Laser Multiplexed Biosensor

Fact Sheet

Project Information

GLAM

Grant agreement ID: 634928

Funded under
H2020-EU.3.1.3.

Project website

Overall budget
€ 4 835 584,25

Start date
1 May 2015

EU contribution
€ 4 835 584

End date
30 April 2019

Coordinated by
ACONDICIONAMIENTO TARRASENSE ASSOCIACION

Spain

Objective

Differential cancer diagnosis takes place daily in clinical settings for a better monitoring of patient responses to existing treatments. However outcome of this diagnosis is today still poor. Moreover, current technology to measure biomarker levels is expensive and sophisticated.

Most cancer biomarker analysis use blood or biological tissues as the main source of material. These biopsies must be analyzed in specialized laboratories incurring in some limitations: high cost; specialized personnel and equipment; large amounts of biological material; long outcome delivery time; time consuming processes.

Therefore it exist a real need and urgency to have new diagnostic devices that provide diagnosis, prognosis, and monitoring data faster and with exquisite ultra-sensitivity on time to take the appropriate decisions to improve personalized diagnosis and therapy.

The aim of GLAM project is to provide an innovative device to fulfill these requirements using soluble biomarkers for personalized diagnosis and therapy.
monitoring. Specifically we will design and develop a new diagnostic tool to detect biomarkers from biofluids obtained in a non-invasive manner, specifically focusing to urine and to genitourinary cancers, to help oncologist to take better treatment decisions, approaching personalized medicine. GLAM will develop an integrated device based on novel label-free photonic biosensors with ultra-sensitivity, simplicity of use, portability, multiplexing and low cost. GLAM capitalizes on the unprecedented sensitivity achieved using laser microring resonators to detect key biomarkers in tumor development and treatment. Point of Care of the device will be carried out by preclinical and clinical sample analysis of genitourinary cancer patients to warrant personalized medicine. Importantly the GLAM unique technology will make the device also usable with other biofluids and might also be used to help physicians with other biomarker driven.

Field of science

/medical and health sciences/clinical medicine/oncology/cancer
/medical and health sciences/clinical medicine/oncology
/natural sciences/physical sciences/optics/laser physics
/engineering and technology/environmental biotechnology/biosensing

Programme(s)

Topic(s)

Call for proposal

H2020-PHC-2014-two-stage

Funding Scheme

RIA - Research and Innovation action

Coordinator

ACONDICIONAMIENTO TARRASENSE ASSOCIACION

Address
Carrer De La Innovacio 2
08225 Terrassa

Activity type
Research Organisations

EU contribution
€ 692 632,50
Participants (9)

FUNDACIO INSTITUT DE BIOENGINYERIA DE CATALUNYA
Spain
EU contribution € 491 125,50
Address Carrer Baldiri Reixac Planta 2A 10-12 08028 Barcelona
Activity type Research Organisations
Website Contact the organisation

UNIVERSITEIT TWENTE
Netherlands
EU contribution € 817 885
Address Drienerlolaan 5 7522 NB Enschede
Activity type Higher or Secondary Education Establishments
Website Contact the organisation

WINZSOFT (ISRAEL) LTD
Israel
EU contribution € 323 625
Address Beit Hillel 3 67017 Tel Aviv-jaffo
Activity type Private for-profit entities (excluding Higher or Secondary Education Establishments)
Contact the organisation

UNIVERSITE LIBRE DE BRUXELLES
Belgium
EU contribution
EU contribution

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<th>Organisation</th>
<th>EU contribution</th>
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<td>FUNDACIO INSTITUT DE CIENCIES FOTONIQUES</td>
<td>€ 574,275</td>
<td>Avinguda Carl Friedrich Gauss 3, 08860 Castelldefels</td>
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<td>STICHTING KATHOLIEKE UNIVERSITEIT</td>
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<td>Geert Grooteplein Noord 9, 6525 EZ Nijmegen</td>
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<td>NOVELIC DOO BEOGRAD-NOVI BEOGRAD</td>
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<td>Omladinskih Brigada 86 P, 11070 Beograd</td>
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<td>ALTER TECHNOLOGY TUV NORD UK LIMITED</td>
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United Kingdom

EU contribution
€ 400 812,50

Address
Bain Square 5
EH54 7DQ Livingston

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Contact the organisation

OBELIS SA

Belgium

EU contribution
€ 409 800

Address
Boulevard General Wahis 53
1030 Bruxelles

Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

Website
Contact the organisation

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