DNDi's FACT Project: A New Kind of Partnership to Deliver New Products

Jean-René Kiechel
Senior Project Manager, FACT Project
ACT Symposium, April 2008

DNDi
Drugs for Neglected Diseases *initiative*

Rationale: The Fixed-Dose ACT Project for Malaria

In 2001

- "WHO recommends in particular the use of drug combinations containing Artemisinin"
  - Artesunate-SP
  - Artemether-lumefantrine (Coartem)
  - **Artesunate-amodiaquine (AS-AQ)**
  - **Artesunate-mefloquine (AS-MQ)**
- For both AS-AQ and AS-MQ
  - No co-formulations
  - No partners

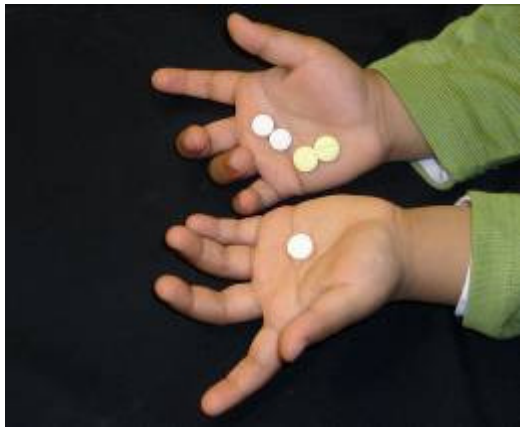
DNDi Drugs for Neglected Diseases initiative

DND*i*'s FACT Project: Began in 2002

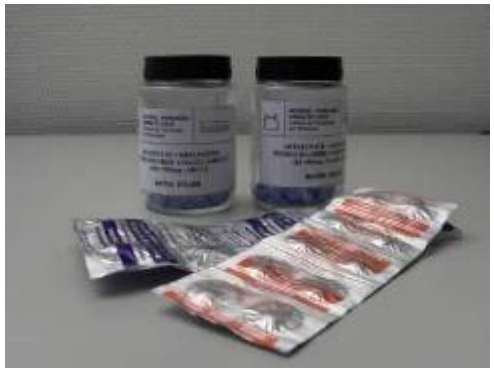
Objectives: 2 fixed-dose ACTs

- Easy to use:
  - fewer tablets in regimen
  - paediatric strengths
  - ensure drugs are taken together and in correct proportions
- Affordable
- Available as public good
- Optimized ratio to prevent over- and under-dosing

