

EMBO Workshop

Membrane transporters as essential elements of cellular function and homeostasis

23 – 27 August 2022 | Chania, Greece

Scientific program

Oral presentations

Day1: Tuesday, 23 August 2022

13:30 - 15:30	Session SO: Introduction and Plenary Lectures Room: Aristotle Auditorium Chair/s: Frances Brodsky, George Dhallinas
13:30	Welcome-Opening of the meeting <u>George Dhallinas</u> (on the meeting) & <u>Frances Brodsky</u> (on EMBO)
14:00	S0--01 Transporter Conformation: Roles in ion-substrate coupling and beyond <u>Gary Rudnick</u> (Yale University School of Medicine, New Haven, USA)
14:45	S0--02 Co-translational membrane protein folding in native lipid environments <u>Paula Booth</u> (King's College, London, UK)
15:30	Coffee break
15:45 - 19:05	Session S1: Transporters in cell physiology, signaling and stress Room: Aristotle Auditorium Chair/s: Per O. Ljungdahl, Sofia Dimou
15:45	S1--01 Regulation of dopamine transporter by endocytic trafficking <u>Alexander Sorkin</u> (University of Pittsburgh, School of Medicine, Pittsburgh, USA)
16:15	S1--02 Role of transporters in pH and potassium homeostasis <u>Hana Sychrova</u> (Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic)
16:45	S1--03 Interlinks between plasma membrane transporters and TORC1 <u>Bruno André</u> (Molecular Physiology of the Cell, Universite Libre de Bruxelles, Gosselies, Belgium)
17:15	S1--04 Translational control in osmoadaptation via the neutral amino acid transporter SNAT2 <u>Dawid Krokowski</u> (Institute of Biological Sciences, Maria Curie-Skłodowska University, Lublin,

	Poland
17:35	Coffee break
17:55	S1--05 Intercellular and interorgan sugar transport in plants <u>Wolf B Frommer</u> (Heinrich Heine University, Dusseldorf, Germany / Institute for transformative BioMolecules, Nagoya, Japan)
18:25	S1--06 Saccharomyces cerevisiae Na⁺,K⁺/H⁺ antiporter Nha1 plays crucial role in disturbance of K⁺ and H⁺ homeostasis caused by the Ppz1 phosphatase overexpression <u>Olga Zimmermannova</u> (Institute of Physiology of the Czech Academy of Sciences, Prague, Czech Republic)
18:45	S1--07 Redox state and cellular uptake of copper are regulated by the N-terminus of human Copper Transporter-1 <u>Sumanta Kar</u> (Indian Institute of Science Education and Research Kolkata, Mohanpur, West Bengal India)
19.05-20.30	Poster session 1
20.30	Reception dinner & Ross Daily Trio-open air concert
Day2 : Wednesday, 24 August 2022	
09:00 - 13:00	Session 2A: Structure-function relationships, mechanism of transport & role of transporter-lipid interactions I Room: Aristotle Auditorium Chair/s: Bernadette Byrne, Stathis Frillingos
09:00	S2A--01 Autoregulatory mechanisms of membrane transporters <u>Poul Nissen</u> (Aarhus University, Danish Research Institute of Translational Neuroscience, Denmark)
09:40	S2A--02 Elevating the molecular basis for sodium/proton exchange <u>David Drew</u> (Stockholm University, Stockholm, Sweden)

