

Laser Multiplexed Biosensor

Fact Sheet

Project Information

GLAM

Grant agreement ID: 634928

[Project website](#) 

DOI

[10.3030/634928](https://doi.org/10.3030/634928) 

Project closed

EC signature date

8 April 2015

Start date

1 May 2015

End date

30 April 2019

Funded under

SOCIETAL CHALLENGES - Health, demographic change and well-being

Total cost

€ 4 835 584,25

EU contribution

€ 4 835 584,00

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.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electronic engineering](#) > [sensors](#) > **[biosensors](#)**

[medical and health sciences](#) > [clinical medicine](#) > [oncology](#) > **[bladder cancer](#)**

[medical and health sciences](#) > [health sciences](#) > **[personalized medicine](#)**

[engineering and technology](#) > [medical engineering](#) > [medical laboratory technology](#) > **[diagnostic technologies](#)**

[natural sciences](#) > [physical sciences](#) > [optics](#) > **[laser physics](#)**



Programme(s)

[H2020-EU.3.1. - SOCIETAL CHALLENGES - Health, demographic change and well-being](#)

MAIN PROGRAMME

[H2020-EU.3.1.3. - Treating and managing disease](#)

Topic(s)

Call for proposal

[H2020-PHC-2014-2015](#)

[See other projects for this call](#)

Sub call

H2020-PHC-2014-two-stage

Funding Scheme

[RIA - Research and Innovation action](#)

Coordinator



ACONDICIONAMIENTO TARRASENSE ASSOCIACION

Net EU contribution

€ 692 632,50

Total cost

€ 692 632,50

Address

CARRER DE LA INNOVACIO 2

08225 Terrassa

 **Spain** 

Region

Este > Catalunya > Barcelona

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Participants (9)



FUNDACIO INSTITUT DE BIOENGINYERIA DE CATALUNYA

Spain

Net EU contribution

€ 491 125,50

Address

CARRER BALDIRI REIXAC PLANTA 2A 10-12
08028 Barcelona

Region

Este > Cataluña > Barcelona

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

€ 491 125,50



UNIVERSITEIT TWENTE

Netherlands

Net EU contribution

€ 817 885,00

Address

DRIENERLOLAAN 5
7522 NB Enschede

Region

Oost-Nederland > Overijssel > Twente

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)

Total cost

€ 817 885,00



WINZSOFT (ISRAEL) LTD

 Israel

Net EU contribution

€ 323 625,00

Address

Beit Hillel 3

67017 TEL AVIV-JAFFO 

SME 

Yes

Activity type

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

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 323 625,00



UNIVERSITE LIBRE DE BRUXELLES

 Belgium

Net EU contribution

€ 374 412,50

Address

AVENUE FRANKLIN ROOSEVELT 50

1050 Bruxelles / Brussel 

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

Higher or Secondary Education Establishments

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

€ 374 412,50



FUNDACIO INSTITUT DE CIENCIES FOTONIQUES

Spain

Net EU contribution

€ 574 275,00

Address

AVINGUDA CARL FRIEDRICH GAUSS 3
08860 Castelldefels

Region

Este > Catalunya > Barcelona

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

€ 574 275,00



STICHTING RADBOUD UNIVERSITEIT

Netherlands

Net EU contribution

€ 283 316,00

Address

HOUTLAAN 4
6525 XZ Nijmegen

Region

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

€ 283 316,25



NOVELIC DOO BEOGRAD-ZVEZDARA

Serbia

Net EU contribution

€ 467 700,00

Address

Veljka Dugoševića 54
11000 BEOGRAD

SME

Yes

Region

Србија - север > Београдски регион > Београдска област

Activity type

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

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

€ 467 700,00



ALTER TECHNOLOGY TUV NORD UK LIMITED

United Kingdom

Net EU contribution

€ 400 812,50

Address

BAIN SQUARE 5

EH54 7DQ Livingston 

SME 

Yes

Region

Scotland > Eastern Scotland > West Lothian

Activity type

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

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 400 812,50



OBELIS SA

 Belgium

Net EU contribution

€ 409 800,00

Address

BOULEVARD GENERAL WAHIS 53

1030 Bruxelles / Brussel 

SME 

Yes

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

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

Links

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[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 409 800,00

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European Union, 2025