

# Drug Discovery to Control and Eradicate Malaria: MMV and Brazil

Paul Willis  
Senior Director Drug Discovery  
FAPESP 28<sup>th</sup> November 2019



# MMV team November 2018



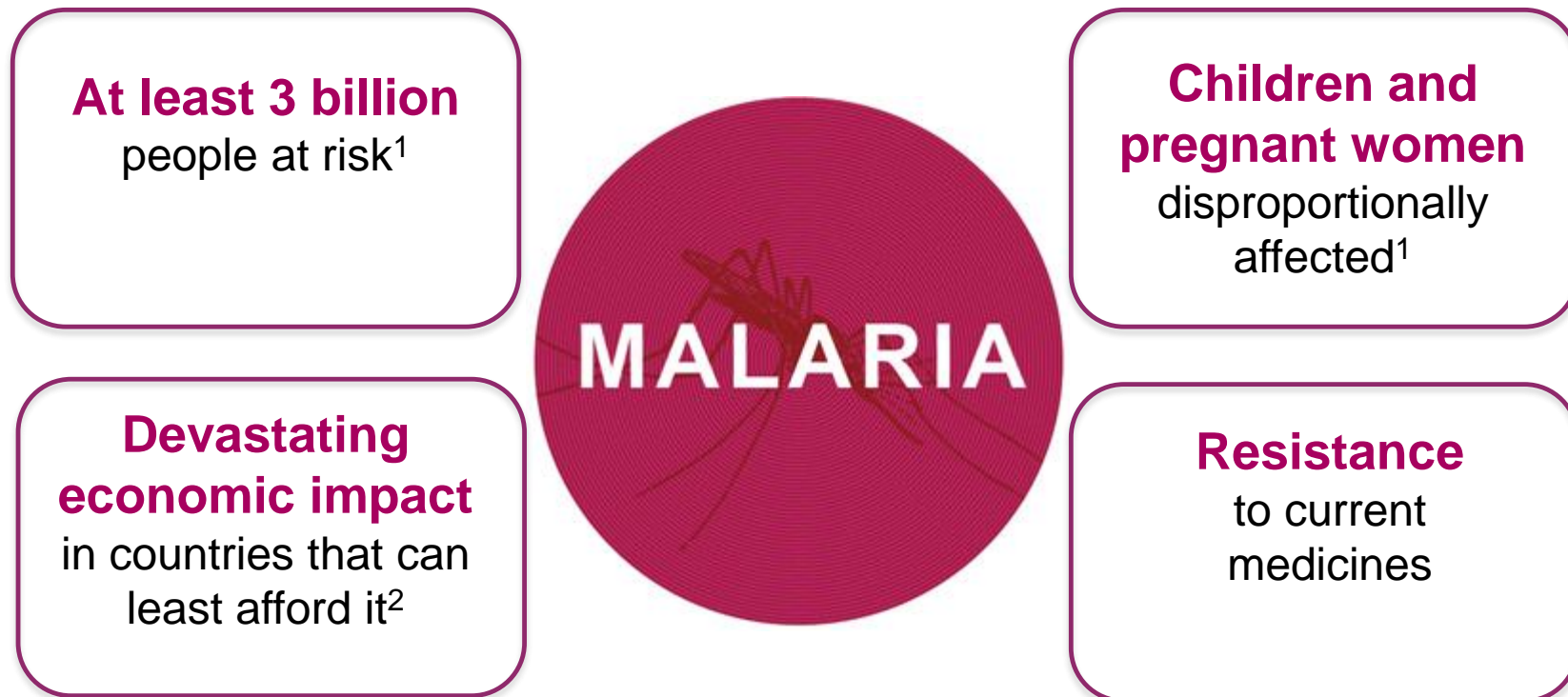
**Foundation of over 90 people working to reduce  
the burden of malaria in disease-endemic  
countries by**

