
Curriculum Vitae

NAME **Celso Jacob J. Khosa, M.D, PhD.**

eRA COMMONS USER NAME (credential, e.g., agency login): **Instituto Nacional de Saúde**

POSITION TITLE: **Director of Centro de Investigação e Treino em Saúde da Polana Caniço (CISPOC), Instituto Nacional de Saúde, Mozambique**

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Eduardo Mondlane, Mozambique	M.D.	04/2012	Medicine
Ludwig Maximilians University Munich, Germany.	PhD	11/2019	Medical Research International Health

A. Personal Statement

Dr. Khosa has been a medical doctor and researcher at INS-CISPOC since 2012 leading the Tuberculosis research program, implementing observational studies and clinical trials in Tuberculosis therapeutics and diagnostics in adult and paediatric population. He obtained his PhD in Medical Research / International Health at the University of Munich last year with distinction. Dr. Khosa is currently the Country Principal Investigator and Chief Investigator in several TB studies, including clinical trials for new drugs in TB and HIV treatment.

His main research interest includes tuberculosis, HIV and Comorbidities associated with HIV.

Dr. Khosa was a member of the Institutional Bioethics Committee for several years being responsible for the evaluation and approval of institutional research protocols. Actually, he leads the youngest INS research center.

Dr. Khosa is a course facilitator at the annual course clinical decision-Making for drug resistant Tuberculosis short course, Institute of tropical Medicine, Antwerp, Belgium and also a teacher of medical genetics and therapeutics in Mozambique. He has been involved in the co-supervision of master students.

B. Positions and Honors

Positions and Employment:

2012 - Present **Researcher and Physician**, Centro de Investigação e Treino em Saúde da Polana Caniço, Instituto Nacional de Saúde (INS), Maputo, Mozambique

2013 - Present **IRB Member**, Bioethical Institutional Committee of Instituto Nacional de Saúde (INS), Maputo, Mozambique

2016 - Present **Teacher**, Medical Genetics, Instituto Superior de Ciências e Tecnologia de Moçambique, Maputo (Mozambique)

2018 - 2020 **Scientific director** of Centro de Investigação e Treino em Saúde da Polana Caniço, Instituto Nacional de Saúde (INS), Maputo, Mozambique

2019 - Present **Course facilitator** Clinical Decision-Making for drug-resistant Tuberculosis short course, Institute of Tropical Medicine, Antwerp (Belgium)

2020 - Present **Director** of Centro de Investigação e Treino em Saúde da Polana Caniço, Instituto Nacional de Saúde (INS), Maputo, Mozambique

Other Experience and Professional Memberships:

