



Project Number: 610389

FP7-ICT-2013-10

Development of a low-cost point-of-care test for Tuberculosis detection

Deliverable D7.4b: Press release at project end

Due date of deliverable: **May 1st 2017 (M1)**

Actual submission date: **July 31th 2017**

Start date of project: 2013-11-01

Duration: 3 Years

Organisation name of lead contractor for this deliverable: **UGent**

Revision **[1.0]**

Project co-funded by the European Commission within the Seventh Framework Programme		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Description of the press release

Below is the press release to be sent out after at the end of the project.

'Pocket' project develops low-cost prototype to detect tuberculosis

Tuberculosis (TB) is a major global health issue. According to the World Health Organisation (WHO), every year there are worldwide 8.8 million new active TB cases and nearly 2 million TB deaths - 5000 every day - mostly in the poorest communities of the developing world. One third of the world's population has latent TB which may later develop into an active form of the disease. TB has also become the leading cause of death among people with HIV. While most cases of TB occur in developing countries, it is also reemerging as a threat in major urban populations in Europe, due to the increase in global travel.

The early treatment of TB is currently hindered by the lack of rapid, accurate diagnostic tools, especially those that can be applied as a point-of-care device in the resource-constrained settings in developing countries. Alternatives do exist, but they either come at a high cost or lack the required sensitivity.

The aim of the Pocket project, now wrapping up, is to integrate a number of world-class novel technologies into a point-of-care TB test that will fill the gap between current high-end, sensitive but expensive tests and low-end, cheap tests plagued by limited accuracy. The Pocket test is based on a sensor in a silicon nitride chip, where the choice of wavelength allows for the production of a low-cost readout instrument. Combined with novel diagnostic antibodies, this results in very accurate detection of the TB antigens in urine, thereby diagnosing the presence of the TB bacterium. Using a panel of 10 positive and 10 negative actual clinical samples collected from various countries all over the world yielded only a single false positive. All other samples were correctly identified, including those of 5 TB-positive HIV-negative patients, which previously were difficult to detect using similar methods.

The Pocket consortium is coordinated by Ghent University. The project partners are

- CIN2-CSIC Barcelona (SP, nanob2a.cin2.es): surface chemistry
- Ghent University (BE, photonics.intec.ugent.be): photonics transducer design
- Imec (BE, www.imec.be): chip fabrication
- Lionex (DE, www.lionex.de): antibody and antigen development
- microfluidic ChipShop (DE, www.microfluidic-chipshop.com): microfluidic chip development
- Trinean (BE, www.trinean.com): instrument design

Pocket (Development of a low-cost Point-Of-Care test for Tuberculosis detection) started on

November 1st 2013 and ran under the Seventh framework Programme (FP7) of the European Union. The EU funding amounts to 2.6 million. More information on the project can be found at www.pocket-proj.eu.

Contact:

Prof. Peter Bienstman

Pocket coordinator

Ghent University

Peter.Bienstman@UGent.be