**DISCOVERING, DEVELOPING and DELIVERING  
new, effective and affordable antimalarial drugs**

**400+ strong partnership network  
– spanning more than 50 countries**



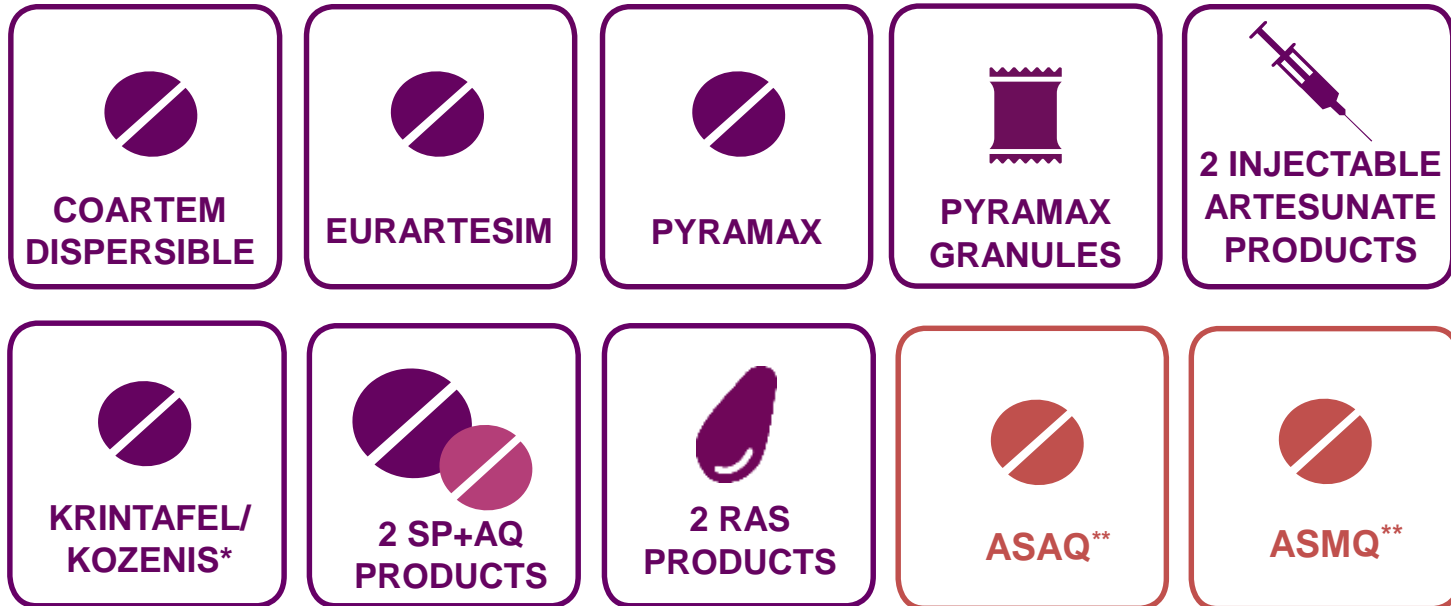
# A child dies every 2 minutes



1. WHO Malaria Fact Sheet, updated November 2018.

2. Gallup JL and Sachs JD. *Am J Trop Med Hyg*, 64: 1 suppl: 85-96 (2001).

# 11 (+2) medicines launched from 2009-2019



\*Trade marks owned or licensed by GSK

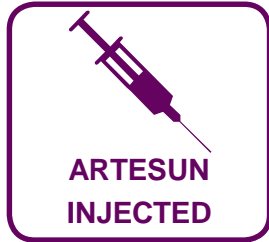
\*\*Transferred from DNDi-led partnership portfolio to MMV-led partnership portfolio 20<sup>th</sup> May 2015

# MMV-supported products have saved an estimated 1.9 million lives since 2009



>350 million treatment courses<sup>1</sup> delivered by Novartis to more than 50 countries

