

# Wie fördert das BMFTR R&D zu NTDs?



1. Product Development Partnerships (PDPs)
2. Research Networks in Africa (RHISSA)
3. DZIF
4. EDCTP

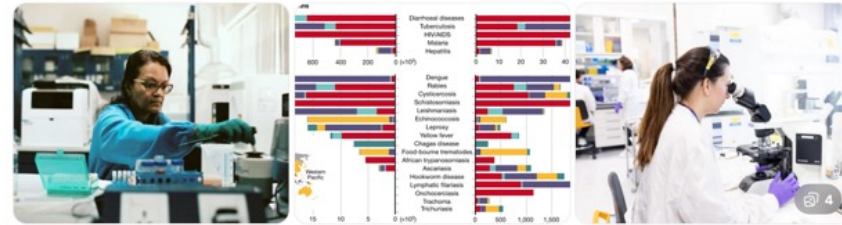


## WHO recommends first all-oral treatment for acute sleeping sickness found in Eastern and Southern Africa

The use of Fexinidazole Winthrop – a treatment developed by Sanofi and DNDi – against the rhodesiense form of the disease has been recommended following a clinical trial conducted in Malawi and Uganda.



### 3. Product Development Partnerships (PDPs)



Product Development Partnerships (PDPs) sind ein weiterer zentraler Baustein der Global-Health-Strategie des BMFTR.

#### Grundprinzip

PDPs sind **internationale Non-Profit-Organisationen**, die neue Produkte für Krankheiten entwickeln, bei denen der kommerzielle Markt zu klein ist. gesundheitsforsc...

Sie bringen zusammen:

- akademische Forschung
- Pharmaindustrie
- öffentliche Förderer
- NGOs

#### Zielprodukte

- Medikamente
- Impfstoffe
- Diagnostika

für **vernachlässigte und armutsassoziierte Krankheiten**. gesundheitsforsc...

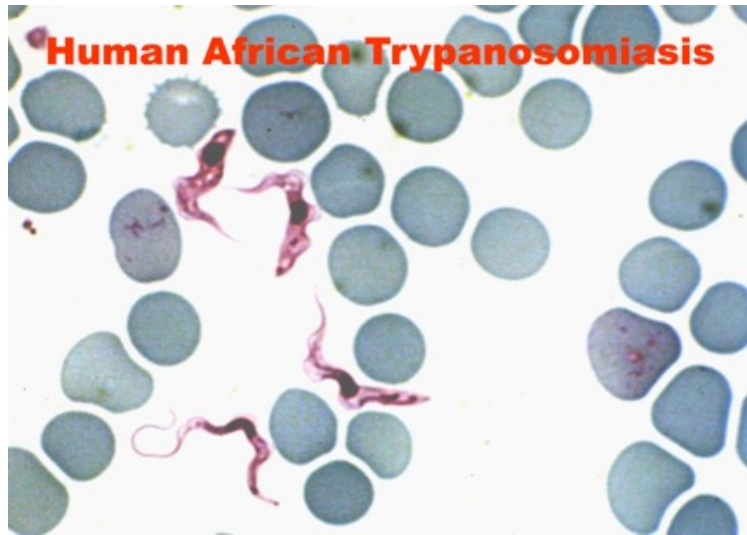
#### Förderung durch Deutschland

- erste Förderphase: 2011–2016
- zweite: 2016–2022
- dritte: 2023–2028
- Gesamtförderung inzwischen **>240 Mio. €** gesundheitsforsc...

#### Beispiele geförderter PDPs

- DNDi – Drugs for Neglected Diseases initiative
- FIND – Diagnostics
- IAVI – AIDS-Impfstoffe
- TB Alliance – Tuberkulose
- MMV – Malaria





• HUMAN AFRICAN TRYPANOSOMIASIS

• The HAT example: towards a one dose cure to sustain elimination

15 years ago  
MELARSOPROL

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



2009  
NECT –  
Nifurtimox/Eflornithin

Effective & improved therapy but hospital-based and bulky – complex logistics.  
*Developed in partnership with: Bayer & Sanofi, Epicentre and Swiss TPH*



2018  
FEXINIDAZOLE

A patient-centered, easy-to-use medicine, once a day for 10 days

*Recommended by the European Medicines Agency,  
2018: T.b. gambiense  
2023: T.b. rhodesiense  
developed in partnership with:*



Year 2022  
ACOZIBOROLE – ONE DOSE FOR A CURE?

