



The program of the International Conference

“Non-conventional Yeasts: from Basic Research to Application”,

Rzeszow, Poland, May 15-18, 2018

(<http://nonconventionalyeasts2018.pl>)

May 15.

09.00 – 16.00 Registration

14.00 – 14.30 **Opening Ceremony**

Polish Ministry for Science and High Education; Rector of Rzeszow University,
Rzeszow city Mayor, Head of the International Commission on Yeasts; Head of the
Organizing Committee

14.30 – 15.30 Welcome Concert

15.30 – 17.45 Plenary Session:

Chairs: A. Sibirny (Poland/Ukraine), H. Takagi (Japan)

15.30 – 16.15 **Richard Rachubinski**, University of Alberta, Edmonton, Canada

Pex20p is the receptor for peroxisomal import of the non-PTS1, non-PTS2 acyl-CoA oxidases in *Yarrowia lipolytica*

16.15 – 17.00 **Julian Naglik**, King's College London, UK

Candidalysin is a fungal peptide toxin critical for infection

17.00 – 17.45 **Diethard Mattanovich**, Vienna University of Life Sciences, Austria

Biotechnology of *Pichia pastoris*: Taming a wild yeast

18.00 – 20.00 Get-together party

May 16.

08.30 – 09.30 Poster session

09.30 – 11.00 **Session: Genomics, Transcriptomics, Proteomics, and Systems Biology**

Chairs: D. Cavalieri (Italy), H.A. Kang (S. Korea)

09.30 – 09.50 **Duccio Cavalieri**, Florence University, Italy

The mycobiome: metagenomics approaches to study yeast-host interactions

09.50 – 10.10 **Hyun Ah Kang**, Chung-Ang University, Seoul, S. Korea

Reference genome analysis of amyolytic yeast species in the microbiome of fermented foods

10.10 – 10.30 **Karin Breunig**, Halle University, Germany

The response of *K. lactis* upon shifting to starvation conditions with a particular emphasis on *Snf1* signalling

10.30 - 10.40 **Patrick Fickers**, Liege University, Belgium

New inducible promoter for gene expression and synthetic biology in *Yarrowia lipolytica*

10.40 – 10.50 **Tomoyuki Nakagawa**, Gifu University, Japan

Regulation of methanol metabolism in the methylotrophic yeast *Pichia methanolica*

10.50 – 11.00 to be selected from abstracts

11.00 – 11.30 Coffee break

11.30 – 13.00 **Session: Taxonomy, Evolution and Ecology**

Chairs: P. Buzzini (Italy), K. Wolfe (Ireland)

11.30 – 12.00 **Gabor Peter**, Szent Istvan University, Budapest, Hungary

Cletus Kurzman Memorial Lecture: Systematics, diversity and ecology of some non-conventional yeasts: the *Yarrowia* clade and the methanol-assimilating yeasts

12.00 – 12.20 **Pietro Buzzini**, Perugia University, Italy

Biodiversity of yeasts and fungi in Antarctic ecosystems via next generation sequencing

12.20 – 12.40 **Kenneth Wolfe**, University College Dublin, Ireland

Evolutionary instability of CUG in the genetic code of budding yeasts

12.40 - 12.50 **Neza Cadez**, Ljubljana University, Slovenia

Phenotypic and genetic complexity of natural yeasts in artisanal cider fermentations

12.50 – 13.00 **Marizeth Groenewald**, Westerdijk University, Utrecht, The Netherlands

A Citizen Science project: yeast diversity in Dutch garden soil samples

13.00 – 14.30 Lunch

14.30 – 16.00 **Session: Sensing, Signaling, Stress Response and Membrane Transport**

Chairs: I. Sa-Correia (Portugal), J. Thevelein (Belgium)

14.30 – 14.50 **Isabel Sa-Correia**, Lisbon Technical University, Portugal

Global adaptive responses to acetic acid stress in the highly weak acid resistant spoilage yeast *Zygosaccharomyces bailii*

14.50 – 15.10 **Johan Thevelein**, Leuven University, Belgium

Can we use the high stress tolerance of certain non-conventional yeast species to improve stress tolerance in industrial yeast strains?

