DNDi works closely with partners in disease-endemic countries to strengthen existing clinical research capacity.
Building strong & sustainable research capacities in endemic countries

According to its vision and mission, DNDi works closely with partners in disease-endemic countries to strengthen research capacities and to promote technology transfer in order to facilitate registration, uptake, and sustainable access of new treatments.

By 2009, one disease-specific research platform for each of the kinetoplastid diseases (human African trypanosomiasis, leishmaniasis, and Chagas disease) was in place.

Three regional platforms for sustainable response

These platforms promote South-South collaboration and bring together the most important actors in each region in order to define patient needs, train clinical researchers, facilitate registration, and expedite implementation. An integral part of the DNDi model, these platforms have achieved several milestones, including: LEAP’s delivery of SSG&PM for visceral leishmaniasis in East Africa; the HAT Platform’s continued support for implementation of NECT for sleeping sickness in all endemic countries; and the Chagas Clinical Research Platform’s overseeing of clinical studies for Chagas disease in Argentina and Bolivia.

These regional platforms, included from the outset of DNDi as part of its original business model, are essential pillars of DNDi’s work, and aim to support and reinforce the locally grown R&D initiatives addressing neglected diseases in endemic countries.
**OVERALL OBJECTIVES**

- Strengthen clinical research capacity, which is lacking in part due to the remoteness and geographic spread of the patients, most of whom live in the most impoverished regions of Africa.
- Serve as a base for ongoing educational cooperation among East African countries and for standardization of procedures and practices in the region, as far as possible within the confines of local regulations.
- Evaluate, validate, and facilitate registration of new treatments for VL in the region.

**Treatments**

Following recommendation of SSG&PM as first-line treatment for VL in East Africa by the WHO Expert Committee on the Control of Leishmaniases (2010), Sudan was the first country to implement SSG&PM (end 2010). Registration of PM has been initiated in LEAP countries, Uganda being the first (end 2011) and Kenya the second (Feb. 2013) to register it.

**Clinical trials**


**Capacity strengthening**

Good Clinical Practice (GCP)/Good Clinical and Laboratory Practice (GCLP) and pharmacovigilance courses were delivered in 2012 to 78 lab technicians, nurses, pharmacists, monitors, and investigators in Ethiopia, Kenya, and South Africa. Six post-graduate trainings were supported by LEAP. In addition, an exchange programme, initiated in late 2011, between the laboratory staff at the Kenyan Kimalel site and the Ugandan Amudat site was successfully carried out.

**Infrastructure**

Renovation of laboratories at the Ethiopian Gondar clinical site was finalized in 2012.

**Access**

Kenya’s Ministry of Health launched its National VL Guidelines in September 2012, recommending SSG&PM first-line treatment. SSG&PM was included in the national drugs lists of Sudan, South Sudan, and Ethiopia.
Human African Trypanosomiasis (HAT) Platform

Founded: 2005 in Kinshasa, Democratic Republic of the Congo
→ 8 member countries

OVERALL OBJECTIVES
→ Build and strengthen treatment methodologies and clinical trial capacity in HAT-endemic countries, so that new treatments can be rapidly and effectively evaluated, registered, and made available to patients
→ Develop appropriate clinical trial methodologies for HAT and strengthen clinical trial capacity (human resources, infrastructure, equipment)
→ Overcome system challenges related to administrative and regulatory requirements
→ Share information and strengthen ties among endemic countries

Treatments
In 2012, 96% of stage 2 sleeping sickness patients were treated with NECT. In 2012, 11 countries reporting cases of HAT T.b. gambiense (98% of cases) were using NECT as first-line treatment for stage 2 HAT.

Clinical trials
Fexinidazole: Preparation of six clinical trial sites in DRC and CAR, support for submission to the ethical and regulatory authorities of DRC and CAR; staff training. Study recruitment started 2012 at four sites in DRC. Strengthening collaboration with FIND, the platform contributed to a trial for a new rapid diagnostic test and molecular test (LAMP). With ITM-Antwerp, the platform is involved in monitoring of the NIDIAG trial, notably on neurological diagnosis decision trees, in Mosango, DRC.

NECT Field studies (six sites in DRC) were completed in 2012.

Capacity strengthening
Training sessions were given to 130 professionals in DRC, Uganda, South Sudan, and Chad, mainly for the start of the fexinidazole Phase II/III study: preparation of staff (65 people), Good Clinical/Laboratory Practice (46), and pharmacovigilance (19).

Infrastructure
In 2012, Bandundu, Masi Manimba, and Vanga clinical sites in DRC benefited from several infrastructure upgrades, such as laboratory upgrades and equipment, solar energy systems, VSAT for internet, kitchen, warehouses, and waste disposal spaces, including incinerators, and painting and renewal of the beds as needed in patient wards.

