ΙΝΣΤΙΤΟΥΤΟ ΜΟΡΙΑΚΗΣ ΒΙΟΛΟΓΙΑΣ ΚΑΙ ΒΙΟΤΕΧΝΟΛΟΓΙΑΣ INSTITUTE OF MOLECULAR BIOLOGY AND BIOTECHNOLOGY

SEMINAR

Structural dynamics of Hsp90 in vitro and in cells

Heat shock protein 90 (Hsp90) is a central molecular chaperone that regulates a plethora of client proteins involved in processes such as cancer and neurodegeneration, making it an important target for therapeutic intervention. Hsp90 is a Mg(II)-dependent ATPase whose activity and conformational cycle are tightly regulated by co-chaperones. Structurally, Hsp90 is a homodimer, with each monomer composed of three domains: the N-terminal domain (NTD) bearing ATPase, the middle domain (MD) involved in client binding and ATP hydrolysis, and the C-terminal domain (CTD) which constitutes the dimerization interface and provides a binding platform for tetratricopeptide repeat (TPR) domain co-chaperones.

Angeliki Giannouli

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Dr. Angeliki Giannouli obtained her Diploma and MSc in Chemistry from the University of Ioannina, Greece, with focus in bioinorganic chemistry. She then completed her PhD at the University of St Andrews, UK, where she focused on EPR studies of inorganic complexes and organic radicals. She then joined the Weizmann Institute of Science (WIS), Israel, as a Postdoctoral Fellow and later as a Senior Postdoctoral Fellow, investigating protein conformations in vitro and in mammalian cells using spin-labeling and EPR techniques. She was then appointed Staff Scientist at the WIS, where she worked on NMR and DNP methodologies.
Currently, Dr. Giannouli is an Assistant Professor of Biochemistry at the University of Crete, Greece. Her research focuses on the structural and biochemical characterization of chaperones and enzymes using EPR and complementary biophysical methods, as well as on developing synthetic biology approaches to exploit biomolecular condensates for whole-cell encapsulation.

FRIDAY 23/1/2026

13:00

Costas Fotakis room

Host: Kriton Kalantidis

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