



Program

25th Symposium

Signal Transduction at the Blood-Brain Barriers

18 June 2023

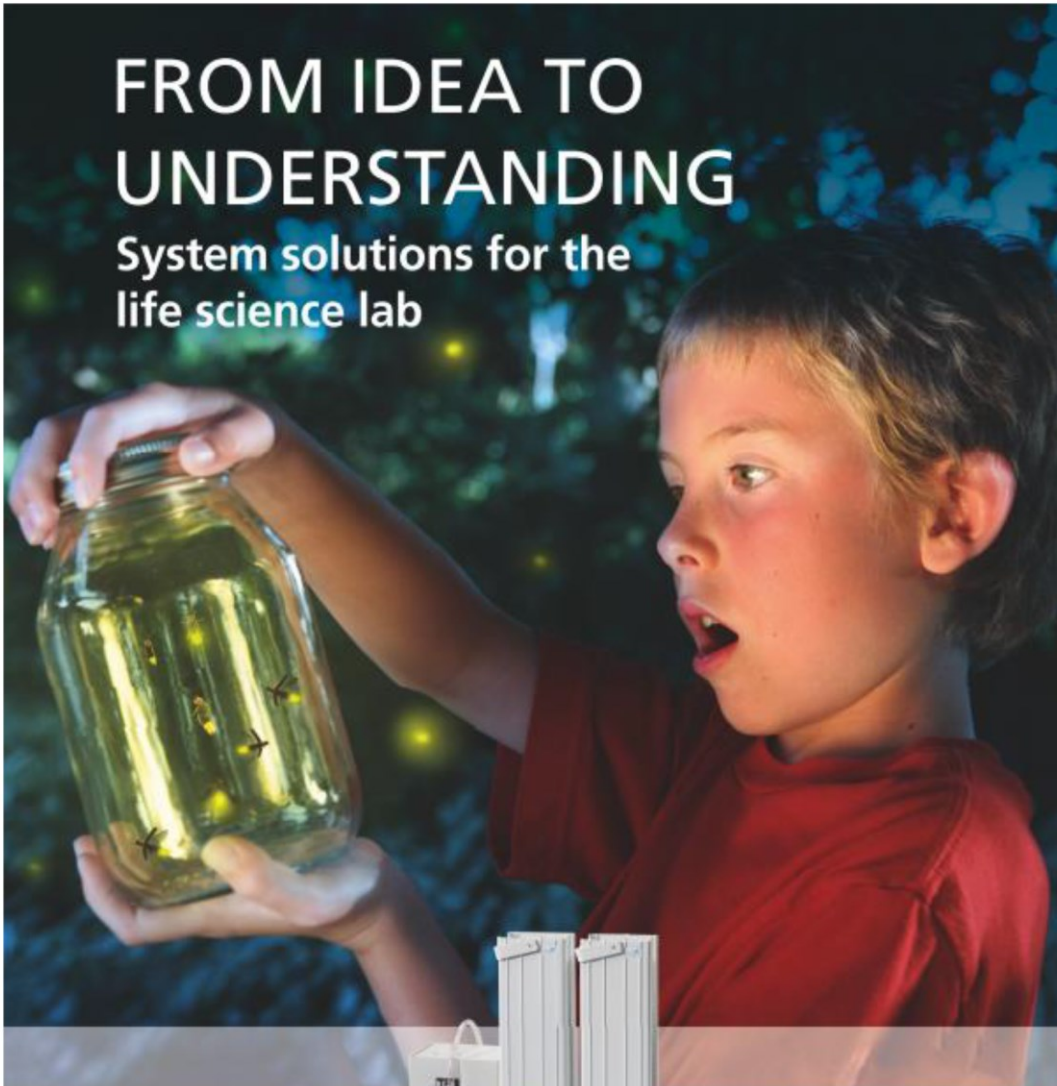
Uppsala University Main Building, Hall IX





FROM IDEA TO UNDERSTANDING

System solutions for the life science lab



Microplate washing/dispensing

Multimode microplate reading

Antibody-ELISA automation solutions



www.berthold.com/bio

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HOW ARE YOUR cells today?

