CAPRISA
CENTRE FOR THE AIDS PROGRAMME OF RESEARCH IN SOUTH AFRICA
Newsletter
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VIBRANT: A promising start for micobiome-based therapies for BV

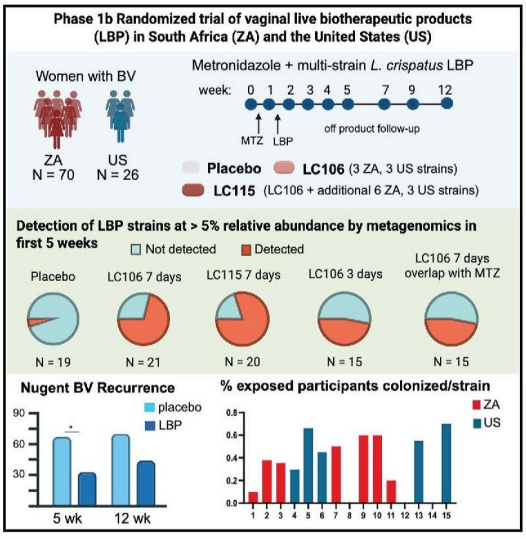
The VIBRANT study marks a significant advancement in microbiome-based therapies for Bacterial Vaginosis (BV). This Phase 1, randomized, double-blind, placebo-controlled trial assessed the safety, tolerability, and colonization kinetics of two novel, vaginally delivered live biotherapeutic products (LBPs) containing multiple strains of Lactobacillus crispatus. The trial, called VIBRANT (Vaginal lIve Biotherapeutic RANdomized Trial), was a multi-institutional collaboration led by the Vaginal Microbiome Research Consortium.

Following a standard course of oral metronidazole, participants in South Africa and the United States received either a placebo or the active LBP for 3 or 7 days. Strain-level metagenomic analysis revealed that colonization was achieved in 66.1% of participants in the active arms in the first 5 weeks; notably, approximately half of these participants remained colonized at 12 weeks despite the short course of study intervention.

Across both sites, participants were most often colonized by one of three component strains. The LBPs proved to be safe and well-tolerated, with no serious adverse events reported. Furthermore, the study found that successful colonization with LBP strains was associated with lower BV recurrence, highlighting the potential of LBPs to significantly improve long-term clinical outcomes.

Globally, BV affects approximately 30% of women, causing discharge, odor, and irritation, and is associated with increased risk for preterm birth, HIV acquisition and abnormal cell growth on the cervix. BV is a disruption of the vaginal microbiome, the environment of microorganisms that live in the vagina. Although antibiotics provide short-term symptom relief, up to 60% of women have BV again within six months. After antibiotic treatment, very few women have an optimal vaginal bacterial community, which is one composed primarily of *Lactobacillus crispatus.* - Dr Disebo Potloane & excerpts from https://www.caprisa.org/PressReleases/Read/20881

Graphic abstract



Highlights

- Multi-strain vaginal *Lactobacillus crispatus* LBPs colonized 66% of participants
- Colonization persisted for up to 12 weeks following only 3–7 days of dosing
- The same three strains most frequently colonized participants in the US and South Africa
- Study products reduce risk for recurrent BV and are safe and well tolerated

For further reading: Potloane D et al. "VIBRANT: A Phase 1 randomized trial of multi-strain vaginal L. crispatus live biotherapeutic products in people with bacterial vaginosis." *Cell Host & Microbe* doi:10.1016/j.chom.2026.02.016

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GVN speaks to pandemic preparedness

CAPRISA's Directors Professors Salim and Quarraisha Abdool Karim participated at the Global Virus Network (GVN) 2026 Annual International Scientific Meeting in Florida in the United States. Leading virologists, public health experts, and emerging scientists from around the world met to highlight cutting-edge research and to strengthen global pandemic preparedness.

Photos (Left to right): Professor Salim Abdool Karim was among the keynote addresses at the session entitled, Mpox: A Virus of Global Importance. He spoke to Challenges In the 2024/5 Epidemic In Africa. Professor Quarraisha Abdool Karim delivered her keynote address entitled, 'Ensuring Treatment Sustainability in a Pandemic: Lessons from resource constrained settings."

Stronger together

CAPRISA Associate Scientific Director Professor Quarraisha Abdool Karim delivered a keynote address at the Conference on Equitable Partnerships 2026 in Pretoria, South Africa. It was hosted by The Royal Society, The British Academy and the National Research Foundation. It brought together more than 200 stakeholders including researchers, academia and funders to identify the barriers and opportunities for fostering equitable research collaborations, while understanding the unique contexts and challenges specific to each region. Professor Abdool Karim's lecture, *"Equitable practices in Global Research: From principles to practice"*, spoke to the benefit for science from developing effective and equitable partnerships. She stated, *"We have to think of how we strengthen science diplomacy, how we protect academic freedom, how we engage all regions in knowledge pursuit and build a truly scientific ecosystem. For humanity to progress, science must be truly global and benefit everyone everywhere."*

