

Développement des nouvelles thérapeutiques pour la leishmaniose et la trypanosomose humaine africaine

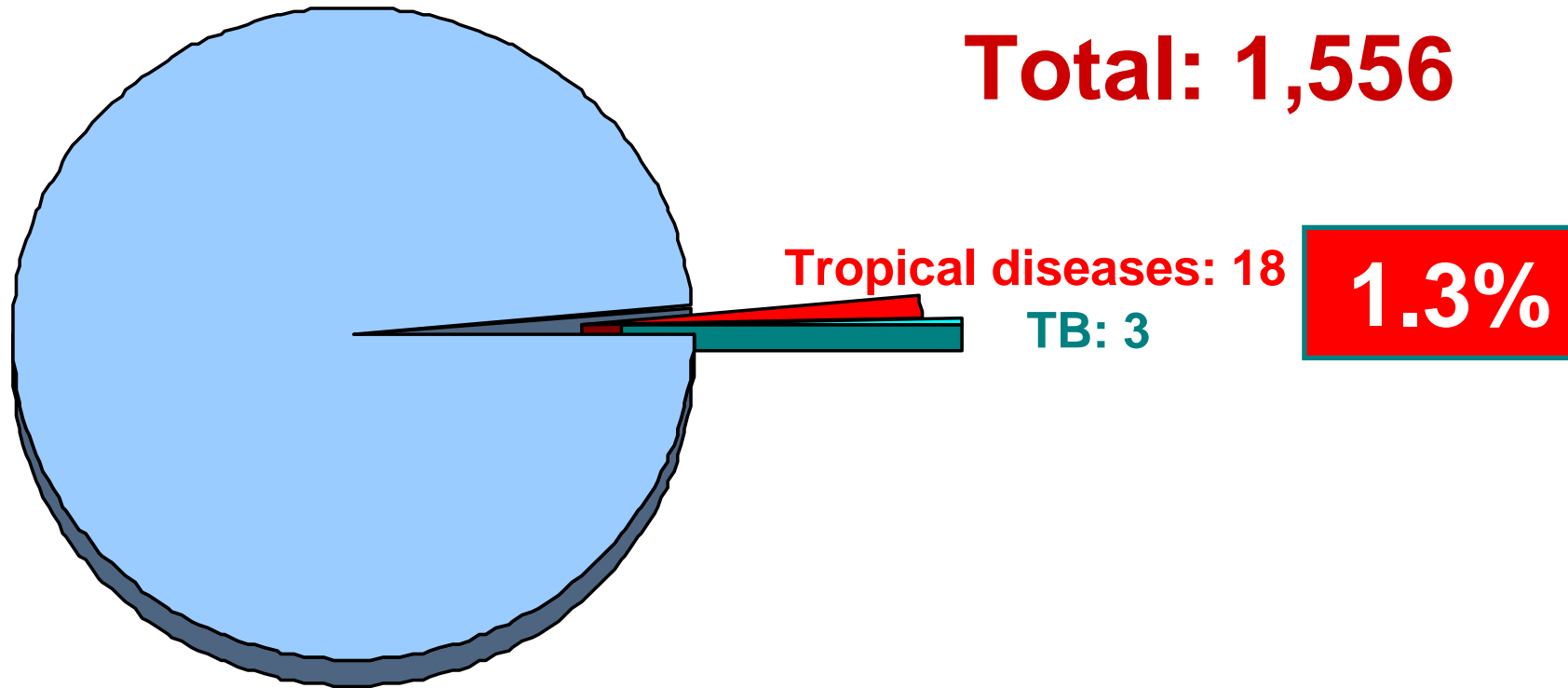
Bernard Pécoul
Directeur Exécutif, DNDi
Bordeaux, Juin 2006

DNDi

Drugs for Neglected Diseases *initiative*

New drugs developed from 1975-2004

Total: 1,556



Tropical diseases and tuberculosis account for 12% of the global disease burden but only 1.3% of new drugs developed.

