This newsletter aims to keep you updated about the latest activities of the European Training Network "OPATHY". It will appear every 3 months. **To subscribe to the newsletter please click here.** You can unsubscribe from the newsletter at the bottom of the page.



# From Omics to Patient: Improving Diagnostics of Pathogenic Yeasts

Newsletter 03/2018

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### **OPATHY 3rd annual meeting and summer school on applied bioinformatics in Valencia, Spain**

The third OPATHY annual meeting and summer school took place from 26th of August to 1st of September 2018 at the University of Valencia Science Park, in Paterna, Spain and was organised by the OPATHY project partner Biotechvana. With a focus on applied bioinformatics and post-genomics techniques for clinical omics, ESRs received intense theoretical and practical training in varous aspects of bioinformatic analyses, e.g. in using the GPRO software suite that was developed at Biotechvana. Lectures of the summer school furthermore comprised ethical aspects of the use of human and animal samples in clinical research as well as good practice in scientific publishing. One social activity highlight was a Paella cooking competetion, with mixed teams of ESRs and superviors. See <a href="here">here</a> some Twitter moments.

Read more about the summer school



## Three ESR presentations during ISHAM 2018 Congress

The International Society for Human and Animal Mycology (ISHAM) is a world wide organization that represents all clinical scientists and fundamental researchers with interest in fungal diseases and fungus-like infections. During the 20th ISHAM Congress, which took place from 30 June - 4 July 2018 in Amsterdam RAI, the Netherlands, participants had opportunity to uncover the most recent advancements in Biology, Genetics, Animals, Mycology, Human, Microorganism, Mycobacterial Diseases and Fungal Diseases at this essential Congress. OPATHY ESRs Marina Pekmezovic (HKI, Germany), Mansoureh Vatanshenassan (Bruker, Germany) and Aimi Stavrou (Westerdijk Fungal Biodiversity Institute) had the opportunity to present their work during oral and poster presentations.



#### New OPATHY network poster

In a joint initiative, OPATHY ESRs designed a new network poster, which summarizes in way an the illustrative project's overall research areas, the main aims, as well as an overview of the locations of all 13 ESRs. The poster was presented to the whole consortium for the first time during the annual meetina/ summer school in Valencia.

See the poster here



## Talk during ifs 2018

Elise Iracane, ESR at University College Dublin (UCD), Ireland, gave a talk during the Irish Fungal Society (IFS) Annual Conference 2018, which took place on 18th and 19th of June at Maynooth University, Ireland. Also OPATHY supervisor Bernhard Hube (HKI, Jena, Germany) was invited as speaker.

Learn more about ifs



#### **Book chapter**

OPATHY coordinator Toni Gabaldón and ESR Hrant Hovhannisyan published the chapter "Transcriptome Sequencing Approaches to Elucidate Host-Microbe Interactions in Opportunistic Human Fungal Pathogens" as part of the Current Topics in Microbiology and Immunology book series.

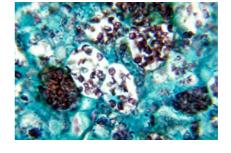
Read more

### Nucleic Acids Research

# Generating Genomic platforms to study *C. albicans* pathogenesis

OPATHY supervisor Carol Munroe (University of Aberdeen, Scotland) was co-author in this recent Nucleic Acids Research publication, which provides novel, genome-scale tools for the study of Candida albicans, a commensal yeast that is also responsible for frequent superficial and disseminated infections in humans. The advent of the genomic era has made elucidating gene function on a large scale a pressing challenge. ORFeome collections, whereby almost all ORFs of a given species are cloned and can be subsequently leveraged in multiple functional genomic approaches, represent valuable resources toward this endeavor.

Read the publication



#### Did you know: Histoplasmosis dethrones tuberculosis in Latin America

Histoplasmosis (also known as "Cave disease") is a disease caused by the fungus *Histoplasma capsulatum.* Symptoms of this infection vary greatly, but the disease affects primarily the lungs. A new study showed that the mortality and incidence rates associated with histoplasmosis were equivalent if not superior to tuberculosis in patients with AIDS in Latin America.

Read more about the study



See the video about Amir's project

#### **Outlook**



#### **Engagement in European Researchers' Night 2018**

The European Researchers' Night is an open event that takes place every year simultaneously in several hundred cities all over Europe with the main aim to bring science and scientists closer to the general public. At the next event on 28th of September 2018 several OPATHY project partners will present the network and its research during activities in Barcelona and Aberdeen. In Barcelona, OPATHY ESR Veroncia Mixao, coordinator Toni Gabaldón and and project manager Jonas Krebs are involved in the activity "Who is Who in European Science?" a joint effort of in total seven ITNs being coordinated in different research centers in Barcelona. In Aberdeen, ESR Giuseppe Buda de Cesare and supervisor Carol Munroe present their research during the Explorathon, a joint Initiative of the Universities of Aberdeen, Glasgow, Edinburgh and St Andrews.

Read more

#### Have a look at our latest scientific publications

Arastehfar, A., Fang, W., Badali, H., Vaezi, A., Jiang, W., Liao, W., Pan, W., Hagen, F. & Boekhout, T. Low-Cost Tetraplex PCR for the Global Spreading Multi-Drug Resistant Fungus, Candida auris and Its Phylogenetic Relatives. Front Microbiol9, 1119, doi:10.3389/fmicb.2018.01119 (2018).

Savic, N. D., Vojnovic, S., Glisic, B. D., Crochet, A., Pavic, A., Janjic, G. V., <u>Pekmezovic, M.,</u> Opsenica, I. M., Fromm, K. M., Nikodinovic-Runic, J. & Djuran, M. I. *Mononuclear silver(I) complexes with 1,7-phenanthroline as potent inhibitors of Candida growth.* Eur J Med Chem156, 760-773, doi:10.1016/j.ejmech.2018.07.049 (2018).

<u>Vatanshenassan, M.</u>, Boekhout, T., Lass-Florl, C., Lackner, M., Schubert, S., Kostrzewa, M. & Sparbier, K. *Proof of Concept for MBT ASTRA, a Rapid Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry (MALDI-TOF MS)-Based Method To Detect Caspofungin Resistance in Candida albicans and Candida glabrata. J Clin Microbiol56, doi:10.1128/JCM.00420-18 (2018).* 

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Sklodowska-Curie grant agreement No 642095

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