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Photos Top: Professor Quarraisha Abdool Karim delivering her lecture. Bottom: Delegates at the 2nd Conference of Equitable Partnerships

A Sweet Strategy: Steering Microbiome Recovery Through Sugar Recognition

In a guest lecture: *A Sweet Strategy: Steering Microbiome Recovery through Sugar Recognition*, Dr Sean Stowell, Vice Chair for Transfusion Medicine at Brigham and Women's Hospital and Harvard University presented a compelling exploration of how glycans — the complex sugars on the surfaces of cells and microbes — serve as fundamental regulators of immune responses and microbial ecology. At the centre of the talk is a transformative concept: **glycans are not passive structural components, but active biological signals that shape immune recognition and microbial community structure.** Dr. Stowell's laboratory uses advanced glycomic and immunologic tools to map the dynamic landscape of cell surface glycans on both immune cells and microbes. These carbohydrate structures: regulate immune cell development and activation, influence receptor engagement and signalling thresholds and shape host–microbe communication. By defining how glycan patterns change during inflammation, infection, or immune activation, his work reframes immune regulation as a process deeply influenced by carbohydrate recognition. - Professor Desh Archary

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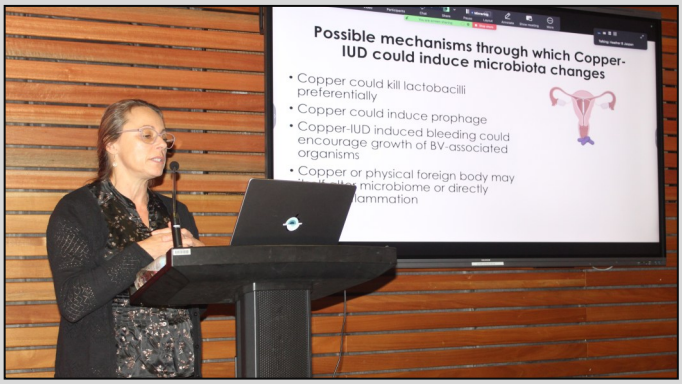
Professor Heather B. Jaspan, MD, PhD, a globally recognised leader in paediatric infectious diseases, immunology, and microbiome research, visited CAPRISA as part of her ongoing collaboration with the CAPRISA microbiome research team. Professor Jaspan holds joint appointments as Professor of Global Health and Pediatrics at the University of Washington, is an investigator at the Seattle Children's Research Institute, and is a Professor and Associate Member of the Institute of Infectious Disease and Molecular Medicine (IDM) at the University of Cape Town, where her work bridges cutting-edge laboratory science and global health research. Her research focuses on microbial–host interactions at mucosal surfaces, particularly how the vaginal and gut microbiome shape immunity, inflammation, HIV susceptibility, and maternal and child health outcomes. During her visit to CAPRISA, Professor Jaspan met with Dr Sinaye Ngcapu, Head of Microbiome Research at CAPRISA and his team, to review scientific progress and engage with students involved in the collaborative studies she supports. The visit also featured a well-attended public lecture titled "*Microbial–host interactions in reproductive and child health*," where she shared insights from her international research programmes and highlighted the importance of microbiome science in advancing sexual, reproductive, and child health in African settings. - Doctor Gugulethu Mzobe



Photos (Left –Right): Prof Heather Jaspan delivering her guest lecture. Right: Prof Jaspan, Dr Sinaye Ngcapu and CAPRISA fellows and researchers

Scientists and clinicians join forces for World TB Day 2026

CAPRISA's Head of Treatment Research Professor Rubeshan Perumal and Head of Community Outreach Patrick Mdletshe and their teams collaborated in a patient activation for World TB Day. A big thank you to the team at the Inkosi Albert Luthuli Central Hospital for creating a space where science and medicine not only support but reinforce each other. Visit CAPRISA's social media platforms to hear more from our TB Team sharing their perspectives on the fight against TB!

"After centuries, TB is still the bridesmaid, never the bride"

CAPRISA Deputy Director and TB expert, Professor Kogie Naidoo reflects on the wins and the fails in the fight against Tuberculosis for World TB Day in Spotlight. Naidoo writes, *"South Africa's overburdened public healthcare system is fatigued, but TB is not just a medical issue, it is a symptom of a society that is malfunctioning."* Click here to read the full piece.

