



CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA

Newsletter

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Quarraisha Abdool Karim named as UNAIDS Special Ambassador for Adolescents & HIV

In this Issue

In our feature story we celebrate Quarraisha Abdool Karim's appointment as a UNAIDS Special Ambassador.

On page 2 we provide a summary of the 8th HIV Prevention workshop, which was held in the KwaZulu-Natal Midlands.

We report on a triad of achievements on page 3: Lynn Morris earns a spot on the 2017 most Highly Cited Researchers list, Salim Abdool Karim is appointed to the Board of Trustees of the Population Council and Kumeren Govender is awarded a prestigious Rhodes scholarship to pursue his studies at Oxford University. We also highlight the recognitions earned by the CAPRISA MTN team for excellence.

On page 4 the sharing of knowledge with SARETI scholars and UKZN's World AIDS Day event is profiled.

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Michel Sidibé (left), Executive Director UNAIDS, presents a certificate of appointment as a UNAIDS Special Ambassador for Adolescents and HIV to Professor Quarraisha Abdool Karim (middle). On her left is the South African Minister of Health, Dr Aaron Motsoaledi

CAPRISA's Associate Scientific Director, Professor Quarraisha Abdool Karim, has been appointed as a UNAIDS Special Ambassador. In this new role, she will focus on adolescents and HIV, while also championing the involvement of young women in science.

"I am delighted that Quarraisha Abdool Karim has accepted this position," said Mr Michel Sidibé, Executive Director UNAIDS.

Sidibé made the announcement at the launch of the UNAIDS report, *Right to Health*, on Monday 20 November, at the Michael Mapongwana Community Health Centre, Harare, Khayelitsha, in Cape Town. There was a strong community presence at the event, which was attended by the Minister of Health, Dr Aaron Motsoaledi, representatives of TAC and several civil society organisations.

Sidibé said that Abdool Karim was "a strong and consistent champion of young

people living with and affected by HIV." He said that she will use her new honorary position as Special Ambassador "to continue to translate scientific research and knowledge into people-centred solutions and prevention programmes to reduce the factors making young people so vulnerable to HIV infection. UNAIDS looks forward to supporting her work."

Responding to her appointment Abdool Karim said that "as we increase our understanding of the HIV epidemic and the transmission dynamics that place young people at higher risk of infection, all sectors of society must work together to make sure that adolescents have access to the information and services that can keep them safe and well through a crucial period of their lives and into adulthood."

Abdool Karim has made pioneering contributions to understanding the HIV epidemic in young people, especially in young women.



8th Annual HIV Prevention Workshop 2017



Delegates from the Ragon Institute at Harvard, CAPRISA and the HPP at the 8th annual HIV Prevention workshop held at the Fordoun Hotel in the KwaZulu-Natal Midlands, South Africa.

Hosted by CAPRISA, the Ragon Institute, and the HIV Pathogenesis Programme, the 8th annual HIV Prevention Workshop was held in the lush KwaZulu-Natal Midlands from 14-17 November.

This year, sessions focused on the latest advancements in research pertaining to: HIV pre-exposure prophylaxis (PrEP); the vaginal microbiome; understanding the immunogenetics of HIV disease; harnessing broadly neutralising antibodies as PrEP; eliciting effective anti-HIV vaccine responses; and advancing the HIV cure agenda.

CAPRISA's Director, Salim Abdool Karim, opened the meeting with a discussion about the state of the global HIV epidemic, explaining that HIV incidence remains unacceptably high, and that young women are disproportionately affected. He emphasised the need for better combination HIV prevention within the scope of the ongoing HIV pandemic. The session on PrEP included descriptions of exciting new ARV-based PrEP regimens and delivery models (Gustavo Doncel, Walid Heneine), and inspired hope for current and planned clinical trials. Collectively, the presenters highlighted the importance of understanding biological and behavioural factors that can modify PrEP effects, and to focus investigations on ways to modify these to improve efficacy.