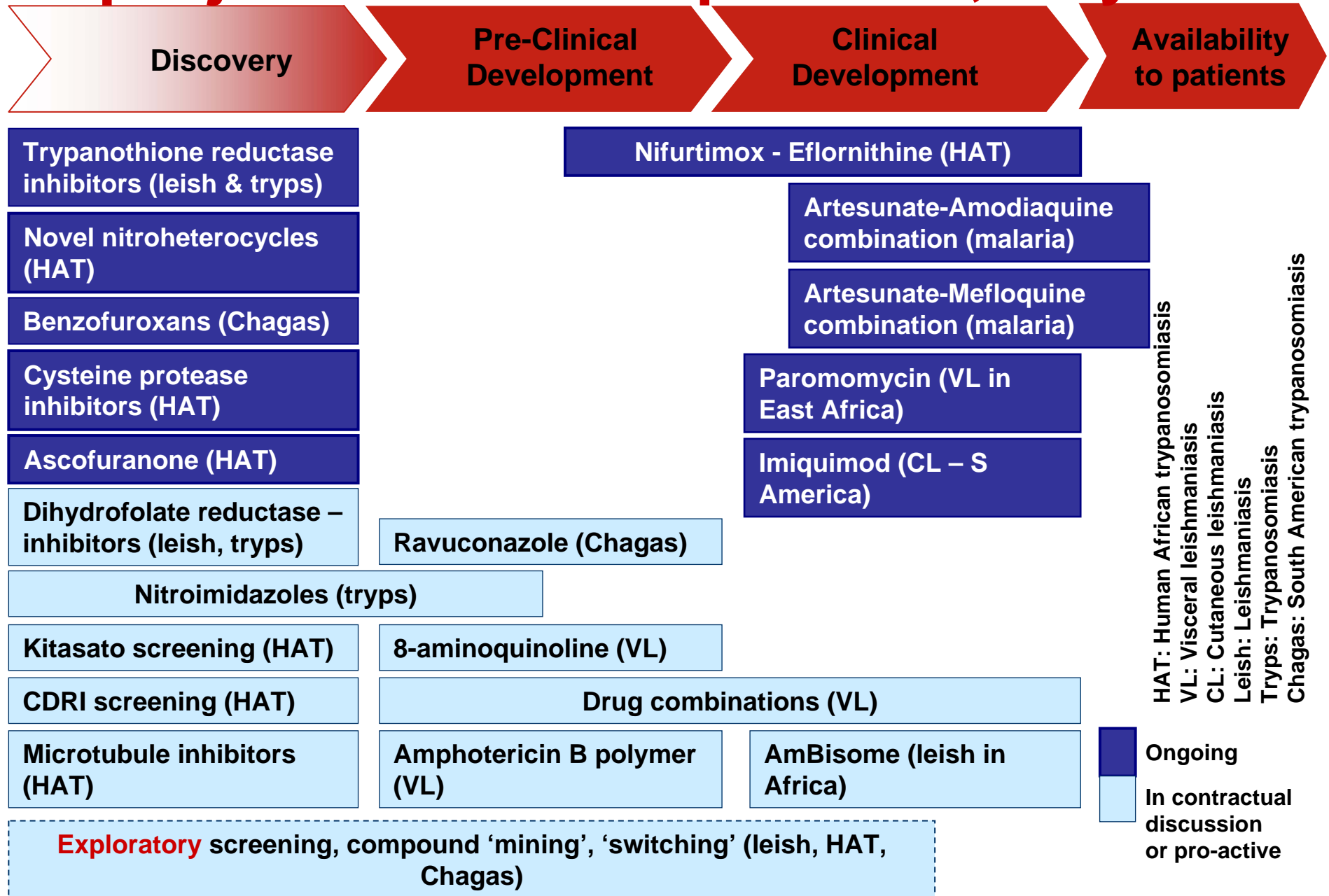
Source: Chirac P, Torreele E. *Lancet*. 2006 May 12; 1560-1561.

DNDi

Drugs for Neglected Diseases *initiative*

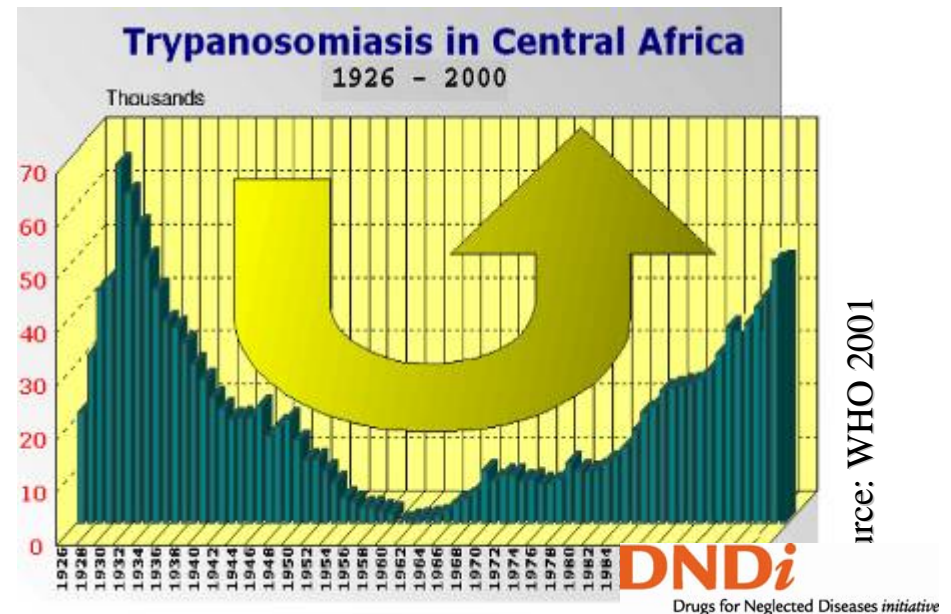
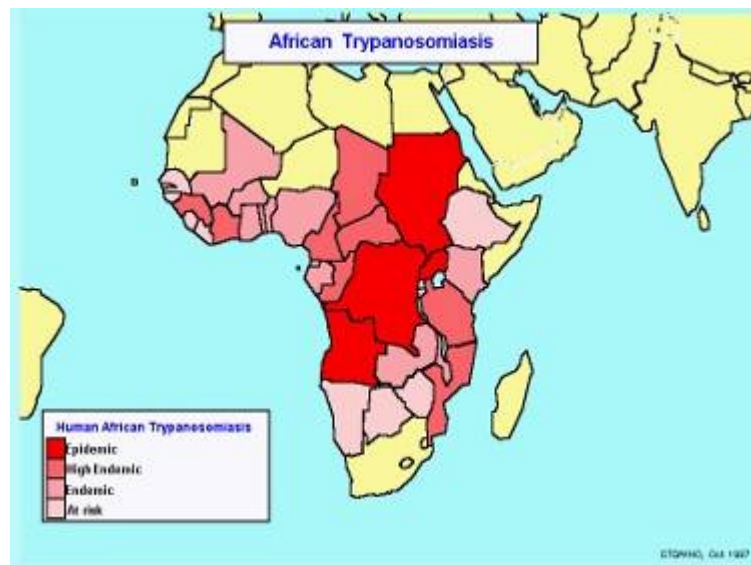
- DNDi 2003: a new collaborative, patient's-needs driven, not-for-profit drug R&D model for neglected diseases
- **Primary Objective:**
 - To deliver 6 - 8 new treatments by 2014 for leishmaniasis, sleeping sickness, Chagas disease, malaria

