



## Appel à candidature

### Position en postdoc en épidémiologie comme chercheur associé

Sur le thème :

### Services sociaux et contrôle des maladies infectieuses chez les populations mobiles en Afrique et en Asie

Dans le cadre de la phase III du Pôle de Recherches National (National Centre for Competence in Research) Nord-Sud (<http://www.north-south.unibe.ch/>) financé par le Fonds National de Recherches Suisse et la Direction du Développement et de Coopération Suisse, une position en postdoc en épidémiologie est disponible au Centre Suisse de Recherches Scientifique en Côte d'Ivoire (CSRS). La langue du programme est l'anglais.

**Place de travail :** CSRS, Abidjan, Côte d'Ivoire

**Durée :** 2 ans renouvelables, à partir du 1<sup>er</sup> janvier 2010

**Conditions:**

Thèse unique ou PhD en épidémiologie

Engagé comme assistant ou maître assistant dans une université en Côte d'Ivoire

Travaille dans un espace multiculturel et interdisciplinaire

Volonté de voyager hors de la Côte d'Ivoire

Français et anglais parlés et écrits (s'abstenir si pas de maîtrise en anglais)

Travaille sous la co-responsabilité des co-leaders du projet

Rôle dans la supervision et l'encadrement des étudiants

**Dossier de soumission à soumettre sous forme électronique**

1. Lettre de motivation
2. Curriculum vitae actualisé (limité à 5 pages) y compris les publications
3. Copies scannées des diplômes principaux (Bac, MSc/DEA, Doctorat Unique ou 3<sup>e</sup> cycle)
4. Attestation du responsable hiérarchique de l'université
5. Deux lettres de recommandation
6. Noms et adresses de deux personnes de référence

**Soumission à :**

Prof. Bassirou Bonfoh, Centre Suisse de Recherches Scientifiques, [bassirou.bonfoh@csrs.ci](mailto:bassirou.bonfoh@csrs.ci)  
et Dr. Esther Schelling, Institut Tropical Suisse, [esther.schelling@unibas.ch](mailto:esther.schelling@unibas.ch)

**DATE LIMITE : 15 novembre 2009**

## **Services sociaux et contrôle des maladies infectieuses dans de populations mobiles en Afrique et en Asie**

### **Rationale**

This research project draws from longstanding field research experiences of the Swiss Tropical Institute (STI) and the Centre Suisse de Recherches Scientifique en Côte d'Ivoire, across the NCCR North-South, in highly mobile pastoral communities of West Africa, notably Mauritania, Chad and Mali, where innovative approaches of sharing of infrastructure, registration of individuals and adaptations of the DOTS strategy of WHO to mobile pastoralist communities have emerged. Collaborations have been established with international organizations such as the International Committee of the Red Cross, national research institutes and NGOs. The research project further builds on collaboration with the Swiss Federal Institute of Technology Zurich on social network analyses.

'People on the move' in Africa and Asia are rarely considered for social service provision because policy makers have difficulties to make predictions when the populations are not settled. In comparison to international population migration-related epidemiological influences on domestic disease patterns for migrant-receiving nations, little is known on major mobility and disease transmission patterns and appropriate disease control options in mobile populations within nations or in sub-regions of Africa and Asia.

### **Aim**

To improve social service provision, notably health and education, in mobile communities within countries and sub-regions, this project sets up interdisciplinary teams to assess barriers to and needs in services, spatio-temporal disease transmission patterns and develops tools for identification of underserving and enhancing effectiveness of intervention programmes.

### **Main activities**

In recognition of the geographical, social and cultural diversity of mobile communities, the combination of epidemiologic, geographic, economic and social approaches will contribute to specific tools for the assessment of underserving and elements that enhance the capacity of intervention programmes in mobile communities. To identify appropriate health services for mobile communities, it is crucial to know their priorities and to understand the transmission patterns of infectious diseases. Comparative studies in mobile communities of West Africa and the Horn of Africa and between Africa and Asia will contribute to validate systems knowledge and to design more generic tools and interventions tailored to people on the move.

The following research objectives are implemented by a team of four PhD students and supervised/coordinated by a South postdoc and the North and South project leaders:

- i) To assess basic demographic parameters and mobility patterns of mobile populations in West Africa and Vietnam
- ii) To describe main barriers to social services and priority needs of mobile communities and to design more generic tools for assessment of good practices for interventions

- iii) To assess contact networks in mobile populations of sub-Saharan Africa and South East Asia to evaluate infectious disease transmission patterns and to apply it to animal – human contacts
- iv) To test and monitor disease control interventions in mobile populations based on improved understanding of disease transmission and mobility patterns and socio-economic determinants of access to intervention programmes

The postdoc at Centre Suisse de Recherches Scientifique will be involved mainly in the first, third and fourth objectives and approaches, whereby s/he would be expected to significantly contribute to the assessment of social contact networks and transmission patterns of infectious diseases. The sought background of the postdoc is of an epidemiologist. The achievement of the objectives will require close collaborations between the different components. Essentially, a next objective builds on the results of the former and all are involved in complementary and comparative studies and responsibilities are shared:

The approaches and methods used per objective will be the following:

*Demographic parameters and mobility patterns*

Database with available demographic and geographical information; Interviews with key informants; Participatory mapping and GIS; Repeated demographic surveys; mathematical modelling.

*Social contact networks and transmission patterns of infectious diseases*

Contact interview forms and structured questionnaire about places of social aggregation to selected diseases (e.g. tuberculosis and parasitic diseases) and their contacts to assess two-mode networks analysis. Social network analysis (SNA) is an innovative approach to the collection and analysis of infectious disease transmission data because it goes beyond current homogeneity of mixing assumptions and has been used for a broad range of diseases. For many infectious diseases, transmission occurs mainly between people who are collocated (simultaneously in the same location), and spread is mainly due to people's movement. A network-informed approach can help to focus investigations and control options for infectious diseases. SNA also has the potential towards more rapid identification of control options for diseases transmitted between animals and people (zoonoses), which currently receive much international attention as diseases of neglected and impoverished communities.

*Disease control interventions in mobile populations*

Selection of model pathogens collected in human and animal populations to validate the established social contact networks to describe transmission patterns in mobile communities. It builds on the previous objectives. Effective tools of control exist, however, it is not evident how these can be applied and monitored in mobile communities.