The first DNDi new chemical entity resulting from its own lead optimization programme to enter clinical development.



# Lymphatic Filariasis & Onchocerciasis

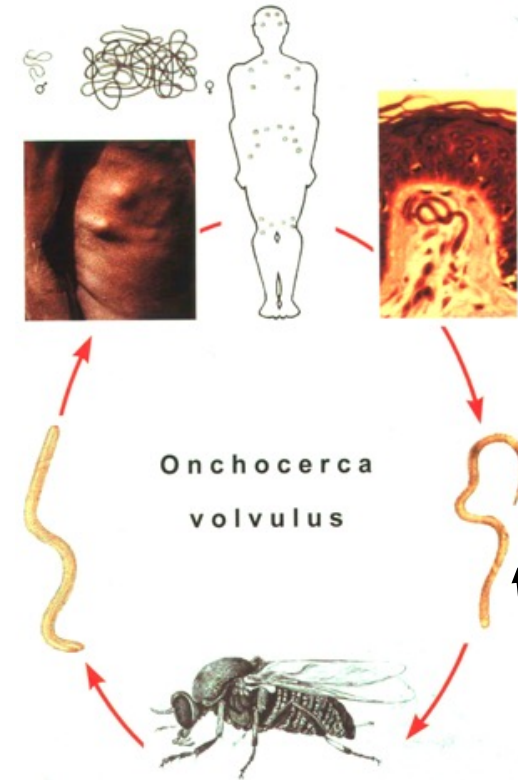


*Wuchereria bancrofti,*  
*Brugia malayi/timori*

- filarial diseases
- drugs for MDA mainly target the offspring (microfilariae)
- to reach the goal of elimination alternative treatment strategies are needed that kill or sterilize the adult worms

→ no macrofilaricidal –  
 adult worm killing - efficacy

- Diethylcarbamazine (**DEC**)
- Albendazole (**ALB**)
- Ivermectin (**IVM**)



*Onchocerca volvulus*

- Ivermectin (**IVM**)

**Hyporeactive: many MF, skin normal**



**Hyperreactive: few MF, dermatitis**



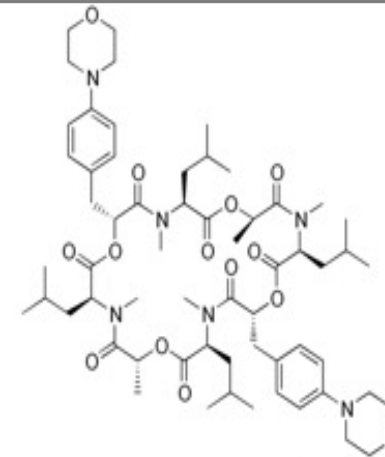
## Emodepside - Profender

### Emodepside

- Cyclooctadepsipeptide
- Veterinary anthelmintic with broad activity

### Active against

- different nematode species
  - different larval stages
  - gastrointestinal and tissue parasites
  - micro- and macrofilaricidal activity on filarial parasites
- ✓ preclinical studies completed
  - ✓ Veterinary toxicology package available
  - ✓ First-In-Human clinical studies completed
  - ✓ Scientific advice meeting with FDA for Clinical Development Plan
  - ✓ First Patient First Dose (FPFD)

