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TACKLING INFECTIONS TO BENEFIT AFRICA

TIBA NEWSLETTER



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INTRODUCTION

Welcome to the first edition of TIBA's quarterly newsletter. This edition focuses on the proceedings of the first TIBA AGM (Annual General Meeting) that took place on the 29 – 31 May 2018 at the Durban Hilton Hotel, South Africa.

BACKGROUND

The first AGM was attended by the TIBA Directorate, Principal Investigators, postgraduate and postdoctoral fellows from all partner countries (Botswana, Ghana, Kenya, Rwanda, South Africa, Sudan, Tanzania, Uganda, and Zimbabwe). Representatives from TIBA stakeholders from the WHO-AFRO region, WHO South Africa, NEPAD, African Academy of Sciences, Department of Health, EThekwini Municipality (Health Unit) and Ingwavuma Traditions Leadership also attended the meeting. The host (University of Kwa-Zulu Natal) was represented by The Deputy Vice Chancellor: College of Health sciences, Deans and heads of schools, Academic Leaders for Research and representatives. This AGM was the first gathering of the TIBA community since the project was launched on the 25th October 2017.

During the 3 days of the AGM, all the project Work Packages (WP) were presented. The WPs are: **WP1 - Rapid Impact Projects, WP2 - Making a Difference Projects, WP3 - Toolkit Projects, WP4 - Capacity Building, WP5 - Dissemination for Action and WP6 - Emergency Response.** The TIBA Postgraduate students showcased their work through posters in a dedicated session. Ten senior researchers from different institutions adjudicated to identify the best posters. The winners were, Hlengiwe who got a voucher for attending a conference of her choice in South Africa; Felix got a voucher for attending a conference of his choice anywhere in Africa and the number 1 winner, Kennedy got a voucher for attending a scientific conference of his choice anywhere in the world.

The External Advisory Group reviewed the progress of TIBA since its inception and their feedback was very positive. They, however, urged TIBA to be more inclusive by bringing French and Portuguese speaking countries on board. TIBA's genuine stakeholder engagement was endorsed by Inkosi Mathenjwa through Mr December Khumalo (Induna).



Dr Sookrajh (EThekwini Municipaliy - Health Unit)



UKZN CHS Academic Leaders: Research

AGM OPENING REMARKS BY TIBA DIRECTORATE



Professor Moses Chimbari TIBA Co-Deputy Director and tibaSA Project leader opened the meeting by welcoming the delegates and highlighted the objectives of the meeting as:

- Feedback on RI by PIs
- Feedback on progress of TIBA by the EAG
- Approval of MDP projects
- Significant pledges by funding agencies and philanthropists
- Renewed endorsement of TIBA activities by international organizations who are the custodians of health and human wellbeing

He then called upon the tibaSA PhD Student Chanelle Mulopo to recite a poem about TIBA.



Professor Mark Woolhouse TIBA Director introduced TIBA highlighting that TIBA's approach is to study the different parts of the African Health Ecosystem with the view to inform health policies.



Professor Francisca Mutapi Co-Deputy Director discussed TIBA's progressive partnership: "long term commitment to the communities affected by the diseases we research, equitable partnership and inclusive engagement."

OFFICIAL OPENING



The meeting was officially opened by South Africa's first Health Ombudsman Professor Malegapuru Makgoba who highlighted the importance of research for Africa by Africans and encouraged TIBA PI's to own their work. In his capacity as the Ombud, he endorsed TIBA as a project that deals with real issues for Africans, done by Africans.

KEYNOTE ADDRESS



Professor Salim Abdool Karim delivered his keynote address entitled "A research journey to unravel why young women have the highest HIV rates in South Africa". His presentation highlighted that South Africa bears the greatest burden of HIV in Africa. His presentation demonstrated how good research should impact on policy and society, thus setting the tone for TIBA AGM deliberations.

FEATURE STORY

A research journey to unravel why young women have the highest rates of HIV infection in South Africa

Reducing the high rates of HIV infection in young women is key to the control of the global epidemic. This was the message from world renowned AIDS researcher, Professor Salim Abdool Karim at the inaugural annual general meeting (AGM) of the University of KwaZulu-Natal's (UKZN) research programme, Tackling Infections to Benefit Africa (TIBA) held in May.