20 projects in DNDi's portfolio, May 2006

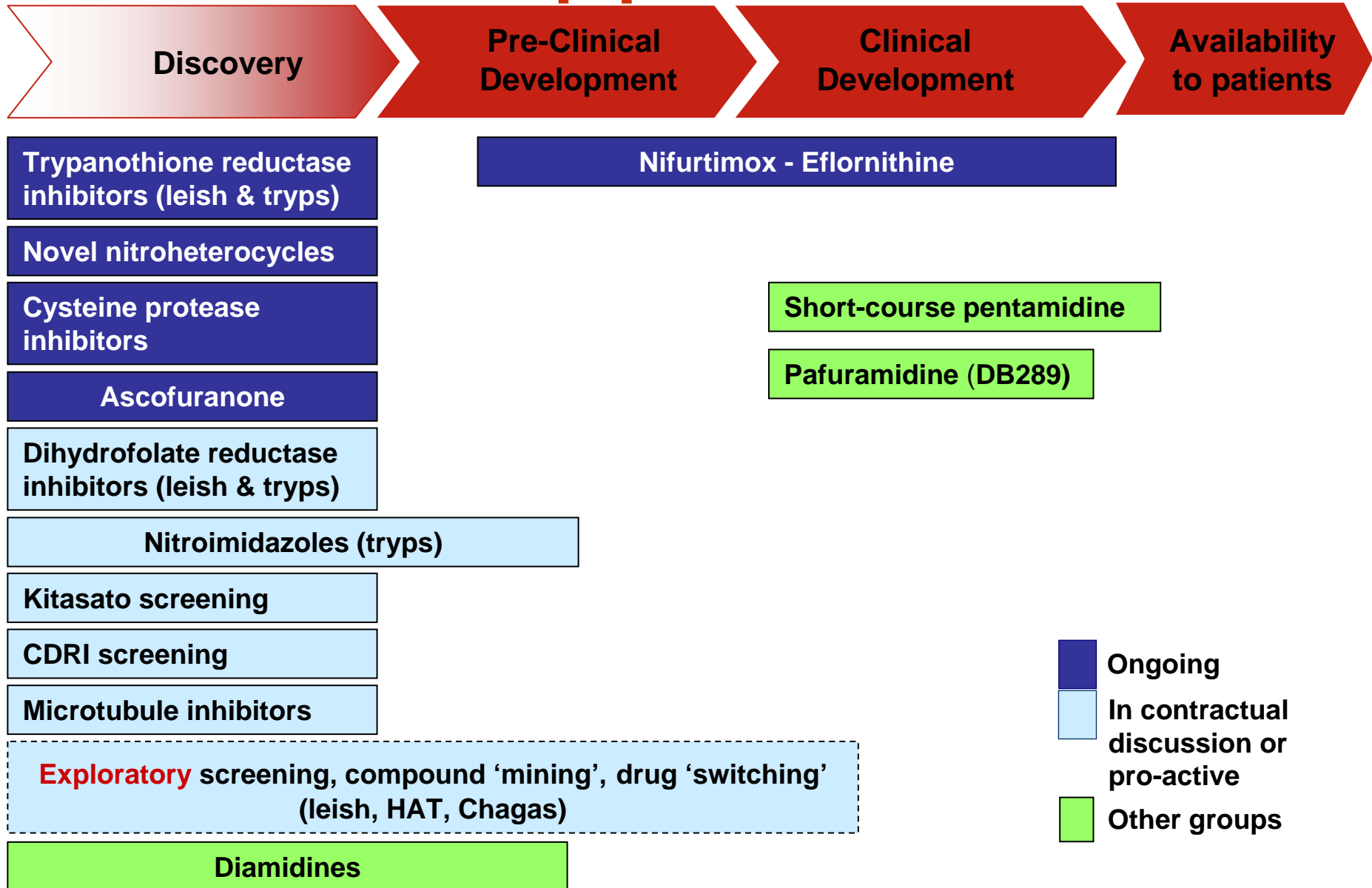


Sleeping sickness is a most neglected disease

- An estimated 300,000 infected
- 55 million at risk in sub-Saharan Africa
- Difficult to diagnose
- **Fatal** if untreated
- Existing drugs: old, toxic, resistance, difficult to use, expensive



Current pipeline for HAT



Discovery

Nitroimidazoles project for trypanosomiasis

OBJECTIVE: To identify new drug candidates amongst old and new nitroimidazoles for trypanosomiasis