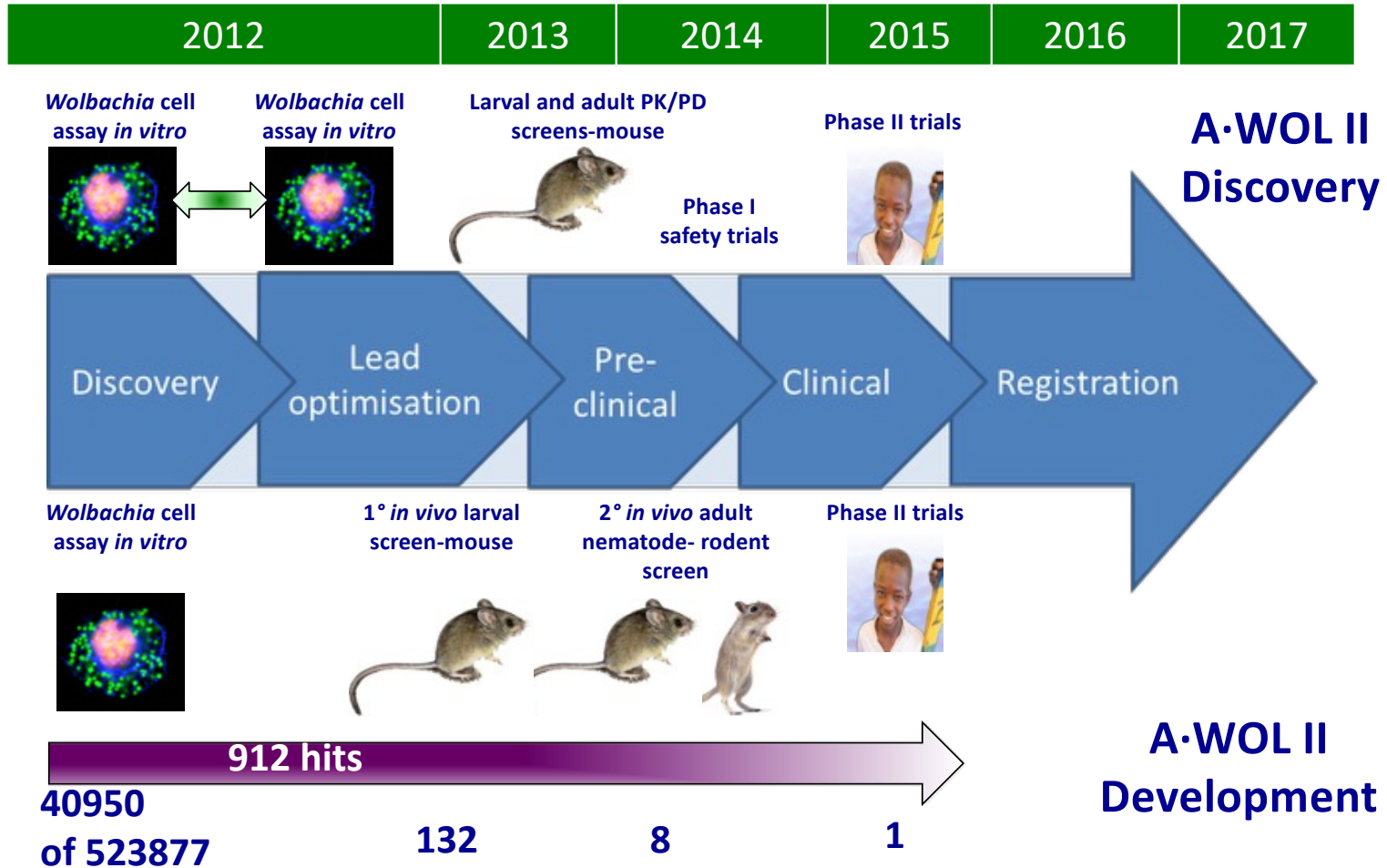


## Support of clinical studies in filariasis patients to identify new treatments for filariasis



25 years of filariasis research at KCCR

# A·WOL Development Pipeline





## Grundidee

- Aufbau **dauerhafter Forschungsnetzwerke zwischen Afrika und Deutschland**
- **African leadership:** Direktor der Netzwerke ist ein afrikanischer Wissenschaftler, deutscher Co-Direktor
- Kombination aus
  - Forschung
  - klinischen Studien
  - Capacity building
  - Infrastrukturaufbau

