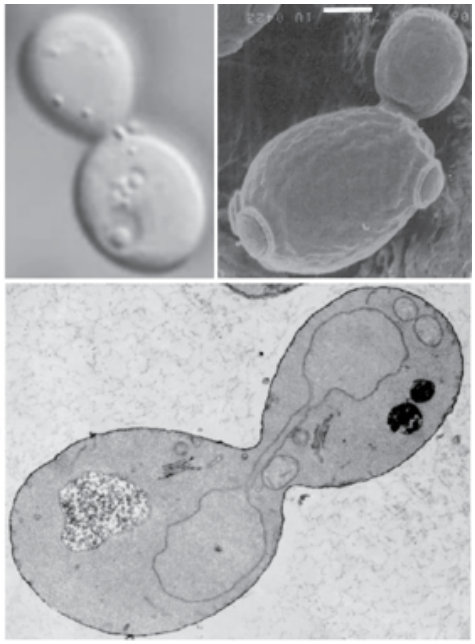


# Small Meeting on Yeast Transport and Energetics
# - SMYTE 2025 -

## September 3-7, Stockholm

**Exciting science at the forefront!**

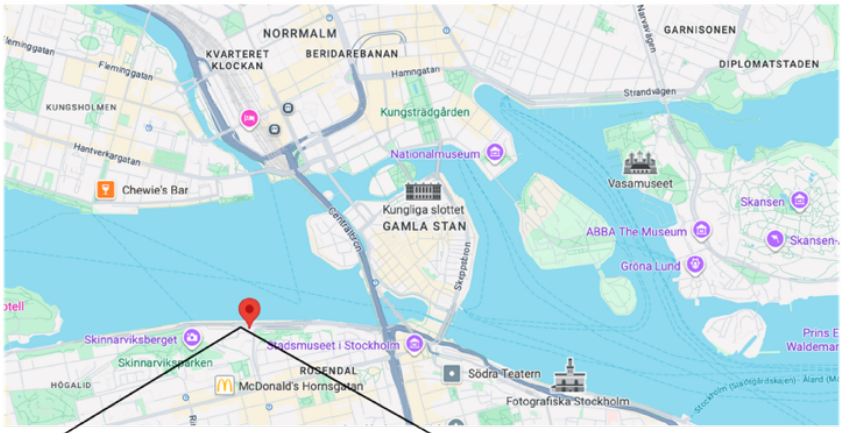
**Impact the Future!**

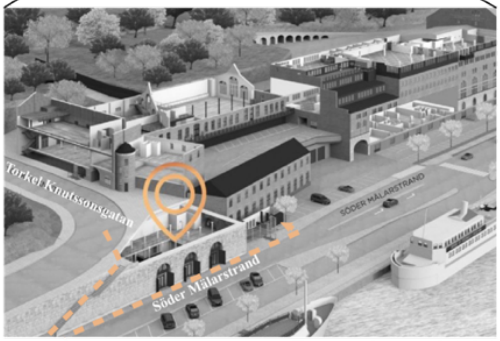
**Celebrate four decades of success!**

# Program

# 40th SMYTE - Venue

**Münchenbryggeriet**




**Magasinet, Söder Mälarstrand 25**


ENTRÉ MAGASINET

The red line subway stop "**Mariatorget**" is closest to Münchenbryggeriet (Munich Brewery). Choose the exit which reads "Torkel Knutssonsgatan" and "Polishuset". When exiting the subway station, turn right and follow Torkel Knutssonsgatan approx. 400 meters.

Magasinet is down the stairs by the waterfront on Söder Mälarstrand 25

**Directions: Google**

## Sponsors

SciLifeLab

Stockholms universitet

Department of Molecular Biosciences,
The Wenner-Gren Institute

Department of Biochemistry and Biophysics

INTERNATIONAL UNION OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

## Patron

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Special thanks to:
Monica Gunnarson
Helena Palmér

Akademikonferens

## Day 1 Wednesday 3 September 2025

**14:00 - 16:00** **Registration**

Magasinet, Münchenbrggeriet (Munich Brewery), Södermälarstrand 25

**16:00 - 16:15** **Welcome**

Meeting venue: Magasinet, Münchenbrggeriet

Per O. Ljungdahl, David Drew

**16:15 - 17:45** **Session I - Structure and Evolution of Transport Systems**

Chair: Sofia Dimou

16:15-16:45 David Drew
**1.** *Stepwise ATP translocation into the endoplasmic reticulum by human SLC35B1*