2013 - Present Member, Mozambican Medical Association

2014 - Present Member, Mozambican Order of Physicians

2014 - Present Member, TB Proof

2016 - Present

Good Clinical Practice Trainer

2019- Present

Foundational spirometry training, PATS, Maputo, Mozambique

C. Contributions to Science: major areas

1. Ivanova, O.; **Khosa, C.**; Bakuli, A.; Bhatt, N.; Massango, I.; Jani, I.; Saathoff, E.; Hoelscher, M.; Rachow, A. Lung Function Testing and Prediction Equations in Adult Population from Maputo, Mozambique. *Int. J. Environ. Res. Public Health* 2020, 17, 4535
2. **Khosa, C.**, Bhatt, N., Massango, I. et al. Development of chronic lung impairment in Mozambican TB patients and associated risks. *BMC Pulm Med* 20, 127 (2020). <https://doi.org/10.1186/s12890-020-1167-1>
3. Sabiiti, W., K. Azam, E. C. W. Farmer, D. Kuchaka, B. Mtafya, R. Bowness, K. Oravcova, I. Honeyborne, D. Evangelopoulos, T. D. McHugh, **C. Khosa**, A. Rachow, N. Heinrich, E. Kampira, G. Davies, N. Bhatt, E. N. Ntinginya, S. Viegas, I. Jani, M. Kamdolozi, A. Mdolo, M. Khonga, M. J. Boeree, P. P. J. Phillips, D. Sloan, M. Hoelscher, G. Kibiki and S. H. Gillespie (2020). "Tuberculosis bacillary load, an early marker of disease severity: the utility of tuberculosis Molecular Bacterial Load Assay." *Thorax: thoraxjnl-2019-214238*
4. Sabiiti W, Azam K, Kuchaka D, Mtafya B, Bowness RE, Oravcova K, Farmer E, Honeyborne I, Evangelopoulos D, McHugh TD, Xiao H, **Khosa C**, Rachow A, Heinrich N, Kampira E, Davies G, Bhatt N, Ntinginya N, Viegas S, Jani I, Kamdolozi M, Mdolo a, Khonga M, Boeree MJ, Philips PP, Sloan DJ, Hoelscher M, Kibiki G, Gillespie SH. Improving diagnosis and monitoring of treatment response in pulmonary tuberculosis using the molecular bacterial load assay (MBLA). *bioRxiv* 2019: 555995
5. **Khosa C**, Patel K, Abdiyeva K, Turebekov N, Prüller B, Heinrich N: Proceedings from the CIHLMU 5th Infectious Diseases Symposium 2016 "Drug Resistant Tuberculosis: Old Disease – New Challenge". *BMC Proceedings* 2017, 11(10):0
6. Arne von Delft, Angela Dramowski, **Celso Khosa**, Koot Kotze, Philip Lederer, Thato Mosidi, Jurgens A. Peters, Jonathan Smith, Helene-Mari van der Westhuizen, Dalene von Delft, Bart Willems, Matthew Bates, Gill Craig I, Markus Maeurerm, Ben J. Marais, Peter Mwaba, Elizabete A. Nunes, Thomas Nyirenda, Matt Oliver, Alimuddin Zumla. Why healthcare workers are sick of TB. Elsevier.2014 Nov
7. Directrizes para a implementação do GeneXpert® MTB/RIF em Moçambique, 1ª Edição Maputo, Julho de 2014

D. Research Support

Active (Most important projects)

1. **2017-2022 - Strengthening Pediatric TB Services for Enhanced Early Detection (TB-speed)**, funded by UNITAID (1 137 634 USD), aimed at reducing childhood mortality from TB by evaluating innovative cost-effective approaches for resource-limited settings. The diagnostic approach will include procurement and use of a molecular diagnostic assay applied on nasopharyngeal aspirate and stool sample. I am the Country PI for this project.
2. **2017-2022- Rapid and accurate diagnosis of paediatric TB (Rapaed TB)**, funded by EDCTP (500031), this study will serve as a platform to evaluate new diagnostics in children suspected to have TB, to establish diagnostic performance (sensitivity and specificity) and calculation of positive and negative predictive values in a real-life cohort. I am Country PI in this study.
3. **2017-2022 - TB Sequel: Pathogenesis and risk factors of long-term sequelae of pulmonary TB defining individual outcomes and public health impact of TB disease (TB-SEQUEL)**, funded by the Federal Ministry of Education and Research (2127020), aims to advance the understanding of the

clinical, microbiologic, environmental and host immune factors affecting the long-term sequelae of pulmonary TB. I am Country PI in this study.

4. **2019-2021 - Optimizing the acoustic analysis of cough as a novel technology for the screening and diagnosis of tuberculosis and other present respiratory conditions (AcuScreen)** funded by XPRIZE Foundation, AcuScreen is developing an algorithm for the use of cough for the diagnosis of respiratory conditions. I am the PI.

5. **2020-2023 - Close the Gap, Increase Access, Provide Adequate Therapy (CAP-TB)**, funded by EDCTP (456137), the impact of Omni/Ultra and Omni/XDR at microscopy-center level on patient-important outcomes; (ii) the impact of Ultra testing of pulmonary and extra-pulmonary samples on mortality in patients with advanced HIV; (iii) the utility of process innovation and supportive solutions for diagnostics. I am the Country PI in this study.

6. **2021-2024 - A novel pan-TB regimen targeting both Host and Microbe (PanTB-HM)**, funded by EDCTP (RIA2019AMR-2647), PanTB-HM objective is to determine the efficacy, safety, tolerability, and suitability of sutezolid, bedaquiline, delamanid, and NAC (SBDN) in novel pan-TB regimens. I am the country PI.

7. **2021-2024 - A randomized controlled trial of two adjunctive host-directed therapies in rifampicin-resistant tuberculosis (DRTB-HDT)**, funded by H2020 (SC1-BHC-14-2019), DRTB-HDT objective is to examine the safety, tolerability, and preliminary efficacy of two adjunctive TB-HDTs (one anti-inflammatory, and one antimicrobial) in patients with rifampin resistant pulmonary tuberculosis. I am the country PI.