Pharma companies

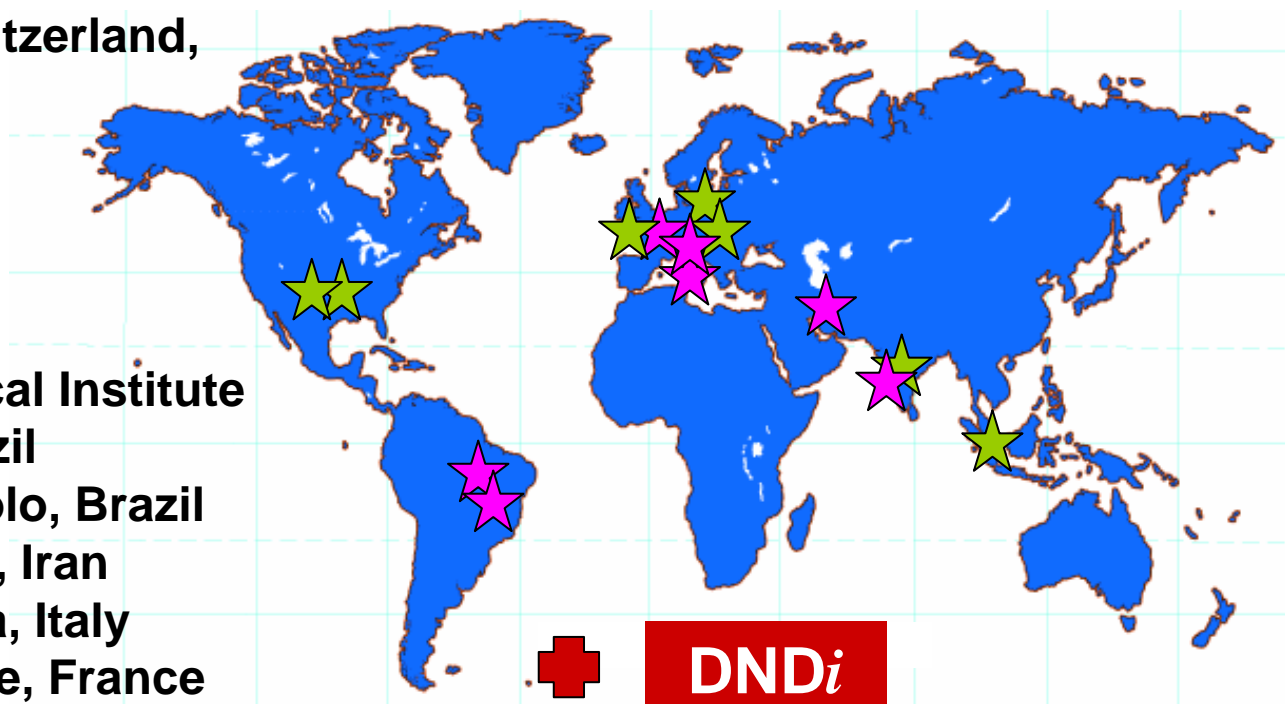


- Sanofi-aventis, France
- Chiron, USA
- Novartis, Switzerland, Singapore
- Alkem, India

Academic groups



- Swiss Tropical Institute
- Fiocruz, Brazil
- U of Sao Paulo, Brazil
- U of Kerman, Iran
- U of Bologna, Italy
- U of Marseille, France
- Prof Nagarajan, India



DNDi

Discovery

DHFR inhibitors

OBJECTIVE: To screen DHFR inhibitors against the enzymes from *T.brucei*, *T.Cruzi*, *L. donovani* and humans