Das Ziel ist eine **nachhaltige Verbesserung der Gesundheitsversorgung und Forschungskapazitäten in Subsahara-Afrika.** [gesundheitsforsc...](#)

## Finanzierung

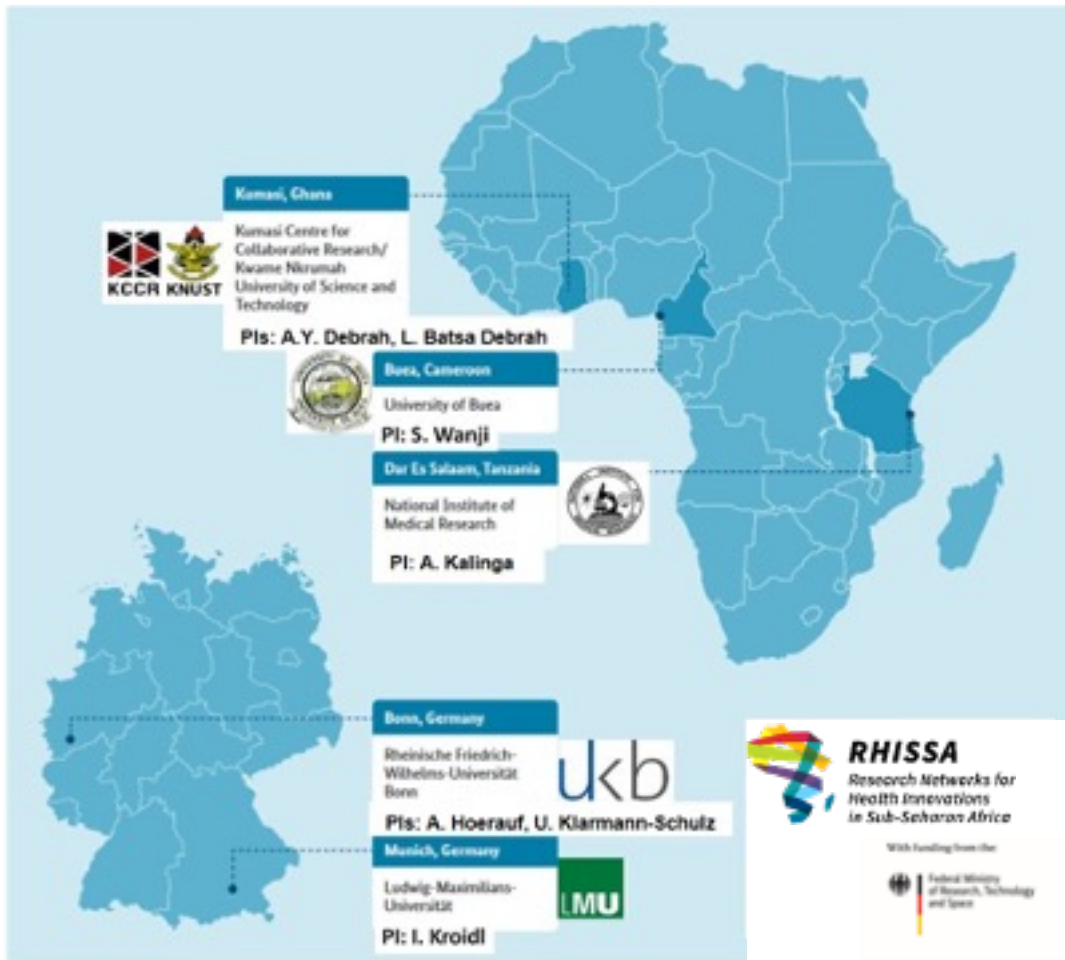
- Start der Initiative: **2016**
- zweite Förderphase: **2023–2028**
- Gesamtbudget: **≈100 Mio. €**
- aktuell **6 Forschungsnetzwerke** mit Partnern aus
  - **13 afrikanischen Ländern**
  - **12 deutschen Institutionen** [gesundheitsforsc... +1](#)

