

## FINAL PROGRAM

### Follow-up Workshop: **“Pre-vaccination screening for the use of dengue vaccines with differential performance dependent on serostatus: vaccine clinical updates, rapid diagnostic tests and implementation strategies”**

#### BACKGROUND

Dengue is a major public health problem with more than 3.6 billion people at risk for dengue virus (DENV) infection and an estimated 390 million infections annually in over 120 tropical and sub-tropical countries. In the absence of truly effective and sustainable vector control measures, a dengue vaccine is urgently needed. The first dengue vaccine was licensed in 2015; the live attenuated recombinant tetravalent vaccine CYD-TDV (Dengvaxia). However, new evidence highlighted the serostatus-dependent vaccine performance of Dengvaxia; a retrospective analysis of clinical trial data, stratifying participants according to their dengue serostatus before the first vaccine dose, revealed an excess risk of severe dengue in seronegative vaccine recipients, while in seropositive vaccine recipients, the vaccine was efficacious and safe.

WHO SAGE provided revised recommendations in April 2018 on how best to use Dengvaxia in populations at risk<sup>1</sup>: For countries considering vaccination as part of their dengue control program, a “pre-vaccination screening strategy” is the recommended strategy, in which only dengue seropositive persons are vaccinated.

To support a pre-vaccination screening strategy, WHO and many expert panels highlighted the urgent need for rapid diagnostic tests (RDTs) to determine serostatus. Pre-vaccination screening strategies will benefit from RDTs that can be done at point of care, provide rapid test results, are sensitive and specific, as well as inexpensive for use in a population wide program. New advances on RDT development are now available and should be reviewed in order to accelerate its access in countries considering the introduction of CYD-TDV. Implementation approaches of the pre-vaccination screening strategy need to be addressed.

## OBJECTIVES OF THE MEETING

### 1. UPDATES ON NEW CLINICAL DATA FOR CYD-TDV

- Discuss updates on recent clinical study results
- Address the impact of such data in terms of WHO recommendation / guidelines and on field implementation

### 2. SCREENING FOR PRIOR DENGUE INFECTION: RAPID DIAGNOSTIC TESTS (RDTs)

#### DEVELOPMENT UPDATES

- Discuss RDT Target Product Profile (TPP) development status: where are we and next steps
- Updates on RDT development for pre-vaccination screening
- Address qualified- RDTs access for countries

### 3. DISCUSS IMPLEMENTATION STRATEGIES FOR PRE-VACCINATION SCREENING PROGRAMS FOR DENGUE VACCINES

- Discuss practical issues for programmatic roll-out and get regional experiences feedback on CYD-TDV
- Address programmatic challenges encountered by countries and the needs required for a successful implementation
- Discuss communication strategies with regards to vaccine confidence, both for policy makers, the medical community and the lay public
- Discuss cost-effectiveness data and modeling implementation approaches

### 4. DISCUSS PUBLIC HEALTH STRATEGY FOR OUTBREAK RESPONSE

### 5. WORLD DENGUE DAY TARGET AND EXPECTATIONS

**Venue:** Les Pensieres Center for Global Health, Annecy, France

**Dates:** 20-22 January, 2020

**Scientific Committee:**

- Duane Gubler,
- Annelies Wilder-Smith
- Eng-Eong Ooi
- Anna Durbin

FINAL PROGRAM

JANUARY 20 – DAY 1

<b>Vaccine &amp; RDT updates</b>	
<b>12:00 - 13:45</b>	<b>Lunch</b>
14:00 - 14:15	<b>Welcome – Opening</b> <i>Mérieux Foundation</i> <i>Chair: Duane Gubler</i>
14:15 - 14:40	Recap of the previous meeting <i>Annelies Wilder-Smith</i>
14:40 - 15:15	CYD-TDV dengue vaccine: clinical data updates <i>Cesar Mascareñas</i>
15:15 - 15:45	Impact and cost-effectiveness of a pre-vaccination screening strategy depending on RDT performance <i>Stefan Flasche</i>
<b>15:45 - 16:00</b>	<b>Break</b>
16:00 - 16:45	Desired characteristics for a screening test: accelerating access to a new screening test <i>Rosanna Peeling</i>
16:45 - 17:15	RDT for pre-vaccination screening: a status update <i>Stephen Savarino</i>
17:15 - 17:45	Discussion
<b>19:30</b>	<b>Dinner</b>

