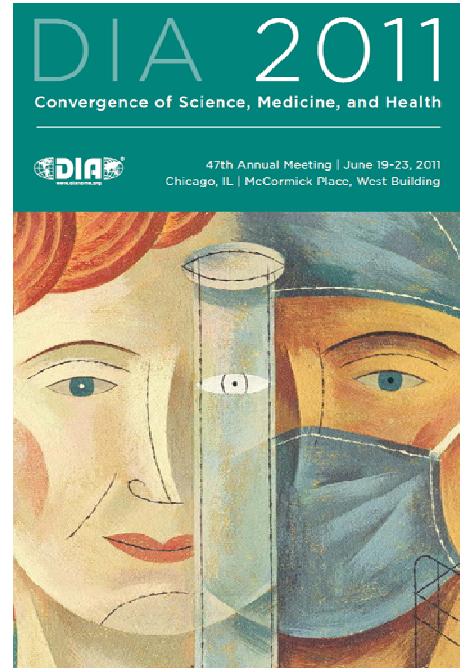
For more details see: Abdool Karim SS. Stigma impedes AIDS prevention. Nature 2011, 474: 29-31.



CAPRISA 004 Leadership receive recognition for contributions to global health

The CAPRISA 004 Leadership Team, including Salim and Quarraisha Abdool Karim from CAPRISA, UKZN and Columbia University, Henry Gabelnick from CONRAD, Ward Cates from FHI, Jeff Spieler from USAID, James Rooney from Gilead Sciences, and Carl Montague from the Technology Innovation Agency, have been awarded the Drug Information Association’s (DIA) “President’s Award for Outstanding Achievement in World Health”.

This award recognizes the significant, innovative contributions by a group of individuals to the improvement of world health. The award will officially be handed over to the team at the next DIA Conference that will be held in Chicago in June this year. This is the first time that this particular award has been made. The team was congratulated by the President of DIA on this significant achievement and recognition for their contributions to world health.



On June 5th, Jim Rooney, Ward Cates, Henry Gabelnick and Jeff Spieler received an Award for their contributions as the US partners who played a leadership role in the CAPRISA 004 trial. The award was a joint award being made by the South African government's Department of Science & Technology and CAPRISA. The award was made to recognise of the central role played by FHI, CONRAD, USAID and Gilead as US partners in the CAPRISA 004 tenofovir gel trial.

The CAPRISA 004 Trial Leadership team at the University of KwaZulu-Natal were also recently recognised by the South African Scientific Community and were awarded the NSTF-BHP Billiton award. The Department of Science and Technology presented the acclaimed Award for Research leading to Innovation to CAPRISA at the 13th annual event. This award acknowledges the significant contribution the team has made to innovation in South Africa and more specifically outstanding contributions to AIDS prevention through the landmark CAPRISA 004 study.



Dr Quarraisha Abdool Karim (left) and Dr Koleka Mlisana (right) accepting the NSTF-BHP Billiton Award on behalf of the CAPRISA 004 tenofovir gel trial leadership team from Dr Naledi Pandor, South African Minister of Science & Technology



HIV treatment as prevention—it works!

In May 2011, results from HPTN 052 were announced and showed that appropriate early treatment of HIV with oral antiretroviral drugs can prevent transmission of HIV from an HIV-positive individual to his or her uninfected sexual partner.

The study, which evaluated the effect of immediate use of antiretroviral therapy (when CD4+ cell counts are between 350 and 550 cells/mm³) versus delayed use (when CD4+ cell counts drop below 250 cells/mm³), enrolled 1,763 HIV-serodiscordant couples at 13 sites in Africa, Asia, and the Americas.

Results showed that initiating ART when cell counts were between 350 and 550 cells/mm³

reduced the risk of HIV transmission by 96%—a remarkable benefit.

Previous observational and epidemiological studies had suggested that ART could make HIV-infected individuals less infectious to their sexual partners, but HPTN 052 has provided the definitive proof.

CAPRISA congratulates Dr. Myron Cohen, the principal investigator of HPTN 052 and his team on this major contribution to HIV prevention.

More information can be found at: www.hptn.org



VOICE Study Completes Enrollment of 5,000 Women



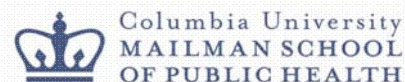
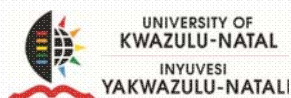
CAPRISA congratulates Mike Chirenje and Jeanne Mrazzozzo and MTN 003 VOICE trial team on reaching their enrolment target of 5000 women.

The VOICE trial is testing whether antiretroviral drugs commonly used in the treatment of HIV are safe and effective for preventing sexual transmission of HIV in women when used daily as either a tablet

or a vaginal microbicide gel. The CAPRISA eThekweni VOICE team (above) is one of the clinical research sites from Uganda, South Africa and Zimbabwe participating in the study. Results of the MTN003 trial are anticipated to be available early 2013.

More information about VOICE can be found at www.mtnstopshiv.org/news/studies/mtn003

News from the Columbia University-Southern African AIDS International Training and Research Program



Building Capacity in South Africa: Transitioning Training to South Africa



Dr Nerisha Tathiah: a rewarding year at Columbia University

Nerisha is a Registrar in Public Health Medicine at the University of KwaZulu-Natal and spent a year at the Mailman School of Public Health, Columbia University, as a Fogarty trainee, where she did an MS Epidemiology (2009—2010). In her own words “the experience at Columbia was superlative: the benefits of an Ivy League education, the opportunity to interact with students from diverse backgrounds, the mentorship and support by researchers regarded as leaders in their respective fields, set against the dynamic vibrant city that is New York. This experience has shaped my perspective on public health, particularly in the areas of teaching and research” (Photo: Nerisha in Central Park)

She is currently a registrar in the Department of Public Health Medicine at the UKZN Nelson R. Mandela Medical School. Her involvement in the CAPRISA coordinated Implementation Science Training Programme has consisted of lecturing students on research and epidemiology, and providing support and mentorship to the trainees through their year-long research process.

