

invitation

HSRC Policy Dialogue

HSRC and Nabio Consulting HIV and TB Nanomedicine in the 4IR Policy Dialogue 2019

Nanomedicine Era: Exploring nanotechnology applications in medicine of HIV/AIDS and TB

Facilitators:

Dr Palesa Sekhejane, Human Sciences Research Council (HSRC)

Dr Steven Mufamadi, Nabio Consulting (Pty)Ltd

Date: 29 October 2019 | **Time:** 10h00 – 15h00 | **Venues** in Pretoria, Durban and Cape Town (Videoconferencing facilities)

HIV/AIDS remains one of the world's most significant public health challenges, particularly in low- and middle-income countries. South Africa ranks among the worst afflicted countries in the world for both HIV infection and tuberculosis (TB). An estimated 7.5 million people living with HIV (PLHIV) in South Africa in 2018, increased when compared with past few years, and about 68% of them are on antiretroviral therapy (ART). The number of new HIV infections were about 222, 000 in 2018. TB remains the leading cause of death among PLHIV, accounting for around one in three AIDS-related deaths. Patients TB co-infected with HIV are very difficult to manage, resulting into TB drug resistance. If South African needs to achievement their targets on the fight against HIV and to end the AIDS epidemic by 2030, they need to prioritise on emerging disruptive technologies such nanomedicine as an intervention strategy. Nanomedicine is the application of nanotechnology in medicine. In pharmaceuticals, nanomedicine approach has exhibited clear benefits when compared to conventional medicines, including improved efficacy, bioavailability, dose response, personalisation, targeting efficiency and drug safety profile with a fewer side effects. In addition, nanomedicine approach could cut dose of HIV treatment in half, and also offer better HIV and TB diagnostics tools at very lower costs.

In this seminar, we are interested to explore existing challenges in the public healthcare system in deploying use of nanomedicine to improving drug efficacy, safety, and cost, and diagnostics tools in the Era of the Fourth Industrial Revolution (Industry 4.0), putting TB and HIV in a spotlight.

The topics of discussions will include;

- The global burden of HIV/AIDS and TB
- The current situation of HIV/AIDS and TB in South Africa
- Nanomedicine for drug delivery system and diagnostic of HIV and TB
- Nanomedicine: promises and challenges for the future of public health
- Nanomedicine Era and pharmaceutical industry perspectives
- Nanomedicine ethics, regulation and policy issues



Kindly RSVP by 28 October 2019

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