15.10 – 15.30 **Alexander Rapoport**, Riga University, Latvia

Anhydrobiosis in non-conventional yeasts

15.30 – 15.40 **Michael Agaphonov**, Center for Bioengineering, Moscow, Russia

Role of protein glycosylation in the regulation of phosphate uptake in *Ogataea polymorpha* and *O. parapolymorpha*

15.40 – 15.50 **Hiroya Yurimoto**, Kyoto University, Japan

Methanol-sensing machinery and signaling pathway in the methylotrophic yeast

15.50 – 16.00 **Rimantas Daugelavicius**, Vytautas Magnus University, Kaunas, Lithuania

Role of efflux in *Candida albicans* resistance to antimicrobials

16.00 – 16.30 Coffee break

16.30 – 18.00 **Session: Yeast Cell Biology**

Chairs: R. Erdmann (Germany), R. Rachubinski (Canada)

16.30 – 16.50 **Ralf Erdmann**, Ruhr University, Bochum, Germany

Biogenesis of peroxisomes: from yeast to man

- 16.50 – 17.10 **Hiromi Maekawa**, Kyushu University, Fukuoka, Japan
Regulation of spindle orientation and mitosis in *Ogataea polymorpha*
- 17.10 – 17.30 **Andriy Sibirny**, University of Rzeszow, Poland, Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv, Ukraine
Catabolite inactivation of cytosolic enzymes of methanol metabolism in *Komagataella phaffii* (*Pichia pastoris*) occurs in autophagy pathway
- 17.30 – 17.40 **Oleh Stasyk**, Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv, Ukraine
Glucose signaling in the methylotrophic yeast *Ogataea polymorpha*
- 17.40 – 17.50 **Uri Weil**, Weizmann Institute of Science, Rehovot, Israel
Exploring the yeast proteome using a whole genome SWAP-TAG (SWAT) library
- 17.50 – 18.00 to be selected from abstracts
- 18.00 – 18.30 Presentations of sponsoring companies
- 18.30 – 19.00 **Round Table “Teaching in Microbiology”**
Chairs: M. Sauer (Austria), M. Wnuk (Poland)
- 18.30 – 20.00 Poster session

May 17.

- 08.30 – 09.30 Poster session**
- 09.30 – 11.00 **Session: Yeast Biochemistry, Physiology and Genetics**
Chairs: P. Fickers (Belgium), V. Passoth (Sweden)
- 09.30 – 09.50 **Hiroshi Takagi**, Nara Research Institute for Science and Technology, Japan
Cysteine and sulfur metabolism found in *Saccharomyces cerevisiae* and *Ogataea polymorpha*
- 09.50 – 10.10 **Tiina Alamae**, Tartu University, Estonia
***MAL* loci of nonconventional yeasts**
- 10.10 – 10.30 **Tomas Linder**, Swedish Agricultural University, Uppsala, Sweden
Strength in numbers - comparative genomics as a tool for the characterization of yeast metabolic pathways

10.30 – 10.40 **Justyna Ruchala**, University of Rzeszow, Poland

Peroxisomes are important for xylose alcoholic fermentation in *Ogataea polymorpha*

10.40 – 10.50 **Olena Kurylenko**, Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv, Ukraine

Role of oxidative and non-oxidative parts of pentose phosphate pathway in xylose alcoholic fermentation in *Ogataea polymorpha*

10.50 – 11.00 **Teresa Zoladek**, Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warsaw, Poland

Genetic and chemical suppressors of *vps13Δ* mutation

11.00 – 11.30 Coffee break

11.30 – 13.00 **Session: Yeasts for Food, Chemicals and Heterologous Proteins**

Chairs: I. Borodina (Denmark), D. Mattanovich (Austria)

11.30 – 11.50 **Irina Borodina**, Novo Nordisk, Lyngby, Denmark

Engineering oleaginous yeast *Yarrowia lipolytica* for production of fine chemicals

