

PRESS RELEASE

Barcelona, September 2015

OPATHY: Development of new omics-based diagnostic tools to better manage yeast infections in humans

- **OPATHY is a new European training network aimed to developing new diagnostic tools to study and manage human yeast infections. To this end, OPATHY members are recruiting now 13 PhD candidates (Early Stage Researchers)**
- **The network is coordinated by the Centre for Genomic Regulation (CRG) in Barcelona, Spain, and brings together five universities, four companies and three research organisations, including two clinical centres**

Yeasts are unicellular microorganisms classified within the Fungi kingdom. They are well known for their use in baking, winemaking and beer brewing fermentation, but some species of yeast are opportunistic pathogens that can cause infections in humans. *“Today, yeast infections are poorly understood, difficult to diagnose, and are becoming increasingly frequent and serious, affecting over 300 million people worldwide. Fungal infections kill as many people as Malaria does every year, and are a problem of growing concern for patients with a debilitated immune system such as those with cancer or HIV,”* Toni Gabaldón states, coordinator of the OPATHY network and *“Some of the most urgent problems come from an increase in resistance to anti-fungal drugs and from the lack of fast and efficient diagnostic tools to determine appropriate treatments. Early detection of the species underlying the infection is key for a successful treatment. Researchers at this international training network will endeavour to find innovative ways of doing this in a faster and more accurate manner,”* Gabaldón explains.

The European Innovation Training Network “OPATHY” plans to create a new paradigm for the management of yeast infections. The immediate goal is to rapidly and accurately diagnose yeast diseases by means of innovative omics that will result in improved treatment strategies. OPATHY will explore the potential of next-generation high-throughput technologies, including genomics, transcriptomics and proteomics, to study the interactions of infectious yeasts (e.g. *Candida* and *Cryptococcus* sp.) with our body, and to develop new diagnostic tools to monitor yeast infections in the clinic.

The OPATHY Project, awarded with more than 3 million Euros, is a Marie-Skłodowska-Curie Innovative Training Network funded by the European Commission under the H2020 Framework Program. The project brings together researchers in Spain, the Netherlands, Ireland, Germany, Austria, United Kingdom and Belgium including both academic and private sector partners. After the official kick-off meeting the past 3rd of September at CRG, OPATHY opens today a call to recruit 13 PhD students for the different laboratories of the network. *“We brought together the main experts in diverse fields, from technology developers to researchers and medical doctors in the clinic. This setting prompts to innovation and translation of basic research to practical solutions in the clinic. A really inspiring and rewarding environment to be trained in as a scientist of the future,”* Toni declares, who is an ICREA research professor and principal investigator at the Centre for Genomic Regulation (CRG) in Barcelona (Spain). [link to the webpage](#).



The selected students will obtain multidisciplinary theoretical and practical advanced training in the areas of high-throughput post-genomics technologies, host-pathogen interactions, and molecular diagnosis of yeast infectious diseases, working at the interface of the academic labs, the industry and the clinic. The final aim is to train the future generation of research leaders capable of performing outstanding translational and innovative research by devising original scientific and clinical strategies based on state-of-the-art technologies. To achieve this objective, the trainees will work on individual research projects that will be collaborative and integrated in the overall OPATHY interdisciplinary research. Overall, the well-balanced, multi-sectorial and multidisciplinary OPATHY network will provide a vibrant and stimulating research and training environment.

OPATHY partners:

Academic

- Centre for Genomic Regulation, Spain – www.crg.eu
- CBS Fungal Biodiversity Centre, Netherlands - www.cbs.knaw.nl
- University College Dublin, Ireland - www.ucd.ie
- University of Aberdeen, United Kingdom - www.abdn.ac.uk
- Hans Knoell Institute Jena, Germany - www.leibniz-hki.de
- Innsbruck Medical University, Austria - www.i-med.ac.at
- University Ghent, Belgium - www.ugent.be
- Maastricht University, Netherlands (associated partner) - www.maastrichtuniversity.nl

Companies

- Biotechvana SL, Spain - www.biotechvana.com
- Bruker Daltonik GmbH, Germany - www.bruker.com
- QVQ, Netherlands - www.qvquality.com
- Illumina, United Kingdom (associated partner) - www.illumina.com

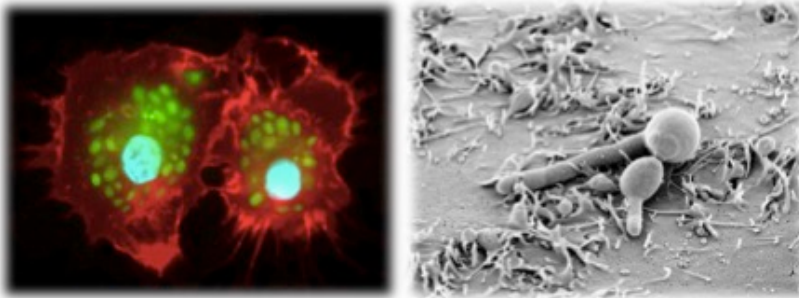
Website: www.opathy.eu

NOTES TO THE EDITORS

- **Funding:**

Call: H2020-MSCA-ITN-2014
Project ID: 642095
Budget: 3,319,305.84€
Runtime: 01.09.2015-31.08.2019

- **Images and multimedia resources:**



Caption: If the human immune system is weakened, harmless yeasts can have lethal effects. The fungi *Candida glabrata* (left) and *Candida tropicalis* (right) infect human tissue (Scanning electron micrographs).

Source: Hans Knöll Institute Jena, Germany

- **For further information:**

Laia Cendrós, Press Officer, Centre for Genomic Regulation (CRG)
Email: laia.cendros@crg.eu - Ph. +3493 3160237 – Cell ph, +34 607611798