## Beispiele für RHISSA-Netzwerke

- **ANDEMIA** – akute Infektionskrankheiten
- **NORA** – Krebsforschung in Afrika
- **STAIRS** – Sepsis
- **TB Sequel** – Post-TB-Lungenerkrankung
- **DASH** – Adolescent health
- **TAKeOFF** – Filariose und Podokoniose

Ein Netzwerk wie **TAKeOFF** verbindet Forschung, klinische Studien und Implementierung in Gesundheitsprogramme. [gesundheitsforsc...](#)

# TAKeOFF - RHISSA



- ❑ TAKeOFF = Tackling the obstacles to fight filarial infections and podoconiosis
- ❑ One out of six “Research networks for health innovations in sub-saharan Africa” (RHISSA) funded by the BMFTR
- ❑ Five partners from Africa and Germany with high expertise in the research fields of Lymphatic Filariasis (LF), Oncho and Podoconiosis
- ❑ 1st funding period: 2016 -2022
- ❑ 2nd funding period: 2023-2028

# TAKeOFF -

- Digital health using mobile phones instead of paper lists increased lymphedema (LE) case identification and subsequent treatment.

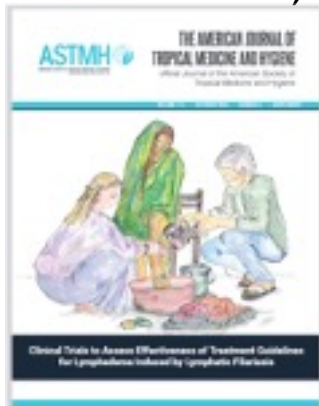
Kalinga A. et al, (2022) BMC Health Serv Res. Jul 19;22(1):924. doi: 10.1186/s12913-022-08256-z.  
Debrah LB et al. (2020) PLoS Negl Trop Dis. 14(11):e0008839. doi: 10.1371/journal.pntd.0008839

- **5 trials together with USAID:**

- Carried out in Ghana and Tanzania by the TAKeOFF consortium as well as in Mali, Sri Lanka and India, coordinated by the NTD support center, Atlanta, and funded by USAID.



Woman with LE stage 3 of the right leg before treatment with DOX200 for 6w (A) and LE stage 1 of the right leg 24 months after treatment onset (B). Staging according to Dreyer, G. et al, 2002.



- **The RCTs quantifiably confirmed for the first time that application of stringent hygiene protocols alone effectively lessened morbidity**
- Joint publication of all five trials ([https://www.ajtmh.org/view/journals/tpmd/111/4\\_Suppl/article-p1\\_1.xml](https://www.ajtmh.org/view/journals/tpmd/111/4_Suppl/article-p1_1.xml))
- Similar results in a study focusing on LE due to podoconiosis in Cameroon

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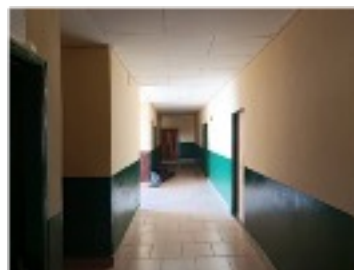
# Establishment of Morbidity Management Centers