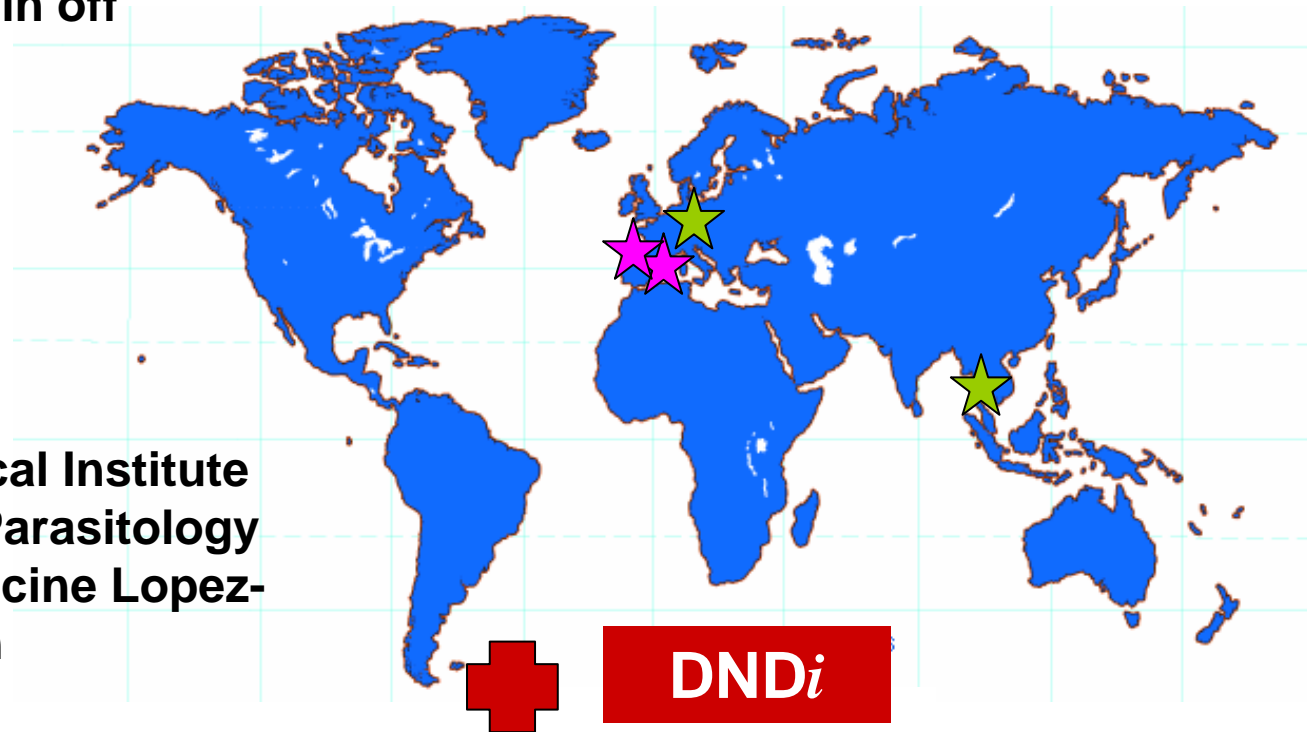
Pharma companies

- BASILEA (spin off of Roche), Switzerland
- BIOTECH, Thailand



Academic groups

- Swiss Tropical Institute
- Institute of Parasitology and Biomedicine Lopez-Neyra, Spain



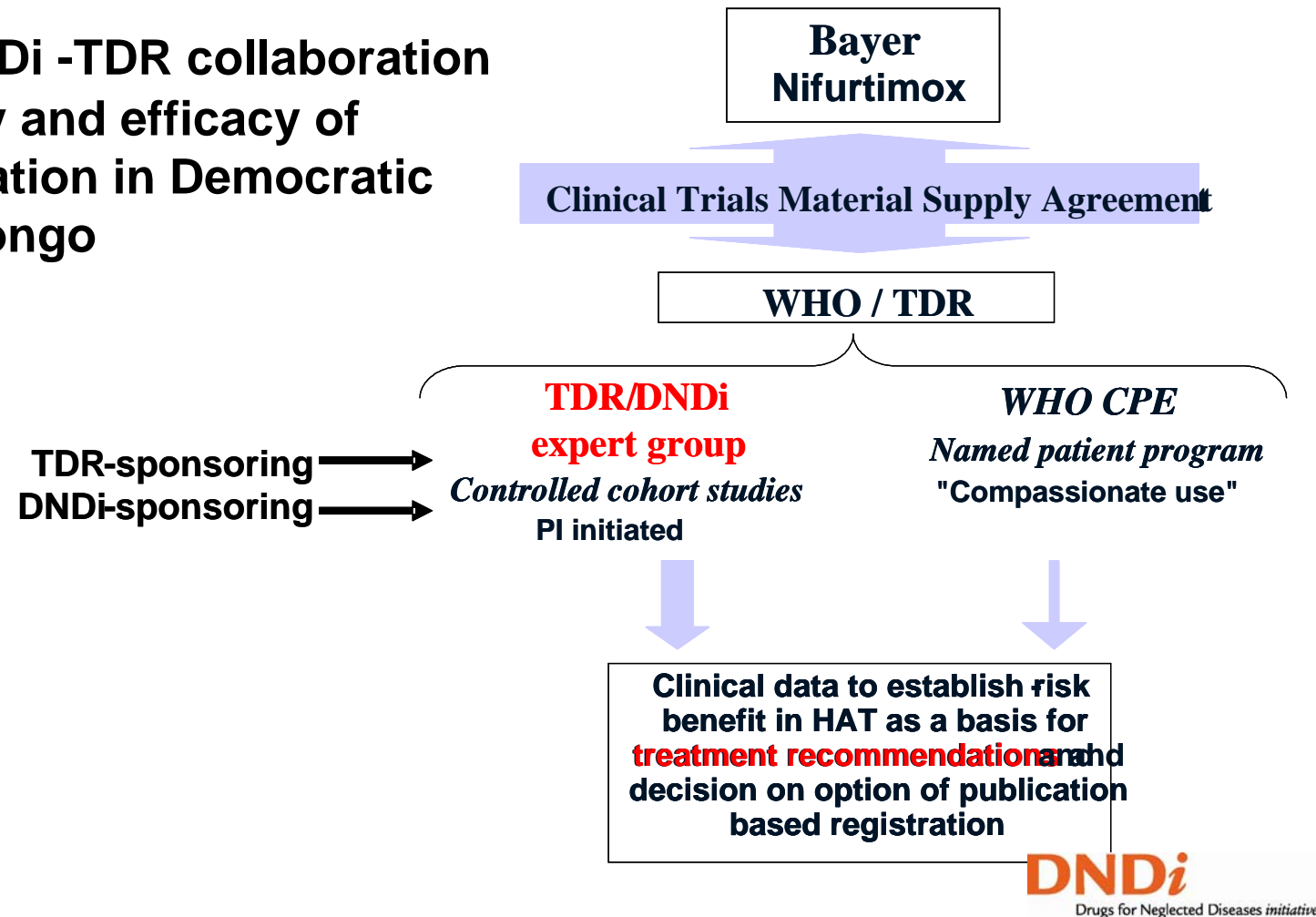
Discovery Screening at Kitasato

OBJECTIVE: To identify compounds and extracts with selective activity against *T.brucei*, for hit-to-lead and lead optimisation



