



# CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA

## Newsletter

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### High acceptability of earlier ART among South African women

#### In this Issue

Our feature story this month focuses on the study that assessed the acceptability of earlier treatment among young HIV-positive South African women.

On page 2 we congratulate Prof Quarraisha Abdool Karim as the recipient of the 2018 Ward Cates Spirit Award and Dr Jienchi Dorward who was awarded the Wellcome Trust Clinical PhD Fellowship.

We also congratulate the Fogarty International Centre on its 50th anniversary on page 3. As part of CAPRISA's social responsibility, 20 young female learners spent the day at CAPRISA as part of the annual Cell C Take a Girl Child To Work initiative giving them valuable "real work" exposure.

Both WHO and South African guidelines recommend immediate initiation of antiretroviral therapy (ART) for all individuals at HIV diagnosis regardless of CD4 count, but concerns remain about potential low uptake or poor adherence among healthy patients with high CD4 counts, especially in resource-limited settings. This study assessed the acceptability of earlier treatment among young HIV-positive South African women who seroconverted and enrolled in the CAPRISA 002 study, a 12-year longitudinal cohort study.

Acceptability was assessed by (a) describing temporal CD4 count trends at initiation in relation to WHO guidance, (b) virological suppression rates post-ART initiation at different CD4 count thresholds, and (c) administration of a standardized questionnaire.

A total of 158/232 (68.1%) participants initiated ART between 2006 and 2015. Mean CD4 count at initiation was 217 cells/ $\mu$ l before 2010, and increased to 531 cells/ $\mu$ l by 2015 ( $p < 0.001$ ).

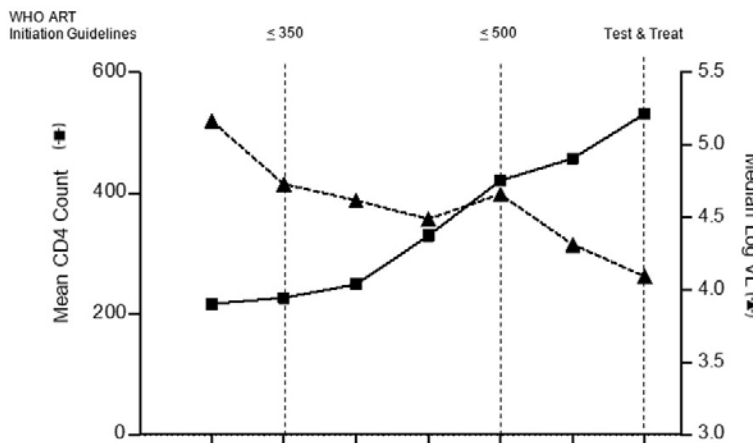
Median viral load at ART initiation decreased over this period from 5.2 to 4.1 log copies/ml ( $p = 0.004$ ) (Figure 1). Virological suppression rates at 3, 6, 12 and 18



months were consistently above 85% with no significant differences for participants starting ART at different CD4 count thresholds. A questionnaire assessing uptake of early ART amongst HIV positive, ART-naïve women revealed that 40/51 (78.4%) were willing to start ART at CD4  $\geq 500$ . Of those unwilling, 6/11 (54.5%) started ART within 6 months of questionnaire administration.

Temporal increases in CD4 counts, comparable virological suppression rates, and positive patient perceptions confirm high acceptability of earlier ART initiation for the majority of patients.

Dr Nigel Garrett



For further reading see:

N Garrett, et al. Acceptability of Early Antiretroviral Therapy Among South African Women. *AIDS Behav.* 2018;22(3):1018-1024. <https://www.ncbi.nlm.nih.gov/pubmed/?term=28224322>

Figure 1: CD4 count and viral load trends at ART Initiation in CAPRISA 002

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# Quarraisha Abdool Karim receives the prestigious 2018 Ward Cates Spirit award

The 2018 Ward Cates Spirit award was presented to Professor Quarraisha Abdool Karim, Associate Scientific Director of CAPRISA, at the Annual HIV Prevention Trials Network (HPTN) meeting held in Washington, from the 16 – 19 May by Dr Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases; Dr Myron Cohen and Dr Wafaa El-Sadr, co-Chairs of the HPTN. Abdool Karim, the first female recipient of the award, was recognised for her ‘outstanding commitment and leadership to health as a right, internationally and domestically; scientific excellence and her magnanimity in mentorship and support.’

