The Swiss Tropical Institute – improving health worldwide

by Marcel Tanner and Joachim Pelikan

Contribute to the improvement of the health of populations internationally and nationally through excellence in research, services, and teaching/training is the goal of currently more than 300 staff members and their international networks of the Swiss Tropical Institute (STI). Founded in 1943 as a public institution, STI is today firmly established as an institute for International Health. The »Molecular Diagnostics Unit« is engaged in the development of new genotyping tools for highly sensitive detection of the malaria parasite Plasmodium falciparum in blood donations. One important project of the »Molecular Immunology Unit« is the research of Mycobacterium ulcerans infections (Buruli ulcer), towards improving control, diagnosis and therapy of this typically neglected tropical disease. The »Parasite Chemotherapy Unit« is engaged in drug discovery of new antiprotozoal compounds as well as in malaria drug discovery. The team of the »Gene Regulation Unit« is working on epigenetic regulation of the var gene family to better understand the regulation of this gene family of the malaria parasite. The »Helminth Drug Development Unit« is interested in identifying and developing novel, broad-spectrum, orally active drugs for helminth diseases caused by parasitic worms.

Structures and activities

Within the »Department of Medical Parasitology and Biology of Infection« studies on host-parasite relationships and determinants of infection and morbidity at the molecular, cellular, clinical and populatio levels are central. Important projects include research on variable antigens and their corresponding genes of the malaria parasite in the »Molecular Parasitology and Epidemiology Unit«. The »Ecosystem Health Sciences Unit« covers a wide array of basic and applied research and disease control interventions, mainly focusing on the so-called neglected tropical diseases. The work of the »Social Sciences Unit« is related to medical anthropology as well as cultural epidemiology. Access to health services plays a major role as well as research on illness behaviour, disease control and mental health. The »Human and Animal Health Unit« brings together animal and human health services in the »one health« concept. Assessments of human benefits of interventions in livestock especially among pastoralists are central for this work.
The »Medical Service Department« is a centre of competence in travel and tropical medicine and the area of emerging diseases and zoonoses. It provides parasitological and diagnostic services. The Travel Clinic offers advice for travellers to tropical and subtropical countries, vaccination services and a 24-hour emergency service. In recent years STI further developed its competence in clinical and diagnostic services within the national health care delivery system as an official reference centre for parasitology, travel and tropical medicine. At an international level, the »Medical Department« and the »Diagnostic Centre« are very actively involved in training courses at all levels. Most courses take place in disease endemic areas and therefore drive home to participants the realities of resource-constrained health systems. Another important area of work is the development of new diagnostic tests, especially in serology.

The »Swiss Centre for International Health« (SCIH) as a strongly service-oriented department of the STI provides assistance in the implementation of health projects, acts as executing and support agency for health development and offers short- and long-term consultancies and expertise in all aspects of health services management, planning, risk analysis and evaluation. The SCIH provides advisory and implementation services in developing health systems worldwide and is engaged in short- and long-term projects globally, with a focus on Africa, Asia, Central and Eastern Europe, and Switzerland. It consists of the »Reproductive Health/HIV/AIDS Unit«, the »Health Systems and Economics Unit«, the Systems Performance and Monitoring Unit« and the »Health Technology and Telemedicine Unit«.

The »Department for Pharmaceutical Medicine« (DPM) of the Swiss Tropical Institute (STI) was founded in 2008 and started operations in 2009. The aim is to contribute effectively to bridge the »translational gaps« in the Research and Development process for drugs, vaccines and Public Health interventions between promising research outcomes and their validation and implementation for impact in resource limited economies. Within the overall mission and strategy of the STI, the DPM sees its role in providing high quality services, research and training in the field of pharmaceutical medicine, in the validation of new interventions, as well as at the interfaces between innovation & validation & application.

Teaching and Training

STI is an associated institute of the University of Basel. Teaching responsibilities at the university include the macro focus Life Sciences with the new biology curriculum and the Medical Faculty for Public Health and clinical areas. STI also contributes to the MA in African Studies. In addition, STI’s teaching and training activities entail a range from general introductory courses for the informed public to specialised post-graduate training arrangements. Thus, STI offers a large range of courses for health professionals who wish to prepare themselves for work in Public Health at a national or international level. Currently STI has around 80 PhD and 40 MSc positions per year populated with students from all parts of the world brought together in the spirit of mutual learning.

Since 1998 the STI is offering a postgraduate Master of Advanced Studies in International Health (MIH), accredited by the University of Basel and at a national level. The STI MIH constitutes a jointly developed degree programme in the field of international Public Health and is recognised and offered by nine European universities (tropEd).

All STI courses encourage a student-centred learning and problem-solving approach which entails group work, field and laboratory practicals, round-table discussions, seminars and tutorials.

Seven universities – Basel, Bern, Geneva, Lausanne, Lugano, Neuchâtel and Zurich – established cooperation in Public Health and health economics to become the Swiss School of Public Health (SSPH+). The role of SSPH+ is to facilitate exchange, collaboration and networking between the various programs and to promote the development of new public and international health training.

The future

STI is looking confidently into the future. The mandate and jointly developed strategies, as well as the numerous creative and innovative contributions of the staff, provide a sound basis for the conduct of the daily work. Within the context of being an associated institute of the University of Basel the STI is currently integrating the university’s Institute of Social and Preventive Medicine into the STI, which creates a new Swiss centre bringing together international and national Public Health expertise and experience in research and training, as well as services. These developments and future positioning at a national and international level will govern the strategic orientation and activities in the coming years.

Abstract

Schweizerisches Tropeninstitut


Für weitere Informationen besuchen Sie bitte unsere Webseite: www.sti.ch