**Saving an estimated >875,000 children's lives**



>127 million vials of Artesun delivered since 2011<sup>2</sup>

**Saving an estimated 800,000 additional lives<sup>3</sup>**



Reducing uncomplicated and severe malaria episodes by 75%<sup>4</sup>

**Protecting 60 million children – reducing uncomplicated and severe malaria by 75%<sup>5</sup>**



460,000 treatments delivered in 2017

**Halving disability and death<sup>6</sup>**

1 Source – Novartis 2018

2 Source – Fosun 2018

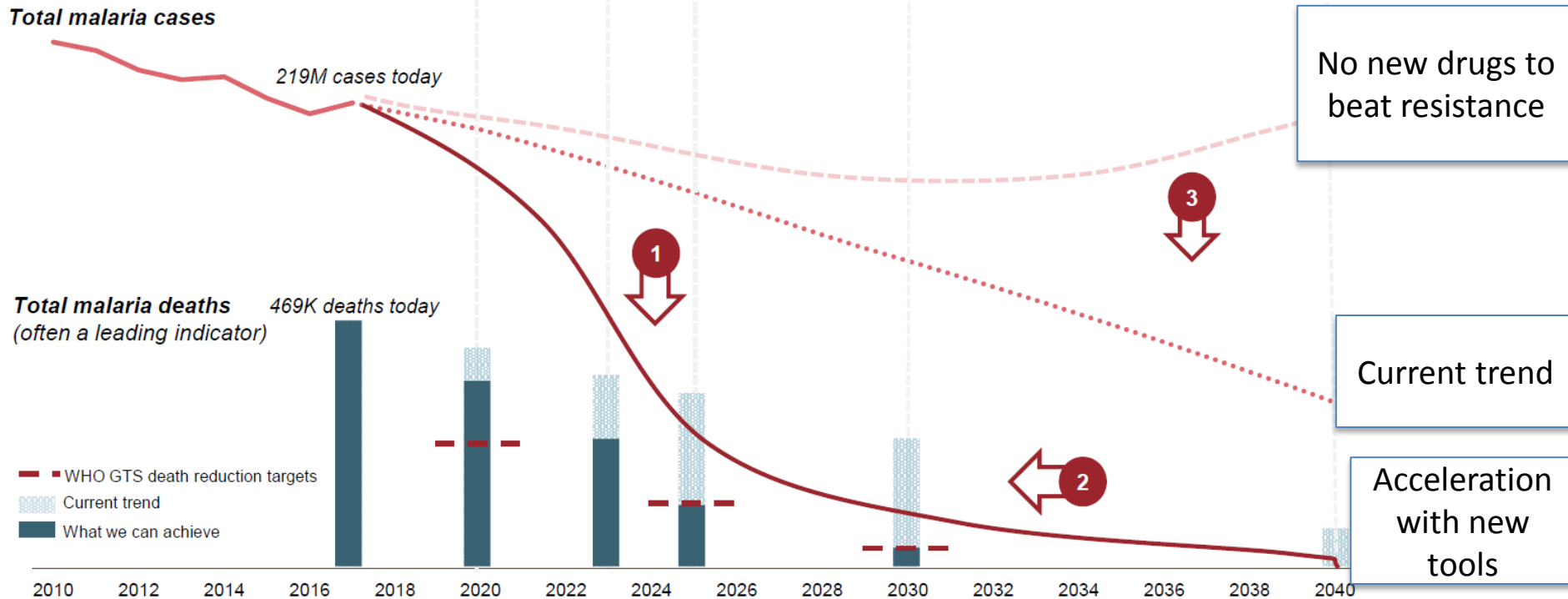
3 Additional children's lives saved by providing injected artesunate versus injected quinine to children with severe malaria – AQUAMAT and SEAQUAMAT studies

4 WHO

5 Fosun distribution data (2018)

6 WHO TDR Study 13

# Future Scenarios for Malaria



# Global Progress in fight against malaria stalling



## GLOBALLY IN 2017

**219 million cases**

compared to 217 million in 2016<sup>1</sup>

**435 thousand deaths**

compared to 451 thousand in 2016<sup>2</sup>

**\$3.1 billion spent**

compared to the goal of \$6.5 billion  
by 2020<sup>3</sup>

**Brazil: 194,000 cases of malaria in 2018, 38% reduction in 2019<sup>4</sup>**

1. World malaria report 2018. Geneva: World Health Organization; 2018, p. xii.
2. World malaria report, p. xiii.
3. World malaria report , p. 4.
4. Brazil Ministry of Health Accessed on: Oct 25 2019.



