

Health2CARE

Directory of innovative projects
in personalised medicine

HEALTH
2CARE



Cross-sector alliance
for personalised medicine

DIRECTORY OF INNOVATIVE PROJECTS IN PERSONALISED MEDICINE

The Health2CARE project is a 2-years initiative (February 2014 – March 2016), co-funded by the European Union and coordinated by the Rhône-Alpes Region. The main objective, thanks to collaboration between clusters – **i-care Cluster, Lyonbiopole, Minalogic, Plastipolis** – is to **enhance the cross-sectoral cooperation in the field of personalised medicine.**



Health2CARE aims to gather different technological and applied **sectors in Rhône-Alpes** such as biotechnologies, medical devices, plastics, nanotechnologies, software, **to investigate new value chains by an open innovative approach.** Personalised medicine mobilizes various techniques and skills, going often beyond the perimeter of existing partnership between actors. Clusters involved in the initiative have a key role to enhance this interdisciplinarity and in-fine to reinforce the competitiveness of companies, more specifically SMEs, on this innovative and emerging sector.

To foster the emergence and the growth of innovative solutions, 2 calls for Expression of interest have been launched between 2014 and 2015 in the frame of Health2CARE towards multidisciplinary SMEs, start-ups or academic research labs addressing personalised medicine issues. This book collects the 20 innovative projects of the Rhône-Alpes region, submitted within the 2 calls for expression of interest. All these projects are solutions addressing the personalised medicine challenge and while integrating multiple technologies applied to healthcare products.

The most promising projects have been selected by a jury of experts, and awarded for an external expertise. This support is provided by the implementation of financial envelopes, called “**Innovation vouchers**” dedicated to facilitate the innovative projects structuration and their transformation into product(s) or business service(s).

Thus, 10* of the projects presented in the book have been selected to receive external services financed with the “innovation vouchers” representing between 7.000 and 15.000 euros co-financed by the company.

The services provided as “innovation vouchers” correspond to the project holders needs among:

- Business development (market feasibility, funding strategy, commercial action plan, etc.)
- Support for private investment (identification of funding partners, funding engineering, etc.)
- International Business development
- Regulatory affairs (regulation, European rules, etc.)

The objective of this book is to present the innovative project to regional and European companies, research labs, public health stakeholders for future potential collaboration. Discover the project ideas in the next following pages.

* One of these 10 selected projects is not included in this directory for non-disclosure commitment.

RHEONOVA

Name of the company: RHEONOVA
Address: 363 rue de la chimie •
38 400 St Martin d'Herès
Website: www.rheonova-medical.com

CONTACT DETAILS

Last name/First name: PATARIN Jeremy
Position: CEO
Tel. +33 (0)4 56 52 01 87



SELECTED
FOR
VOUCHERS

> DESCRIPTION OF THE PROJECT

Rheonova develops a medical device called 'Rheomuco' dedicated to the pulmonary diseases market. Our technology measures complex mechanical properties of the pulmonary secretions, i.e. the viscoelasticity of sputum. The instrumentation is easy to use and all automated: from the set-up of the sample to the data treatment. The output is a simple parameter which assesses quantitatively the state of a disease. Our first customers are Biotech & Pharma companies. Rheomuco allows them to validate the effectiveness of their drug candidates obtaining pharmacodynamics data throughout in vitro studies and clinical trials.

The second target is the healthcare professionals who follow patients affected by a cystic fibrosis (80000 patients worldwide), and will use the test as a surrogate endpoint. Rheomuco makes the prognostic of the evolution of the disease possible, and discriminates the bacterial type associated with the pathology. Results will be used to adapt and anticipate treatments (including the antibiotics).

The third target is the pulmonologists. Rheomuco is a simple test to better diagnose and monitor the COPD (chronic obstructive pulmonary disease), an under-diagnosed disease that affects 210 million people worldwide and kills more than 3 million annually.

For both diseases, the main benefit for patients is a personalized follow-up of their health status, particularly with a prognostic of the exacerbation phases to avoid hospitalization and heavy emergency treatment.

