Visions to Products

Hahn Schickard

Fast diagnosis at the point-of-care
Acute fever infectious disease diagnosis

An innovative platform that can diagnose malaria and other febrile infectious diseases simultaneously in just an hour allowing faster point-of-care treatment and precise drugs administration that could save thousands of lives

Diagnostic need

- Numerous malaria cases worldwide (207 million in 2012) mainly in Africa
- Many diseases exist with the same symptom (acute fever)
- 30% of cases are wrongly treated due to mis-diagnosis.

State-of-the-art tools

- Microscope blood smear (only for malaria)
- Blood cultures (several days-to-result; not specific enough)
- RDT strip tests (fast but based only on antibody or antigen detection).

Main innovations of LabDisk in DiscoGnosis project

- Multiple diseases probed at the same time with single test
- Three different pathogen species are detected: parasites, viruses, bacteria
- Combination of DNA, RNA and protein analysis on the same disc minimizes the error and increases specificity
- Suitable for minimally-trained personnel due to the user-friendly sample-to-disc interface.
- Fully automated *in situ* sample preparation due to pre-stored reagents in “stick-packs” and pre-stored disc handling protocols in a portable LabDisk Player.
- Adaptable disease panel according to endemic and needs thanks to the modular nature of the platform.

The LabDisk (with pre-stored buffers in stickpacks) and LabDisk Player

Key features

- Infections diagnosed: malaria, dengue, typhoid, pneumonia
- Time-to-result: <1h
- Full automation: analysis from 50µl whole blood; pre-stored biochemical reagents.

Diagnostic benefit

- Patient management: proper treatment is provided to patients (antibacterial or antimalarial drug)
- Shield against spread of epidemics

DiscoGnosis

SEVENTH FRAMEWORK PROGRAMME

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Website: www.discognosis.eu
Blogpost:
https://ec.europa.eu/digital-agenda/en/node/78105

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