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CAPRISA Newsletter

CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA

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In this Issue

The Lead
HIV antibody drug clinical trial sheds light on short term problem

Page 2
HIV pioneer Dr Roger Detels remembered

Page 3
Pushing the boundaries on bNAb exploration

Page 5
In this episode of **The Unconventional Scientist,** we speak to **Dr Gethwana Mahlase** on the driving force behind her life's work in HIV/AIDS and getting her PhD at 71

THE LEAD

HIV antibody trials: Transient liver injury with a likely multi-drug cause

In recent years, broadly neutralising antibodies (bNAbs) have been evaluated across the HIV research agenda as potential tools for prevention, treatment and cure, and CAPRISA has tested several of them in clinical trials. Because these are investigational products, every unexpected safety finding must be carefully investigated, yet determining the cause of acute liver injury can be difficult when several exposures overlap.

A recent case report from CAPRISA researchers describes a healthy, HIV-negative 26-year-old woman in the CAPRISA 012A phase 1 trial who received the bNAbs VRC07-523LS and PGT121. Routine safety bloods about three months later revealed marked hepatocellular changes, with ALT of 1167 IU/L and AST of 820 IU/L, although the patient remained clinically well. Her concomitant medications were stopped, and enzyme levels began to fall within three days, but a second rise followed 22 days later.

Viral hepatitis serology, autoimmune markers and abdominal ultrasound were negative. Her liver enzymes subsequently improved steadily.

Using the RUCAM causality scoring system, co-amoxiclav, ibuprofen and oral contraceptives were each considered possible causes, whereas the antibodies were judged an unlikely cause. Household white vinegar, consumed before the first rise, was regarded as a possible contextual factor rather than a likely primary cause.

Cytokine analysis showed that most inflammatory markers were elevated from day 3 after dosing compared with matched controls, and the authors hypothesize that this hyperinflammatory state may have predisposed her to liver injury. Overall, the case underscores the value of comprehensive history-taking, careful clinical examination and diligent adverse event reporting, particularly when participants are exposed to several medicines at once.

Credit: Dr Ishana Harkoo

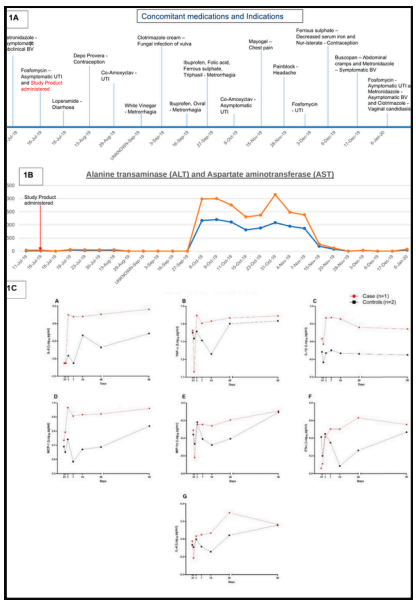

Figure 1: (A) Study product and concomitant medications. (B) Serum ALT and AST levels over time. (C) Cytokine concentrations (Log10 pg/ml) in the case (n = 1) and matched controls (n = 2) up to day 56. Reproduced from Harkoo et al., Int J STD AIDS 2026

For further reading: **Harkoo I, Sobia P, Archary D, Garrett N, Mahomed S**. A case of transient hepatocellular injury in an HIV monoclonal antibody trial. *Int J STD AIDS*. 2026 Aug;37(9):1051-1054. https://doi.org/10.1177/09564624261458750

Virchow Prize 2026

Professor Quarraisha Abdool Karim co-chaired the jury for this year's Virchow Prize. It was awarded to microbiologists Jean-Jacques Muyembe from the Institut National de Recherche Biomédicale in the Democratic Republic of Congo and Peter Piot from the Institute of Tropical Medicine in Antwerp in Belgium.

The Virchow Foundation noted that the award was for, "for their pioneering and enduring leadership in the discovery, control, and understanding of epidemic threats, and for advancing equitable, multilateral cooperation and governance that have fundamentally strengthened global preparedness and solidarity in the face of infectious disease outbreaks." and that "The careers of Muyembe and Piot are anchored in one of the defining moments of modern infectious disease history: the emergence of Ebola in 1976.

Taken together, the contributions of Muyembe and Piot illustrate a continuum that is central to advancing health for all: from discovery to delivery, from local response to global coordination, from emergency action to long-term system strengthening. Their work has directly improved the ability to detect, understand, and control deadly outbreaks, while also influencing broader frameworks for addressing global health challenges in a manner that is equitable and leaves no one behind."