The Ward Cates Spirit award honours the rich scientific legacy of the late Ward Cates, Distinguished Scientist and President Emeritus of FHI 360, that spanned over 40 years. During his distinguished career Cates served in senior positions at the CDC and

FHI 360. Significantly Ward Cates, as President of FHI360 and previous Chair of HIVNET and HPTN was a long-time collaborator, colleague and dear friend of Salim and Quarraisha Abdool Karim and played a pivotal role in the CAPRISA 004 trial.



At the presentation of the award: (L-R): Dr Wafaa El-Sadr and Dr Mike Cohen co-Chairs of the HPTN, Prof Quarraisha Abdool Karim, Associate Scientific Director CAPRISA, and Dr Anthony Fauci, Director, NIAID, at the NIH.



The award honours the rich scientific legacy of the late Dr Ward Cates

## Wellcome Trust Clinical PhD Fellowship awarded to Jienchi Dorward

Congratulations to Dr Jienchi Dorward, CAPRISA Research Clinician, on being awarded a Wellcome Trust Clinical PhD Fellowship to undertake a 4 year DPhil at the Nuffield Department of Primary Care Science at the University of Oxford, UK. His DPhil proposal, entitled “Point-of-care viral load testing to enhance primary care HIV services in South Africa”, aims to build on current work in the CAPRISA 087 STREAM point-of-care viral load trial. He will be



supervised by Professor Chris Butler, Director of the Oxford Primary Care and Vaccines Clinical Trials Collaborative. Dr Dorward said he aims “to develop skills in the implementation and evaluation of complex diagnostic interventions that can improve HIV care in SA”.

## CAPRISA Vaccine team in Washington



Photo: (L-R) Bhavna Maharaj (Research Pharmacist); Ivy Kaunda (Acting CLO), Bongzi Zuma (Study co-ordinator), Dr. Nigel Garrett (Head: Vaccine & Pathogenesis)

CAPRISA Research Pharmacist, Ms Bhavna Maharaj presented the CAPRISA-led pMoTAR study at the HIV Vaccine Trial Network (HVTN) Full Group Meeting held in Washington D.C from 14 - 16 May. The pilot study on using mobile technology to assess reactogenicity symptoms and signs, was funded by the HVTN Initiatives Programme (HIP).



# Fogarty celebrates 50 years of excellence of building local research capacity



A diverse group of Fogarty Fellows made up of senior scientists and young investigators from across the globe attended a symposium to mark the 50<sup>th</sup> anniversary of the Fogarty International Centre themed “what are the new frontiers in global health research” hosted at the National Institutes of Health, on 1<sup>st</sup> May, in Bethesda, Maryland in the US.

For the last 50 years, “Fogarty’s focus has been on cultivating partnerships that advance science for global health,” said Dr Roger Glass Director of the Centre. “We really invest in capacity building of young people interested in research in biomedical and health sciences.” Glass said that this approach has become “the hallmark of Fogarty programs—taking science where the problems are and building local research capacity to solve them. The scientists who were first trained through our programs have become world leaders on the front lines in the battle to staunch the global epidemic of HIV/AIDS through innovative research, in collaboration with U.S. investigators, and with additional support from many others at NIH and beyond.”

Professors Salim and Quarraisha Abdool Karim, both former Fogarty grantees, presented at the Symposium. They have played a central role in building the science base in southern Africa through the Columbia University-Southern African Fogarty AIDS Internation-



At the 50th anniversary celebrations: (L-R): Roger Glass, Director of Fogarty, Barbara Glass, Francis Collins Director NIH, Diane Baker and Salim Abdool Karim

al Training and Research Programme that trained over 600 scientists in southern Africa.

Access the webcast of the proceedings: <https://videocast.nih.gov/summary.asp?Live=27472&bhcp=1>

## CAPRISA hosts the Cell C Take a Girl Child To Work initiative

CAPRISA hosted 20 enthusiastic Grade 11 and 12 female learners and three teachers from high schools in the Durban, Howick and Vulindlela areas on 24<sup>th</sup> May as part of the annual Cell C “Take a Girl Child To Work” initiative aimed at exposing young girls to the real “world of work”. The initiative aims to “give young girls an opportunity to interact with role models; and make informed career decisions based on real work experiences,” explained Ms Marietjie Geldenhuys, Head of Human Resources at CAPRISA. Learners were exposed to the diverse and wide range of careers that are available in a scientific organisation. Speakers included Professor Salim Abdool Karim, Director of CAPRISA, Prof Quarraisha Abdool Karim, CAPRISA’s Associate Scientific Director, and Prof Koleka

Mlisana, Head of Medical Microbiology at UKZN. Prof Quarraisha Abdool Karim facilitated a round table discussion on ‘how to overcome challenges in career progression as a woman’. “The experience was wonderful, and it taught us that we as young women can be independent and successful,” wrote the learners from the Ngcedomhlophe High School. “It was indeed an honour and an unforgettable moment of experience. We learnt how important thinking is to our lives and how it can help us to go far and improving ourselves to being better persons in the near future.”