The microbiome session highlighted the gaps and challenges in translating the vaginal microbiome (Doug Kwon/Caroline Mitchell), and invited much discussion on the impact of the vaginal microbiome on HIV risk and prevention (Jo-Ann Passmore). The speakers described the complexities of host-microbial interactions in the female genital tract, the importance of understanding what constitutes a "normal" or "healthy" genital mucosa, factors that contribute towards the transition to bacterial vaginosis.

The immunogenetics of HIV disease was described succinctly by Mary Carrington and was complemented by further descriptions of the utility of single cell tran-

scriptomics profiling (Sam Kazer), and the importance of addressing systematically the relationship between HLA expression and immune cell responses in the prevention of HIV, and other diseases (Veron Ramsuran/Emily Wong).

Nicole Doria Rose began the bnAbs session on a "good note" with a comprehensive overview of bnAbs in HIV prevention. The session featured updates on the PGT121/PGDM1400 NHP and human trials (Boris Juelg/Katy Stephensen), the neutralization capacity of transmitted/founder viruses by bNabs (Bongiwe Ndlovu), and exciting work from Dennis Burton showing rapid production of bnAbs in cows on immunization with BG505 SOSIP.

The vaccine session began with a description of the landscape of current and future HIV vaccine trials (Nigel Garrett and Kathy Mngadi). Featured work included that of Tim Schacker who highlighted the role of lymphoid tissue fibrosis on the development of effective vaccine responses, and by Bill Schief, who described the utility of germ line vaccination to induce bNabs. The session on HIV cure highlighted the importance of locating HIV reservoirs (Melissa-Rose Abrahams, Kavitha Reddy), characterising the features of biomarkers associated with cure (Madeleine Jennewein), and of using post-vaccination immunology as a tool to predict future vaccine efficacy (Dan Barouch).

Besides involvement in top-class science, the meeting delegates were also treated to zipline adventures through the Karkloof canopies in Howick, to tandem soars on a glider, and spectacular views of the uncharacteristically snowy Drakensberg mountain peaks in summer. In keeping with the outcomes of previous meetings, delegates left with great optimism for HIV prevention with several HIV vaccine clinical trials underway, and exciting new products in the pipeline for PrEP, vaccines and cure.

- Lenine Liebenberg (Research Associate, CAPRISA)



Lynn Morris on Highly Cited researcher list for 2017



We congratulate Professor Lynn Morris, CAPRISA Research Associate, on retaining her listing in the 2017 Highly Cited Researcher list, which honours 3 400 scientists globally, who are considered to be among the world's most highly influential scientific minds and have been most cited by their peers. Highly Cited Papers are defined as those that rank in the top 1% by citations for field and publication year in the Web of Science. Morris is globally recognised for

her seminal studies of the antibody response to HIV and understanding how the body's immune system makes potent broadly neutralising HIV antibodies that are needed for an HIV vaccine. She holds a joint appointment as Research Professor in the Faculty of Health Sciences at Wits University and is the Head of the HIV Virology Laboratory within the Centre for HIV & STIs based at the National Institute for Communicable Diseases, a division of the National Health Laboratory Services.

CAPRISA eThekweni team receives recognition

CAPRISA's MTN 025 team at the eThekweni Research Clinic received the MTN award titled "From ASPIRE to HOPE", for the timely and efficient implementation of HOPE (MTN 025). This award was presented to the team by the MTN Co-Principal Investigators Jared Baeten and Sharon Hillier. The CAPRISA eThekweni site was one of only two teams to be acknowledged at this meeting.



(L-R): Jared Baeten, Kalendri Naicker, Leila Mansoor & Sharon Hillier

CAPRISA Clinical Research placement earns a Rhodes Scholarship



CAPRISA Research placement final year medical student, Kumeren Govender, has been awarded the prestigious Rhodes scholarship for 2018 to pursue studies at Oxford University in the United Kingdom. Govender plans to continue his studies at Oxford University with a PhD in an interdisciplinary field of artificial intelligence, big data and complex systems such as healthcare systems or genomics. An ecstatic Govender explained that the aim is, "to use big data with machine learning to solve complex healthcare threats including patterns of TB resistance as well as the emergence of antibiotic resistance," which, he said is "predicted to be the number one cause of death by 2050."