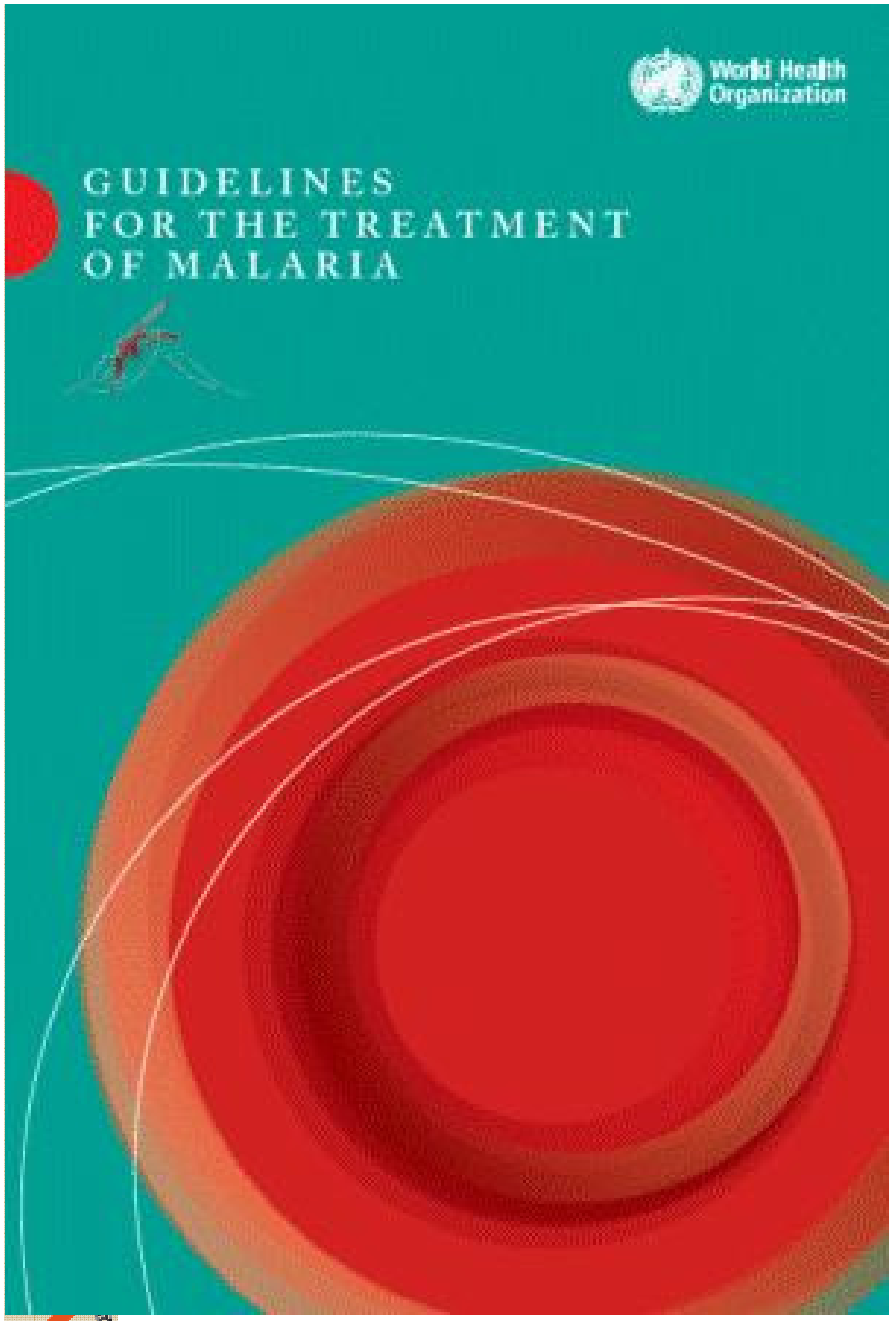
AS/AQ (S-A)



AS/MQ (Farmanguinhos)



DNDi Drugs for Neglected Diseases initiative



In 2006, WHO strengthens recommendations.

ACTS should be:

1. first-line treatment for *falciparum* malaria everywhere

2. in fixed-dose combinations when possible

www.who.int/malaria/docs/TreatmentGuidelines2006.pdf

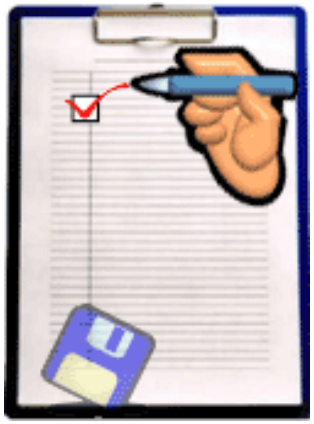
Why Develop Easy-to-Use Fixed-Dose Combinations (FDCs)?

