Dr. Alexandros Pittis obtained his degree in biology at the University of Athens, and continued with his postgraduate studies at the Pompeu Fabra University and the CRG in Barcelona. His work during his PhD focused on the evolutionary origins of the eukaryotic cell, using comparative genomic and computational biology techniques. Postdoctorally, he joined two protistology groups, at the Museum of Natural History in New York and as an EMBO fellow at the University of British Columbia in Vancouver, before a fellowship at the Berlin Institute for Advanced studies became the starting point for new research lines on the evolution of the nervous system in collaboration with Detlev Arendt at the EMBL, Heidelberg. He recently started as Principal Investigator on a HFRI ( $E\Lambda I\Delta EK$ ) - funded project studying the origins of neurotransmission, using the filamentous fungus *Aspergillus nidulans* as a model system. In his seminar he will introduce his past and ongoing research, and future plans, and will speak for the use of comparative analysis, as a powerful methodological tool to address complex biological problems.