Govender who completed matric with 12 distinctions, attributed his interest in pursuing clinical science to his experience at CAPRISA as a research placement. During his undergraduate years he has published three peer reviewed articles and presented at conferences. Govender is concurrently studying for a master's degree in a special dual-track programme at UKZN. He was also nominated as one of the top 200 young South Africans by Mail & Guardian in 2017.

Salim Abdool Karim appointed to Population Council Board of Trustees

The Population Council announced the appointment of CAPRISA's Director and leading AIDS researcher Professor Salim Abdool Karim, to the Council Board of Trustees. Abdool Karim joins 15 other Board members at the Population Council, drawing from six different countries and diverse areas of expertise, including demography, economics, education, HIV and AIDS, international law, obstetrics and gynaecology, public health and reproductive health. The Population Council's research in biomedical, social science and public health in 50 countries, aims to develop solutions that will contribute to more effective policies, programs, and technologies that improve lives around the world. The Council, a non-profit, nongovernmental organisation, which addresses critical health issues is based in New York.





SARETI students gain insights into clinical trials



Scholars from UKZN's South African Research Training Initiative (SARETI) visited CAPRISA headquarters and the eThekweni Research clinic on 25th October to gain practical insights on the implementation of clinical trials. The scholars, from Cameroon, Liberia, Zimbabwe, and Nigeria, attended a full-day session with presentations from CAPRISA scientists and researchers. Professor Doug Wassenaar, Principal Investigator of SARETI said the visit exposed the scholars to the realities of South African research programmes such as CAPRISA. "They returned with nothing but praise for the generosity and kindness shown them and for many learning points," he said.

Keynote address at World AIDS Day event



Professor Quarraisha Abdool Karim delivered the keynote address at an event to mark World AIDS Day, hosted by the University of KwaZulu-Natal. Abdool Karim's address titled: Global responses to HIV/AIDS: Successes and Challenges to Ending AIDS. She said that the role of activism and social mobilisation in the HIV response is unprecedented in the context of health and there is a lot we can learn from this experience for other health and social challenges.

iSpotU and Achievement awards

The CAPRISA iSpotU Innovation Award recognises and rewards employees who contributed in an exceptional manner in respect of innovation, which demonstrate that "There Is a Better Way" of doing a task, process or system. The Achievement Award rewards and recognises employees or teams for accomplishments and achievements which received recognition from an external credible individual and/or organisation. Recipients of the awards during November and December included:

CAPRISA Achievement Award

A Kharsany received the award for her nomination as a Member of the South African Academy of Science, and L Mansoor, D Chetty, R David, N Mtalane, C Shoji, N Zungu, I Harkoo, B Madlala, C Naicker, K Naidoo, L Dias, M Dladla, S Khanyile, C Khwela, L Kubheka, C Mabasa, W Mkhize, N

Myeni, A Mqadi, K Mngadi, P Hector, T Hlatshwayo, I Kauda, N Khoza, Z Mkhize, N Mthembu, J Naidoo, K-L Ramtahal, T Rashid, S Ximba, B Zuma, Y Duki, J Galvin, M Mathir, L Parthab, C Minnie, C Harichund, P Kunene, J Maphanga, D Ramjit, B Bande, C Dlamini, G Gumede, Z Gwamanda, S Hlathi, N Maphanga, T Shezi, P Sing, C Singh, M Zulu, S Chinappa, D Govender, R Hassan

Moosa, V Naik, G Ntjana, S Nzimande, B Manqola, B Maharaj, S Chetty, N Dladla, K Govender, M Govender, A Moosa, A Naidoo, K Naidoo, S Ngongoma, P Nocwezo, and T Gengiah, were recipients of a CAPRISA Achievement award in November/December in recognition of external endorsement as a result of an external audit.



Scientific papers published in 2017

76* **Ntshabele R, Perumal R, Padayatchi N.** Rural medicine and 'home stay': a medical student's experience. *South African Family Practice* 2017; 1(1):1–3. DOI: 10.1080/20786190.2017.1386867.

