







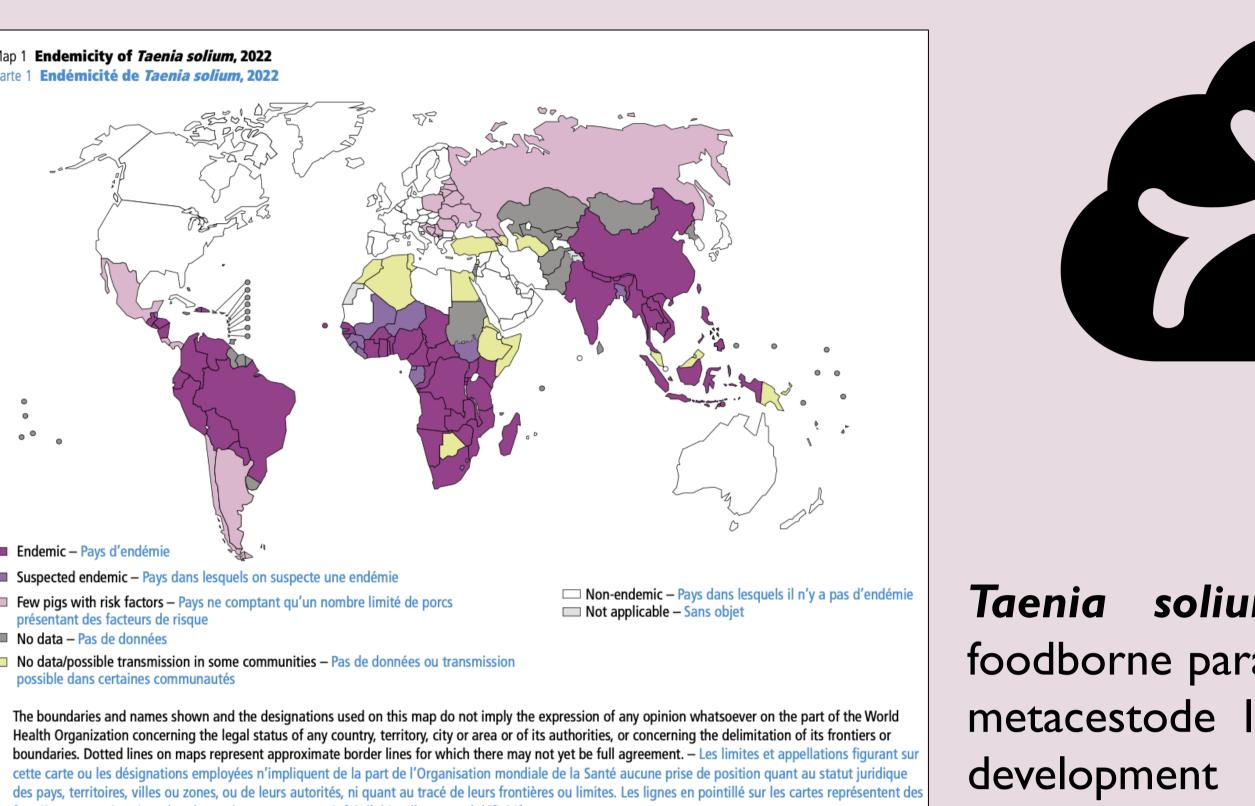
## GHENT UNIVERSITY

Implementation of superior treatment regimen and improved patient pathway for neurocysticercosis in Sub-Saharan Africa

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## Background



Taenia solium is the most important foodborne parasite. Human infection with the metacestode larval stages may lead to the development of neurocysticercosis. Neurocysticercosis is a leading cause of acquired epilepsy in endemic areas.

Epilepsy represents the most common neurological disorder in many parts of in Sub-Saharan Africa (SSA).

