

## 15 PhD/Research positions on Promoting Single Cell Genomics to explore the ecology and evolution of hidden microeukaryotes

**Microbial eukaryotes** cover the widest phylogenetic diversity in the eukaryotic tree of life and are essential components of all Earth's ecosystems. Paradoxically, they remain largely unknown, hiding a wealth of genes and genomes that are key to understand the ecology and evolution of microbial ecosystems. **SINGEK** is a **H2020 Marie-Sklódowska-Curie Innovative Training Network (MSCA-ITN)** project aimed at providing a unique and structured **training programme to 15 Early Stage Researchers (ESRs)** to study **microeukaryotes at the single-cell level**. ESRs will be trained in the use of an array of laboratory methods (cell sorting and molecular tools for nucleic acid amplification and high throughput sequencing), bioinformatic techniques (genome and transcriptome assembly and functional gene annotations), and will work on scientific questions in the fields of microbial ecology and evolution in order to investigate microeukaryotes in unparalleled detail. The **training structure** is a central part of SINGEK project and will include: **local and network-wide activities, secondments to other network laboratories and workshops in transferable skills** essential for successful career development.

All positions are for **3-years contracts** starting in **October 1<sup>st</sup>, 2016**, most of them leading to a PhD degree. Specific conditions may apply to individual positions depending on local regulations.

Top-level graduates in biology, bioinformatics, microbial ecology, molecular biology, evolutionary biology, biodiversity, biotechnology, physics, nanoscience, engineering or computer science are encouraged to apply. No discrimination will be made on the basis of nationality, gender, race, religion or disability.

H2020 EU funding imposes strict **eligibility criteria**: At the time of recruitment the researcher must not have resided or carried out his/her main activity (work, studies, etc...) in the country of the host institute for more than 12 months in the 3 years immediately prior to his/her recruitment under the project. The researcher should also be in the first four years of their research careers at the time of recruitment by the host organisation and have not been awarded a doctoral degree.

Candidates may apply through the **SINGEK applications system** ([www.singek.eu/call-for-positions/](http://www.singek.eu/call-for-positions/)), which will request the following information:

1. An application form, including a CV overview, ESRs' positions of interest (up to 3), and a statement of their motivation for applying.
2. A full CV.
3. An academic record, with a scan of the degree qualifications.
4. Two recommendation letters.

Each project supervisor will revise the candidates' documentation and, on the basis of the completeness and adequacy of the requested material and quick eligibility check, will score candidates based on: (1) academic profile; (2) personal motivation; (3) scientific skills and relevant experience; and (4) English proficiency. Shortlisted candidates will be invited to teleconference interviews with the relevant project supervisor(s).

Application deadline: 17:00 GMT on the **15th April 2016**

More information: [www.singek.eu](http://www.singek.eu)

Candidates are invited to contact potential supervisors to get more details.

### **List of 15 ESR projects**

**ESR 1 - Genome basis for ecological differentiation among related uncultured lineages**

Supervisor: Ramon Massana

Host institution: Institute of Marine Sciences (ICM-CSIC), Barcelona, Spain

**ESR 2 - Next steps towards systems biology: disentangling complex ecological networks in marine microbes**

Supervisor: Ramiro Logares

Host institution: Institute of Marine Sciences (ICM-CSIC), Barcelona, Spain

**ESR 3 - Uncultured opisthokonts and the origin of metazoan multicellularity**

Supervisor: Iñaki Ruiz-Trillo

Host institution: Institute of Evolutionary Biology (CSIC-UPF), Barcelona, Spain

**ESR 4 - Single cell transcriptomics for ecological and metabolic niche-mapping of uncultured microeukaryotes**

Supervisor: Stefan Bertilsson

Host institution: Uppsala University (UU), Uppsala, Sweden

**ESR 5 - Disentangling the origin of eukaryotes using phylogenomics and comparative genomics approaches**

Supervisor: Thijs Ettema

Host institution: Uppsala University (UU), Uppsala, Sweden

**ESR 6 - Development of methodology for single cell organism genome analysis**

Supervisor: Ivo Gut

Host institution: National Centre for Genomic Analysis (CNAG-CRG), Barcelona, Spain

**ESR 7 - Deep eukaryotic phylogenomics**

Supervisor: Purificación López-García

Host institution: Unité Ecologie Systematique Evolution (Univ. Paris-Sud-CNRS-AgroParisTech), Paris, France

**ESR 8 - Exploring the global ocean biological dark matter using single eukaryotic cell genomics & transcriptomics applied to world meta-omics datasets**

Supervisor: Colomban de Vargas

Host institution: Station Biologique de Roscoff (SBR-CNRS), Roscoff, France

**ESR 9 - Genomic insights into green microalgae and their interactions with viruses and bacteria**

Supervisor: Gwenael Piganeau

Host institution: Observatoire Oceanologique de Banyuls sur mer (OBS Banyuls-CNRS), Banyuls, France

**ESR 10 - New tools for genome annotation in unknown microeukaryote lineages**

Supervisor: Klaas Vandepoele

Host institution: Ghent University (VIB), Ghent, Belgium

**ESR 11 - Genomics of novel uncultured parasites**

Supervisor: Thomas Richards

Host institution: University of Exeter (UNEXE), Exeter, UK

**ESR 12 - Novel microfluidics for the study of previously uncultured microeukaryotes**

Supervisor: Stefano Pagliara

Host institution: University of Exeter (UNEXE), Exeter, UK

**ESR 13 - Next-Generation microbial population genetics using single-cell genomics**

Supervisor: Karin Rengefors

Host institution: Lund University (LU), Lund, Sweden

**ESR 14 - Single cell genomic analysis of eukaryotic microbes associated with bloodfeeding arthropods**

Supervisor: Alistair Darby

Host institution: University of Liverpool (UOL), Liverpool, UK

**ESR 15 - Development of a bioinformatics software suite for single cell genomics data analysis**

Supervisor: Albert Mascarell

Host institution: aScidea, Barcelona, Spain