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## **PRESS RELEASE**

## Creation of a Center of Excellence at FORTH to promote innovative solutions for the detection of infectious diseases



A new Center of Excellence (DxHub) for the promotion of innovative solutions for the detection of infectious diseases will start at the Foundation for Research and Technology (FORTH), from January 1, 2025, under the coordination of the Institute of Molecular Biology and Biotechnology (IMBB-FORTH), an international pioneer in research of infectious disease biology and biomedical technologies.

Centers of Excellence aim to create better linkage between academia, business, governments and society. The specific program for the creation of DxHub has received 4.7 million  $\in$  in competitive funding from the EU, and the coordination for Greece has been undertaken by the Professor of the Department of Biology at the University of Crete and deputy director of IMBB-FORTH, Electra Gizeli. The project will be implemented in collaboration with the University, the Region of Crete, the branch of the National Organization For Health Care Services (EOPYY) of Crete and the private sector, as well as with corresponding partners in the Oeiras region in Portugal, coordinated by the NOVA University of Lisbon.

Major infectious diseases affecting humans, animals and agricultural crops are currently an emerging threat to the EU. Southern Europe and the Mediterranean, where the climate and the richness of the wetland ecosystem enable the successful amplification of pathogenic microorganisms, are particularly vulnerable areas. However, the rest of Europe is now threatened by these diseases due to climate change, global urbanization and citizens' mobility. The first step in dealing with them is rapid and accurate diagnosis, ideally on the spot of infection, using highly sensitive and specific diagnostic tools.

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The research Dr. Gizeli's team lies at the interphase of molecular biology, biomedical engineering and nanobiotechnology. This work has resulted in innovations exploited to provide simple tools for molecular diagnostics at the point of care, without the need to transport samples to a specialized laboratory. Currently, these technologies are used to monitor human, plant and foodborne diseases, as well as to monitor the marine environment.

"At the local level, the new DxHub Center of Excellence will aim to create innovative diagnostic methods and tools, and increase business opportunities, competitiveness and sustainability in the two regions. It will also have a broader societal impact through addressing national, European and global challenges related to emerging threats, with direct benefits for citizens and the health system as well as farmers, food producers and relevant industries. Public and private agencies will have at their disposal devices and methods for testing infectious diseases, something especially important during a pandemic like the one we experienced recently, which affected enormously local economies," said Ms. Gizeli.

The DxHub Center of Excellence is teaming together the provinces of Crete from Greece and Oeiras from Portugal, two regions with significant similarities in geography and climate that influence culture, business activity and key sectors driving the economy of each country. The service sector ranks first, followed by industry and agriculture. Both countries face common public health, agriculture and farming challenges, and have developed innovation ecosystems with highly successful research groups supported by competitive EU and national funding and collaboration opportunities. This joint Greco-Portuguese initiative is expected to strengthen the extroversion and competitiveness of the two regions based on a coordinated plan to promote high-value innovative products and create start-up companies.

Source: Interview of Prof. Electra Gizeli for EU-LIFE, a European alliance of 15 leading European research centers in the life sciences that aims to support and strengthen research excellence and to be a voice for research in European policy (more: https://eu-life.eu/)

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Relevant links: https://eu-life.eu/newsroom/news/interview-gizeli

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