

## **Meningococcal meningitis in Sub-Saharan Africa: from the understanding of the dynamics of colonization and disease patterns to improved control (extension)**

Initiative: Wissen für morgen – Kooperative Forschungsvorhaben im subsaharischen Afrika (beendet)

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The "meningitis belt" of Sub-Saharan Africa records the highest incidence of meningococcal meningitis in the world. The disease occurs in epidemic cycles with devastating consequences. The mechanisms leading to the spread of clonal complexes of *Neisseria meningitidis* and to epidemics of disease are still unclear. In recent years, an increasing incidence of pneumococcal meningitis has been observed with a mortality significantly higher. The study focuses on systematic long-term analysis of the relationship between meningococcal colonization and disease in two districts in Ghana and in Burkina Faso. The project partners are studying (1) the dynamics of meningococcal nasopharyngeal colonization, (2) the cerebrospinal fluids of all suspected meningitis patients attending the district health services and (3) the clinical pattern of disease. The expected outcomes of the study are (1) improved prediction and control of epidemics of bacterial meningitis, (2) improved management of patients with bacterial meningitis, (3) improved understanding of the dynamics of colonization and disease, (4) clarification of features relevant for the development of improved vaccines and (5) further improvement of the capacity development and networking aspects, including the incorporation of the University of Ghana.

### **Projektbeteiligte**

#### **Prof. Dr. Thomas Junghanss**

Universitätsklinikum Heidelberg  
Zentrum für Infektiologie  
Sektion Klinische Tropenmedizin  
Heidelberg

#### **Dr. Abraham Hodgson**

Navrongo Health Research Centre  
Navrongo  
Ghana

#### **Dr. Ali Sié**

Nouna Health Research Center (CRSN)  
Nouna  
Burkina Faso

**Prof. Dr. Gerd Pluschke**

Swiss Tropical and Public Health

Institute TPH

Molecular Immunology Unit

Basel

Schweiz

**Prof. Fred Binka**

University of Ghana

School of Public Health

Accra

Ghana