## Establishment of two Morbidity Management Clinics (MMCs) – KCCR, Ghana Partner

- Navrongo War Memorial Hospital
- Kassena Nankana East Health Centre



## Continuation of running MMC in the North West Region of Cameroon



## Allocation of MMCs at Foumban and Dschang Health Districts in the West Region of Cameroon



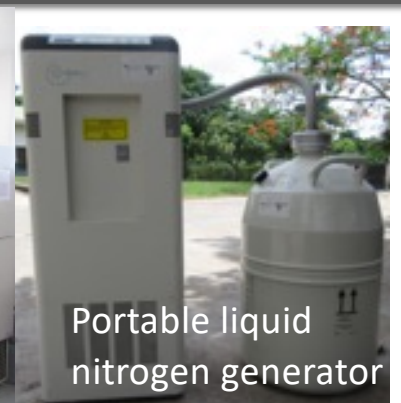
Mataket Health Centre



# Filariasis Research Group at KCCR -



PhD graduates trained so far: 10



## KCCR - Labs



**G-WAC based at KNUST, to address the existential threat of global pandemics to the health and welfare of people**

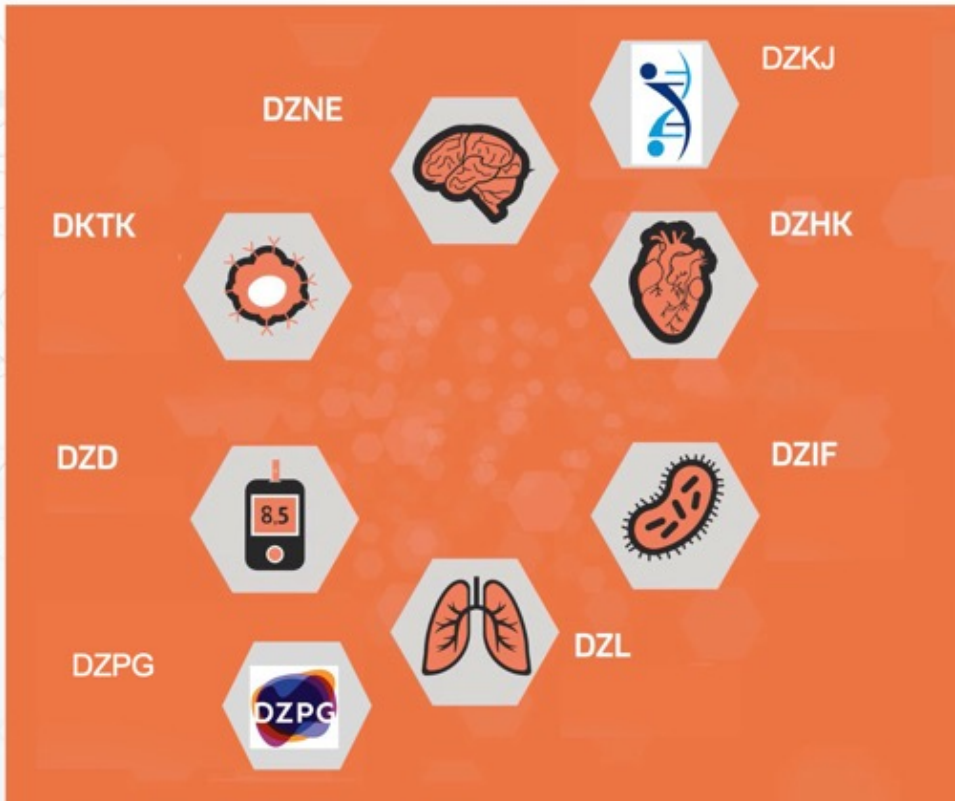


MoU between KNUST and Uni Bonn



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service

# One of Eight German Centers for Health Research



Neurodegenerative Diseases (DZNE)

Diabetes (DZD)

Cancer (DKTK)

Lung Diseases (DZL)

Cardiovascular Diseases (DZHK)

**Infection (DZIF)**

**2023:** Mental Health (DZPG)

**2024:** Pediatric + Adolescent Health (DZKJ)

# DZIF Vision

More effective **translation** of scientific results to enhance health and quality of life of patients



# History of DZIF Member Institutions and Partners



Universities

University Hospitals

Non-University Research Institutions

Federal Institutions

- ▲ The Federal Institute for Vaccines and Biomedicines (PEI)
- ▲ The Bundeswehr Institute of Microbiology
- ▲ The Federal Institute for Drugs and Medical Devices (BfArM) (since 2015)
- ▲ The Robert Koch Institute (RKI) (since 2015)
- ▲ The Federal Research Institute for Animal Health (FLI) (since 2015)