- Facilitate compliance
- Improve use in the field
  - At health centres and at home
- Decrease risks of resistance development
- Better deployment and use of ACTs

Improved therapy for *falciparum* malaria

DNDi Drugs for Neglected Diseases initiative

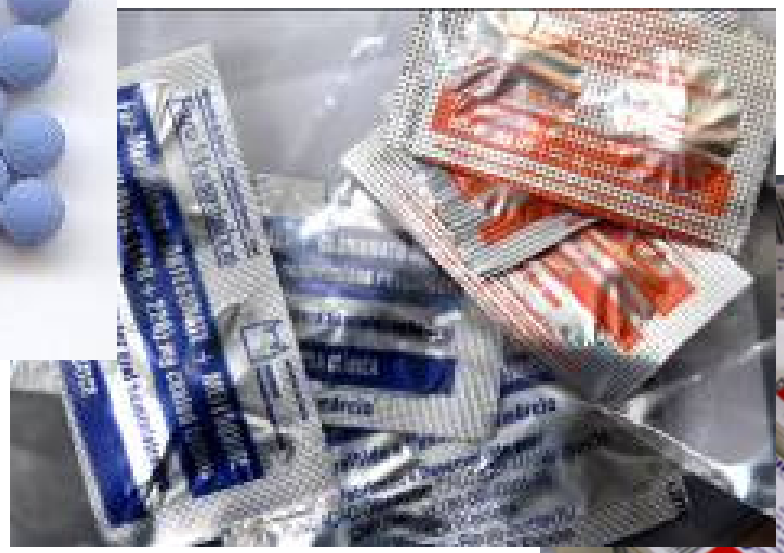
Transforming the Blueprint into the Blue Tablet



- Drug substance quality
- Small nice tablets - paediatric strengths
- Simplified dosing regimen
- Simple and adapted packaging
- Stable under tropical conditions
- International quality documentation
- Affordable

DNDi
Drugs for Neglected Diseases initiative

The Product: 1st Fixed-Dose ACT with 3-Year Shelf Life



DNDi
Drugs for Neglected Diseases initiative

Reaching Neglected Patients: FACT Project – A Public Partnership

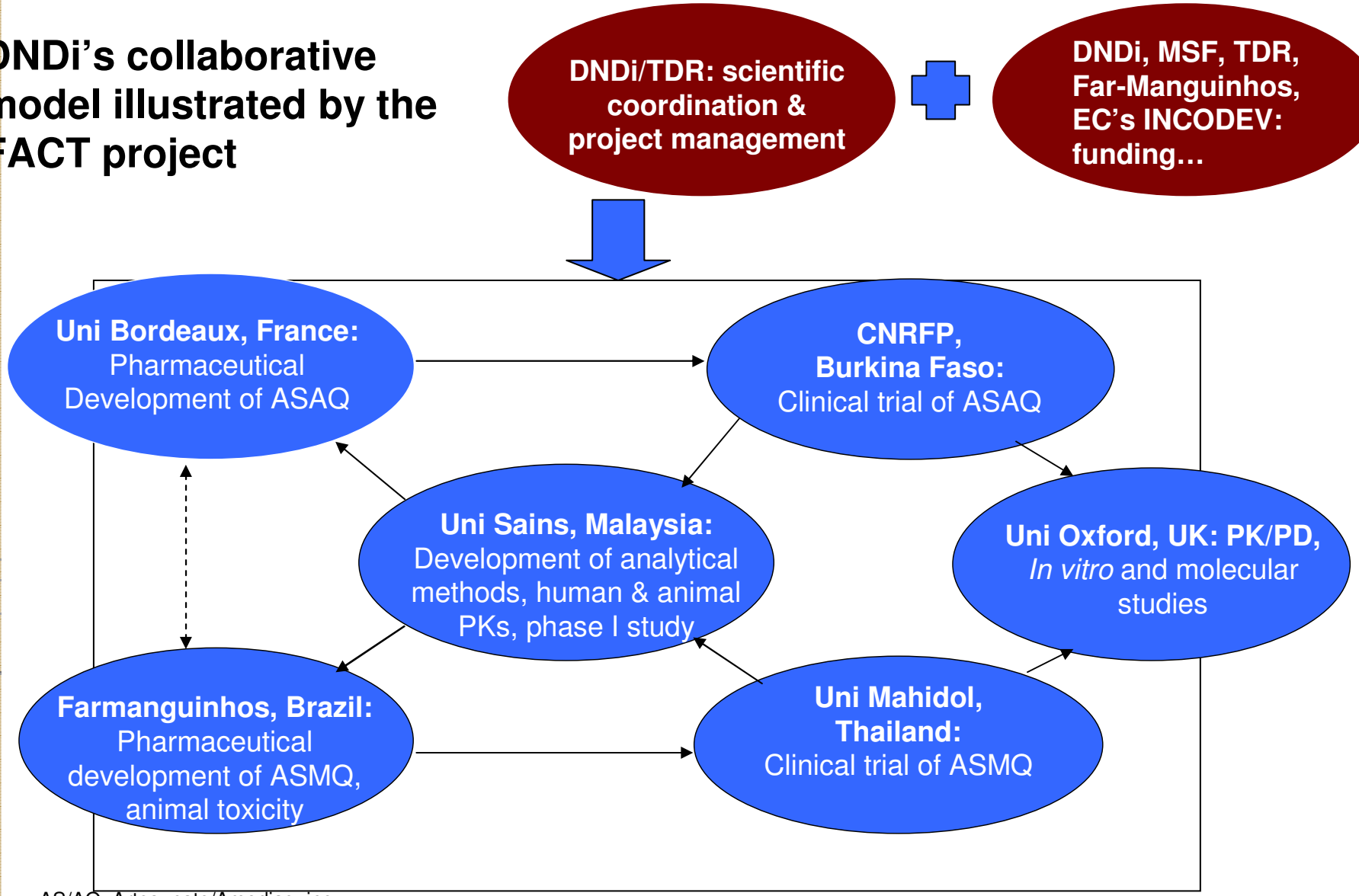
DNDi managed consortium and the project:

- Partners in South (Brazil, Burkina Faso, Malaysia, Thailand) & North (France, UK, Switzerland)
- Sharing capacities & capabilities
- Public sector investments
- Coordinated by DNDi & TDR
- Financing:
  - DNDi, MSF
  - Governments: EU INCO DEV, France, Netherlands, Spain, UK
  - Contribution by each partner

DNDi Drugs for Neglected Diseases initiative

FACT Network

DNDi's collaborative model illustrated by the FACT project



AS/AQ: Artesunate/Amodiaquine
AS/MQ: Artesunate/Mefloquine
PK/PD: Pharmacokinetics/Pharmacodynamics

- - - - - - Sharing information
_____ Sharing info/data/methods/products

DNDi Drugs for Neglected Diseases initiative

What is "New" in This Partnership?

- Contribution of public institutes to the consortium
  - Universities and hospitals
  - Government-funded technology center
  - Foundations
  - TDR
- Funding
  - EC INCO-DEV (FP5)
  - Governments
  - DNDi and MSF
  - Partners of the Consortium
- **Delivery of NEW PRODUCT**

DNDi Drugs for Neglected Diseases initiative

Prerequisites for Success

- Project management
- Expert advice
- Long-term commitment of Consortium members
- Basics and implementation of good practices (GCP, GLP, GMP)
- Support by CRO's like Quintiles and Catalent
- Early & ongoing regulatory input and feedback

DNDi
Drugs for Neglected Diseases initiative

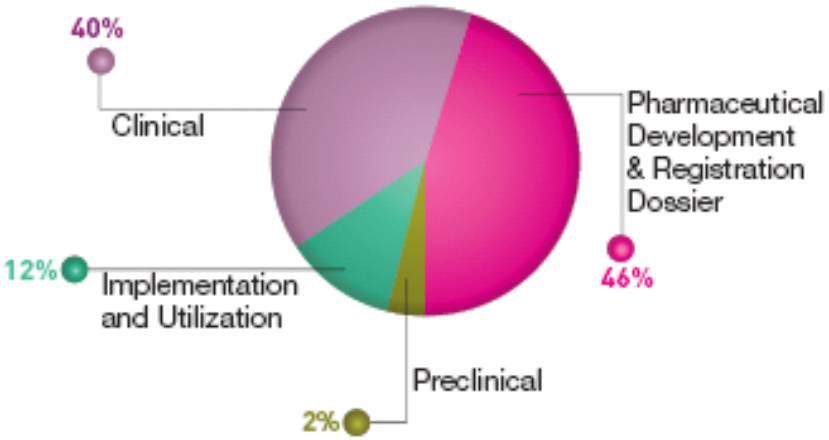
How to Guarantee Quality in a Decentralized Organization?