16:45-17:15 Simon Newstead
**2.** *Structural basis for pH-regulated amino acid transport via SLC7A4*

17:15-17:45 Jo Parker
**3.** *Targeting nucleotide sugar transport in pathogenic fungi*

**17:45 - 18:15** **Refreshments**

**18:15 - 19:30** **Keynote - Nicolau van Uden Lecture**
**Edmund Kunji**

18:15 – 18:30 Introduction:
Catrina Prista and David Drew

18:30 – 19:30 Edmund Kunji
*The peculiar properties of SLC25 mitochondrial carriers*

**19:30 - 21:30** **Reception - Light Dinner**

20:30 **Special Presentation - Morten Kielland-Brandt**
*Impact of Breweries in Yeast Research*

**Presenters in Blue text are Young Investigators;**
*** Talks selected from Poster Abstracts**

## Day 2 Thursday 4 September 2025

**09:00 – 11:00** **Session II - Dynamic Regulation of Membrane Transport**

Chair: David Drew

09:00-09:30 Louis Opfergelt
**4.** *Study of the link between calcium, manganese and protein glycosylation inthe Golgi apparatus*

09:30-10:00 Celia Alonso Martin
**5.** *An unconventional Golgi degradation pathway revealed by Rsp5-dependentubiquitylation*

10:00-10:30 Morten C. Kielland-Brandt
**6.** *Mapping of gain-of-function SSY1 mutations onto Phyre2 and AF models suggests signaling states of amino acid receptor Ssy1 to be inward facing*

10:30-11:00 Bert Poolman
**7.** *Synthetic, out-of-equilibrium cell-like systems for directing reaction networks and maintaining homeostasis*

**11:00 - 11:30** **Coffee and Refreshments**

**11:30 - 13:30** **Session III - Cell Biology of Cell Surface Transport**

Chair: Bruno André

11:30-12:00 Dan Zhang
**8.** *Ca2+-dependent vesicular and non-vesicular lipid transfer controls hypoosmotic plasma membrane expansion*

12:00-12:30 Christos Gournas
**9.** *Eisosomes at the intersection of ferroptosis, phospholipid remodeling and fatty acid beta-oxidation during quiescence*

12:30-13:00 Roland Wedlich-Söldner
**10.** *Adaptation of plasma membrane domains to metabolic stress*

13:00-13:30 Rim Baccouch
**11.** *Restoring azole sensitivity in Drug-Resistant Candida through Cdr1 pump Inhibition*

**13:30 - 15:00** **Lunch and Posters**

**15:00 – 16:00** **Career Development Lecture - Terrance Cooper**
*How to think about and pursue successful research*
*- Cliffnotes for Graduate Students and Post-Docs*

**16:00 – 16:30** **Coffee and Refreshments**

**16:30 - 18:00** **Session IV - Homeostasis**

Chair: José Ramos

16:30-17:00 Joaquin Ariño
**12.** *Dissecting the signaling pathways involved in the transcriptional response to high pH in Komagataella phaffii*

17:00-17:15 Kevin Joseph Dilip*
**13.** *Visualizing Sterol Uptake in Yeast using Clickable Cholesterol-Imidazolium Probes*

17:15-17:30 Amy Milburn*
**14.** *Utilising yeast to investigate the role of transporters in mechanistic and physiological effects induced by toxic Maillard reaction products*

17:30-18:00 Christiane Peuckert
**15.** *Intravital Microscopy to investigate initial events of systemic Candida infection in the kidney*

**18:00 – 18:15** **Break**

**18:15 - 19:30** **Spotlight Seminar – Karl Kuchler**

18:15 – 18:30 Introduction: Scott Moye-Rowley

18:30 – 19:30 Karl Kuchler
*Multidrug Resistance in Fungal Pathogen - From Transport to Metabolism*

**20:00 - 22:00** **Dinner – Restaurant Mynchen**

**Special Anniversary Presentation – Milan Höfer**
21:00 – 21:10 Introduction Per Ljungdahl

21:10-21:40 Milan Höfer
*40 yrs of SMYTE Magic*

## Day 3 Friday 5 September 2025

**09:00 - 11:00** **Session V - Transport Processes Linked to Fungal Virulence**

Chair: Sandra Paiva

09:00-09:30 Gerostathis Spiros
**16.** *Copper-chelated Hyperbranched Polyethyleneimines as antifungal agents against Aspergillus nidulans fungal cells with low human cytotoxicity*