10:10	<p>S2A--03 The structure of the cytosine transporter CodB: insight into the mechanism of nucleobase cation symport 1 transporters <u>Alexander Cameron</u> (University of Warwick, UK)</p>
10:40	<p>S2A--04 Challenging the rocking-bundle mechanism of transport in APC transporters via computational approaches <u>Emmanuel Mikros</u> (Department of Pharmacy, National and Kapodistrian University of Athens, Panepistimiopolis, Greece)</p>
11:00	<p>Coffee break</p>
11:20	<p>S2A--05 Multiple Interactions of Glucose with the extra-membranous loops of Glut1 aid transport <u>Carmen Domene</u> (Department of Chemistry, University of Bath, Bath, United Kingdom)</p>
11:50	<p>S2A--06 Structural basis of omega-3 fatty acid transport across the blood–brain barrier <u>Rosemary Cater</u> (Department of Physiology and Cellular Biophysics, Columbia University, New York, USA)</p>
12:10	<p>S2A--07 Modeling of conformations of yeast amino acid receptor Ssy1 based on APC transporter structures <u>Morten C. Kielland-Brandt</u> (Department of Biotechnology and Biomedicine, Technical University of Denmark, Lyngby, Denmark)</p>
12:30	<p>S2A--08 Switching ion selectivity in membrane transporters and channels <u>Christine Ziegler</u> (University Regensburg, Regensburg, Germany)</p>
13.00	<p>Lunch</p>
14.30-16.00	<p>Poster session 2</p>

16:00 - 19:00	Session 2B: Structure-function relationships, mechanism of transport & role of transporter-lipid interactions II Room: Aristotle Auditorium Chair/s: Christos Gournas, Emmanuel Mikros
16:00	S2B--01 Ion coupling mechanisms in secondary active transporters <u>Olga Boudker</u> (Department of Physiology and Biophysics, Weill Cornell Medicine, NY, USA)
16:40	S2B--02 Shooting with electrons to unravel mechanistic insights of the human neutral amino acid transporter ASCT2 (SLC1A5) <u>Cristina Paulino</u> (Groningen Biomolecular Sciences and Biotechnology Institute, University of Groningen, The Netherlands)
17:10	S2B--03 How are S components of ECF transporters released into the membrane? <u>Chancievan Thangaratnarah</u> (Groningen Biomolecular Sciences and Biotechnology Institute, University of Groningen, Groningen, Netherlands)
17:30	Coffee break
17:50	S2B--04 Molecular bases for substrate and inhibitor binding to transporters: Insights from recent solute carrier structures <u>Dimitri Fotiadis</u> (Institute of Biochemistry and Molecular Medicine, University of Bern, Switzerland)
18:20	S2B--05 Substrate binding in the mitochondrial ADP/ATP carrier is a step-wise process guiding the structural changes in the transport cycle <u>Vasiliki Mavridou</u> (Medical Research Council, University of Cambridge, Cambridge, UK)
18:40	S2B--06 Intrinsically disordered intracellular domains control key features of the mechanically-gated ion channel PIEZO2 <u>Clement Verkest</u> (University Medical Center Hamburg-Eppendorf Institute of Pharmacology, Heidelberg University, Heidelberg, Germany)
19.00	Outdoors free time for discussions and networking
20.30	Tour & dinner in the city of Chania (dinner not covered by EMBO)

Day3: Thursday, 25 August 2022

08:40 - 13:20	<p>Session S3: Co-translational folding, traffic, biogenesis, recycling & turnover of transporters Room: Aristotle Auditorium Chair/s: Bruno André, Sandra Paiva</p>
08:40	<p>S3--01 Targeting the GLUT4 glucose transporter for intracellular storage in an insulin-responsive compartment <u>Frances Brodsky</u> (University College London, London, UK)</p>
09:20	<p>S3--02 Regulated intracellular trafficking of the facilitative glucose transporter GLUT4 <u>Nia Bryant</u> (University of York, UK)</p>
09:50	<p>S3--03 Golgi-bypass is a major unconventional route for the biogenesis of plasma membrane transporters and receptors in <i>Aspergillus nidulans</i> <u>George Diallinas</u> (Department of Biology, National and Kapodistrian University of Athens, Panepistimioupolis, Athens, Greece / Institute of Molecular Biology and Biotechnology, Heraklion, Greece, Heraklion, Greece)</p>
10:20	<p>S3--04 Homeostatic Regulation of Organelle Membrane Lipids <u>Christopher Burd</u> (Yale School of Medicine, New Haven USA)</p>
10:50	Coffee break
11:10	<p>S3--05 In vivo analysis of ER membrane-localized chaperone (Shr3) substrate (AAP) interactions <u>Per Ljungdahl</u> (Department of Molecular Biosciences, The Wenner-Gren Institute, SciLifeLab, Stockholm University, Sweden)</p>
11:40	<p>S3--06 The cytoplasmic C-terminal tail of Shr3 couples amino acid permease folding and packaging into ER-derived COPII vesicles <u>Ioanna Myronidi</u> (Department of Molecular Biosciences, The Wenner-Gren Institute, SciLifeLab, Stockholm University, Sweden)</p>

