



# **COVID-19: Advancing Towards** an Equitable and Healthy World

Dr Bernard Pécoul Executive Director, DNDi 28 January 2021 Prince Mahidol Award Conference 2021

# A year of tremendous mobilization of public and private sectors towards addressing R&D needs

IN THAT ONE YEAR

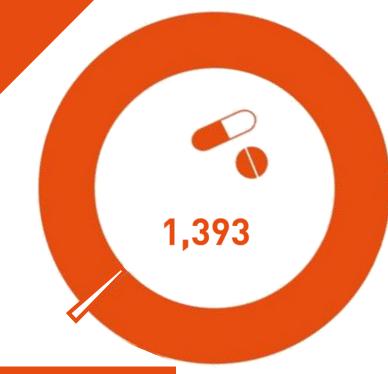
4,400 Clinical trials\*

**782** Products in development\* A. No. of products by type Medicines 554 Vaccines Diagnostics 7 782 **Grand Total** 800 \*WHO Global Observatory



URGENT R&D NEEDS REMAIN UNADDRESSED

# A fatal imbalance



1975- 1999

1.1% of the 1,393 new drugs for neglected diseases12% of the global disease burden

SOURCE: MSF & the DND Working Group, 2001. Fatal Imbalance: The Crisis in R&D for Neglected Diseases. Médecins Sans Frontières.

### DNDi ORIGINS

# Born on the frontlines of medical action



Médecins Sans Frontières did not have the medicines we needed to carry out our life-saving work.



So, when we received the Nobel Peace Prize in 1999, we decided to dedicate a portion of the funds received to launch a brand-new model of R&D.

Four years later, DNDi was born.



# DND*i* was created by public & private health & research institutions and WHO

- Kenya Medical Research Institute
- Indian Council of Medical Research
- Malaysian Ministry of Health
- Oswaldo Cruz Foundation, Brazil
- Institut Pasteur
- Médecins Sans Frontières
- World Health Organization's Special Program for Research and Training in Tropical Diseases

# We develop life-saving medicines for neglected patients around the world



Sleeping sickness



Leishmaniasis



Chagas disease



Filaria



Mycetoma



HIV



Hepatitis C



Malaria (Until 2015)



Antibiotic resistance



COVID-19



# Our aim: to develop 25 new treatments in our first 25 years



#### We innovate to save lives

We develop urgently needed treatments for neglected patients and work to ensure they're affordable, available, and adapted to the communities who need them.



#### We partner for impact

We conduct research where it's needed most, utilizing and strengthening R&D capacity in countries affected by neglected diseases.

