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Italiadomani
PIANO NAZIONALE
DI RIPRESA E RESILIENZA

HEAL ITALIA

SPOKE N.1

PROJET TITLE : Personalised Rna-Oriented MedciNE in Italy Novel Therapeutics - PROMINENT

COORDINATOR: Fondazione Human Technopole

PARTNERS: BIOGEM SCARL; Università della Campania Vanvitelli; IRCCS Fondazione Pascale

Biogem s.c.ar.l.



Biogem (Molecular Biology and Genetics) is a consortium company between public research bodies (CNR, 'Anton Dohrn' Zoological Station of Naples) and Universities ("Federico II" of Naples, "Luigi Vanvitelli" of Campania, Milan-Bicocca, Sannio, Foggia, Sister Orsola Benincasa of Naples, Lumsa of Rome, Udine, Molise). Other members include the Municipality of Accadia, the Ufita Mountain Community, the Biogem Foundation, the Irpinia-Sannio Chamber of Commerce, the 'Mario Negri' Institute of Pharmacological Research. Biogem occupies a total area of 33,000 square meters of which 8,200 are covered. Located in an originally desert area, in its surrounding spaces and in the surrounding area (24,200 square metres) Biogem has planted an olive grove with 800 plants, 400 of which are centuries-old, 2,000 trees and a 1,600 square meter botanical garden. Biogem's research is structured into two macro-areas: biomedical research and biotechnological research. Biogem also has a Test Center for preclinical regulatory research recognized and certified by the Ministry of Health as a Center that operates in compliance with Good Laboratory Practice (GLP).



Objectives and expected results



The project uses omics technologies (genomics, transcriptomics, proteomics and metabolomics) and big data to identify more effective prognostic, diagnostic and therapeutic tools, as well as new molecular targets. In silico genetic analyzes are combined with in vivo and in vitro experiments to identify and validate targets for major human complex diseases. The collected samples will be analyzed for the (epi)genomic validation both on peripheral blood and on samples of tumor tissue from patients of the biomarkers previously identified by the other UOs. Biogem will carry out the validation of the biomarkers identified by OUs 1 and 2 using standardized real time PCR technologies (validation set) in Fast mode through the massive use of the Fast equipment at its disposal. This phase will proceed in parallel with the development of innovative molecular diagnostic kits with CE marking by Biogem through its Protein Factory facility and its own test center authorized for GLP testing. Biogem will also take care of filing the relevant patents and preparing the marketing phase of the products. In conclusion, the collaboration with the industrial partner will ensure not only the obtaining of the CE mark, but also the simplification and automation of the analysis protocols making it possible to achieve this objective.