- Carrin Martin

Models to Predict Probability of Death

Andrew Boulle and Landon Myer, previous AITRP trainees, were involved in developing 2 models to estimate the probability of death in HIV infected patients starting ART in sub-Saharan Africa.

Data was analysed for adult patients who started ART in four scale-up programmes in Côte d'Ivoire, South Africa, and Malawi, 2004 to 2007. They were constructed using the Weibull survival models: one with CD4 cell count, clinical stage, bodyweight, age, and sex; and one that replaced CD4 cell count with total lymphocyte count and severity of anaemia, as CD4 cell count is not routinely measured in many African ART programmes.

Mortality was strongly associated with high baseline CD4 cell count, clinical stage bodyweight, and

anaemia status. Other independent risk factors were: low total lymphocyte count, advanced age and male sex. Both models accurately predicted early mortality compared to observed data, and could be used to predict outcomes for HIV-1 infected patients and plan health services in the region.

- Carrin Martin

May M, Boullé A, Phiri S, Messou E, Myer L, Wood R, Keiser O, Sterne JA, Dabis F, Egger M; *leDEA Southern Africa and West Africa. Prognosis of patients with HIV-1 infection starting anti-retroviral therapy in sub-Saharan Africa: A collaborative analysis of scale-up programmes. Lancet 2010;376:449-57. NIHMS 227856*

<http://www.thelancet.com/journals/lancet/issue/current?tab=past>

New scientific publications 2011



13* **Naranbhai V**, Bartman P, Ndlovu D, Ramkalawon P, **Ndung'u T**, Wilson D, Altfeld M, Carr WH. Impact of blood processing variations on natural killer cell frequency, activation, chemokine receptor expression and function. *Journal of Immunological Methods* 2011, 366(1-2):28-35

14 **Naranbhai V**, **Abdool Karim Q**, Meyer-Weitz A. Interventions to modify sexual risk behaviours for preventing HIV in homeless youth. *Cochrane Database of Systematic Reviews* 2011, Issue 1. Art. No.: CD007501. DOI:10.1002/14651858.CD007501.pub2.

15 Gray GE, Allen M, Moodie Z, **Churchyard G**, Bekker L-G, Nchabeleng M, **Mlisana K**, Metch B, de Bruyn G, Latka MH, Roux S, Mathebula M, **Naicker N**, Ducar C, Carter DK, Puren A, Eaton N, McElrath JM, Robertson M, Corey L, Kublin JG, on behalf of the HVTN 503/Phambili study team. Safety and efficacy of the HVTN 503/Phambili Study of a clade-B-based HIV-1 vaccine in South Africa: a double-blind, randomised, placebo-controlled test-of-concept phase 2b study. *Lancet Infectious Diseases* 2011, DOI:10.1016/S1473-3099(11)70098-6

16 Venter FWD, Ndung'u T, **Abdool Karim Q**. Case 15-2011 — A 19-Year-Old South African Woman with Headache, Fatigue, and Vaginal Discharge. *N Engl J Med* 2011; 364:1956-1964

17 Heilig CM, Chia D, El-Sadr WM, Hirsch-Moverman Y, MacKenzie WR, **Padayatchi N**, Saukkonen J, Villarino M. Justifying Research Risks in a Clinical Trial for Treatment of Multidrug-Resistant Tuberculosis. *IRB: Ethics & Human Research* 2011, 33(4).

18 Stamatatos L, **Morris L**, Burton DR, Mascola JR. Neutralizing antibodies generated during natural HIV-1 infection: good news for an HIV-1 vaccine? *Nature Medicine* 2011, 15 (8):866-870

19 Mamtani M, Mummidi S, **Ramsuran V**, Pham M-H, Maldonado R, Begum K, Valera MS, Sanchez R, Castiblanco J, Kulkarni H, **Ndung'u T**, He W, Anaya JM, Ahuja SK. Influence of Variations in CCL3L1 and CCR5 on Tuberculosis in a Northwestern Colombian Population. *Journal of Infectious Diseases* 2011, 203(11):1590-1594.

20 **Naidoo K**, **Naidoo K**, **Padayatchi N**, **Abdool Karim Q**. HIV-Associated Tuberculosis. *Clinical and Developmental Immunology*. 2011. Volume 2011:art. no. 585919 doi:10.1155/2011/585919

21 Kraemer JD, Cabrera OA, **Singh JA**, Depp TB, Gostin LO. Public health measures to control tuberculosis in low-income countries: Ethics and human rights considerations. *International Journal of Tuberculosis and Lung Disease* 2011, 15(SUPPL 2): S19-S24

*this list continues from the previous newsletter - providing all CAPRISA publications in 2011

Upcoming Conference & Workshop Reminders

Conference	dates	Deadlines		
		Abstracts	Registration	website
6th IAS Conference on HIV Pathogenesis, Treatment and Prevention	17-20 July, 2011	23 May (late breaker)	24 February 2011	www.ias2011.org/
4th SA AIDS Conference	7-10 June 2011	28 January 2011	20 May 2011	http://www.saaid.com/

CAPRISA is an official research institute of the University of KwaZulu-Natal. CAPRISA was established in 2002 through a CIPRA grant from the NIH, as a multi-institutional collaboration, incorporated as an independent non-profit AIDS Research Organization

Registration Number: 2002/024027/08

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