

## Improving tuberculosis diagnosis: TB-LAMP, a new molecular diagnostic tool for remote settings to be rolled out in Cameroon

According to the World Health Organization\*, there are 49,000 cases of tuberculosis in Cameroon, of which only 25,000 have been diagnosed. The reasons for this are the low sensitivity of conventional diagnostic methods (e.g. smear microscopy) respectively the high demands on the infrastructure when using more sensitive molecular methods. However, a large number of TB infected people live in remote regions with little infrastructure.

In order to provide also these patients with access to sensitive TB diagnosis methods, a new robust and easy-to-use test (TB-LAMP assay, WHO recommended\*\*) under the leadership of the National Tuberculosis Programme was evaluated in 2017. Following the promising results and the successful application to the Global Fund, Cameroon is now ready to introduce this technology in the country. Cameroon is the first African country which will implement TB-LAMP on a broad base to enable fast and reliable diagnosis especially in remote settings.

To communicate this new approach, the National TB Program and the Centre Pasteur as National TB reference Laboratory held an international meeting in Yaoundé on “Improving tuberculosis diagnosis in Cameroon: the place of molecular diagnostic tools” on the occasion of the 25th World TB Day. More than 120 participants, including the Secretary General of the Cameroon Ministry of Health (*Prof. Sinata Koulla Shiro*), the Director of the Centre Pasteur of Cameroon (*Prof. Elisabeth Carniel*), the National TB program coordinators and representatives of other countries like Chad, DR Congo and Ivory Coast took part in this event. Also present were Japanese Ambassador *Mr. Okamura*, representatives of Eiken Chemical (developer of technology) and HUMAN (exclusive distributor) and numerous representatives of the media.



*Prof. Elisabeth Carniel, Prof. Sinata Koulla Shiro, Mr. Okamura, Dr. Vincent Mbassa*

After introductory words by *Dr. Vincent Mbassa*, permanent secretary of the National TB Program, *Dr. Valerie Donkeng Donfack* (Scientific Coordinator of TB LAMP implementation, Centre Pasteur of Cameroon) presented the TB-LAMP technique and explained the national TB-LAMP implementation plan. “I am very hopeful that TB-LAMP can contribute to a significant improvement in tuberculosis diagnostic”, mentioned *Dr. Valerie Flore Donkeng Donfack*.

Her presentation was followed by *Dr. Lot Kengne* (Head of Laboratory of the regional hospital in Ebolowa), who showed that the use of TB-LAMP led to a significantly higher detection rate of TB patients. The highlight of the event was the official handover of the HumaLoop T instrument to one of the hospitals at the Center Region, which will begin with the molecular diagnosis of TB with TB-LAMP.



*Ceremonial handover of the HumaLoop T*

The official part was concluded by the speech of Prof. Sinata Koulla Shiro, Secretary General of the Ministry of Health, representing the Ministry of Health emphasizing the full commitment of MOH Cameroon to the fight against tuberculosis.

Following the successful pilot project led by the Centre Pasteur of Cameroun, as National Reference Laboratory for TB in 2017, a sequential rollout focusing on remote settings can now begin.



*LAMP to touch: The participants get to know the products*



*Dr. Valerie Donkeng and Dr. Vincent Mbassa answer questions from the media*

\* WHO tuberculosis country profiles; <http://www.who.int/tb/country/data/profiles/en/>

\*\* WHO Policy Guidance. *The use of TB-LAMP for the diagnosis of pulmonary tuberculosis*. August 2016

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