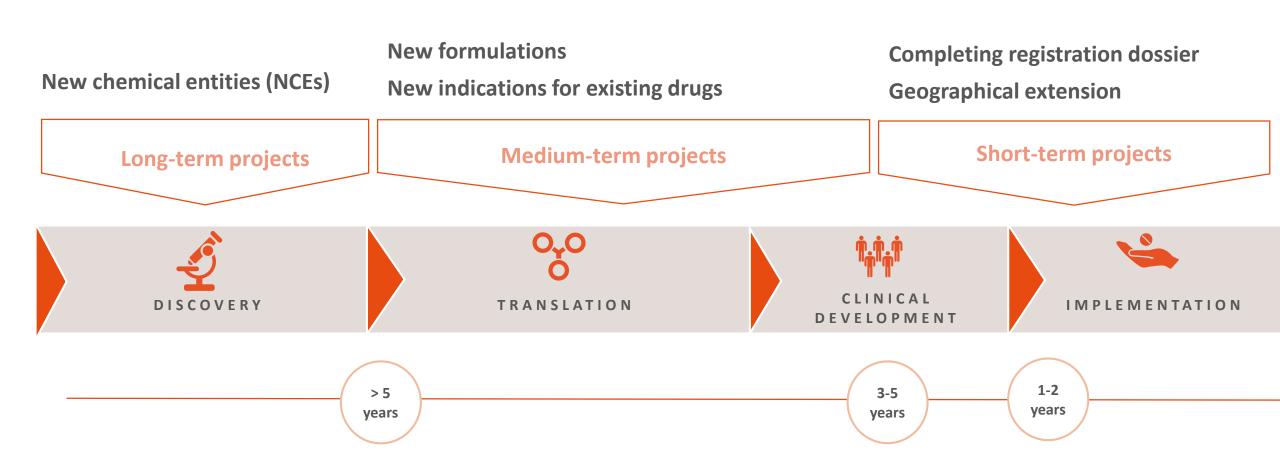


#### We advocate for change

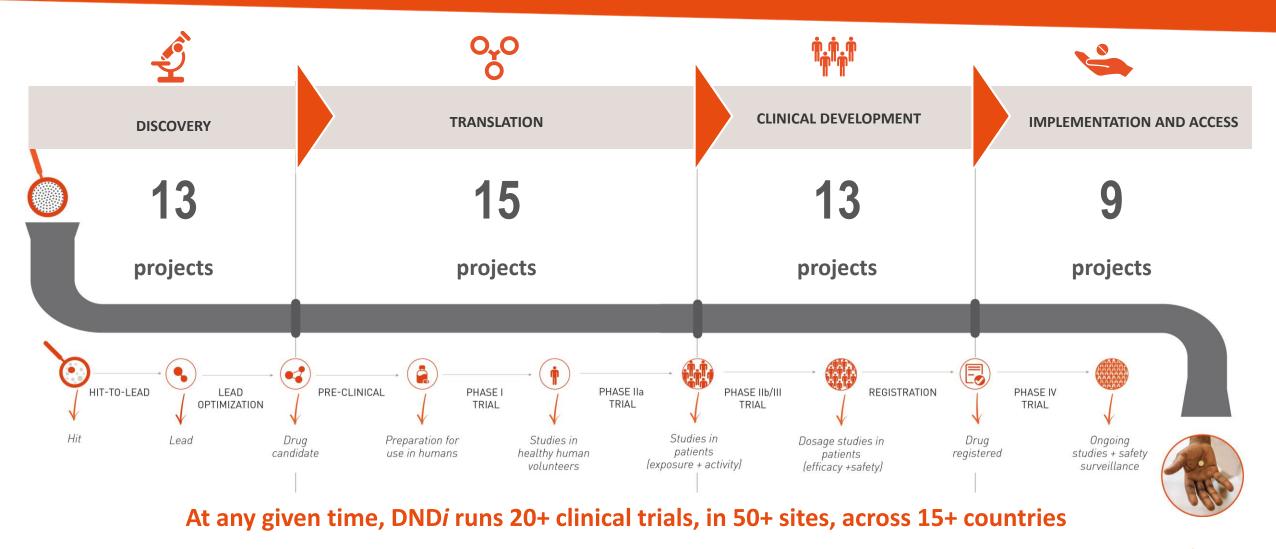
We speak out for policy change to enable more effective and equitable R&D and access to the fruits of science for all people in need, no matter their income or where they live.



### Driving innovation from the lab bench, to the patient bedside

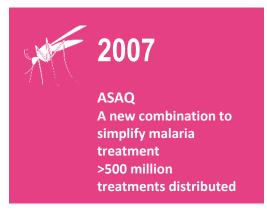


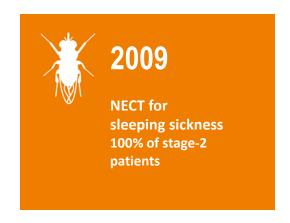
# 40+ projects and 20+ new chemical entities at all stages of R&D



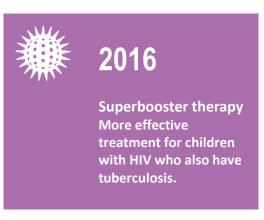
DNDi Drugs for Neglected Diseases *initiative* 

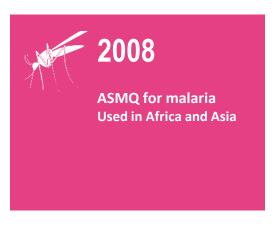
# 8 new treatments developed for 5 deadly diseases, saving millions of lives