A selection of scientific papers published in 2026

1 **Perumal R, Naidoo K**. Preventing tuberculosis in advanced HIV disease. Lancet HIV. 2026 Mar;13 (3):e144-e145. doi: 10.1016/S2352-3018(25)00277-2

2 Clark A, Greely H, Topol E, **Abdool Karim SS, Abdool Karim Q**, Laxminarayan R. Trump one year on: How six US researchers plan to protect science amid chaos and cuts. Nature. 2026 Jan;649 (8098):824-826. doi: 10.1038/d41586-026-00090-1

3 Metcalfe JZ, Weir IR, Scarsi KK, Mendoza-Ticona A, Pierre S, Hall L, Leon-Cruz J, Svensson EM, Koele SE, Samaneka W, Kanyama C, Yohane M, Nevrekar N, **Ntsalaze B**, Marc JB, Goth M, Maartens G, Chaisson R; ACTG A5362 study team. A 3-month clofazimine-rifapentine-containing regimen for drug-susceptible tuberculosis versus standard of care (Clo-Fast): a randomised, open-label, phase 2c clinical trial. Lancet Infect Dis. 2026 Jan;26(1):46-54. doi: 10.1016/S1473-3099(25)00436-0

4 Nimmo C, **Perumal R**, O'Donnell M. Tracking wildfire-documenting the spread of bedaquiline-resistant tuberculosis. Am J Respir Crit Care Med. 2026 Jan 1;212(1):19-21. doi: 10.1093/ajrccm/aamaf007

5 Govender V, Reddy T, Maenetje P, Beattie T, Adonis T, Nielson T, Moodley J, Mdluli J, Bhoola A, Angelo S, Panchia R, Mngadi K, Innes C, Brumskine W, Mlotshwa M, Nhlangulela L, Ncube I, Moyo-Gwete T, **Moore PL**, Keeton RS, Burgers W, Kumar K, Garg N, Tripathi A, Sayed S, Matsimela K, Mchunu N, Wallis R, Edward VA, Churchyard GJ; COVID-19 Vaccine Strategies study group. Safety and immunogenicity of a single dose of Ad26.COV2.S, BNT162b2, or SARS-CoV-2-rS-protein-nanoparticle in previously vaccinated and unvaccinated adults living with and without HIV in South Africa: a phase 2a randomised, observer-blind trial. Lancet HIV. 2026 Mar;13(3):e163-e175. doi: 10.1016/S2352-3018(25)00275-9

6 Lowenthal ED, Chapman J, Baltrusaitis K, Kovic G, Merchant S, Branch K, Tsosie C, Vaca MZ, Heckman B, Van Solingen-Ristea RM, Harrington CM, Yin DE, Townley E, Whitton M, Agwu AL, Smith C, Paul ME, Violari A, **Moodley E**, Owor M, Chokephaibulkit K, Fry S, Jao J, Mitchell CD, Buisson S, Ace A, Kolobova I, Bolton-Moore C, Gaur AH; IMPAACT 2017 Collaborators; IMPAACT 2017 Team. Acceptability and tolerability of long-acting injectable cabotegravir-rilpivirine in adolescents with HIV-1 (IMPAACT 2017/MOCHA): 48-week results of a multicentre, open-label, non-comparative phase 1/2 trial. Lancet HIV. 2026 Feb;13(2):e95-e103. doi: 10.1016/S2352-3018(25)00241-3

7 **Bunjun R, Lurie M, Dabee S**, Barnabas S, Maseko V, Jaumdally SZ, Gamieldien H, Lewis DA, Jaspan HB, Gill K, Bekker LG, **Passmore JS**. Chlamydia trachomatis-specific T Cell Immunity Reflects Widespread Exposure in South African Adolescents and Young Women. J Infect Dis. 2026 Feb 18;233 (2):e290-e300. doi: 10.1093/infdis/jiaf595

8 Pitampersad B, Madurai S, Manivannan B, Pillay K, **Mahomed S**. Method Comparison of Dried Blood Spot and Plasma Apolipoprotein B Measurement on a Semi-Automated Analyser: Toward Accessible Lipid Profiling in Resource-Limited Settings. Anal Sci Adv. 2026 Mar 6;7(1):e70067. doi: 10.1002/ansa.70067

9 Sircar NR, **Abdool Karim S**, Forman L, Meier BM. Human rights limitations in global health law reforms. Public Health. 2026 Jan;250:106081. doi: 10.1016/j.puhe.2025.106081

10 Sobol R, Omar SV, Brown TS, Joseph L, Lutchminarian K, Tang L, Lan Y, Willis F, Campbell A, Warren JL, Cohen T, Brust JCM, **Naidoo K**, Shah NS, Gandhi NR, Mathema B; CONTEXT Study Team. Transmission of bedaquiline-resistant Mycobacterium tuberculosis in KwaZulu-Natal, South Africa. Am J Respir Crit Care Med. 2026 Jan 1;212(1):138-147. doi: 10.1164/rccm.202506-1489OC

For the complete list of publications see here: https://www.caprisa.org/Publication/1/1

CAPRISA hosts a DSI-NRF Centre of Excellence in HIV Prevention

CAPRISA is the UNAIDS Collaborating Centre for HIV Research and Policy

CAPRISA hosts a MRC HIV-TB Pathogenesis and Treatment Research Unit

CAPRISA hosts a DoH-MRC Special Initiative for HIV Prevention Technology

Partner Institutions: University of KwaZulu-Natal; Columbia University Mailman School of Public Health; National Institute for Communicable Diseases; University of Cape Town

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