Abdool Karim, the Director of the Centre for the AIDS Programme of Research in South Africa (CAPRISA) at UKZN delivered the keynote address titled, 'A research journey to unravel why young women have the highest HIV rates in South Africa', In his presentation Abdool Karim said that despite the gains made since the discovery of the HIV virus over 30 years ago there are 1.8 million new infections every year with 5 000 new infections a day. Figures show that there is a staggering 1 million AIDS-related deaths globally.

CAPRISA, a global research organization established 16 years ago, has made significant scientific contributions in epidemiology, microbicides and vaccine research. Over the last three decades CAPRISA, led by Abdool Karim, has undertaken research on HIV epidemiology, pathogenesis, vaccines, prevention and treatment that has influenced the global response to the epidemic. Several findings from CAPRISA led studies have shaped national and global policies in the prevention and treatment of HIV, and HIV-TB co-infections. CAPRISA's high impact studies are published in top journals, like ***Nature, Science, New England Journal of Medicine*** and ***The Lancet*** and continues to improve the lives of people living with HIV and AIDS.

Abdool Karim cautioned that there is no cure or an effective vaccine and therefore there remains a major gap in HIV prevention technologies especially for women, particularly young and adolescent women, who are unable to negotiate the current HIV prevention options – condoms, circumcision and oral PrEP. HIV infections in adolescents and young women must be addressed as a matter of urgency to avert a public health crisis in South Africa. The statistics are staggering – Africa has 70% of the global HIV infections and South Africa with less than 1% of the global population has 19% of the world's HIV infections.

Professor Quarraisha Abdool Karim, CAPRISA's associate undertook the first population-based survey in rural KwaZulu-Natal in 1990, to get an understanding of the evolving epidemic. The results showed that young women had up to 8 times more HIV than men and women had a disproportionate burden of the disease. It was evident that female initiated technologies, controlled by women, were required as prevention tools for women. In 2010 the landmark study, CAPRISA 004, showed for the first time that an antiretroviral tenofovir, used as a gel, prevents both HIV and Herpes Simplex Virus Type 2 (HSV-2). The findings were a global scientific breakthrough applauded by the WHO, UNAIDS and other leading organisations. It changed the global HIV prevention landscape and provided the first evidence for what is today known as pre-exposure prophylaxis (PrEP) for HIV prevention - showing that antiretrovirals could be used to prevent the acquisition of HIV. The seminal finding, published in the leading scientific journal, ***Science***, was named one of the most significant scientific breakthroughs in the fight against AIDS in 2010.

To better understand why the HIV infection in adolescents and young women continues at alarmingly high rates CAPRISA researchers used phylogenetics, in a recent study of 9,812 individuals that revealed a "cycle of HIV transmission" was driven by high rates of new HIV infections in adolescent girls and young women from men, on average, 10 years and older. These findings were rapidly adopted by UNAIDS and were the basis of the UNAIDS Report on the Life Cycle approach to HIV. This UNAIDS report has been used by several African countries for national policies and planning. For example, the first objective set in the South African National AIDS Plan is to break the cycle of HIV transmission through reducing HIV incidence in young women.

Equally, a thorough understanding of the biological factors that influence HIV transmission must be understood. New CAPRISA led studies show that vaginal bacteria has an impact on HIV infections and vaginal inflammation. Studies have investigated the sub optimal efficacy of PrEP in women, specifically the role of genital inflammation in increasing HIV risk and the role of the microbiome (bacteria) in altering PrEP effectiveness in women in Africa.

Looking ahead, CAPRISA is focussed on the discovery of potent and broadly neutralizing antibodies for passive and active (vaccine) immunization as a prevention strategy in humans. The antibody was isolated from a woman, known as CAPRISA 256, is among the most powerful antibodies with complete protection of the SHIV virus found in a recent study in monkeys. The CAPRISA 012 trial will now assess the efficacy of bNAb combinations with CAPRISA 256 in preventing HIV infection in women in Africa. A sub-dermal antiretroviral annual implant is being explored as a prevention tool that promises high adherence.

There is a humanitarian urgency for HIV epidemic control and prevent a public health catastrophe. The challenge to end the high rates of HIV infection in adolescents and young women in Africa remains a formidable task. Whilst research into HIV vaccines, implants and microbicides continues there must be a focus on high transmission areas and key populations, to develop and implement prevention technologies that will enable young women and adolescents to live healthy lives. CAPRISA is at the forefront, leading the way on the African continent, through high impact research that has the potential to substantially reduce HIV transmissions and achieve epidemic control.