2nd stage sleeping sickness – NECT nifurtimox- eflornithine combination

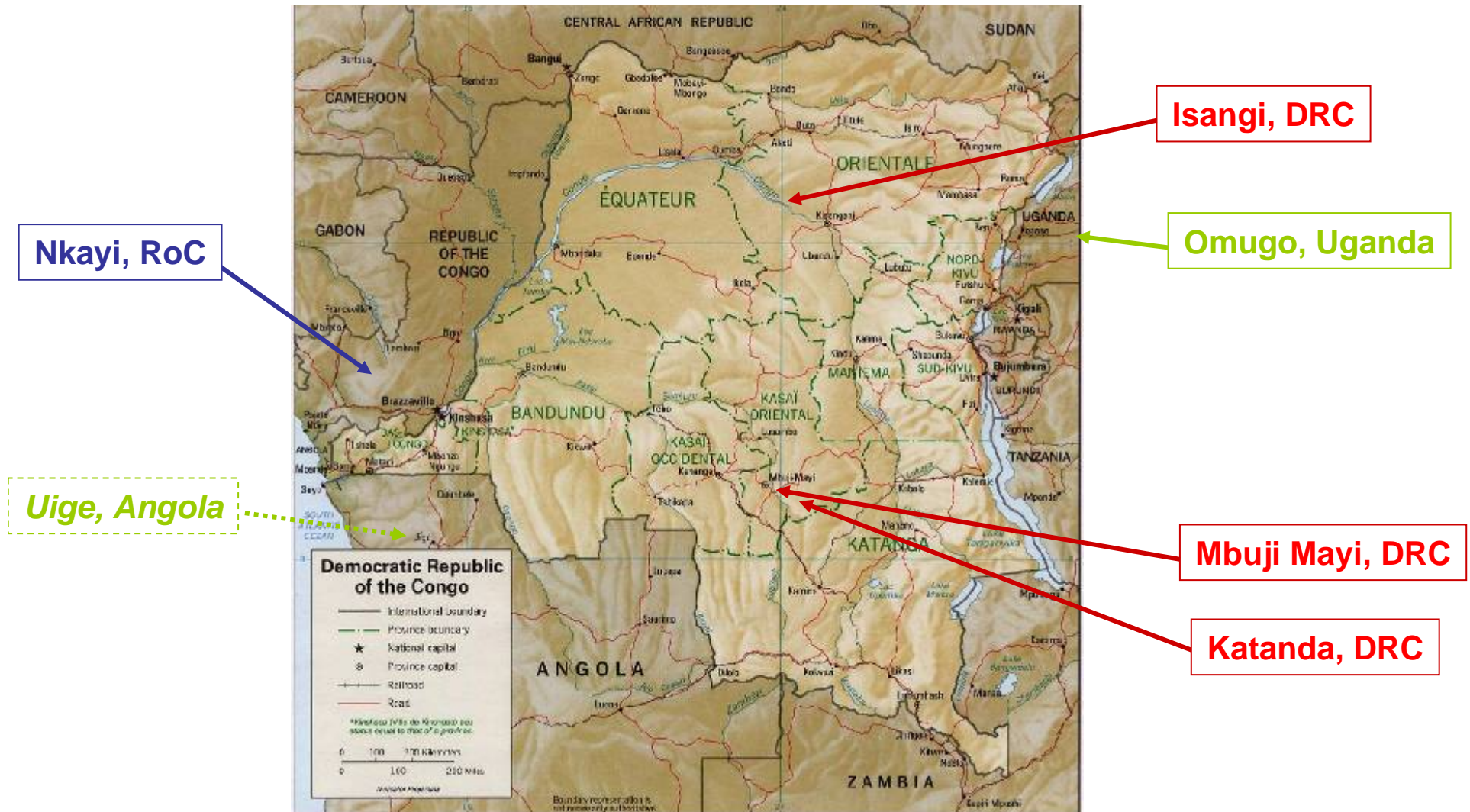
Start 2004: DNDi -TDR collaboration
to study safety and efficacy of
NECT combination in Democratic
Republic of Congo