Members
National Sleeping Sickness Control Programmes and National Laboratories of Public Health of most affected endemic countries: Angola, Central African Republic, Chad, Democratic Republic of the Congo, Republic of Congo, South Sudan, Sudan, Uganda; Swiss Tropical and Public Health Institute (Swiss TPH); Institute of Tropical Medicine-Antwerp, Belgium; Institut National de Recherche Biomédicale (INRB), DRC; University of Makerere, Uganda; Kenya Agricultural Research Institute – Trypanosomiasis Research Centre [KARI-TRC], Kenya; Tropical Medicine Research Institute (TMRI), Sudan; Institut Pasteur Bangui, CAR; Médecins Sans Frontières (MSF); Foundation for Innovative New Diagnostics (FIND); Eastern Africa Network for Trypanosomosis (EANETT), Centre interdisciplinaire de Bioéthique pour l’Afrique Francophone (CIBAF); WHO Department of Neglected Tropical Diseases as observer.
Chagas Clinical Research Platform (CCRP)

Founded: 2009 in Uberaba, Brazil
→ Over 70 institutions represented from 22 countries

OVERALL OBJECTIVES
→ Deliver concrete support for R&D, such as training, capacity building, definition and compliance to standards and regulations, integration of ethical principles across different populations and countries
→ Discuss access challenges to new and existing technologies, through a flexible and needs-driven platform

Clinical trials
In 2012, three studies (started 2011) have been receiving support from the Platform: a population pharmacokinetics (PK) study of the use of benznidazole in children, including the new paediatric dosage form (Argentina); a study to evaluate and optimize the polymerase chain reaction (PCR) method for diagnosis and assessment of therapeutic response in patients with chronic indeterminate Chagas disease (Bolivia); and a study to evaluate the safety and efficacy of E1224 (Bolivia). During 2012, all these studies ended the recruitment of their patients and started their final visits of follow up.

Capacity strengthening
During 2012, training courses were held in Bolivia, Argentina, and Brazil for CCRP members involved in ongoing Chagas disease-related trials with 100 professionals trained. Two technical meetings in Brazil were held, engaging over 35 researchers.

Infrastructure
For the Phase II E1224 clinical trial in Bolivia, a backup site was prepared in 2012 (training, equipment, and infrastructure) to support enrollment.

Access
The CCRP collaborated on the distribution of an Information, Education, and Communication (IEC) Tool Box for rational use of the paediatric dosage form of benznidazole. It also took part, with the Brazilian MoH, PAHO, and MSF, in the demand forecast for Chagas treatment for 14 endemic countries, and in the dossier submission for inclusion of benznidazole 12.5mg to the WHO Model List of Essential Medicines for children.

Members
Ministries of Health and National Control Programmes of high-burden endemic countries (Argentina, Bolivia, Brazil, Mexico, Paraguay, Honduras); Pan American Health Organization (PAHO); Department for the Control of Neglected Tropical Diseases, WHO; Médecins Sans Frontières; International Federation of People Affected by Chagas Disease (FINDECHAGAS) and several patients associations
ARGENTINA: Hospital de Niños Ricardo Gutiérrez; Instituto Nacional de Parasitolgia Dr. M. Fatala Chabén; Hospital de Niños de Jujuy; Hospital Púlpico Materno Infantil – Salta; Centro de Chagas y Patologia Regional, Santiago del Estero; Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET); Fundación Mundo Sano, ELEA
BRAZIL: Instituto Oswaldo Cruz; Instituto de Pesquisa Evandro Chagas–Fiocruz; Centro de Pesquisas René Rachou–Fiocruz; LAFEPE
BOLIVIA: Universidad Mayor de San Simón; Platform of Integral Care for Patients with Chagas Disease; CEADES
MEXICO: Instituto Carlos Slim de la Salud
SPAIN: ISGlobal and Barcelona Centre for International Health Research (CRESIB)
USA: Merck; Sabin Vaccine Institute
JAPAN: Eisai Co. Ltd
FRANCE: Institut de Recherche pour le Développement
GERMANY: Bayer
OTHER: researchers from Universities of Colombia, Venezuela, Bolivia, USA, Canada, Brazil, and Paraguay.
Building lasting clinical research capacities in endemic countries

THREE REGIONAL CLINICAL RESEARCH PLATFORMS

The overall LEAP and HAT Platform budgets remain stable between 2011 and 2012. The Chagas Clinical Research Platform (CCRP) costs increased by 50% due to a meeting in August 2012 in Rio and to strengthening a regional network for Chagas drug access (Chagas meeting in Mexico, NHEPACHA meeting in Barcelona, communication activities).

In 2012, the Chagas Clinical Research Platform was operational at two sites for the E1224 study (Bolivia) and five sites for paediatric benznidazole Pop PK (Argentina). One new site was in preparation end of 2012 as a backup site for E1224 clinical trial.

In 2011, the HAT Platform was operational at six sites for the NECT study. In 2012, four additional sites were opened in Democratic Republic of the Congo for the fexinidazole study (Bandundu, Vanga, Masi Manimba, and Dipumba).

In 2011, the LEAP Platform was operational at seven DNDi clinical trial sites (same as 2011): Kassab and Doka [Sudan], Amudat [Uganda], Kimalel and Kacheliba [Kenya], and Arba Minch and Gondar [Ethiopia].