12:00	<p>S3--07 Recognition of misfolded membrane proteins in bacteria <u>Nir Fluman</u> (Dept. Biomolecular Sciences, Weizmann Institute of Science, Israel, Israel)</p>
12:20	<p>S3--08 Homeostasis of glucose transporters and the acquisition of 2-deoxyglucose resistance in yeast <u>Sebastien Leon</u> (Institut Jacques Monod, Paris, France)</p>
12:50	<p>S3--09 Regulated endocytosis of monocarboxylate transporters in yeast <u>Sandra Paiva</u> (Centre of Molecular and Environmental Biology, Department of Biology, University of Minho, Braga, Portugal)</p>
13.20	Lunch
15:00 - 16:30	<p>Session S4: Evolution of transporter structure, function and specificity Room: Aristotle Auditorium Chair/s: Claudio Scazzocchio</p>
15:00	<p>S4--01 Reconstructing ancestral proteins to understand the mechanisms of molecular evolution <u>Joseph Thornton</u> (University of Chicago, Chicago, USA)</p>
15:40	<p>S4--02 How do transporter proteins evolve substrate specificity? <u>Barbara Ann Halkier</u> (DynaMo Center, Department of Plant and Environmental Sciences, University of Copenhagen, Frederiksberg C, Denmark)</p>
16:10	<p>S4--03 Highly specialized purine or pyrimidine transporters of gamma-proteobacteria have derived from broader-substrate profile ancestors <u>Stathis Frilingos</u> (Department of Medicine, University of Ioannina, Ioannina, Greece / Institute of Biosciences, Ioannina, Greece)</p>
16.45	<p>Afternoon swimming excursion/dinner in Chania (not EMBO covered)</p>

Day4: Friday, 26 August 2022

08:50 - 10:40	<p>Session S5: Organelle transporters – transporter PM compartments Room: Aristotle Auditorium Chair/s: Roland Wedlich-Soldner, Wolf B Frommer</p>
08:50	<p>S5--01 Discovering structural and functional properties of transport proteins using thermostability assays <u>Edmund Kunji</u> (University of Cambridge, Cambridge, UK)</p>
09:30	<p>S5--02 The fungal plasma membrane – control of lateral segregation and turnover in a non-fluid mosaic <u>Roland Wedlich-Soldner</u> (Institute of Cell Dynamics and Imaging/University of Munster, Munster, Germany)</p>
10:00	<p>S5--03 Lipid peroxidation-protective plasma membrane transporter domains in quiescent yeasts <u>Christos Gournas</u> (Institute of Biosciences and Applications, National Centre for Scientific Research "Demokritos", Athens, Greece)</p>
10:20	<p>S5--04 Key features of inhibitor binding to the human mitochondrial pyruvate carrier hetero-dimer <u>Sotiria Tavoulari</u> (University of Cambridge, Cambridge, UK)</p>
10.40	Coffee break
11:00 - 13:00	<p>Session: S6 Transporters as systems Room: Aristotle Auditorium Chair/s: Roland Wedlich-Soldner, Wolf B Frommer</p>
11:00	<p>S6--01 Systems-level assessment of transporter function <u>Giulio Superti-Furga</u> (CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, Austria / Center for Physiology and Pharmacology, Medical University of Vienna, Vienna, Austria)</p>