Clinical trial sites for NECT study for stage 2 HAT

- 3 DNDi sponsored sites
- 1 MSF-sponsored site
- 1 (or 2) TDR sponsored sites

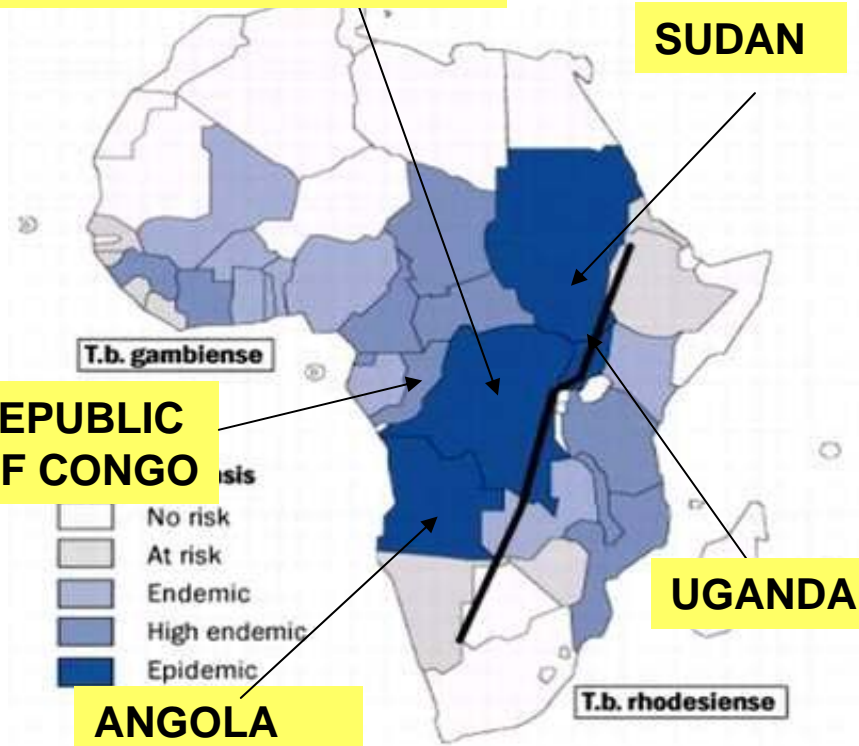
Partners include: Epicentre, MSF-H, MSF-B, STI, PNLTHA DRC, PNLTH RoC, COCTU Uganda, ICCT Angola, WHO/TDR, Belgian cooperation



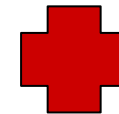
HAT Clinical Trials Platform



DEMOCRATIC REPUBLIC OF CONGO



- DNDi
- Swiss Tropical Institute
- FIND Diagnostics
- WHO / TDR



National HAT control programmes of most affected endemic countries

Other partners:

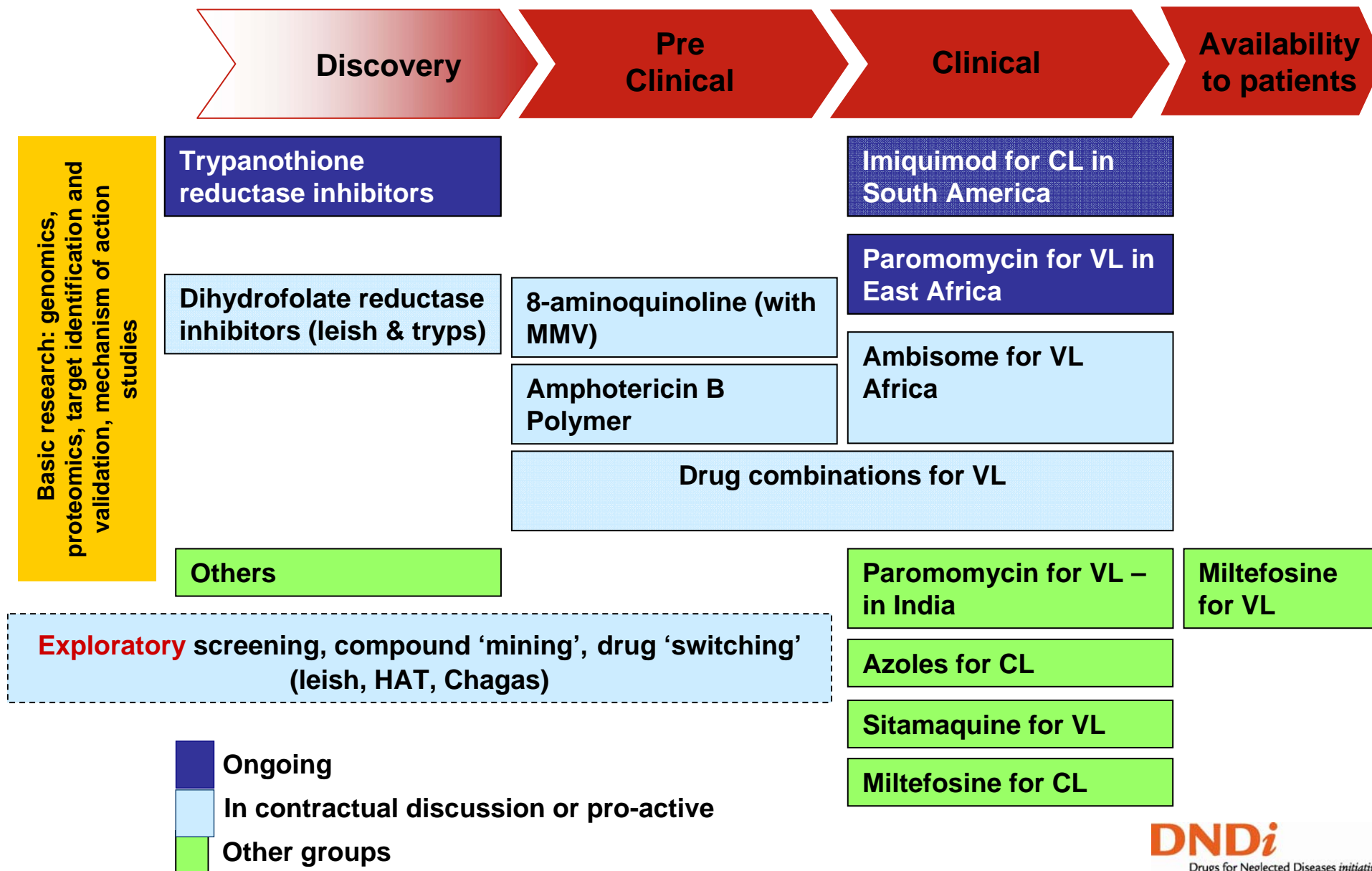
- NGOs working in HAT control
- National and international research groups involved in HAT