09:30-10:00 Scott Moye-Rowley
**17.** *Genetic analysis of azole resistance pathways in Aspergillus fumigatus*

10:00-10:30 Miguel Teixeira
**18.** *Role, distribution and regulation of hexose transporters in azole drug resistant pathogenic yeasts*

10:30-11:00 Adnane Sellam
**19.** *Met32 governs transcriptional control of sulfur metabolism and resistance to reactive sulfur species in the human fungal pathogen Candida albicans*

**11:00 - 11:30** **Coffee – Refreshments**

**11:30 - 13:30** **Session VI - Transport at Intracellular Membranes**

Chair: Sabrina Büttner

11:30-12:00 IUBMB Plenary Lecture - George Diallinas
**20.** *Cargo-centric membrane trafficking: insights from genetics, microscopy and high-resolution structures of the UapA purine transporter*

12:00-12:30 Olga Zimmermannová
**21.** *The requirement of cornichon COPII cargo receptors for the plasma-membrane targeting of Na+/H+ antiporters is conserved from yeast to human*

12:30-13:00 Sofie Dimou
**22.** *Development of a translational arrest peptide-based system to probe co-translational interactions of an ER-integral chaperone in yeast*

13:00-13:30 Bruno André
**23.** *Redox homeostasis in the yeast vacuole: influence of iron and antioxidants*

**13:30 - 14:30** **Lunch**

**14:30 - 21:00** **Free Afternoon and Evening - Explore Stockholm**

**Suggestion: Vasa Museum – Guided Tour starts at 15:00**


**Those who want to visit this unique museum can make their way together in time to purchase entry tickets (230 kr). Two guides will be waiting for our group at 15:00.**

**We will depart from the Münchenbryggeriet at 14:10 and make our way to the Djurgården Ferry for a short boat ride to the museum.**

**Highly recommended – very impressive will be a memorable experience!**

## Day 4 Saturday 6 September 2025

**09:00 - 11:00** **Session VII - Cell Biology of Intracellular Membrane Processes**

Chair: Dan Zhang

09:00-09:15 Melody Cools*
**24.** *Vsb1, Ypq1 and Ypq2 control highly dynamic cationic amino acid storage in the yeast vacuole*

09:15-09:30 Dekai Dong*
**25.** *Turnover and lateral distribution of membrane transporters in the yeast plasma membrane*

09:30-10:00 Sabrina Büttner
**26.** *Vacuolar lipid droplet consumption: lipophagy meets lipolysis*

10:00-10:30 Emma Block
**27.** *Endoplasmic Reticulum-stress triggered micro-lipophagy in yeast*

10:30-11:00 Chris McDonald
**28.** *Mechanisms of A/B toxin defence mediated through the endolysosomal system*

**11:00 - 11:30** **Coffee and Refreshments**

**11:30 - 13:30** **Session VIII - Dealing withStress - Homeostatic Mechanisms, Metabolism and Transport**

Chair: Roland Wedlich-Söldner

11:30-12:00 Francesc Posas
**29.** *Regulation of Selective Endocytosis upon osmostress by the Hog1Stress-activated Protein Kinase*

12:00-12:30 Pierre Falson
**30** *CryoEM of ATP-driven dynamics and itraconazole binding in the fungal ABC Cdr1 transporter*

12:30-13:00 Shikha Gupta
**31.** *Glutathione Toxicity in Yeast Cells Grown under Respiratory Conditions Causes downregulation of Fe and Zn Transporters*

13:00-13:15 Alexandre Deschamps*
**32.** *Grx6 and Grx7: two oxidoreductases of the yeast vacuole?*

13:15-13:30 Francisco Padilla-Garfias*
**33.** *Transcriptomic profiling of Debaryomyces hansenii reveals detoxification and stress responses to benzo(a)pyrene exposure*

**13:30 - 14:30** **Lunch**

**14:30 - 16:30** **Session IX - Transport and Energetics in Diverse Fungi**

Chair: Olga Zimmermannová

14:30-15:00 José Ramos
**34.** *Biological control in Debaryomyces hansenii: mechanisms and applications in the agri-food industry*