11:30	<p>S6--02</p> <p>Functional and genetic diversity in protozoan Equilibrative Nucleoside Transporters and the implications for the development of nucleoside antimetabolites against protozoan disease.</p> <p><u>Harry De Koning</u> (University of Glasgow, Glasgow, UK)</p>
12:20	<p>S6--03</p> <p>Engineering the transport of small molecules in microbial cell factories</p> <p><u>Irina Borodina</u> (Technical University of Denmark, Lyngby, Denmark)</p>
12:40	<p>S6--04</p> <p>A Genetic Strategy for Highly Specific SLC16A3/MCT4 Inhibitors Discovery</p> <p><u>Voitech Dvorak</u> (CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, Austria)</p>
13.00	Lunch & free time for discussions and networking with coffee
16:30 - 18:00	<p>Session S7: New methodologies for studying transporters Room: Aristotle Auditorium Chair/s: Christos Pliotas</p>
16:30	<p>S7--01</p> <p>Strategies for successful isolation of eukaryotic transporters</p> <p><u>Bernadette Byrne</u> (Imperial College London, London, UK)</p>
17:10	<p>S7--02</p> <p>H/D exchange coupled to Mass Spectrometry: a multifaceted tool to study membrane transporters</p> <p><u>Chloe Martens</u> (Structure and Function of Biological Membranes, Universite Libre de Bruxelles, Bruxelles, Belgium)</p>
17:40	<p>S7--03</p> <p>Towards a structural understanding of the elevator mechanism: the case of UapA</p> <p><u>George Broutzakis</u> (Department of Biology, National and Kapodistrian University of Athens, Panepistimiopolis, Athens, Greece. / Institute for Medical Physics and Biophysics and Center for Soft Nanoscience (SoN), Westfsche Wilhelms University, Munster, Germany)</p>
18.00	Coffee break

18.20	<p>Selected questions of young participants to speakers</p> <p>Co-ordinated by <u>S. Paiva</u></p>
18.45	<p>Concluding remarks</p> <p><u>Superti-Furga</u> & <u>Bernadette Byrne</u> & all participants</p>
20.00	EMBO Gala Dinner in Cretan Village of Theriso
<p>Day 5: Saturday, 27 August 2022</p>	
09:00 - 13:00	<p>Session Sat: Satellite symposium on Mechanical Sensing & Ion Channels Room: Aristotle Auditorium Chair/s: Christos Pliotas</p>
09:00	<p>Sat--01</p> <p>A proton inhibited ENaC/DEG ion channel maintains neuronal ionstasis and promotes neuronal survival under stress.</p> <p><u>Nektarios Tavernarakis</u> (Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology, Heraklion, Crete, Greece / Department of Basic Sciences, Medical School, University of Crete, Heraklion, Crete, Greece)</p>
09:40	<p>Sat--02</p> <p>In pursuit of a unified mechanism for mechanical sensing and response</p> <p><u>Christos Pliotas</u> (Astbury Centre and University of Leeds, Leeds UK)</p>
10:10	<p>Sat--03</p> <p>Touch transduction: new ion channels and their tethers</p> <p><u>Gary R. Lewin</u> (Molecular Physiology of Somatic Sensation Group, Max Delbrck Center for Molecular Medicine, Berlin, Germany)</p>
10:40	Coffee break
11:00	<p>Sat--04</p> <p>Structural dynamics of the TRPV4 ion channel</p> <p><u>Ute Hellmich</u> (Friedrich Schiller University Jena, Jena, Germany / Goethe University Frankfurt, Centre for Biomolecular Magnetic Resonance, Frankfurt, Germany)</p>
11:30	<p>Sat--05</p> <p>PIEZO channel activation: force-from-lipids or force-from-filament – or</p>

	<p>both? <u>Stefan Lechner</u> (Department of Anaesthesiology, University Medical Center Hamburg-Eppendorf, Germany)</p>
12:00	<p>Sat--06 Developments in High-Speed Atomic Force Microscopy to study channel dynamics under force <u>George Heath</u> (University of Leeds, Leeds, UK)</p>
12:25	<p>Sat--07 How does rapidly-inactivating PIEZO1 channel sense sustained mechanical force in endothelium? <u>Jian Shi</u> (Leeds Institute of Cardiovascular and Metabolic Medicine, School of Medicine, University of Leeds, Leeds, UK)</p>
12:50	<p>Closing Remarks Christos Pliotas</p>

