



XX JORNADAS DE BIOLOGIA DE
LEVEDURAS
“PROFESSOR NICOLAU VAN UDEN”



Comissão Organizadora

Isabel Sá-Correia, IBB, IST/UL

Miguel Cacho Teixeira, IBB, IST/UL

Nuno Pereira Mira, IBB, IST/UL

Margarida Palma, IBB, IST/UL

Rogério Tenreiro, BioFIG, FC/UL

Pedro Tiago Monteiro, INESC-ID

PROGRAMA CIENTÍFICO:

11:00 Sessão de Abertura

Presidente do IST, Presidente do IBB, Isabel Sá-Correia (Comissão Organizadora e Presidente SPM), *Álvaro Fonseca* (Comissão Organizadora das XIX Jornadas Van Uden)

Conferência “Professor Nicolau Van Uden”

Chair: Pedro Moradas Ferreira

11:30 **Cross-talk between sphingolipid and nutrient signaling pathways: new clues to old yeast**, Vitor Costa, IBMC and ICBAS, Universidade do Porto

Session I – Yeast Physiology and Genetics

(supported by SPM working groups: Fisiologia Microbiana and Microbiologia Celular e Molecular)

Chairs: Helena Santos, Fernando Rodrigues, Maria João Sousa

14:00 **Functional characterization of putative PIPs and TIPs aquaporins of *Vitis vinifera* through heterologous expression in aqy-null *Saccharomyces cerevisiae***, Farzana Sabir, CBAA, Instituto Superior de Agronomia

14:15 **Cell wall dynamics modulate acetic acid-induced apoptotic cell death of *Saccharomyces cerevisiae***, Susana R. Chaves, Centre of Molecular and Environmental Biology, University of Minho

14:30 **Study of the intracellular trafficking of the *Saccharomyces cerevisiae* lactate transporter Jen1 using domain swap experiments**, Gabriel Talaia, Centre of Molecular and Environmental Biology (CBMA), University of Minho

14:40 **Cell-cell interactions in yeast cultures at high cell density: role of the *Saccharomyces cerevisiae* cell-wall associated protein GAPDH and physiological alterations induced in sensitive yeast cells**, Patrícia Branco, Unidade Bioenergia, LNEG

14:50 **Ammonium toxicity in prototrophic aging yeast cells**, Júlia Santos, ICVS/3B's

15:00 **Screening for new Ffz-like hexose transporters in yeasts and correlation with strain fructophilic/glucophilic behavior**, Sara Cabral, CBAA, Instituto Superior de Agronomia

15:10 **Pesticide toxicity and iron homeostasis in *Saccharomyces cerevisiae*: the case of the priority active substancealachlor**, Fátima N Gil, IBB, Instituto Superior Técnico

15:20 **Ubiquitin ligase Ufd2 is required for Yap8 stabilization upon arsenic stress**, Rita T. Ferreira, Stress and Genomics Laboratory, ITQB

16:00 Poster Sessions I and II

Chairs: José Peinado, Arlete Mendes-Faia

Session II – Yeasts and Bioenergy, Food and Environmental Biotechnology

(supported by SPM working groups: Biotecnologia microbiana and Controlo de Qualidade Microbiológica)

Chairs: Francisco Gírio, Alexandra Mendes Ferreira, Manuel Malfeito Ferreira

17:00 ***Saccharomyces cerevisiae* as a pivotal tool for the functional characterization of plant membrane transporters**, Paula Duque, Instituto Gulbenkian Ciência.

17:15 **Third generation biofuels and high value added products from the yeast *Rhodospodium toruloides* NCYC 921: A possible approach for reducing the current fossil oil dependence**, [Sofia Sousa](#), Laboratório Nacional de Energia e Geologia

17:30 **Physiological stress response of the yeast *Rhodospodium toruloides* to pH changes grown on batch cultures for lipids and carotenoids production**, [Carla Dias](#), Laboratório Nacional de Energia e Geologia

17:40 **New insights of yeast H⁺ homeostasis: intracellular pH assessed by Fluorescence Ratio Imaging Microscopy (FRIM) in cells collected during wine fermentation**, [Tiago Viana](#), CBAA, Instituto Superior de Agronomia

17:50 **The effect of chitosan in viability of *Brettanomyces bruxellensis* and 4-ethylphenol production in wines**, [Miguel T Fernandes](#), Instituto Superior de Agronomia

18:00 **The effect of wine composition on *Brettanomyces bruxellensis* growth and volatile phenol production**, [Mahesh Chandra](#), Centro de Botânica Aplicada à Agricultura (CBAA), Instituto Superior de Agronomia

18:10 **Isolation of lipase-producing yeasts from olive mill wastewater**, [Vera Salgado](#), LNEG – Unidade de Bioenergia

18:20 **Pseudozyma yeasts as microbial cell factories for lignocellulosic biorefineries**, [Nuno T Faria](#), IBB, Instituto Superior Técnico, and LNEG

18:30 **Acetic acid resistance in *Saccharomyces cerevisiae*: role of the ABC transporter Pdr18, proposed to mediate plasma membrane sterol incorporation**, [Cláudia Godinho](#), IBB, Instituto Superior Técnico

Session III – Yeast Diversity and Evolution

(supported by SPM working group: Leveduras e Fungos Filamentosos)

Chairs: José Paulo Sampaio, Filomena Duarte

9:00 **Evolution of the mating type locus in tremellaceous yeasts: insights from comparative genomics**, [Álvaro Fonseca](#), Centro de Recursos Microbiológicos, FCT/UNL