15:00-15:30 Minerva Araiza-Villanueva
**35.** *Study of the mechanism of chitosan-induced permeability in different yeast strains*

15:30-16:00 Florence Angelucci*
**36.** *Characterization of the mechanism of filamentation induction by Saccharomyces cerevisiae and Candida albicans Mep2 ammonium transceptors*

16:00-16:30 Sandra Paiva
**37.** *Regulation and Diversification of Monocarboxylate Transporter Proteins in Yeast*

**16:30 - 17:00** **Refreshments**

**17:00 - 18:15** **Keynote - Marcelle Grenson Lecture**
**Zdena Palkova**

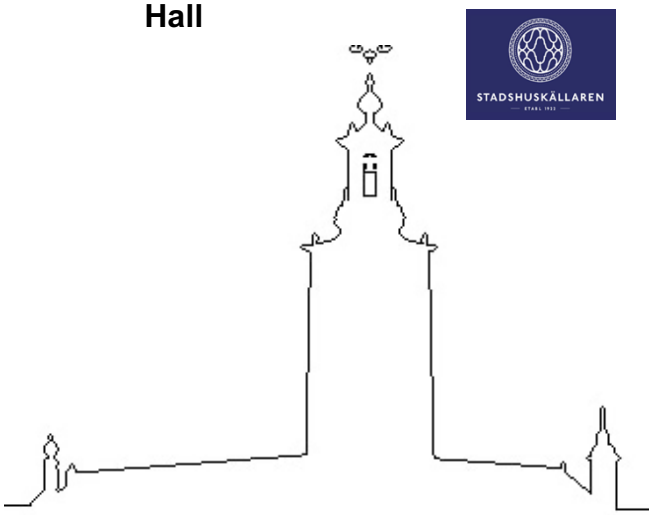
17:00 – 17:15 Introduction:
Christos Gournas

17:15 – 18:15 Zdena Palkova
*The complexity of life in spatial communities: Yeast colonies and biofilms*

**18:15 - 18:30** **Concluding Remarks – Awards, Presentation of 41st SMYTE**

Chairs: Per O. Ljungdahl, David Drew, Sandra Paiva

**20:00 - 22:00** **Gala Dinner – Stadshuskällaren – Stockholm City Hall**



## Posters

### * Poster Abstracts selected for talks

### Presenters in Blue text are Young Investigators

1. Characterization of functional specificities of Rh-type proteins belonging to the Mep-Amt-Rh family of ammonium permeases.
   Presenter: Zara Esen*
2. Characterization of the mechanism of filamentation induction by Saccharomyces cerevisiae and *Candida albicans* Mep2 ammonium transceptors.
   Presenter: Florence Angelucci*
3. Design, synthesis and evaluation of dicoumarol derivatives as ferroptosis-promoting antifungals inhibiting the eisosomal ubiquinone reductases.
   Presenter: Christos Gournas
4. Engineering transport of single carbon substrates over yeast membranes.
   Presenter: Lara Kalogjera
5. Evaluating the role of the ENA1 transporter in the response of *Debaryomyces hansenii* to NaCl.
   Presenter: Catarina Prista
6. Evolution in spatially structured yeast populations: The role of metabolism and membrane transporters.
   Presenter: Libuse Vachova
7. Grx6 and Grx7: two oxidoreductases of the yeast vacuole?
   Presenter: Alexandre Deschamps*
8. In search of the elusive mitochondrial proline transporter.
   Presenter: Marzia Rizzo
9. Targeting novel surface structures for anti-fungal drug development.
   Presenter: Amy Milburn*
10. The Hsp90 co-chaperone Sti1 is the cytoplasmic retention determinant of Stp1 latency.
    Presenter: Maryam Nejati
11. Transcriptomic profiling of Debaryomyces hansenii reveals detoxification and stress responses to benzo(a)pyrene exposure.
    Presenter: Francisco Padilla-Garfias*
12. Vsb1, Ypq1 and Ypq2 control highly dynamic cationic amino acid storage in the yeast vacuole.
    Presenter: Melody Cools*
13. Turnover and lateral distribution of membrane transporters in the yeast plasma membrane
    Presenter Dakei Dong*
14. Visualizing Sterol Uptake in Yeast using Clickable Cholesterol-Imidazolium Probes
    Presenter: Kevin Joseph Dilip*
15. Membrane fluidity is critical for sugar GLUT transport
    Presenter Albert Saudes