Poster sessions

19:10 - 20:30	<p>Session: Poster session 1</p> <p>Room: Thales/Heraclitus Multipurpose Conference Rooms</p>
	<p>P1--01 Yeast transporter proteins of non-toxic metabolites Iben Mller-Hansen (Technical University of Denmark, Lyngby, Denmark)</p>
	<p>P1--02 TRH1/KUP4 proton coupled HAK/KUP/KT potassium transporter controls charge balance facilitating auxin transport in Arabidopsis thaliana Fengoula Avgeri (Department of Biotechnology, Agricultural University of Athens, Greece)</p>
	<p>P1--03 Functional and structural analysis of carboxylate transporters from the yeast Cyberlindnera jadinii Maria Sousa-Silva (Institute of Science and Innovation for Bio-Sustainability, University of Minho, Portugal / Centre of Molecular and Environmental Biology, Department of Biology, University of Minho, Braga, Portugal)</p>
	<p>P1--04 TransporterPAL: An integrative database Transporter Prediction ALgorithm Jane Dannow Dyekjær (Novo Nordisk Foundation Center for Biosustainability, DTU Biosustain, Lyngby, Denmark)</p>
	<p>P1--05 Engineering of genetically encoded fluorescent sensors for in vivo measurements of pH and Ca²⁺ concentration in yeast Golgi apparatus Quentin Lejeune (Louvain Institute of Biomolecular Science and Techology, Université Catholique de Louvain, Louvain, Belgium)</p>
	<p>P1--06 Role of amino acid transporters in ATF4-driven adaptation to glutamine starvation Wioleta Banaszuk & Dawid Krokowski (Department of Molecular Biology, Institute of Biological Sciences, Maria Curie-Skłodowska University, Lublin, Poland)</p>
	<p>P1--07 The interplay between Quinidine Drug Resistance and Glucose transporters in maintaining drug resistance and pathogenicity in Candida albicans</p>

Peer Abdul Haseeb Shah
(University of Kashmir, Srinagar-J&K, India)

P1--08
In search of the molecular basis of Sec24 interaction with cargoes sorted in the plasma membrane via Golgi-bypass
Georgia Maria Sagia
(Department of Biology, National and Kapodistrian University of Athens, Panepistimioupolis, Athens, Greece)

P1--09
High-throughput strategy for screening *Saccharomyces cerevisiae* transporters by targeted LC-MS/MS
Lyubomir Stanchev
(The Novo Nordisk Foundation Center for Biosustainability, Technical University of Denmark, Kongens Lyngby, Denmark)

P1--10
Towards a mechanistic understanding of mycobacterial siderophore export
Jennifer Earp
(Institute of Medical Microbiology, University of Zurich, Zurich, Switzerland)

P1--11
A yeast-based in vivo assay system for analyzing efflux of sugars mediated by glucose and xylose transporters
Sebastian Alfredo Tamayo Rojas
(Institute of Molecular Biosciences, Faculty of Biological Sciences, Goethe University Frankfurt, Frankfurt am Main, Germany)

P1--12
The *Escherichia coli* complement of Concentrative Nucleoside Transporter (CNT) and Nucleoside-H⁺ Symporter (NHS) families and its relevance to gemcitabine transport
Eleni Anagnostopoulou
(Department of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece)

P1--13
Different role of potassium transporters Trk1 and Trk2 in *Saccharomyces cerevisiae*
Deepika Kale
(Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic)

P1--14
Developing a proximity dependent biotinylation methodology for identifying transient interactors of Golgi-bypassing cargoes
Xenia Georgiou
(Department of Biology, National and Kapodistrian University of Athens, Panepistimioupolis, Athens, Greece)

