

# MARCHEBioBank: a new infrastructure for rare diseases and tumours



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## INTRODUCTION

A new infrastructure for rare diseases and tumours has been created within the investment program 2014-2020 National Research Program.

The project sees the creation of the first certified biobank in the Marche region, namely MARCHEBioBank<sup>1</sup>, where samples from the abovementioned rare and oncological diseases be collected.

## AIM

The infrastructure aims to fulfil the regional and national requires for the treatment of diseases with a high medical needs (such as chronic, oncological and rare diseases) through the development in the Marche region of a strategic research and innovation platform in the field of personalized medicine.

## METHOD

The project covers 4 lines of activities:

1. Creation of a regional non-profit biobank and a research lab
2. Development of 3 research projects:
  - a. New diagnostic and therapeutic tools for the personalized treatment of cancer patients
  - b. Platform for the development of new therapeutic tools for the personalized treatment of patients with rare diseases
  - c. Development of new pharmaceutical and nutraceutical approaches for the treatment of chronic diseases
3. Development of a technology transfer platform for the industrialization of new products in the field of 4P medicine
4. Dissemination and exploitation of the results

## RESULTS

At the end of 2019 a collaborative research platform for personalized medicine: drugs, diagnostics and new therapeutic approaches was launched.

MARCHEBioBank platform is strategic for 4P medicine as:



- Enhances specialist skills through the construction of the first biobank in the Marche region outside the healthcare facilities;
- Integrates the scientific and production system;
- Favours the employment of highly qualified personnel in the companies;
- Develops enduring and sustainable collaborative networks.

The total investment is 10.3 million euros, supported by 5.4 million ROP-ERDF 2014-2020<sup>2</sup> contributions from the Marche Region. ROP, research operative programme; ERDF, European Regional Development Fund.



The excellent public-private partnership is made up of 10 companies, together with the 3 universities in the Marche region: University of Urbino<sup>3</sup>, University of Camerino and Marche Polytechnic University. The University Hospital of Ancona participates with the concession free of charge of the area where the biobank and the laboratory will be set up.

MARCHEBioBank has the support of several regional and national associations, federations and networks:



- BBMRI.it<sup>4</sup>;
- Federfarma Marche;
- Foundation of Molecular Medicine and Cellular Therapies;
- Cryolab;
- Associations of patients with rare and/or oncological diseases.

## CONCLUSIONS

MARCHEBioBank and the research lab will:

- Generate benefits for the entire community by enabling the improvement of diagnoses and participation in pioneering clinical trials;
- Allow the identification of new diagnostic and therapeutic targets for the development of new drugs and new diagnostic approaches;
- Contribute to the construction of a large database for use in medical research;
- Allow companies to carry out research activities being able to use advanced technologies
- Allow local companies developing new technologies to show the benefits;
- Introduce innovative methods useful in the diagnosis of rare and oncological diseases in the Marche region;
- Act as a "training ground" to support training on new technologies.

## REFERENCES

1. MARCHEbiobank web site is coming soon at the following URL: <https://www.marchebiobank.it/> <https://www.regione.marche.it/>
2. More information about the regional operating programme (ROP Marche ERDF) can be found at the following URL: [https://ec.europa.eu/regional\\_policy/index.cfm/en/atlas/programmes/2014-2020/Italy/2014it16rfop013](https://ec.europa.eu/regional_policy/index.cfm/en/atlas/programmes/2014-2020/Italy/2014it16rfop013)
3. More information about the University of Urbino are available at the following URL: <https://www.uniurb.it/>
4. More information about the Italian node of BBMRI-ERIC can be found at the following URL: <https://www.bbmri.it/>

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