

Vacancy: (3) PhD fellow for TB project

We are recruiting three (3) PhD students to join the CAGE-TB programme, a multidisciplinary consortium supported by a grant from the European Commission and Coordinated by Stellenbosch University. CAGE-TB brings together African and European scientists to develop a mobile phone-based cough triage test for Tuberculosis (TB).

The Cough Audio triaGE for TB (CAGE-TB) project aims at promoting the adoption of mobile health-based cough audio triage testing for active pulmonary tuberculosis in health facilities in high-burden settings. Specifically the study aims are; a.) to generate and separately validate a cough audio classifier that meets the criteria for the World Health Organization (WHO) triage test target product profile for sensitivity and specificity, b.) to produce data on potential cost savings, and c.) to package the underlying technology into an easy-to-use smartphone app built using human-centred design ready-for-use in large-scale clinical evaluations. It will do so through:

- Collecting cough audio data in a discovery cohort of patients with a prolonged cough who present to primary care clinics in Cape Town, South Africa; and optimising a classifier scheme;
- ❖ Validating the audio classifier algorithm in separate clinical validation cohorts in Cape Town, South Africa and Kampala, Uganda and calculate potential cost savings; and
- Using a human-centred design process to integrate the classifier into a smartphone application and identifying potential barriers and facilitators to its successful deployment.

CAGE-TB will provide opportunities for PhD training as part of its research activities. There will be three (3) PhD positions. The research topics for these PhDs will include aspects of diagnostic and implementation research, costing, mHealth, and human-centered design.

Under the supervision of a multi-discipinary research team, the PhD candidate will conduct mixed-methods research, hence the relevant tracks will be focusing on diagnostic **OR** implementation and costing research **OR** mHealth and human-centered design, to:

- assess current smartphone and app usage among healthcare staff;
- explore existing policies and practices of TB triage and diagnosis in primary health facilities;
- conduct cost data collection and analysis of the phone-based cough triage test; and
- support participatory app design process.

The role:

- Design and conduct qualitative (e.g. structured interview guides) and/or quantitative research (e.g. survey questionnaires);
- Develop a research protocol and obtain approval from ethical review committees;
- Understand cultural background of participants to evaluate findings and methods in this context;
- Analyze qualitative (e.g. coding) and/or quantitative data (e.g. statistical analyses)
- Prepare and hold presentations for an audience with a varied disciplinary background;
- Take the lead in authoring articles to be published in international peer-reviewed journals;
- Compile a thesis based on the articles (and submitted manuscripts);
- Participate in and present findings at CAGE-TB consortium meetings.



Professional background:

Required

- A completed master's degree in a health-related social science discipline, such as medical anthropology, medical sociology, **OR** a masters in, biological sciences, Medical-related discipline, global/public health, health services research, clinical epidemiology, and biostatistics with a significant proportion of qualitative research.
- Experience in designing and conducting qualitative and/or quantitative research, biomedical science research, implementation science research
- Demonstrated ability to communicate complex findings to an audience with varied disciplinary background.
- Willingness and ability to work independently and to collaborate with a multidisciplinary and international team.
- Socially engaged, highly motivated to understand social dynamics, autonomous and creative.
- The willingness to be part of an international research team.

Desirable

- Proficient in qualitative and/or quantitative data analysis software.
- Experience of undertaking data collection in primary care settings.
- Has taken a leading role in at least one article published in an international peer-reviewed journal (i.e., first author added advantage).
- Demonstrable experience in the proposed track of choice i.e., diagnostic, implementation, and costing research, or mHealth and human-centered design
- MUST be a Ugandan

Do you recognize yourself in this job profile? Then we look forward to receiving your application by 31 January 2022. You can apply by sending the following to Ms. Nakayiza Hariet, email; kayizaharry@gmail.com. Please indicate 'PhD TB-CAGE' in the subject line.

- CV. Please mention the months (not just years) in your CV when referring to your education and work experience.
- a transcript of all university courses taken, and grades obtained;
- a one-page motivation letter which includes a brief statement of research interests and experience;
- a concept note: two pages plus one page of relevant literature. Clearly whether you are interested in diagnostic, implementation, and costing research, or mHealth and human-centered design.
- Two (2) reference letters

Please combine all documents into a single PDF file and send it to Ms. Nakayiza Hariet, email; kayizaharry@gmail.com. Applications need to be submitted on or before 31 January 2022.