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PRESS RELEASE

Prestigious ERC Consolidator Grant awarded to FORTH Researcher Dr. Giorgos Chamilos



Giorgos Chamilos, Researcher at the Institute of Molecular Biology and Biotechnology of the Foundation for Research and Technology – Hellas (FORTH) and Associate Professor at School of Medicine, University of Crete, is awarded a Consolidator Grant from the European Research Council (ERC). The ERC Consolidator Grants are awarded to outstanding researchers of any nationality and age, with a scientific track record showing great promise. Giorgos Chamilos, who works at the interface of immunology and infectious diseases, will receive €2 million in funding for up to five years, to study mechanisms of iron regulation in

macrophages during fungal infection.

Macrophages are professional phagocytic cells that ingest and degrade foreign particles, microbial pathogens and dying cells to maintain immune homeostasis. Fungi are emerging causes of devastating diseases in a broad spectrum of patients with incompletely understood immunometabolic defects in macrophages. Iron is an essential nutrient for the growth of most micro-organisms. G. Chamilos group has recently revealed the important role of iron restriction inside macrophages in physiological immunity against fungi. Accordingly, abnormalities in iron metabolism is a major risk factor for fungal diseases, especially invasive fungal infections. Invasive fungal infections are underestimated human diseases, which often affect immunocompromised patients, associated with high mortality rates (50%-70%) and more than 1,5 million annual deaths worldwide (<https://www.gaffi.org>). Understanding pathogenesis of fungal diseases is an unmet need for development of better therapies.

Giorgos Chamilos and his team will initially investigate *Drosophila* model of fungal infection followed by functional validation in mammalian macrophages, transgenic mice and human patients with fungal disease. Dissecting the function of novel iron regulators in the macrophage will have profound impact on iron biology and is likely to have direct therapeutic implications for the management of fungal diseases.

It is worth noting that 301 top scientists and scholars across Europe are the winners of the latest ERC Consolidator Grant competition. Funding for these researchers, part of the Horizon 2020 research and innovation programme, is worth in total €600 million. With this support, the new grantees will have a chance to build up their teams and have far-reaching impact. It is also worth mentioning that Giorgos Chamilos is the only researcher from a Greek Research Institution to be awarded an ERC Consolidator Grant, this year. FORTH is at the top with the largest number of ERC funded projects in Greece, with an inflow of more than €36 million.



Brief CV

Giorgos Chamilos obtained his Medical Degree at the Medical School, University of Athens, followed by training in Internal Medicine (University of Athens) and a clinical fellowship in Infectious Diseases (University of Texas, Houston, TX). In parallel, he completed his doctoral thesis and conducted postdoctoral research in Experimental Mycology at Dimitrios P. Kontoyiannis Lab and Dendritic Cell Immunology at Michel Gilliet Lab. Since 2009 he has been a Group Leader of a research group working on fungal immunology at the Medical School, University of Crete, and attending physician at the University Hospital of Heraklion. In 2016 G. Chamilos was elected Associate Professor and Director of Clinical Microbiology and Microbial Pathogenesis at the Medical School, University of Crete, and since 2018 he has been an affiliated scientist with FORTH-IMBB. His work has been published in top research journals in the field of Infection and Immunity including, *Cell Host and Microbe*, *Nature Microbiology*, *Nature Communications*.

More info:

The ERC official press release: <https://erc.europa.eu/news/erc-awards-over-600-million-euro-europes-top-researchers>