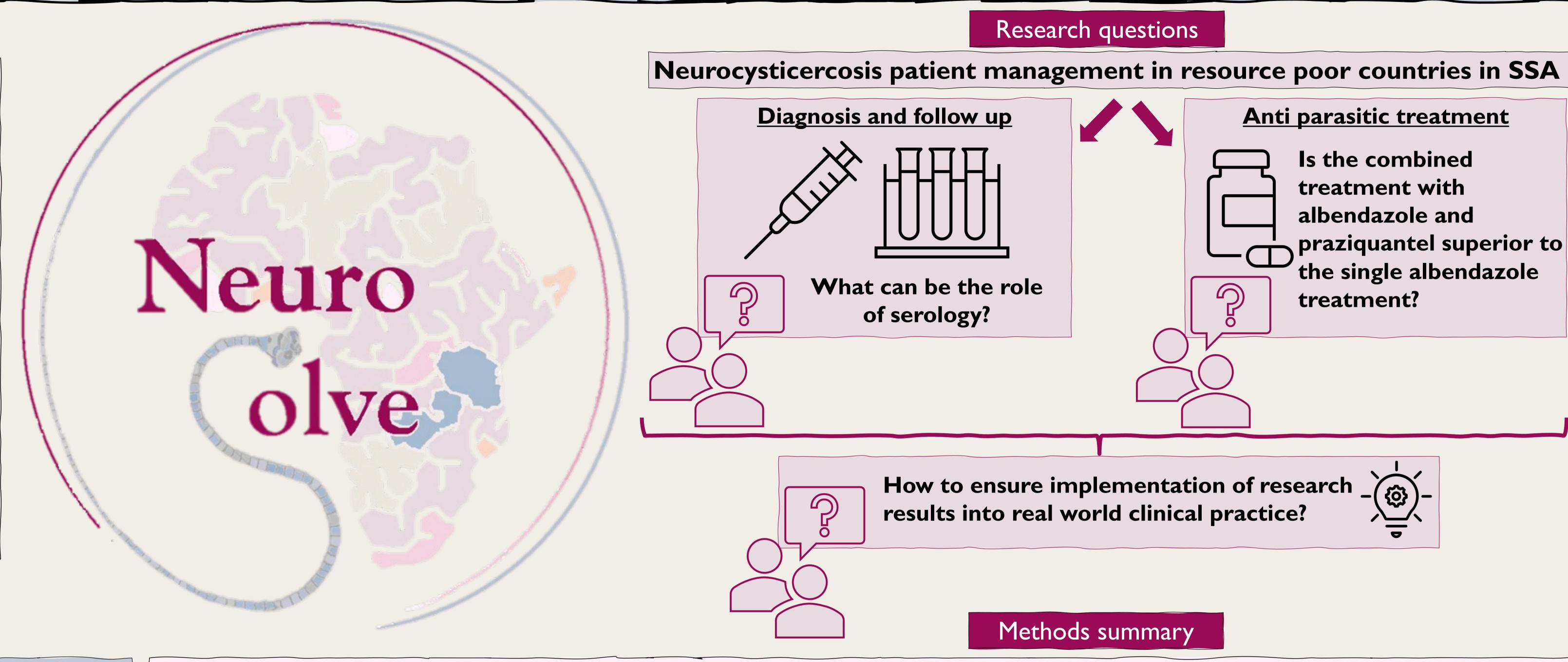
## Aims and objectives

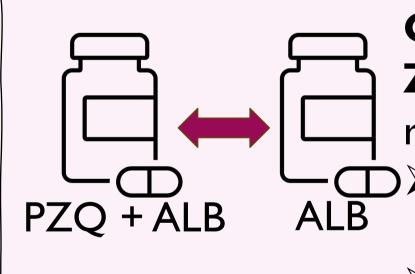
The **overall aim** of NeuroSolve is to validate and demonstrate a methodological approach to implement research results into real-world clinical practise. Specifically, the consortium will focus on evaluation and subsequent implementation of two health technologies - an antiparasitic combination treatment and a serological test- that can make a major positive contribution to NCC management.

The objectives of NeuroSolve include the:

Data source: World Health Organization. – Source des données: Organisation mondiale de la santé

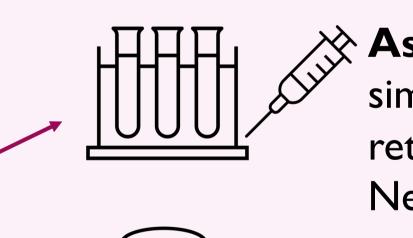
- I. Strengthening of clinical and research capacity related to NCC through training and mentoring of early-career researchers, clinicians and frontline healthcare workers as well as upgrading infrastructure relevant for NCC surveillance and control
- 2. Demonstrating the superiority of the combined treatment on Quality of Life (QoL) for NCC patients
- 3. Evaluating the potential impact of adopting serological testing on the patient outcomes and health systems through a simulation study,
- 4. Demonstrating the cost-effectiveness and cost-benefit of the proposed health technologies,
- 5. Developing and validating an implementation strategy that addresses identified barriers for uptake using the robust implementation frameworks.
- 6. Enhance research results uptake into national and international guidelines and health policy through engagement of relevant policy makers throughout the project period and beyond.





Conduct a randomized, multicentre clinical trial in Tanzania and Zambia to assess superiority of the combination therapy, based on cysts resolution, impact on seizures and quality of life.

- Screen approximately 2300 patients with clinical symptoms of neurocysticercosis to enrol a total of 368 patients in the trial
  - Neuroimaging, serology, neurological examinations, questionnaires before and after treatment



Assess added value of serology based on simulations with data from literature, retrospective- and prospective data from NeuroSolve.



COST UTILITY?



- Assessment of barriers and facilitators for the implementation of the superior treatment and serology, to define implementation strategies
- > Implementation followed by evaluation and optimisation of the strategies

Additionally, barriers and facilitators will be assessed for uptake and implementation of **control strategies** including interventions targeting the human and pig host; proposing an implementation strategy.

If the intended impacts are reached, NeuroSolve will improve health outcomes of NCC patients, provide a blueprint for meaningful implementation research and demonstrate to policy makers how research can strengthen healthcare systems.

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