CHS DVC (Prof Ncama) and Dean - Teaching Learning (Prof Duma) were welcomed by Sambulo Ntombela, a member of the tibaSA secretariat.



University of Edinburgh Team with the Ingwavuma Traditional Authority Representatives



The Venue

PHOTO GALLERY

The AGM came a few days after Africa day and in commemoration of this day, tibaSA staff and students were dressed in their traditional regalia representing different South African tribes. Ubuciko the Art Music Group provided traditional Infotainment that also highlighted South Africa's rich culture.







From left to right TIBA Student (Chanelle Mulopo) dressed as a Xhosa wife, TIBA Secretariat (Sambulo Ntombela) dressed as a Zulu Wife, TIBA Student (Colisile Mathonsi) dressed as Swazi Maiden, CHS Staff Member (Andiswa Sithole) dressed as a Zulu Maiden; TIBA Student (Hlengiwe Sacolo) dressed as a Swati Wife, TIBA Student (Mhlengi Ncube) dressed as a Xhosa man, TIBA Postdoc (Muhubiri Kabuyaya) dressed as a Zulu man.

Professor Woolhouse announced that the next TIBA AGM will be hosted by TIBA Ghana in September 2019. Professor Chimbari thanked everyone who attended, stakeholders, country PIs, Directorate and the sponsors for making the AGM a huge success.



Professor Felix Dapare Dakora (President of African Academy of Science) chairing a session



Professor Abdallah Daar (TIBA External Advisory Group Chair) chairing a session



TIBA Stakeholder Dr Elly Kourany-Lefoll Ansah Merck KGAa



Dr Janet Byaruhanga (Senior Programme Officer, Public Health at NEPAD Planning and Coordinating Agency and member of the TIBA External Advisory Group) chairing a session at the TIBA AGM



Dr Rufaro Chatora (WHO Country Representative - South Africa and member of the TIBA External Advisory Group) participating in a question and answer session

STUDENTS CORNER

18 of our 21 postgraduate fellows from 8 of the partner countries attended the meeting. The TIBA Postgraduate students presented their work through posters. Ten senior researchers from different institutions adjudicated to identify the best posters. The winners were, Ms Hlengiwe Sacolo (tibaSA PhD Student) who received a voucher for attending a conference of her choice in South Africa; Mr Felix Ansah (TIBA Ghana PhD Student) received a voucher for attending a conference of his choice anywhere in Africa and the number one winner, Mr Kennedy Mwai (TIBA Kenya PhD Student) received a voucher to attend a scientific conference of his choice anywhere in the world



From left to right Felix Ansah, Hlengiwe Sacolo and Kennedy Mwai



From left to right Andreas Nshala (Tanzania) and Vhenekerai Masanganise (Zimbabwe)



Wangoola Robert Mandela (Uganda)



Professor Woolhouse (TIBA Director) with the postgraduate fellows

PRINCIPAL INVESTIGATORS CORNER

At this meeting the country PIs gave a brief update on the progress of their Rapid Impact Projects as outlined below:

tibaB

A situational analysis of schistosomiasis among communities in the Okavango

tiba Rwanda

Evaluate the impact of e-health in the management of severe malaria cases in Rwanda

tiba GHANA

The effects of Artemisinin-based combination therapy (ACT) on the dynamics of Plasmodium falciparum, P. malariae and P. ovale infection in Ghana

tibaSA

Preparing for an effective Mass Drug Administration Programme for South Africa: Elucidating burden, coverage, efficacy issues



Contribution to malaria elimination from Khartoum State

tibaT

Monitoring of Lymphatic Filariasis in persistent hotspot transmission zones

tibaK

Validation of novel merozoite targets for new vaccines against Plasmodium falciparum malaria

tibaU

Stability of T. b. rhodesiense in domestic cattle in Eastern Central Uganda and implications for rHAT and AAT control

tibaZ

Adapting international criteria for the diagnosis of drug/immunization-related auto-immunity and allergies for specificity to African populations (Zimbabwe)



From left to right Professor Gordon Awandare (Ghana), Dr Upendo Mwingira (Tanzania), Professor Nthabiseng Phaladze (Botswana), Professor Moses Chimbari (South Africa), Professor Simbarashe Rusakaniko (Zimbabwe), Dr Nadine Rujeni (Rwanda) Professor Maowia Mukhtar (Sudan) Dr Samson Kinyanjui (Kenya)

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