Plasmodium vivax MALARIA mRNA VACCINE R&D CONSORTIUM

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Update on *P. vivax* mRNA vaccines

- **Pvs25**
  - 2-dose immunization: 100% transmission-blocking for >6 months
  - Induced memory B cell and T cell responses
  - Ready for non-human primate testing with clinically approved formulation (Chula VRC)

- **PvCSP & Pvs230**
  - Construct optimization in progress using mRNA vaccine technology

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**Chulalongkorn University, Thailand**
- Chula Vaccine Research Center (Chula VRC,)
- National Primate Research Center of Thailand,
Indicative collaboration plan to develop mRNA vaccine for Malaria P. vivax
Consortium plan to develop mRNA vaccine for Malaria *P. vivax*

**Vaccine target (Antigen)**

- **Pre-erythrocytic (CSP)**
  - Lead: Mahidol University, Chulalongkorn University
  - Collaborator: Bio Farma, EHI, UI
- **Blood-stage (RBP, DBP)**
  - Lead: EHI, Bio Farma, Collaborator: UI, Mahidol Uni, Chulalongkorn Uni, Indonesia Ministry of Health
- **Transmission Blocking**
  - Lead: Mahidol University, Chulalongkorn University
  - Collaborator: Bio Farma, EHI, UI

**Milestone**

- **2024**
  - Non-human primate study
  - Antigen construction.
  - Small-scale lab mRNA DS and DP production.
  - Proof of concept (Antigen expression)

- **2025**
  - DS/DP and Clinical development
  - Preclinical development in mice and NHP.
  - DS and DP GMP Process development for Phase I study

- **2026**
  - Clinical development (CHMI Phase I)
  - Establishment CHMI Model for blood stage *P. vivax*
  - Non-human primate study
  - DS/DP and Clinical development

- **2027**
  - Clinical development (Phase I CHMI)
CURRENT INSTITUTES JOINING *P. vivax* CONSORTIUM

- Chula Vaccine Research Center (Chula VRC)
- National Primate Research Center of Thailand