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Prof. Nektarios Tavernarakis earns an ERC Advanced Investigator Grant for the second time

Nektarios Tavernarakis, a researcher at the Foundation for Research and Technology – Hellas (FORTH), has recently been awarded for the second time the prestigious European Research Council (ERC) Advanced Investigator Grant for his research proposal titled "MacroAutophagy and Necrotic Neurodegeneration in Ageing". ERC Advanced Grants are highly competitive and allow exceptional, established research leaders in any field of science, engineering and scholarship to pursue frontier research of their choice. The aim is to encourage interdisciplinarity, risk-taking, and pioneering research projects. Funding for each selected proposal can reach a maximum of 3.5 million Euro for up to 5 years. This is an exceptionally high level of funding for individual researches, even by international standards. Prof. Tavernarakis is one of the first in Europe, and until now the only one in Greece, to have been awarded the highly competitive and prestigious ERC Advanced Investigator Grant twice (in 2009 and 2016).

Ageing is associated with marked decrease of neuronal function and an increased susceptibility to neurodegeneration. Although age-related deterioration of the nervous system is a universal phenomenon, the cellular and molecular underpinnings of neuron susceptibility to necrosis during ageing remain obscure. The aim of the newly-funded ERC research programme is to address this fundamental problem. To this end, a multifaceted approach will be implemented that combines genetic analyses with advanced, in vivo neuronal imaging technologies. An important part of the research programme will be to identify and thoroughly characterize genes and molecular pathways involved in neuron deterioration during ageing, as well as, modifiers of age-inflicted neuronal function decline. Together, these studies will deepen our understanding of age-related neurodegeneration and provide critical insights with broad relevance to human health and quality of life.

Nektarios Tavernarakis is the Director of the Institute of Molecular Biology and Biotechnology, at the Foundation for Research and Technology, and Professor of Molecular Systems Biology at the Medical School of the University of Crete, in Heraklion, Greece. He is the Director of the Graduate Program on BioInformatics, at the Medical School of the University of Crete, and is also heading the Neurogenetics and Ageing laboratory of the Institute. He is an elected member of the European Molecular Biology Organization (EMBO) and Academia Europaea. He earned his Ph.D. degree at the University of Crete, and trained as a postdoctoral researcher at Rutgers University in New Jersey, USA. His research focuses on the molecular mechanisms of necrotic cell death and neurodegeneration, the interplay between cellular metabolism and ageing, the mechanisms of sensory transduction and integration by the nervous system, and the development of novel genetic tools for biomedical research. For his scientific accomplishments, he has received several notable scientific prizes including two European Research Council (ERC) Advanced Investigator Grants (in 2009 and 2016). He is one of the first in Europe, and until now the only one in Greece, to have been awarded this highly competitive and prestigious grant twice. He is also the recipient of the EMBO Young Investigator award, the Alexander von Humboldt Foundation, Friedrich Wilhelm Bessel research award, the Bodossaki Foundation Scientific Prize for Medicine and Biology, the Empeirikeion Foundation Academic Excellence Prize, the Research Excellence award of the Foundation for Research and Technology, the BioMedical Research Award of the Academy of Athens, the International Human Frontier in Science Program Organization (HFSPO) long-term Postdoctoral Fellowship, and the Dr. Frederick Valergakis Post-Graduate Research Grant Program Academic Achievement Award of the Hellenic University Club of New York.

More information on the research activities of the lab is available at: <u>http://www.elegans.gr/</u>