ΙΝΣΤΙΤΟΥΤΟ ΜΟΡΙΑΚΗΣ ΒΙΟΛΟΓΙΑΣ ΚΑΙ ΒΙΟΤΕΧΝΟΛΟΓΙΑΣ INSTITUTE OF MOLECULAR BIOLOGY AND BIOTECHNOLOGY

SEMINAR

From High-Resolution Profiling to Drug Discovery: Learning New Biology from Patients and Humanized Models

Immunotherapy has become a central pillar of cancer treatment, with recent T cell–based approaches demonstrating remarkable curative potential in some tumor types. Yet, to fully harness these therapies, a deeper understanding of the immune system's dynamic plasticity and cellular heterogeneity is required. These features shape patient responses and create opportunities for precision stratification. In this seminar, I will discuss how high-resolution profiling of patient samples, combined with advanced humanized preclinical models, can illuminate the mechanisms that underlie the efficacy of novel therapeutics. I will highlight how these integrated approaches uncover new immunotherapy targets, guide the development of novel drug combinations, and generate actionable translational insights that accelerate drug discovery.

Nikos Kourtis

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Nikos Kourtis, Ph.D. is a molecular biologist with extensive research experience in both academia and the drug discovery industry. He is a Group Leader in Cancer Immunology at Regeneron Pharmaceuticals, where he leads an interdisciplinary team focused on identifying novel immunotherapy targets, defining mechanisms of action of therapeutic antibodies, and advancing data-driven drug combinations. His research has uncovered fundamental mechanisms of disease biology, with work published in leading journals including Nature, Nature Cell Biology, Nature Medicine, and Nature Cancer. He has been recognized with multiple competitive fellowships and awards, including those from EMBO, HFSP, and the Revson Foundation.

References:
https://www.nature.com/articles/s43018-022-00391-0

MONDAY 15/12/2025

13:00

Costas Fotakis room

Host: Nektarios Tavernarakis

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