## JANUARY 21 – DAY 2

<b>Implementation strategies for pre-vaccination program for CYD-TDV</b>	
Chairs: TBC	
8:30 - 9:15	Updates on Dc tests determining past infection Diagnostic developers TBC (3*15')
9:15 - 9:45	Cost-effectiveness data and modeling implementation approaches <i>Laurent Coudeville</i>
9:45 - 10:45	Key questions to address as part of the implementation: <ul style="list-style-type: none"> <li>• Timing for vaccination after an acute confirmed dengue infection</li> <li>• What is the best timing to re-screen people who were tested seronegative in high-endemic areas?</li> <li>• How to address communication and ensure parental acceptance and high coverage rate?</li> </ul> (3*20') <i>Bruno Guy</i> <i>Sam Clifford</i> <i>Kenneth Hartigan-Go</i>
10:45 - 11:15	Discussion
<b>11:15 - 11:30</b>	<b>Break</b>
11:30 - 12:00	Public health perspective of dengue vaccine introduction base in pre-test, general guidelines and practical considerations <i>Brad Gessner (remotely)</i>
12:00 - 12:30	Implementation of a test-and-vaccinate strategy & operational guidelines to support implementation <i>Isabelle Delrieu</i>
<b>12:45 – 14:00</b>	<b>Lunch</b>
14:00 - 14:20	Brazilian experience in public & private vaccination center settings <i>Expedito Luna</i>
14:20 – 14:40	Recommendation for LATAM from the international dengue initiative <i>Carlos Torres (remotely)</i>
14:40 - 15:10	French Territories: deliberations on introduction <i>Xavier de Lamballerie</i>
15:10 - 15:30	US Territories: deliberations on introduction <i>Steve Waterman</i>
<b>15:30 - 15:45</b>	<b>Break</b>

## JANUARY 21 – DAY 2

15:45 - 17:30	<p>Workshop sessions (running in parallel):</p> <ul style="list-style-type: none"> <li>• What are the needs to support a successful vaccine introduction in my country/region?</li> <li>• How to address programmatic challenges?</li> </ul> <p>Working Group 1 Working Group 2</p>
<b>19:30</b>	<b>Dinner</b>

## JANUARY 22 – DAY 3

8:30 - 9:30	<p>Reports from Working Groups 20' each, plus discussion</p>
09:30 - 9:50	<p>Dengue outbreaks 2018-2019 <i>Raman Velayudhan</i></p>
9:50 - 10:10	<p>Economic burden of dengue <i>Till Baernighausen</i></p>
<b>10:10 - 10:30</b>	<b>Break</b>
10:30 - 11:45	<p>Workshop session: 'Additional' vaccine implementation strategies (Hospital/Labs databases, Private settings, Travel clinics, after outbreak programs, etc.) <i>Chair: Hoe-Nam Leong</i></p>
11:45 - 12:15	<p>World Dengue Day: target &amp; expectation <i>Kamran Rafiq</i></p>
12:15 - 12:30	<p>Closing <i>Duane Gubler &amp; Annelies Wilder-Smith</i></p>
<b>12:30</b>	<b>Lunch – End of meeting</b>

1. Dengue vaccine: WHO position paper-September 2018. *Weekly Epidemiological Record* 2018; 93 457–76.

2. Wilder-Smith A, Smith PG, Luo R, et al. Pre-vaccination screening strategies for the use of the CYD-TDV dengue vaccine: A meeting report. *Vaccine* 2019.