CAPRISA will continue the partnership with the identified schools to “provide young learners with further opportunities to engage with staff at the Vulindlela Research Clinic,” said Geldenhuys.



Learners, with their teachers and CAPRISA officials, proudly hold up their certificates of attendance at the CAPRISA Cell C Take a Girl Child To Work initiative

## Community engagement at Vaccine Day event



The CAPRISA Vulindlela Research Clinic hosted an interactive community engagement event to mark World Aids Vaccine Day on 18 May. The event’s purpose was acknowledging “... valuable contributions made by participants, health care professionals and volunteers, community members, and staff doing vaccine research ...” said Dr Pete Zacharias, Director at Vulindlela. Presentations were educational with updates on HIV Vaccine, Antibodies Mediated Prevention and Pre-Exposure Prophylaxes studies. An educational play was presented by the CAPRISA Community Research Support Group (CRSG). The event was supported by the presence of local iNduna Mayisela and representatives from the Treatment TB Campaign, Treatment Action Campaign, Red Cross, Health Clinical Commissioning Group and staff of Mafakatini Clinic, a public health facility adjoining the CAPRISA clinic.



## Scientific papers published in 2018

- 28\* **Garrett N**, Norman E, **Leask K**, **Naicker N**, **Asari V**, **Majola N**, **Abdool Karim Q**, and **Abdool Karim SS**. Acceptability of early antiretroviral therapy among South African women. *AIDS and Behavior* 2018; 22(3):1018-1024.
- 29 **Perumal R**, **Naidoo K**, **Padayatchi N**. TB epidemiology: where are the young women? Know your tuberculosis epidemic, know your response. *BMC Public Health* 2018; 18(1):417.
- 30 Kamariza M, Shieh P, Ealand CS, Peters JS, Chu B, Rodriguez-Rivera FP, Sait MR, Treuren WV, Martinson N, Kalscheuer R, **Kana BD**. Rapid detection of Mycobacterium tuberculosis in sputum with a solvatochromic trehalose probe. *Science Translational Medicine* 2018; 10(430):eaam6310.
- 31 Happel AU, Barnabas SL, Froissart R, **Passmore JS**. Weighing in on the risks and benefits of probiotic use in HIV-infected and immunocompromised populations. *Beneficial Microbes* 2018; 9(2):239-246.
- 32 Smith CM, Lessells R, Grant AD, Herbst K, **Tanser F**. Spatial clustering of drug-resistant tuberculosis in Hlabisa subdistrict, KwaZulu-Natal, 2011-2015. *International Union against Tuberculosis and Lung Disease* 2018; 22(3):287-293.
- 33 **Humphries H**, **Osman F**, Knight L, **Abdool Karim Q**. Exploratory analysis of the ecological variables associated with sexual health profiles in high-risk, sexually-active female learners in rural KwaZulu-Natal. *PLoS One* 2018;13(4): e0195107.
- 34 Richardson SI, Chung AW, Natarajan H, Mabvakure B, Mkhize NN, **Garrett N**, **Abdool Karim SS**, **Moore PL**, Ackerman ME, Alter G, **Morris L**. HIV-specific Fc effector function early in infection predicts the development of broadly neutralizing antibodies. *PLoS Pathogens* 2018; 14(4): e1006987.
- 35 **Dawood H**, **Hassan-Moosa R**, **Yende-Zuma N**, **Naidoo K**. Mortality and treatment response amongst HIV-infected patients 50 years and older accessing antiretroviral services in South Africa. *BMC Infectious Diseases* 2018; 18(1):168.
- 36 Vandormael A, Bärnighausen T, Herbeck J, Tomita A, Phillips A, Pillay D, **de Oliveira T**, **Tanser F**. Longitudinal trends in the prevalence of detectable HIV viremia: Population-based evidence from rural KwaZulu-Natal, South Africa. *Clinical Infectious Diseases* 2018; 66(8):1254-1260.

\*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	397	2	233	1	87

# for month, ^ since committee initiation



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