P1--15

Understanding the functional relevance of lateral segregation and distribution of Pma1 on yeast plasma membrane

Aniket Bandyopadhyay

(Institute of Cell Dynamics and Imaging, University of Munster, Munster, Germany)

P1--16

Investigating KDEL-mediated protein trafficking

Fabian Ackle

(Institute of Medical Microbiology, University of Zurich, Switzerland)

P1--17

Phosphate Dysregulation as a Novel therapeutic strategy in Ovarian and Uterine cancers

Daniel Bondeson

(The Broad Institute of MIT and Harvard, Cambridge MA, USA)

P1--18

Role of J-domain proteins in regulating plasma membrane protein quality control in *Saccharomyces cerevisiae*

Preeti Sagarika

(Department of Biological Sciences, Indian Institute of Science Education and Research Bhopal, Madhya Pradesh, India)

P1--19

Characterisation of the long-distance transport of alkaloids into the seeds of narrow-leafed lupin.

Karen Frick

(Section for Plant Biochemistry, PLEN, University of Copenhagen, Denmark)

P1--20

Identification of seed transporters in Narrow-leafed lupin

Huayi Huang

(University of Copenhagen, Denmark)

P1--21

Membrane fusion in *E. coli* upon expression of synaptic SNAREs and Caveolin A synthetic biology approach to studying SNARE protein function in a bacterial host

Neha Pratap Singh

(Université de Paris Cité, Institute of Psychiatry and Neuroscience of Paris, Paris, France)

P1--22

Identification of critical residues for citrate export in the *Aspergillus niger* CexA

Joao Alves

(Institute of Science and Innovation for Bio-Sustainability, University of Minho,

Portugal / Centre of Molecular and Environmental Biology, Department of Biology, University of Minho, Braga, Portugal)

P1--23

Exploring the role of nutrient transporters in *Candida* pathogenesis

Rosana Alves

(CBMA, University of Minho, Portugal)

14:30 - 16:00

Session: Poster session 2

Room: Thales/Heraclitus Multipurpose Conference Rooms

P2--01

Drug-dependent inhibition of nucleotide hydrolysis in the heterodimeric ABC multidrug transporter PatAB from *Streptococcus pneumoniae*

Charlotte Guffick

(Department of Pharmacology, University of Cambridge, Cambridge, UK)

P2--02

Dynamics of membrane proteins using high-speed atomic force microscopy

Abeer Alshammari

(School of Physics and Astronomy, University of Leeds, UK / Department of Physics, University of Hafr Al Batin, Saudi Arabia)

P2--03

Transmembrane helices 5 and 12 control transport dynamics, substrate affinity and specificity in the elevator-type UapA transporter.

Yiannis Pyrris

(Department of Biology, National and Kapodistrian University of Athens, Athens, Greece)

P2--04

The last two transmembrane segments of FurE, an APC-type fungal transporter, function as an intramolecular stabilization element via specific interactions with the core transport domains

Yiannis Pyrris

(Department of Biology, National and Kapodistrian University of Athens, Panepistimiopolis, Athens, Greece)

P2--05

Nutrients transport through the outer membrane of mycobacteria

Alisa Garaeva & Markus Seeger

(Institute of Medical Microbiology, University of Zurich, Zurich, Switzerland)

P2--06

Direct coupling of oligomerization and oligomerization-driven, clathrin-independent endocytosis of the dopamine transporter to its conformational

mechanics and activity

Tatiana Sorkina

(University of Pittsburgh School of Medicine, Pittsburgh, USA)

P2--07

Long-term thiamine treatment elevates thermogenic competency of human adipocytes via SLC19A3

Boglárka Ágnes Vinnai

(Department of Biochemistry and Molecular Biology, Faculty of Medicine, University of Debrecen, Hungary)

P2--08

Mechanism of modulation in SLC26 transporters

Jakub Rzeszótka

(Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany)

P2--09

Interactions of cytosolic termini in the major facilitator superfamily member Jen1 are critical for trafficking and transport activity

