

ESR 11 – GENOMICS OF NOVEL UNCULTURED PARASITES

Research project	Our understanding of the diversity of infectious microbes in the marine ecosystem is critically low, meaning we know little about the role microeukaryotic parasites play in the food webs, which microbes infect ecologically and economically important animal species, and we are generally poorly prepared for novel outbreaks of infectious disease in important animal species. The objective of this ESR is to use single cell genomics and transcriptomics to investigate novel previously unsampled parasitic lineages from aquatic environments and animal tissue samples. We will then use these data to explore how these parasites infect animals and potentially cause disease.
Supervisor	<u>Name:</u> Thomas Richards <u>Email:</u> t.a.richards@exeter.ac.uk <u>Website:</u> http://biosciences.exeter.ac.uk/
Host institution	University of Exeter (UNEXE) Exeter, UK
PhD program	Biosciences, University of Exeter
Expected results	The primary aim of this research project will link functional diversity and phylogenetic diversity to evidence of animal parasitism in aquatic environments.
Planned secondments	CEFAS - Month 16 (3 m) - Screening animal tissue samples and Laser dissection microscopy CSIC-ICM - Month 24 (2 m) - Mediterranean sampling CEFAS - Month 30 (2 m) - Screening animal tissue samples and Laser dissection microscopy UU - Month 36 (2 m) - Gene evolution across the tree of life
Required profile	Graduate in Biology, Bioinformatics, or Molecular Biology