Pics (left to right): Detlev Ganten (Virchow Foundation co-Founder), Jean-Jacques Muyembe-Tanfum (co-recipient of the 2026 Virchow prize), Peter Piot (co-recipient of the 2026 Virchow prize), Quarraisha Abdool Karim (Co-Chair of the Prize Jury), Roland Gohde (CEO of the Virchow Foundation) & Reem Alabali Radovan (German Federal Minister for Economic Cooperation and Development). Middle: Jean-Jacques Muyembe and Peter Piot. Right: Quarraisha Abdool Karim and Ole Petter Petersen (co-chairs of the Virchow Prize Jury) outline the selection process at the Virchow Prize ceremony. Pic credit: The Virchow Foundation

Roger Detels Remembered

1936-2026

Pic credit: UCLA Fielding School of Public Health

HIV research pioneer and renowned epidemiologist Doctor Roger Detels died in July at the age of 89. According to The Lancet, Detels earned a bachelor's degree in biochemistry from Harvard University in Cambridge, MA, USA, in 1958, before completing a doctorate in medicine in 1962 at what is now the New York University Grossman School of Medicine.

In 1970, Detels was named Associate Professor at UCLA Fielding, where he would spend the rest of his professional career, rising to become Distinguished Professor of Epidemiology and Infectious Diseases.

In 1988, Detels founded the UCLA/Fogarty AIDS International Training and Research Program (UCLA/Fogarty), through which more than 100 public health leaders from countries including Thailand, the Philippines, Indonesia, Singapore, Myanmar, India, China, Vietnam, Laos, Cambodia, Hungary, and Brazil, received master's or doctoral degrees from Fielding School, and many more benefited from short-term training over the years. Read Detel's obituary by Andrew Green in ***The Lancet.***

Gelderblom & Mahomed on combination bNAbs

Taking the bNAb conversation forward, AVAC led by its Executive Director Mitchell Warren, hosted a webinar on combination bNAbs for HIV prevention. It built on the AVAC - CAPRISA special session on the CAPRISA 012c results at the 2026 AIDS Conference in Rio de Janeiro, Brazil.

Dr Huub Gelderblom is a physician-scientist at the HIV Vaccine Trials Network (HVTN) and based at the Fred Hutchinson Cancer Center in Seattle.

Over the last two decades, his work has focused on HIV, hepatitis C, trachoma and SARS-CoV-2 and now broadly neutralising antibodies (bnAbs) for HIV prevention.

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Over the last two decades, his work has focused on HIV, hepatitis C, trachoma and SARS-CoV-2 and now broadly neutralising antibodies (bnAbs) for HIV prevention. Huub's message in this webinar was clear: "Coverage is the key to clinical effectiveness He said, Clinical effectiveness requires improving coverage; best done by using combination of 3 bnAbs similar to combination ART."

Dr Sharana Mahomed, CAPRISA's Head of HIV Pathogenesis, presented updates from the Rio conference where she released the results of her CAPRISA 012C clinical trial of a combination of two broadly neutralizing antibodies to prevent HIV infection in young women in southern Africa. She said, "We now know that they can, when the circulating virus is sufficiently sensitive to the antibody and adequate neutralising activity is maintained. The challenge is now to translate that biological proof of concept into a prevention strategy that is broad, durable, practical and relevant to the diversity of HIV circulating globally."

Mahomed also stressed the value of studying breakthrough infections saying,"We are also learning that understanding breakthrough infections is just as important as looking at overall efficacy. These infections can tell us a great deal about antibody sensitivity, resistance and the level of neutralisation required for protection. That information will be critical for designing the next generation of antibody combinations and making them more effective against the wide range of HIV variants circulating worldwide."

A panel discussion followed, with voices from funders, community and the scientific community. Panelists were Matthew Rose (TruEvolution Inc.), Pervin Anklesaria (Gates Foundation) and John Mascola (ModeX Therapeutics Inc).

Missed the conversation? Catch it here: **Combo bNAbs for HIV Prevention**

Implementation Science, reimagined

CAPRISA Senior Statistician Lara Lewis and PhD Fellow Kwena Tlhaku attended the inaugural HIV, Infectious Diseases and Global Health Science of Implementation Conference (VISTA) in Cape Town. Tlhaku presented her poster, “Patient-provider communication and satisfaction with HIV care: Implementation targets for person-centred service delivery in South Africa,” She explains that the work forms part of her PhD research saying that the findings are from a baseline survey conducted among 588 patient participants across eight primary healthcare clinics in eThekwini Municipality. Tlhaku said, “It was a valuable opportunity to share this work and engage with researchers, practitioners and implementation scientists working to bridge the gap between evidence and real-world delivery.”