Claudia Barata-Antunes

(Department of Biology, University of Minho, Braga, Portugal / Institute of Science and Innovation for Bio-Sustainability, University of Minho, Braga, Portugal)
(Department of Biology, National and Kapodistrian University of Athens, Panepistimiopolis, Athens, Greece)

P2--10

Mutagenesis analysis of Homo sapiens Na⁺/H⁺ antiporter NHA2 revealed Pro246 and hydrophilic N-terminus to be crucial for its ability to regulate monovalent cation homeostasis in cells

Diego Velázquez

(Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic)

P2--11

The role of lipid environment and C-terminal domain on Mycobacterium smegmatis and tuberculosis membrane protein MmpL3 dynamics and oligomeric state: experimental and computational insights.

Sara Cioccolo

(Department of Life Sciences, Imperial College London, London, UK)

P2--12

Initial characterization of putative MscS-like mechanosensitive channels in *Aspergillus nidulans*

Mariangela Dionysopoulou

(Department of Biology, National and Kapodistrian University of Athens, Athens, Greece / Astbury Centre for Structural Molecular Biology, University of Leeds, Leeds, UK)

P2--13

Exploring the gates of life: a Solute Carrier (SLC)-targeted platform

Paula Gutierrez Perez
(Solgate GmbH, Klosterneuburg, Austria)

P2--14
Targeting the fungal membrane purine transporter Uric Acid Permease, UapA

Nicole Deacon-Smith
(Department of Life Sciences, Imperial College London, London, UK)

P2--15
An in-vitro transport assay for the measurement of weak acid transporters

Yuelang Yao
(Department of Biotechnology, University of Natural Resources and Life Sciences, Vienna, Austria)

P2--16
Investigating the enigmatic phenomenon of multidrug efflux by deep mutational scanning

Sujani Thavarasah
(Institute of Medical Microbiology, University of Zurich, Switzerland)

P2--17
An active electrogenic variant of Ec-NhaA transporter membrane protein: Impact of a point mutation at Lys300 site.

Manish Dwivedi
(Amity Institute of Biotechnology, Amity University Uttar Pradesh, Lucknow, India)

P2--18
Integrative analysis of metabolome and transcriptome profiles of overexpression cell lines to deorphanize human solute carriers.

Eirini Christodoulaki
(CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, Austria)

P2--19
Cell-Free Protein Synthesis for production of functional transporters

Pawel Lojko
(The Novo Nordisk Foundation Center for Biosustainability, Technical University of Denmark, Lyngby, Denmark)

P2--20
Engineering the properties NPF transporters – what is in store for us? Based on in-depth characterization of a hyper-active glucosinolate transporter

Christa Kanstrup
(DynaMo Center, Faculty of Science, University of Copenhagen, Denmark)

P2--21
Substrate-specificity-swap between closely related glucosinolate

transporter reveals the existence of a selectivity filter assembling in the occluded form and provides first insights into the mechanism underlying substrate specificity in the nitrate and peptide transporter family.

Hussam Hassan Nour-Eldin

(DynaMo Center, Faculty of Science, University of Copenhagen, Denmark)

P2--22

The human mitochondrial ADP/ATP carrier operates by a ping-pong kinetic mechanism

Camila Cimadamore-Werthein

(MRC Mitochondrial Biology Unit, Cambridge, UK)

P2--23

Distinct mechanisms of disfunction of the mitochondrial aspartate/glutamate carrier in Citrin Deficiency

Denis Lacabanne

(MRC Mitochondrial Biology Unit, University of Cambridge, Cambridge, UK)

P2--24

Towards in vitro transport assays for the characterization of the GDT1 family

Guillemette van Raemdonck

(UC Louvain - LIBST, Belgium)

P2--25

The Escherichia coli Amino Acid Uptake Protein CycA: Regulation of Its Synthesis and Practical Application in L-Isoleucine Production

Christine Hook

(Ajinomoto-Genetika Research, Institute, Moscow, Russia)