



Call for Fellowships Afrique One-ASPIRE

TTP1: Canine Rabies Control and Elimination

[Ref: TTP1-Rabies-PDF](#)

Project Title: Estimation of the cost of rabies to society in Côte d'Ivoire, Mali and Chad and elaboration of the cost of rabies elimination in West and Central Africa

Enrolment: The postdoctoral fellow may negotiate to be enrolled/based at one of the following organizations: University Félix Houphouët-Boigny, Côte d'Ivoire, EISMV, Senegal or Swiss TPH, Switzerland.

Project Description: The postdoctoral candidate is expected to develop a research project along the following lines:

More than 59,000 humans die of rabies each year, most of them in Africa and Asia. Clinical rabies can be prevented by post-exposure prophylaxis (PEP). However, PEP is often not available or not affordable in developing countries. Another strategy besides treating exposed humans is the vaccination of vector species. In developing countries, the most important vector is the domestic canine, which, once infected, is a serious threat to humans. After a successful mass vaccination of 70% of the dogs in N'Djamena, the comparison between PEP cost and cost of intervention in dogs showed that investment in control of rabies in the vector population is at long-term the more cost-effective and sustainable approach. The cost-description from the vaccination campaign and a national household survey on dog demography in Chad allowed the establishment of a cost estimate for a national rabies elimination campaign in Chad and the description of development impact bond (DIB) for such a large scale intervention. Within a DIB private investment provides upfront capital for development programmes, only calling on donor funding to repay capital and a potential return based on the results achieved.

A current research project on the estimation of the burden of rabies in Chad, Mali and Ivory Coast will provide data on dog demography, rabies incidence in humans and animals and PEP accessibility by the end of 2017. These data will be used to describe the cost of rabies to society in those three countries and for projections to West and Central Africa. From small scale vaccination campaigns in the respective

countries cost of national large scale interventions can be estimated and a DIB be developed for the West and Central African region. Scenarios for the geographical and organisational vaccination approach will be guided by epidemiological data and socio-cultural and geographical background.

This project will expose the selected candidate to training in health economics, statistical modelling and disease elimination. This programme will, furthermore, be based on data collected during the GAVI funded project of the estimation of the burden of rabies in West and Central Africa and build on knowledge of the progress made in East Africa

Mentorship Team: Fabrizio Tediosi (health economics), Nakul Chitnis (disease modelling) and Jakob Zinsstag (canine rabies scientists), (Swiss TPH) Dan Haydon, (UoG); Richard Ngandolo Bongo (IRED), Rudowick Kazwala (SUA).

Qualifications: The candidate must be a citizen of an African country. Candidates from any discipline contributing to One Health will be considered, but preference will be given to candidates with a background in economics. The position involves prolonged periods of time at Swiss TPH in Basel. Experience with field research in Africa and proficiency in English will be necessary.

Individuals who have submitted their PhD dissertations are also eligible to apply but must submit proof of this submission (e.g. a letter attesting to the submission from the Registrar of the University).

Applicants must be highly motivated, exhibit strong research and conceptual skills and be interested in developing novel research directions.

Individuals should have proven abilities to organize and execute research projects with minimal supervision to perform work independently and to document their results to a high standard.

Applicants must have strong written and oral communication skills in English and French. Experience in management and training of junior staff is desirable. Applicants must also have the ability to work in an inter-disciplinary research environment involving collaborations with Afrique One-ASPIRE partners.

Individuals will be responsible for developing their own research protocols, obtaining the necessary regulatory approvals and carrying out all the required experiments at the responsible institutions.

Duration and Training: Successful candidates will be engaged at the Research Fellow grade in the chosen institute on a one-year contract, renewable up to a maximum of 3 years based on satisfactory performance. Training will be provided primarily at the Swiss TPH, with opportunities for further training within the AO-

ASPIRE consortium and with supervisory partners in the UK, US and Switzerland, depending on needs and internal budget considerations.

For more information, contact the co-leads:

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