- Audit of Pharmacy and Analytical data
- ERB reviews of clinical studies
- Centralized data analysis
- Audit of clinical studies
- Support by CROs
- Mock GMP Inspection
- Progress review and development plan presentation to regulatory agencies
- Format of Regulatory File

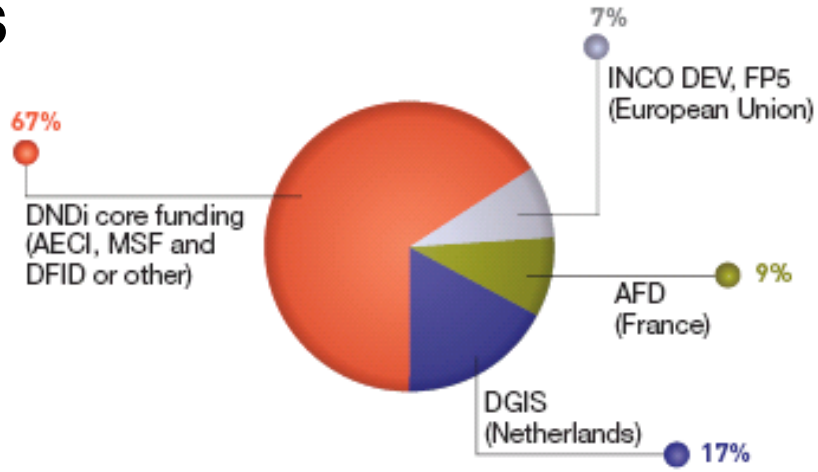
DNDi
Drugs for Neglected Diseases *initiative*

At What Cost?

- **7.8 million Euros with important in-kind contributions from Farmanguinhos/Fiocruz, TDR, & other partners**



Projected Expenditure Breakdown by Development Stage



Funding Resources by Donor

DNDi Drugs for Neglected Diseases initiative

Outlook: Implementation

- New partnerships with regional and country experts
  - **Present**: Brazil: ongoing intervention study by national authorities

    >17,000 patients
  - **Future**: Latin America: Bolivia, Ecuador, Peru, Venezuela
- Asia & Africa
  - Industrial partner: Cipla/ techonoly transfer
  - Ongoing & planned studies: India, Myanmar (MSF), Tanzania
- Special populations
- Co-morbidities

DNDi
Drugs for Neglected Diseases initiative

Acknowledgments:

Project Partners:

- TDR
- Farmanguinhos
- MSF
- EU's INCODEV Programme
- Universiti Sains Malaysia (USM)
- Mahidol University
- Shoklo Malaria Research Unit (Mae-Sot)
- University of Oxford (UK)
- Catalent
- Quintilles
- Unitox, Genotox
- Abbott (Knoll)
- Roche

Project Investigators and Partners:

- Pr. Nick White
- Dr. François Nosten (Thailand)
- Pr. Sornchai Looaresuwan (Thailand)
- Dr. Elizabeth Ashley
- Dr. Piero Olliaro (TDR)
- Dr. W. Taylor
- Pr. V. Navaratnam (University Sains Malaysia)
- Dr. Marcos Boulos (Brazil)

DNDi Drugs for Neglected Diseases initiative

Thank you!

Looking forward to more partners to assure delivery of therapeutic innovations to patients…