

## External Quality Assessment Unit

### BACKGROUND

The NICD EQA Unit produces proficiency testing (PT) programmes for the National Health Laboratory Service and subscribing private laboratories. The Unit also supplied, for the seventh consecutive year, an internationally-refereed bacteriology PT programme to 72 national public health laboratories in the African Regional Office (AFRO) and 4 laboratories in the Eastern Mediterranean Regional Office (EMRO) of the World Health Organization. The GlaxoSmithKline PT programme for bacteriology, which is sent to 11 laboratories in Africa, where malaria vaccine trials are being conducted, is now in its 3<sup>rd</sup> year. The Unit is involved in training workshops and laboratory site visits, both national and international.

### ACTIVITIES, HIGHLIGHTS AND ACHIEVEMENTS

#### PT PROGRAMMES

PT programmes were provided in the disciplines of bacteriology (128 laboratories), tuberculosis microscopy (283 laboratories), tuberculosis culture (26 laboratories), syphilis RPR serology (250 laboratories) and syphilis TPHA serology (42 laboratories). Management of EQA programmes involves technical preparation and quality control of material, documentation and shipping, and evaluation and reporting of laboratory responses.

In association with the WHO division for Epidemic Preparedness and Response (WHO/EPR, Lyons office), the NICD EQA Unit's PT programmes in bacteriology, malaria and TB microscopy are run with the assistance of NICD consultants and staff in several units of the NICD Microbiology Division. This is done under contractual agreements with WHO/EPR/Lyons. The results of this programme inform the WHO Regional Office for Africa (AFRO), the WHO and pathogen-specific projects of the WHO concerning functional capacity of national public health laboratories of all countries in the AFRO region. The NICD EQA Unit is also an advisor and external referee to the EMRO region of the WHO in the WHO/EMRO regional EQA programme.

The NICD EQA Unit hosted the annual review of the NICD/WHO EQA Programme, in collaboration with WHO/EPR/Lyons and WHO/AFRO, in November 2008.

### NATIONAL STOCK CULTURE COLLECTION

The NSCC provides reference strains from recognised culture collections for NHLS laboratories for quality control purposes. A total of 85 orders was received for reference strains, averaging approximately 10 strains per order.

The account held with the American Type Culture Collection (ATCC) was upgraded to allow the ordering of BSL3 organisms. A total of 97 new strains was purchased for various NICD units, namely, MRU 31 strains (2 x BSL3), RMPRU 6 strains, EQAU 2 strains, NTRL 16 strains (12 x BSL3), SBPRU 10 strains, HIV 31 strains and EDRO 1 strain. A subculture of each new strain was retained within the NSCC. This brings the total number of strains in the Stock Culture Collection to 404.

The registration with Biodefence and Emerging Infections Research Resource Repository (BEIResources) is almost finalised, which will enable researchers to obtain unusual reference strains, such as *Francisella tularensis* and others, for research purposes.

### COLLABORATIONS

International Health Regulations Coordination Programme, WHO Lyon Office for National Epidemic Preparedness and Response (Dr S Cognat): WHO/NICD EQA Programme.

Division of Health Systems and Services Development, WHO Regional Office for Africa, Brazzaville, Congo (Dr J-B Ndiokubwayo): WHO/NICD EQA Programme.

GlaxoSmithKline and Contract Laboratory Services: Malaria Vaccine EQA Programme

### CAPACITY BUILDING

Several laboratory staff attended computer training courses: Peggy Botes and Elias Khomane Microsoft Office Word level 1; Vivian Fensham - Microsoft PowerPoint level 2.

Vivian Fensham attended a First Aid course. Peggy Botes attended an ISO 15189 accreditation course.