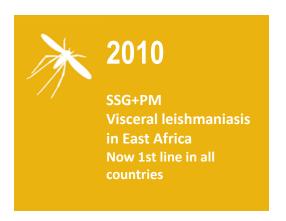
























# We partner for impact



A global network of 200+ partners

8

Offices worldwide that allow proximity to patients and LMIC needs

Brazil, DRC, Kenya, India, Japan, Malaysia, South Africa, US + Switzerland

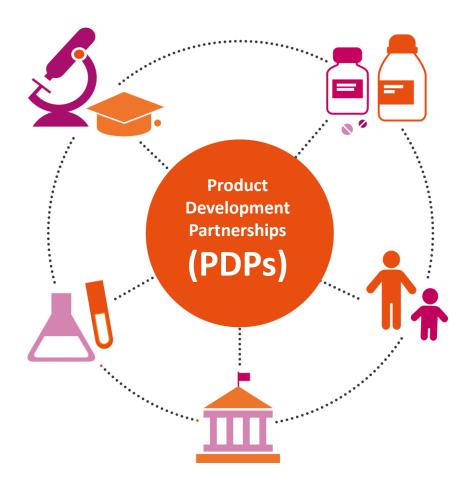




### The "virtual orchestra": a collaborative partnership model of R&D

ACADEMIA
AND PUBLIC RESEARCH INSTITUTES

PHARMACEUTICAL INDUSTRY



TREATMENT AND DIAGNOSTICS PROVIDERS

**PATIENTS AND COMMUNITIES** 

**HEALTH MINISTRIES** 

### Towards a one-dose cure to sustain elimination



8.5 MILLION people live in areas of moderate to very high risk



reduction in reported cases from 1998 to 2018



of reported cases in 2018 were in the DRC

#### 15 years ago **MELARSOPROL**

Toxic treatment, 'fire in the veins', killed 1 in 20 patients











#### **NECT**

2009

Effective & improved therapy

...but hospital-based and bulky.

### 2018

#### **FEXINIDAZOLE**

The first all-oral treatment for sleeping sickness: once a day over 10 days.







#### By 2022 **ACOZIBOROLE** – ONE DOSE FOR A CURE?

A DNDi new chemical entity to facilitate sustainable elimination of sleeping sickness







#### HEPATITIS C: SOUTH-SOUTH COLLABORATION TO DEVELOP A NEW CHEMICAL ENTITY

# Ravisdasvir + sofosbuvir: a new, affordable cure



71 MILLION people are living with HCV globally

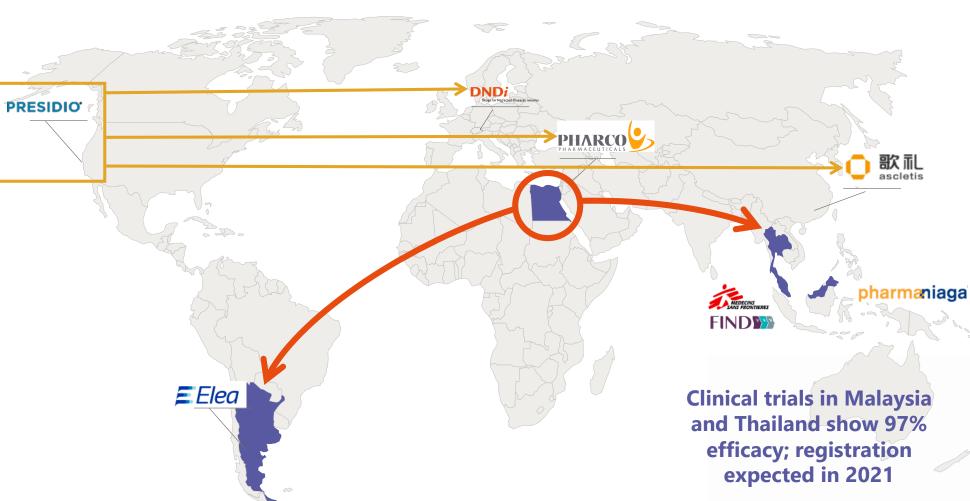


ONLY **7%** have had access to treatment



>1,000
people die from
HCV every day





# A new R&D initiative: The Global Antibiotic Research and Development Partnership (GARDP)





#### **PROGRAMMES:**

- Serious bacterial infections
- Children's antibiotics:
  - Neonatal sepsis
  - Paediatric
- Sexually-transmitted infections
- Discovery & exploratory