Leishmaniasis: 350 million at risk

- An estimated 12 million people affected in 88 countries
 - Different forms: visceral, (muco)cutaneous, PKDL
- Per year: 1-1.5 million new cases of CL/MCL; 500,000 cases of VL
- VL is fatal if left untreated
- Existing drugs: old, toxic, resistance, difficult to use, expensive

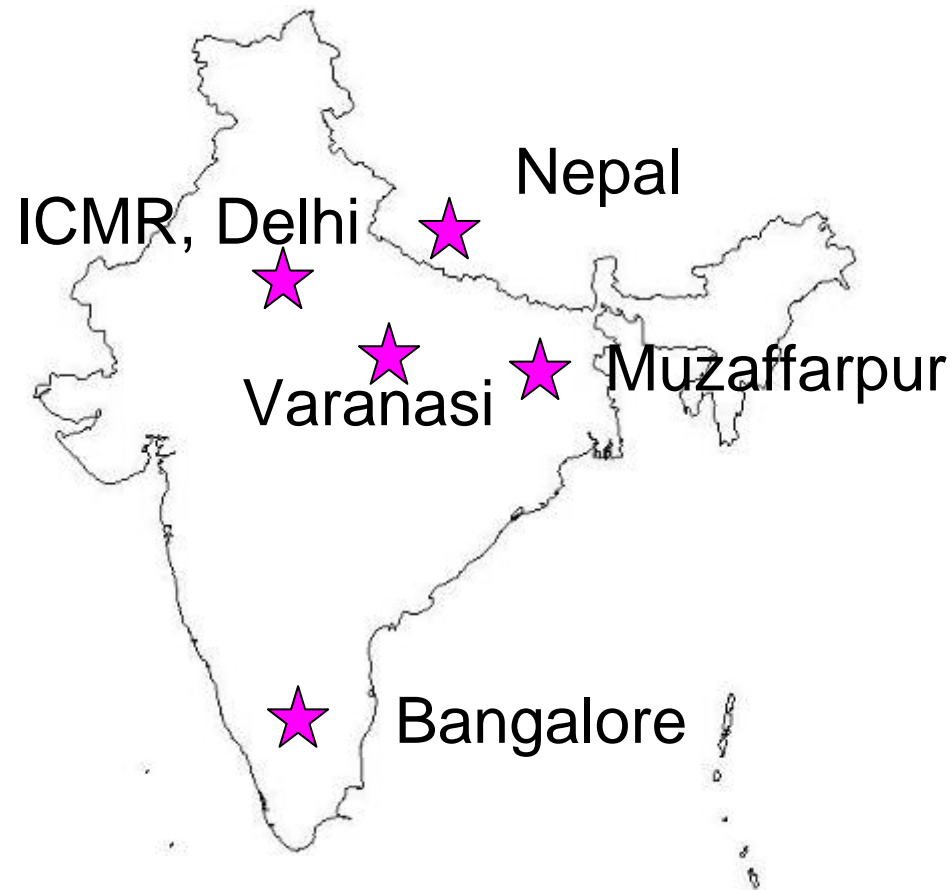


Current pipeline for Leishmaniasis



Pre-clinical development

Proposed partnerships for kala azar drug combinations in India & Nepal



Objective:

Combine existing kala azar drugs such as miltefosine, paromomycin, and liposomal amphotericin B to provide a shorter treatment regime & avoid resistance

Clinical development

Paromomycin for visceral leishmaniasis in Africa

Objectives

- To register paromomycin (PM) as a new alternative treatment for VL in East Africa (Sudan, Ethiopia and Kenya)
- To confirm efficacy and safety of paromomycin (and SSG)
- To confirm efficacy and safety of a shorter combination course of PM/SSG



Leishmaniasis East Africa Platform (LEAP)

- University of Khartoum
- Federal Ministry of Health
- MSF- Holland

SUDAN



- Addis Ababa University
- DACA
- Ministry of Health

ETHIOPIA



DNDi



- IOWH- India
- IDA
- WHO/TDR

- Ministry of Health
- KEMRI

KENYA

A group of scientists and institutions working on developing clinical trial capacity to bring new treatments to patients

EVERY DAY 35,000 PEOPLE DIE FROM NEGLECTED DISEASES



FOR RESEARCH ON NEGLECTED DISEASES:

**WAKE UP
YOUR GOVERNMENT.**

TOO MANY HAVE SLEEPING SICKNESS.

Government leadership must urgently:

- set global public health priorities
- fund R&D for neglected diseases
- provide new rules for essential health R&D

**SIGN
THE APPEAL**

www.researchappeal.org

URGE YOUR GOVERNMENT TO TAKE LEADERSHIP

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