Associated Partners

# African Partner Institutions

**Centre de Recherche en Santé de Nouna**  
Public Health and Epidemiology

**Kumasi Centre for Collaborative Research**  
Epidemiology and Biomedical Research

**Centre de Recherche Médicales de Lambaréné**  
Clinical Trials in Malaria and Epidemiology

**Mbeya Medical Research Programme**  
Clinical Trials in HIV and Tuberculosis

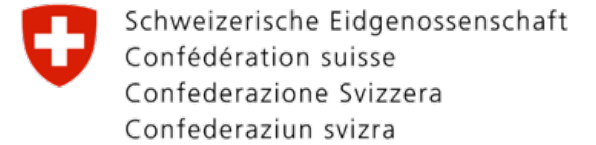


NTD trial unit KCCR, Kumasi

Gabon



Lambarene

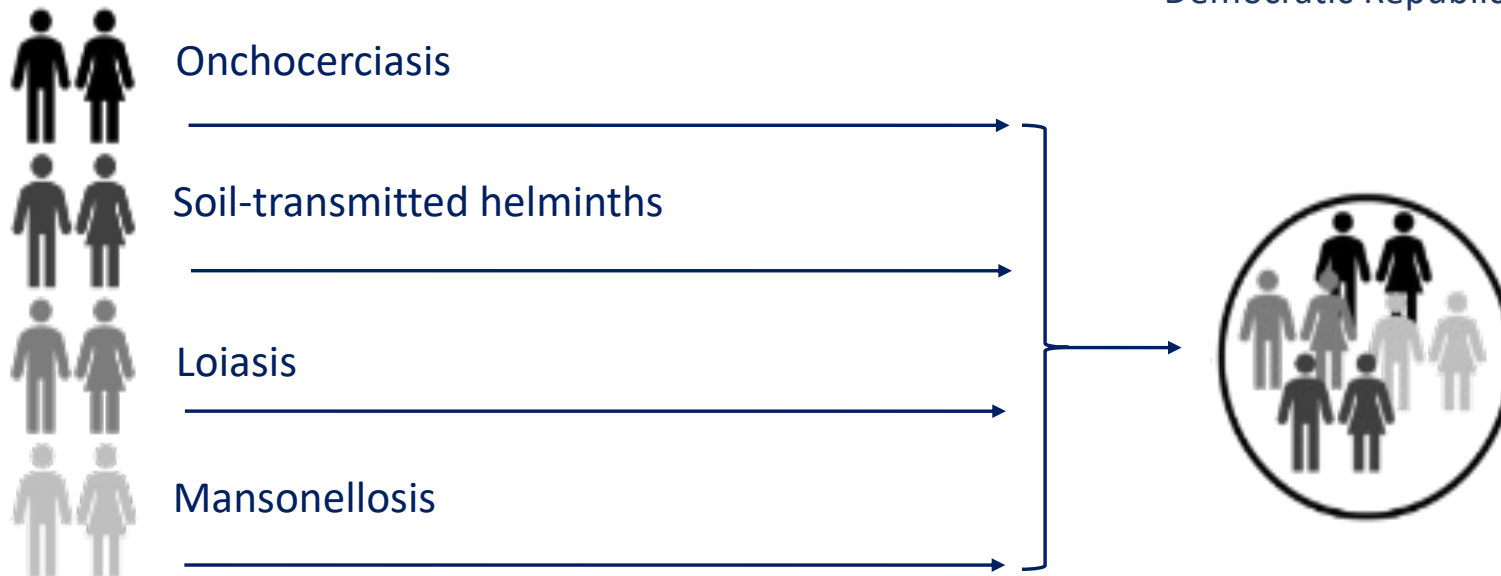


Eliminating Worm Infections  
in Sub-Saharan Africa  
and enabling the **WHO Road Map 2030**



# eWHORM – Oxfendazole basket trial

## Basket trial – multiple indications at the same time



**Adaptive clinical trial** in Gabon, Cameroon, Democratic Republic of the Congo and Tanzania

A **phase IIa, multi-country, randomized, placebo-controlled, double-blinded adaptive basket trial** to assess the **efficacy** and **safety** of **oxfendazole** in adults with **trichuriasis**, and /or **mansonellosis**, and/or **onchocerciasis** and/or **loiasis**

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Zusammenarbeit mit BMZ und AA (DAAD)