Lewis presented her poster, “Impact of Community Antiretroviral Therapy Delivery on Clinical Outcomes among Children and Adolescents Living with HIV: An Emulated Target Trial.“

Credit: Kwena Tlhaku and Lara Lewis

Developments in long-acting antiretrovirals

CAPRISA research clinician Dr Upasna Singh and PhD Fellow Makhosazane Zondi attended the SAHCS Long-Acting HIV Treatment and Prevention Conference in Johannesburgh, hosted by the Southern African HIV Clinicians Society. Singh’s presentation was titled " Beyond three drugs: Next generation antiretroviral strategies for HIV treatment", which discussed the shift to modern two-drug ART regimens, long-acting injectable ART treatment, harnessing the immune system through broadly neutralising antibodies as therapeutic interventions, the future of gene editing technology, personalised patient care and what this means for a Southern African public health setting.

Zondi provided insight into the" Acceptability of long-acting agents: Insights from lived experiences" where she discussed views of participants from the IMPALA trial conducted at ECRS. Her presentation provided a reflection of excerpts from participant dialogue which was collected as part of a qualitative sub-study embedded in the IMPALA trial, making for an extremely tangible understanding of the views of LA-ART users.

Credit: Dr Upasna Singh and Makhosazane Zondi

Pics (top to bottom): Dr Mahlase at a CAPRISA World Aids Day commemoration at Vulindlela, Dr Mahlase and Prof Quarraisha Abdool Karim speaking to KZN women about tenofovir gel and Dr Mahlase meets Dr Anthony Fauci

THE UNCONVENTIONAL SCIENTIST

THE PODCAST

Gethwana Mahlase, PhD - "It's never too late"

Dr Gethwana Mahlase was born in Mafakatini, a rural area located in Elandskop in the uMgungundlovu District of KwaZulu-Natal, South Africa. She is the eldest of eight children, born with the leadership skills and a determination synonomyous with that position. A nurse practitioner, Mahlase shares more about how a job offer would lead her to her life's work in HIV/AIDS community work and her own research. In September, Mahlase was awarded her Doctor of Philosophy in Public Health by the University of KwaZulu-Natal, supervised by CAPRISA's Associate Scientific Director, Professor Quarraisha Abdool Karim. According to Mahlase, "She was more like a sister than anything else."

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The Unconventional Scientist *uncovers what makes our scientists and researchers tick and challenges them on some of the burning questions facing science. Available on our website, LinkedIn, FB, Youtube and X.*

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A selection of scientific papers published in 2026

60	Zhu M, **Mtshali A, Mzobe G, Magini N, Mitchev N**, Khan A, Demidkina BC, Murthy M, **Lewis L**, Xu J, Shih J, Elsherbini J, **Kama A**, Mafunda NA, **Chetty C**, Vermeren L, **Passmore JS**, Happel AU, Kwon DS, Symul L, **Potloane D, Ngcapu S**, Mitchell CM. Geographic Variation in Diagnostic Performance of Amsel Criteria and Nugent Score for Vaginal Dysbiosis Defined by 16S rRNA Gene Sequencing. *J Infect Dis*. 2026 Oct 15;234(4):609-619. doi: 10.1093/infdis/jiag399
61	Cresswell FV, Kitonsa J, Norcross C, Tumusiime V, Ombajo LA, **Garrett N**, Kassim S, Owarwo NC, Laker Odongpiny EA, Yawe I, **Mahomed S**, Mugerwa H, Kafeero PL, Nkuranga J, Bahemuka U, Nabbuto J, Ankunda V, Nabaggala P, Ogwang C, Kimbugwe G, Kakande A, **Singh U**, van der Vendt D, Onyango A, Koile E, Lawrence DS, Idahosa A, van Eygen V, Addo Boateng F, Eshun-Wilsonova I, Grint DJ, Ruzagira E; IMPALA Study Group. Long-Acting HIV Therapy in African Adults with Adherence Challenges. *N Engl J Med*. 2026 Oct 15;395(15):1505-1518. doi: 10.1056/NEJMoa2518753
62	Bishop K, Moosa F, Makhasi M, Kleynhans J, Naby F, du Plessis M, Reubenson G, **Dawood H**, Zar HJ, Meiring S, Quan V, Wolter N, von Gottberg A, Cohen C, de Voux A, Walaza S. Comparing Respiratory Illness Surveillance Case Definitions to Detect Bordetella pertussis in Children Aged <5 Years With Respiratory Illness in South Africa, 2017-2023. *J Infect Dis*. 2026 Jan 17;233(1):e34-e43. doi: 10.1093/infdis/jiaf501
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64	**Loveday M**, Clarence E, Brust JCM, Waitt C, Furin J. Responding Appropriately to Safety Signals in Infants Exposed to the 6-month BDLLfx/BDLCfz Regimen In Utero. *Clin Infect Dis*. 2026 Jul 8;82(6):e1406-e1407. doi: 10.1093/cid/ciag143

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