Family, Women, Children and Adolescents (FWC)
Department of Immunization, Vaccines and Biologicals (IVB)
Expanded Programme on Immunization (EPI)

Terms of Reference for Consultant
Laboratory Expert Viral Vaccine Preventable Diseases

Deadline for application: 30 January 2019

Purpose of the Consultancy
The purpose of this six month consultancy is to provide technical support for key deliverables of the Strategic Information Group (SIG/EPI/IVB) in the area of laboratory networks and diagnostics. The scope of the work involves primarily the coordination of feasibility studies to enhance measles and rubella laboratory-based surveillance through the use of rapid diagnostic testing, so called point-of-care testing (POCT), in WPR and AFR, conduct a market assessment on commercial production and distribution of POCT, conduct a WHO Prequalification of this POCT, to guide the development of a laboratory component in a strategic plan for comprehensive surveillance of vaccine preventable diseases. Additional technical input will also be required to provide to the WHO Serosurvey Guidelines for measles and rubella, on the polio containment policy for non-polio laboratory networks.

The consultancy is proposed for a duration of 6 months starting 1 March 2019 through 31 August 2019.

Background
The WHO Global Measles and Rubella Laboratory Network (GMRLN) performs a key role in measles and rubella surveillance by confirming suspected cases using standardized and validated testing and reporting procedures. GMRLN comprises 723 laboratories globally, which follow standardized testing protocols and reporting procedures and undergo annual external quality assurance and accreditation review to meet WHO performance criteria.

As Regions are moving towards measles elimination, high quality surveillance backed with laboratory confirmation is a critical component to assess progress. Point-of-care testing may improve surveillance, particularly in hard to reach areas and regions with limited laboratory capacity. Studies are needed to assess the role of a newly developed POCT in such settings.

Another tool to assess progress of elimination is to determine population immunity against measles and rubella. A draft WHO guidelines document has been developed but is lacking data on recently conducted serosurveys, novel study approaches and laboratory technologies.

The Global Polio Eradication Initiative (GPEI) funds much of VPD surveillance efforts and has laid the groundwork for laboratory networks, linkages of laboratory and epidemiologic surveillance, and indicator-based performance quality measures. Once polio is eradicated, VPD surveillance is at risk of losing its primary funding stream (i.e., polio) and sustaining an overall decrease in attention and performance quality. There is a desire by many in the immunization world to prevent this from happening by establishing a comprehensive approach to VPD surveillance.

The GMRLN is dealing with transition from one preferred manufacturer (Siemens) to other since the former will discontinue production of diagnostic kits for measles and rubella. A process of evaluation of alternative manufacturers is being developed with support from external experts.
Work to be performed

1. Coordinate feasibility studies of point-of-care testing to enhance measles and rubella surveillance
   - Develop a detailed protocol for two or three countries in the African Region for an enriched study to determine the role of POCT in measles and rubella surveillance through shortened case-confirmation time in selected African countries targeted by the US Global Health Security Agenda (source of funding);
   - Coordinate a working group to support roll out of POCT in the GMRLN with programmatic and field input;
   - Coordinate field studies and training on the use of POCT in selected countries in the African Region;
   - Provide expert guidance to an ongoing field study of the use of POCT in Malaysia;
   - Guide a WHO prequalification process for measles and rubella POCT;

   **Deliverables**
   - Survey protocols developed and survey rolled out in two or three countries
   - WHO prequalification for POCT tests initiated

2. Strategy for Comprehensive Surveillance of Vaccine preventable Diseases
   - Under the leadership of the surveillance focal person coordinating the development of a Comprehensive VPD Surveillance Strategy, provide input and guidance on the component involving laboratory-based surveillance
   - (co)write the laboratory-based surveillance strategy component

   **Deliverables**
   - Draft laboratory-based surveillance strategy developed

3. Global Measles Rubella Laboratory Network Strategy Working Group
   - Coordinate the GMRLN SWG to develop the medium to long term strategy of the GMRLN involving stakeholders (in conjunction with the Comprehensive VPD Surveillance Strategy)
   - Develop a mission statement, concept note, strategic document
   - Convene biannual meeting of the SWG in June 2019

   **Deliverables**
   - Developed a mission statement and strategic document
   - Convene biannual meeting of SWG in June 2019

4. Technical support and guidance to WHO qualification of diagnostic kits
   - Measles and Rubella IgM and IgG serologic kit comparison study
   - Measles and rubella rapid diagnostic tests (POCT)
   - Yellow fever MAC ELISA

   **Deliverables**
   - Provided technical and expert advice and guidance on the serologic kit comparison studies for measles, rubella and yellow fever serologic test and POCT

5. Zika Virus: Planning regional laboratory training and capacity building
   - Coordinate a pilot study in selected countries for the use of measles and rubella archival specimens to assess the burden of disease (to be confirmed)

   **Deliverable**
   - Pilot study conducted under supervision of incumbent (tentatively)

Specific requirements

- **Qualifications required:**
  Advanced university degree in Virology, Microbiology, Public Health, Epidemiology, Infectious Diseases, or another related field.

- **Experience required:**
  Qualified medical virologist with 5-10 years of international experience working on seroprevalence, surveillance, laboratory diagnosis of viral infections
- **Skills / Technical skills and knowledge:**
  
  - Knowledge of vaccine-preventable diseases and immunization.
  - Ability to work independently as well as coordinating and engaging with persons from a multicultural environment.
  - Ability to use communication technology to interact virtually with persons from all over the world.

- **Language requirements:**
  
  English – Read/Write/Speak at expert level

**Place of assignment**

The applicant will be required to work from the WHO headquarters office, in Geneva, Switzerland.

**Timeline and Duration**

The contract is expected to start on 1 March 2019 and end on 31 August 2019 and corresponds to a full-time equivalent of 100%, with possibility for extension. Pay scale will be defined according to the level of expertise of the selected candidate.

**Medical clearance**

The selected Consultant will be expected to provide a medical certificate of fitness for work.

**Travel**

The Consultant is expected to travel according to planned travels that will be decided by the Team at a later stage.

**Application Process**

Qualified applicants should submit their CV along with a cover letter, in English, by 30 January 2019 to Dr Mick Mulders at email: muldersm@who.int. Applications received after this date will not be accepted.

In the email subject line, please put “Laboratory Expert Viral VPD”.

Only successful candidates will be contacted. CVs received from this posting may be used to fill other current and future openings requiring a similar skill set.