9:15 **A common phylogenetic origin links the DHA2, ARN and GEX transporters: phylogenetic characterization and proposal of the new DAG protein family**, [Paulo Jorge Dias](#), IBB – Institute for Biotechnology and Bioengineering, Instituto Superior Técnico

9:30 **Elucidating the role of CUG mistranslation in *Debaryomyces hansenii* stress tolerance**, [Isabel M. Miranda](#), Department of Microbiology, Faculty of Medicine of the University of Porto

9:45 **Experimental evolution of chromosome structure in yeast**, [Lilia Perfeito](#), Instituto Gulbenkian de Ciência

10:00 **Global diversity and domestication in the wine and cider yeast *Saccharomyces uvarum***, [Carla Gonçalves](#), Centro de Recursos Microbiológicos, FCT-UNL

10:15 **Population genomics of *Saccharomyces cerevisiae* in Brazil**, [Raquel Barbosa](#), Centro de Recursos Microbiológicos, FCT-UNL

Session IV – Yeasts and Human Health

(supported by SPM working groups: Microbiologia e Saúde Pública and Infecção e Imunidade)

Chairs: Margarida Casal, Paula Ludovico, Isabel Miranda

11:00 **TLR9 activation dampens the early inflammatory response to *Paracoccidioides brasiliensis*, impacting host survival**, [João Filipe Menino](#), Life and Health Sciences Research Institute (ICVS), School of Health Sciences, University of Minho

11:15 **Phosphorylation modulates clearance of alpha-synuclein inclusions in a yeast model of Parkinson's disease.** Sandra Tenreiro, Instituto de Medicina Molecular

11:30 **Mechanistic insights into polyphenol-mediated protection against alpha-synuclein toxicity.** Diana Macedo, Instituto de Tecnologia Química e Biológica

11:40 **A selective activator of protein kinase Cdelta discovered using a yeast-based assay.** Cláudia Bessa, REQUIMTE, Laboratório de Microbiologia

11:50 **Role of *Candida glabrata* Drug:H⁺ Antiporters CgAqr1, CgQdr2 and CgTpo3 in antifungal drug resistance: from lab strains to clinical isolates.** Catarina Costa, IBB, Instituto Superior Técnico

12:00 **In Vitro Induced Resistance to Azoles, Echinocandins and Amphotericin B in *Candida glabrata*.** Ana Silva-Dias, Department of Microbiology, Faculty of Medicine, University of Porto

12:10 **Unveil of the resistance mechanisms induced by voriconazole in *Candida krusei*.** Elisabete Ricardo, Department of Microbiology, Faculty of Medicine, University of Porto

12:20 **The CgHaa1-dependent pathway mediates *Candida glabrata* response and tolerance to acetic acid thereby enhancing colonization of vaginal epithelium.** Ruben Bernardo, IBB, Instituto Superior Técnico

Session V – Yeast Functional Genomics and Bioinformatics

(supported by SPM working groups: Ómicas e Microbiologia Integrativa e de Sistemas)

Chairs: Claudina Rodrigues Pousada, Miguel Cacho Teixeira, Pedro Monteiro

14:00 **YEASTRACT-NET: extracting and visualizing transcription regulatory networks in *S. cerevisiae*.** Pedro T. Monteiro, INESC-ID

14:15 **Sequencing and annotation of the genome of the highly acetic acid-tolerant *Zygosaccharomyces bailii*-derived interspecies hybrid strain ISA1307.** Nuno P. Mira, IBB, Instituto Superior Técnico

14:30 **Screening for genes involved in the high acetic acid resistance of the *Zygosaccharomyces bailii*-derived interspecies hybrid strain ISA1307.** Margarida Palma, IBB, Instituto Superior Técnico

14:40 **Yeast protein expression profile during acetic acid-induced apoptosis in the highly resistant food spoilage *Zygosaccharomyces bailii* derived hybrid strain ISA1307.** Joana F. Guerreiro, IBB, Instituto Superior Técnico

14:50 **Role of Sit4p-dependent protein dephosphorylation in the regulation of mitochondrial function and yeast lifespan.** Andreia T. Pereira, IBMC

15:00 **Unveiling wine yeast performance combining phenotypic, metabolic and transcriptomic data.** Catarina Barbosa, IBB – Centre of Genomics and Biotechnology, Universidade de Trás-os-Montes e Alto Douro

15:10 **Genome-wide identification of *Saccharomyces cerevisiae* genes required for tolerance to sulphur dioxide.** Patrícia Lage, IBB – Centre of Genomics and Biotechnology, Universidade de Trás-os-Montes e Alto Douro

15:20 **Elucidating the role of *MRR1* transcription factor mutations in *C. parapsilosis* azole resistance.** Joana Branco, Department of Microbiology, Faculty of Medicine of the University of Porto

15:45 Poster Sessions III, IV and V

Chairs: Maria da Conceição Loureiro-Dias, Cecília Leão

Conferência “Jovem Investigador” – Tributo à Professora Isabel Spencer Martins

Chairs: Isabel Sá-Correia (Presidente da Sociedade Portuguesa de Microbiologia), *Manuela Côrte-Real*

17:00 **The emerging role of autophagy/mitophagy in α -synuclein-induced toxicity: studies on the yeast chronological aging model**, Belém Sampaio-Marques, Life and Health Sciences Research Institute (ICVS), Universidade do Minho

17:30 **Sessão de Encerramento** (inclui a entrega do prémio de melhor apresentação em poster, patrocinado pela STAB-VIDA)