77 Balkus JE, Palanee-Phillips T, Reddy K, Siva S, **Harkoo I**, Nakabiito C, Kintu K, Nair G, Chappell C, Kiweewa FM, Kabwigo S, Naidoo L, Jeenarain N, Marzinke M, Soto-Torres L, Brown ER, Baeten JM. Dapivirine Vaginal Ring Use Does Not Diminish the Effectiveness of Hormonal Contraception. *JAIDS* 2017; 76(2):e47-e51.

78 **Naidoo K, Gengiah S, Yende-Zuma N, Padayatchi N, Barker P, Nunn A, Subrayen P, Abdool Karim SS.** Addressing challenges in scaling up TB and HIV treatment integration in rural primary healthcare clinics in South Africa (SUTHI): a cluster randomized controlled trial protocol. *Implementation Science* 2017; 12:129. doi: 10.1186/s13012-017-0661-1.

79 **Ngcapu S, Theys K, Libin P, Marconi VC, Sunpath H, Ndung'u T, Gordon ML.** Characterization of Nucleoside Reverse Transcriptase Inhibitor-Associated Mutations in the RNase H Region of HIV-1 Subtype C Infected Individuals. *Viruses* 2017; 9(11):330. doi: 10.3390/v9110330.

80 **Grobler A, Cawood C, Khanyile D, Puren A, Kharsany ABM.** Progress of UNAIDS 90-90-90 targets in a district in KwaZulu-Natal, South Africa, with high HIV burden, in the HIPSS study: a household-based complex multilevel community survey. *Lancet HIV* 2017; 4(11):e505-e513.

81 **Leitman EM, Thobakgale CF, Adland E, Ansari MA, Raghwanji J, Prendergast AJ, Tudor-Williams G, Kiepiela P, Hemelaar J, Brener J, Tsai MH, Mori M, Riddell L, Luzzi G, Jooste P, Ndung'u T, Walker BD, Pybus OG, Kellam P, Naranbhai V, Matthews PC, Gall A, Goulder PJR.** Role of HIV-specific CD8+ T cells in pediatric HIV cure strategies after widespread early viral escape. *Journal of Experimental Medicine* 2017; 214(11):3239-3261.

82 **Mitchell EMH, Daftary A.** TB stigma: clearing the fog. *International Journal of Tuberculosis and Lung Disease* 2017; 21(11): S1. doi: 10.5588/ijtld.17.0651. <https://www.ncbi.nlm.nih.gov/pubmed/29025477>

83 **Dorward J, Mabuto T, Charalambous S, Fielding KL, Hoffmann CJ.** Factors associated with poor linkage to HIV care in South Africa: secondary analysis of data from the Thol'impilo trial. *JAIDS* 2017; 76(5):453-460.

84 **Garrett N, Norman E, Leask K, Naicker N, Asari V, Majola N, Abdool Karim Q, Abdool Karim SS.** Acceptability of early antiretroviral therapy among South African women. *AIDS & Behavior* 2017. DOI:10.1007/s10461-017-1729-2.

85 **Mngadi KT, Singh JA, Mansoor LE, Wassenaar DR.** Undue inducement: a case study in CAPRISA 008. *Journal of Medical Ethics* 2017 43(12):824-828. doi: 10.1136/medethics-2016-103414

*continuation from previous newsletter

Scientific Reviews

Abstracts submitted for review		Manuscripts submitted for review		Ancillary studies submitted for review	
Total [#]	Cumulative [^]	Total [#]	Cumulative [^]	Total [#]	Cumulative [^]
0	390	1	227	1	84

[#] for month, [^] since committee initiation

Season's greetings

The Christmas season is the time to take stock of past achievements and challenges and to prepare for the coming year. As an organization we have had many achievements but have also faced some challenges and overcome them because of the team work of all staff. The Executive management appreciate all of your efforts. Wishing you a joyous and peaceful festive season and a prosperous 2018.