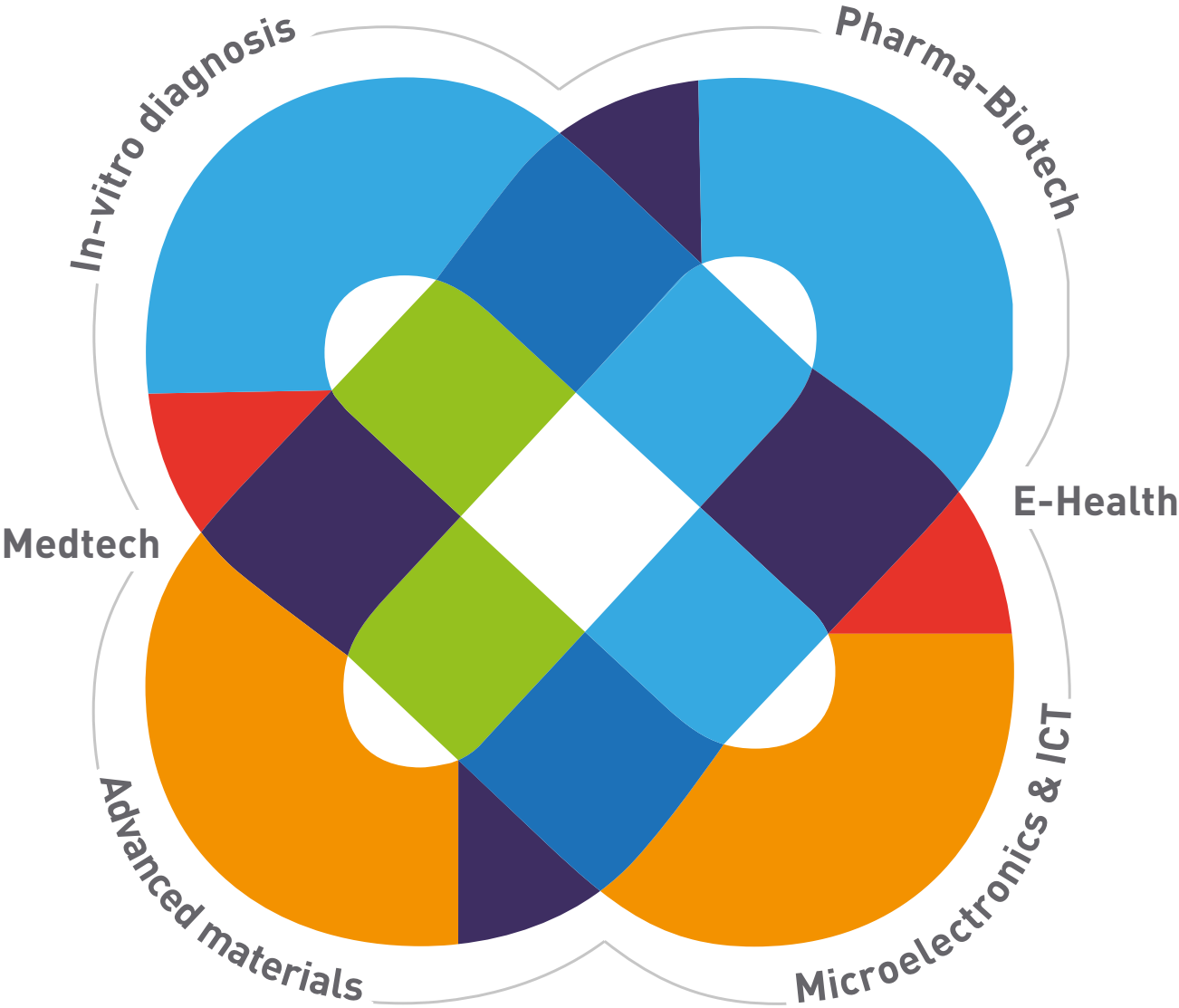
Our next medium-term goal is to provide a miniaturized self-care medical device. Moreover, Rheonova can offer a wide range of devices to characterize other biological fluids linked to specific diseases. Knowing and understanding the properties of fluids can diagnose pathologies, prove quantitatively the efficiency of a treatment from a mechanical point of view, and play the role of a companion test.

> DESCRIPTION OF THE INNOVATIVE AND MULTIDISCIPLINARY ASPECTS OF THE PROJECT

The results will be understood and interpreted directly by the user (without further analysis). Rheomuco substitute the indicators of the 19th century (respiratory function, patient testimony) to help professionals in their analysis and increase quality of life of patients.

We exploit knowledge in mechanics (sensor, sensor architecture), electronics (engine drive), mechatronics (integrated micro pump), polymer science (design of the physical interface with the fluid) and informatics (correlation algorithm).









health2care.rhonealpes.fr

PARTNERS



i-carecluster.org

Jean-François MENUDET
jf.menudet@i-carecluster.org



lyonbiopole.com

Emilie ROMEO
emilie.romeo@lyonbiopole.com



minalogic.com

Adrien Juhem
adrien.juhem@minalogic.com



plastipolis.fr

caroline.pin@plastipolis.fr
cecile.coustal@plastipolis.fr

Coordinated by :



rhonealpes.fr
Laurence MINNE
lminne@rhonealpes.fr



Co-funded by
the European Union