# Addressing unmet medical needs



RESISTANCE



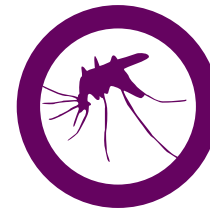
CHILDREN  
& PREGNANT  
WOMEN

1x

SINGLE DOSE  
CURES



PREVENTION  
OF RELAPSE

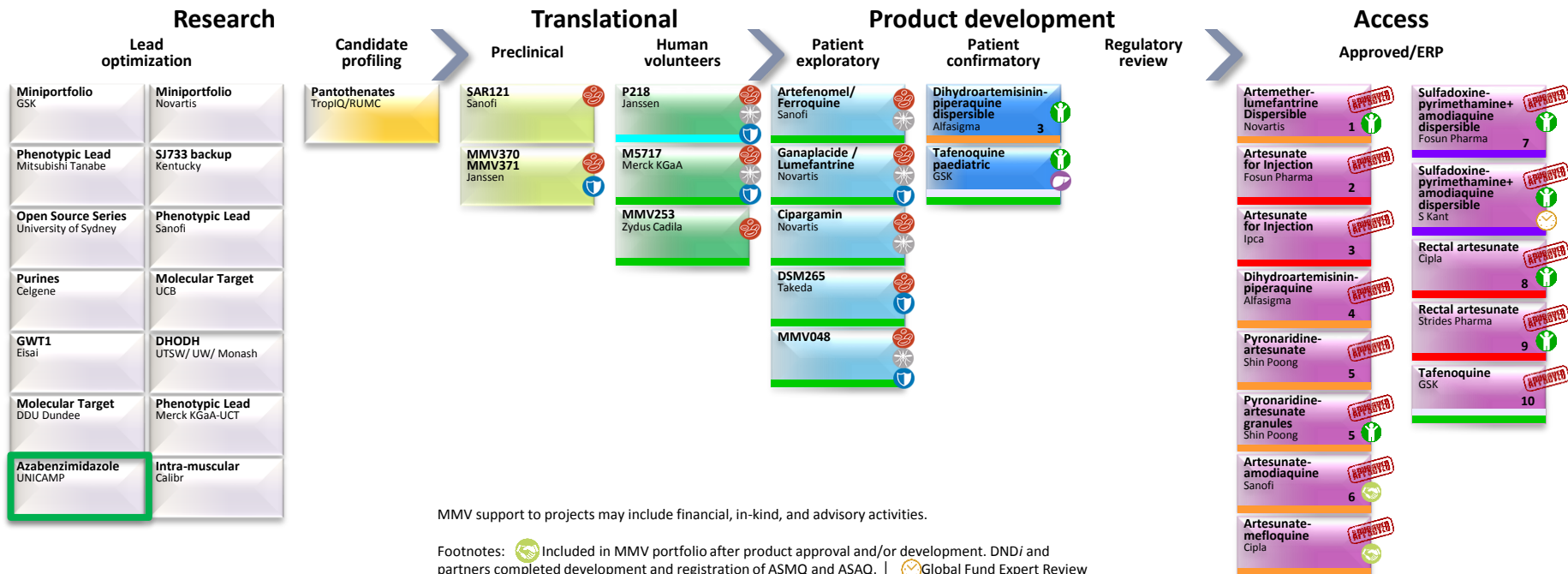


TRANSMISSION  
BLOCKING



CHEMO  
PREVENTION

# MMV-supported projects



MMV support to projects may include financial, in-kind, and advisory activities.

Footnotes: Included in MMV portfolio after product approval and/or development. DNDI and partners completed development and registration of ASMQ and ASAQ. | Global Fund Expert Review Panel (ERP) reviewed product – permitted for time-limited procurement, while regulatory/WHO prequalification review is ongoing. | WHO Prequalified OR approved/positive opinion by regulatory bodies who are ICH members/observers. | Paediatric formulation.

Brand names 1: Coartem® *Dispersible*; 2: Artesun®; 3: Larinate® 60mg; 4: Eurartesim®; 5: Pyramax® tablets or granules; 6: ASAQ Winthrop®; 7: SPAQ-CO™; 8: 100mg Artesunate Rectocaps; 9: Artecap™; 10: *Kozenis/Krintafel* (Trademarks owned or licensed by GSK)

# MMV in Brazil

- **Working with Scientific Experts**
  - Clinical trials of new anti-malarial drugs
  - Screening in MMV funded centers of excellence: clinical isolates
- **Tafenoquine**
  - First new treatment for *Plasmodium vivax* malaria in over 60 years
  - Brazil first malaria-endemic country to approve single-dose tafenoquine for radical cure of *P. vivax* malaria
  - Brazil, MMV, GSK delivering new treatments to patients
- **Drug Discovery**
  - MMV, Unicamp, USP project: FAPESP MMV DNDI funding
  - Deliver New antimalarial clinical candidate
  - Build world class drug discovery center



**“Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do.”**

**Pele**

# Committed funders