11.50 – 12.10 **Kostyantyn Dmytruk**, Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv, Ukraine

Riboflavin oversynthesis in the flavinogenic yeast *Candida famata*

12.10 – 12.30 **Adam Dobrowolski**, Wroclaw University of Environmental and Life Sciences, Poland

Production of lipids by *Yarrowia lipolytica* from waste materials

12.30 – 12.40 **Aleksandra Mironczuk**, Wroclaw University of Environmental and Life Sciences, Poland

Erythritol metabolism in yeast *Yarrowia lipolytica*

12.40 – 12.50 **Marta Semkiv**, Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv, Ukraine

Glycerol synthesis and bioconversion in conventional versus non-conventional yeasts

12.50 – 13.00 **Ewelina Celinska**, Poznan Univeristy of Life Sciences, Poland

New secretory tags for protein secretion in *Yarrowia lipolytica*

13.00 - 14.30 Lunch; meeting of the International Commission on Yeasts

15.00 – 18.00 Rzeszow city tour

19.00 – 23.00 Banquet

May 18

09.00 – 10.30 **Session: Non-conventional Yeasts for Biofuels**

Chairs: C. Abbas (USA), A. Kondo (Japan)

09.00 – 09.20 **Charles Abbas**, University of Illinois, Urbana-Champaign, USA

High value-added yeast products from biorefining

09.20 – 09.40 **Akihiko Kondo**, Kobe University, Japan

Metabolic engineering of conventional and non-conventional yeasts for the production of biofuels

09.40 – 10.00 **Marie-Francois Gorwa-Grauslund**, Lund University, Sweden

***Saccharomyces cerevisiae* for 2G bioethanol production: lessons from NCY**

10.00 – 10.15 **Volkmar Passoth**, Swedish Agricultural University, Uppsala, Sweden

Yeast lipids from lignocellulose and crude glycerol for biodiesel and animal feed

10.15 – 10.30 **Joao R.M. de Almeida**, Embrapa, Brasília, Brazil

Genome, physiology and genetic improvement of new yeast strains for fuels and chemicals production

10.30 – 11.00 Coffee break

11.00 – 12.30 **Session: Tools, Host Design, Analytical and Other Applications**

Chairs: M. Gonchar (Ukraine), D. Rauhut (Germany)

11.00 – 11.20 **Rinji Akada**, Yamaguchi University, Ube, Japan

Red fluorescent protein as a marker for protein production and genetic engineering in yeasts

11.20 – 11.40 **Doris Rauhut**, Geisenheim University, Germany

Formation of volatile sulfur-compounds by *non-Saccharomyces* yeasts during wine production

11.40 – 12.00 **Huseyin Erten**, Cukurova University, Adana, Turkey

Single cell oil and citric acid production using *Yarrowia lipolytica* strain K57

12.00 – 12.10 **Nitnipa Soontorngun**, King Mongkut's University of Technology, Thonburi, Thailand

Antifungal property and inhibitory mechanism of 19,20-epoxycytochalasin Q isolated from *Xylaria* sp. extract

12.10 – 12.20 **Mykhailo Gonchar**, Institute of Cell Biology, National Academy of Sciences of Ukraine, Lviv, Ukraine

Alcohol oxidase from the yeast *Ogataea polymorpha* coupled with an artificial peroxidase, Pt/Ru nanoparticles, as a biosensing element

12.20 – 12.30 to be selected from abstracts

12.30 – 14.00 Lunch

14.00 – 15.45 Plenary Session

Chairs: A. Sibirny (Poland/Ukraine), H. Takagi (Japan)

14.00 – 14.45 **Jean-Marc Nicaud**, MICALIS Institute INRA, Jouy-en-Josas, France

Engineering usual and unusual lipid production in *Yarrowia lipolytica* and new tools for system biology approach for genetic engineering in this yeast

14.45 – 15.15 Best poster presentations

15.15 – 15.30 Best poster awards

13.30 – 15.45 **Conference closing ceremony**