Jointly created by DNDi and WHO in 2016

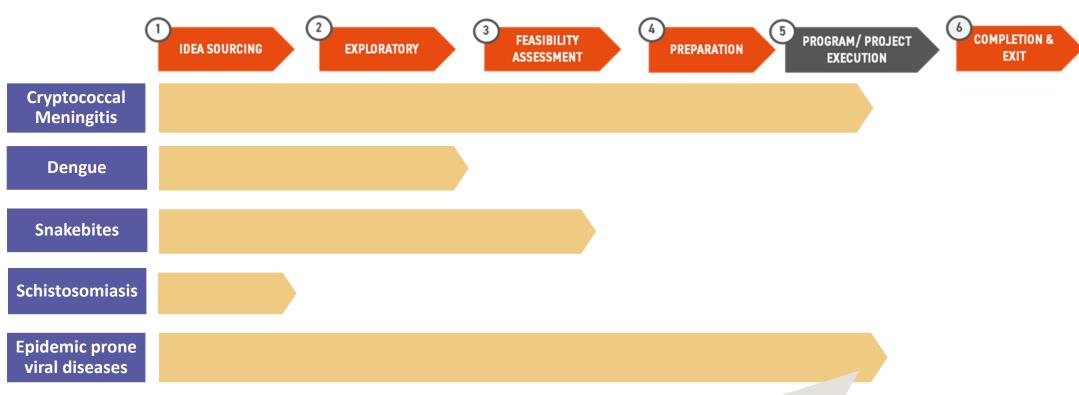
Incubated by DND*i* and launched as a separate organization in 2018

#### DNDi and GARDP close collaboration:

- Shared commitment to public health-driven R&D
   & access
- Sharing specialized R&D, and policy advocacy expertise
- GARDP's programmes supported by DNDi's regional network
- Sharing some infrastructure and support services



## As needs evolve, so does DNDi

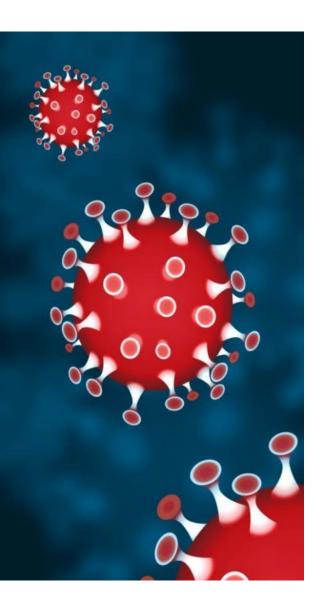








# **Accelerating Covid-19 research in resource-limited settings**



11 March 2020

WHO declares
COVID-19 outbreak a
Global Pandemic



2 April 2020



Coalition to accelerate research in resource-limited settings. 195 institutional members from 60 countries

Launched and hosted by DND*i* 



**21 September 2020** 



First participant recruited in largest trial in Africa for mild and moderate COVID-19 outpatients

Coordinated by DNDi



### The largest COVID-19 study in Africa testing multiple early treatment options

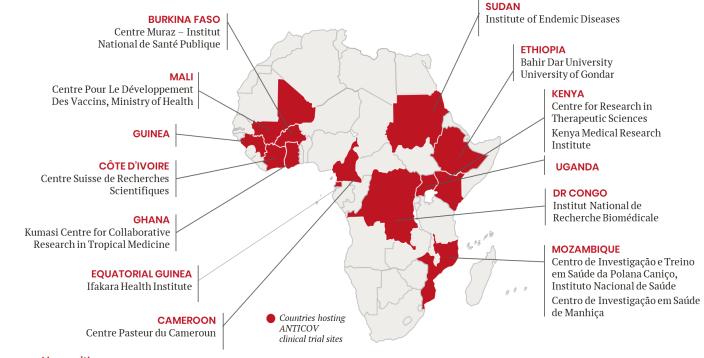
**26 member institutions** with recognized experience in clinical research

Up to 3,000 patients in 13 countries

Adaptive platform trial with 4-5 treatment arms



Selecting pre-clinical candidates with partners including Wellcome and the ACT-A Therapeutics Partnership



#### Along with:

- Agence Nationale de Recherche sur le Sida et les Hépatites Virales (ANRS)
- Alliance for International Medical Action (ALIMA)
- Barcelona Institute for Global Health (ISGlobal)
- Bernhard-Nocht-Institut für Tropenmedizin (BNITM)
- Drugs for Neglected Diseases initiative (DNDi), coordinating partner
- Epicentre
- Foundation for Innovative New Diagnostics (FIND)
- Infectious Diseases Data Observatory (IDDO)
- Institute of Tropical Medicine, Antwerp (ITM)
- Medicines for Malaria Venture (MMV)
- Université de Bordeaux-INSERM
- Swiss Tropical and Public Health Institute (Swiss TPH)









# We advocate for change

#### Policy lessons for the COVID-19 response:

- Participation by low- and middle-income countries in setting the research agenda
- Open sharing of research knowledge and data
- Health tools free of intellectual property restrictions
- Ensure sufficient production, equitable allocation, and affordable pricing
- Full transparency on R&D funding







# Thank you for your attention