**KardiaTool**

**Project ID:** 768686

Financé au titre de:

H2020-EU.2.1.1.1. - A new generation of components and systems: Engineering of advanced embedded and energy and resource efficient components and systems

H2020-EU.2.1.2. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Nanotechnologies

---

**An integrated POC solution for non-invasive diagnosis and therapy monitoring of Heart Failure patients**

De 2017-11-01 à 2021-04-30, projet en cours

---

**Détails concernant le projet**

<table>
<thead>
<tr>
<th>Coût total:</th>
<th>Sujet(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 4 999 880,55</td>
<td>NMBP-13-2017 - Cross-cutting KETs for diagnostics at the point-of-care</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contribution de l'UE:</th>
<th>Appel à propositions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 4 999 880,55</td>
<td>H2020-NMBP-X-KET-2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coordonné à/au(x)/en:</th>
<th>Régime de financement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>RIA - Research and Innovation action</td>
</tr>
</tbody>
</table>

---

**Objectif**

The aim of the KardiaTool project is to translate a laboratory proven concept of a saliva biosensor to the clinical practice for addressing the priority needs in personalized HF diagnostics and therapy monitoring at the point of care. The KardiaTool platform includes: (i) An easy to use portable POC device (KardiaPOC) with a disposable Lab-on-a-Chip (LOC), for the non-invasive, rapid and accurate qualitative and quantitative assessment of HF biomarkers, from saliva samples. KardiaPOC device will integrate a variety of sensors, actuators, Microelectromechanical systems (MEMS), micro-electronics, bio-chemicals and functionalized magnetic nanoparticles (MNPs), onto a disposable, low cost LOC. (ii) A decision support software (KardiaSoft) based on predictive modelling techniques, that analyzes the POC data and other patient’s data, directly added by the healthcare professionals, and delivers information related to HF diagnosis and therapy monitoring. The innovation lays in the incorporation of four novel saliva biomarkers that have been proven in a laboratory setting and bring a new promising concept for addressing the priority needs of the clinical arena. KardiaPOC will provide the capability of simultaneously extracting key information from the saliva biomarkers: (i) NT-proBNP, (ii) TNF-α, (iii) Interleukin-10, (iv) Cortisol. It is expected that identifying a comparable source to blood, for biomarker information, such as saliva, that is cost effective, less invasive, more convenient and acceptable for both patients and healthcare professionals would be beneficial for the healthcare community. The challenge of KardiaTool is: (i) to translate a laboratory proven concept of a saliva biosensor into an MNBS platform, for HF diagnostics and therapy monitoring, at the point of care, following GLP (ii) to validate the MNBS platform through pre-clinical and clinical testing following GCP and (iii) to industrialize the outcomes following GMP towards progress to marketization

---

**Informations connexes**
Coordinateur

UNIVERSITE LYON 1 CLAUDE BERNARD
BOULEVARD DU 11 NOVEMBRE 1918 NUM43
69622 VILLEURBANNE CEDEX
France
Contribution de l’UE: EUR 446 132,43

Activity type: Higher or Secondary Education Establishments
Contact the organisation

Participants

FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS
N PLASTIRA STR 100
70013 HERAKLION
Greece
Contribution de l’UE: EUR 588 750

Activity type: Research Organisations
Contact the organisation

AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS
CALLE SERRANO 117
28006 MADRID
Spain
Contribution de l’UE: EUR 467 612,50

Activity type: Research Organisations
Contact the organisation

UNIVERSITA DI PISA
LUNGARNO PACINOTTI 43/44
56126 PISA
Italy
Contribution de l’UE: EUR 191 250

Activity type: Higher or Secondary Education Establishments
Contact the organisation

FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.
HANSASTRASSE 27C
80686 MUNCHEN
Germany
Contribution de l’UE: EUR 399 375

Activity type: Research Organisations
Contact the organisation
BIOTRAY
82 RUE CYPRIAN
69100 VILLEURBANNE
France
See on map

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

Contact the organisation

MICRONIT MICROTECHNOLOGIES BV
COLOSSEUM 15
7521 PV ENSCHEDE
Netherlands
See on map

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

Contact the organisation

INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM
KAPELDREEF 75
3001 LEUVEN
Belgium
See on map

**Activity type:** Research Organisations

Contact the organisation

PANEPISTIMIO IOANNINON
PANEPISTEMIOYPOLE PANEPISTEMIO IOANNINON
45110 IOANNINA
Greece
See on map

**Activity type:** Higher or Secondary Education Establishments

Contact the organisation

VALOTEC
1 MAIL DU PROFESSEUR GEORGES MATHE
94800 VILLEJUIF
France
See on map

**Activity type:** Other

Contact the organisation
Contribution de l'UE: EUR 155 995,94

Contribution de l'UE: EUR 392 500

Contribution de l'UE: EUR 294 871,25

Contribution de l'UE: EUR 168 802,50

Contribution de l'UE: EUR 219 319,68

Activity type: Research Organisations

Contact the organisation

ENACHIP INC
1 RIGHTER PARKWAY SUITE 260
19803 WILMINGTON
United States

Contribution de l'UE: EUR 392 500

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

Contact the organisation

UNIVERSITY OF SURREY
Stag Hill
GU2 7XH GUILDFORD
United Kingdom

Contribution de l'UE: EUR 294 871,25

Activity type: Higher or Secondary Education Establishments

Contact the organisation

UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN
BELFIELD
4 DUBLIN
Ireland

Contribution de l'UE: EUR 168 802,50

Activity type: Higher or Secondary Education Establishments

Contact the organisation

ECOLE NORMALE SUPERIEURE DE LYON
PARVIS RENE DESCARTES 15
69342 LYON
France

Contribution de l'UE: EUR 219 319,68

Activity type: Higher or Secondary Education Establishments

Contact the organisation

Dernière mise à jour le 2017-08-03
Extrait le 2019-07-22

Permalien: https://cordis.europa.eu/project/rcn/211669_en.html