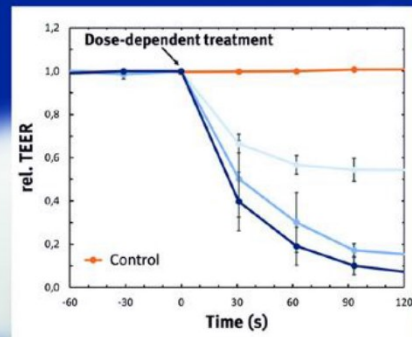
nanoAnalytics



cellZscope®

Automated impedance-based monitoring systems for your cell cultures

- Barrier Function
- Permeability
- Transport
- Cytotoxicity



Find out with the cellZscope



cZsE

- Entry-level model
- Readout: TER
- 6 individual wells



cZs+

- Readout: TER, Ccl
- 24 individual wells



cZs2

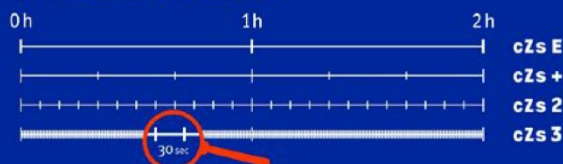
- Readout: TER, Ccl
- 24 individual wells
- Docking station



cZs3

- Readout: TER, Ccl
- Up to 96 individual wells
- Docking station
- High throughput

Time resolution of models:



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A 1st (250\$), 2nd (200\$) and 3rd (150\$) Young Investigators best oral presentation award will be granted (* eligible speakers). Kindly sponsored by the IBBS and the Brain Barriers Signaling.

| Time | Session |
|--------------------------------------|--|
| 09:00 – 09:25 | Registration |
| 09:25 – 09:30 | Opening Words |
| | Wnt Signaling and Development |
| <i>Session chair: Stefan Liebner</i> | |
| 09:30 – 10:00 | Plenary Speaker Kevin Boyé (Paris Cardiovascular Research Center, France) Netrin1 binding to Unc5B regulates blood-CNS barriers integrity via the Wnt signaling |
| 10:00 – 10:20 | * <u>Muyu Situ</u> Uncovering the role of connexins and Yap in blood brain barrier hyperpermeability and microvascular injury in cerebral amyloid angiopathy |
| 10:20 – 10:40 | * <u>Gergo Porkolab</u> cARLA: a small molecule cocktail for robust induction of blood-brain barrier properties |
| 10:40 – 11:00 | <u>Ines Martinez-Corral</u> Tanycytic VEGF receptor signaling in the bloodhypothalamus barrier: a new player in the communication between the brain and the periphery |
| 11:00 - 11:20 | * <u>Juliette Vaurs</u> TRIM47 is a crucial regulator of brain endothelial cell functions |

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| 11:20 – 11:40 | Coffee / tea break |
| | Pathogens and Inflammation at the Blood-Brain Barriers |
| <i>Session chair: Pierre-Olivier Couraud</i> | |
| 11:40 – 12:10 | Plenary Speaker Sandrine Bourdoulous (University of Paris, France) A role for ANGPTL4 in vascular protection of the brain during sepsis |
| 12:10 – 12:30 | * <u>Nadine Vollmuth</u> Estrogen signaling contributes to Group B Streptococcal disruption and invasion of brain endothelial cells |
| 12:30 – 12:50 | * <u>Tushar Deshpande</u> Vascular basement membrane laminins contribute to the functional integrity of the blood vessels |
| 12:50 – 13:10 | <u>Michal Toborek</u> An interplay between HIV infection and cerebrovascular toxicity of methamphetamine |
| 13:00 – 14:00 | Lunch |
| | Blood-Brain Barriers in Health and Disease |
| <i>Session chair: Malgorzata Burek</i> | |
| 14:00 – 14:30 | Plenary Speaker Stefan Momma (Goethe University Frankfurt, Germany) Extracellular vesicle-mediated transfer of functional molecules from the periphery to the brain |

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| 14:30 – 14:50 | <u>Masanori Tachikawa</u> Placenta-derived extracellular vesicles: their unique characteristics of the blood-brain barrier transport |
| 14:50 – 15:10 | * <u>Julia K. Sundheimer</u> Multi-omics characterization of the blood-brain barrier in molecular groups of ependymoma |
| 15:10 – 15:30 | <u>Irena Loryan</u> Unraveling the role of biological barriers in the development of chemotherapy-induced peripheral neuropathy |
| 15:30 – 16:00 | Coffee / tea break |
| | Blood-Brain Barriers in Health and Disease continued |
| <i>Session chair: Reiner Haseloff</i> | |
| 16:00 – 16:20 | * <u>Matt Govendir</u> A sticky situation: the influence of microvessel mechanics on cerebral malaria pathogenesis 2. Brain barriers in disease |
| 16:20 – 16:40 | * <u>Irene Spera</u> Open pathways for cerebrospinal fluid outflow at the cribriform plate |
| | Announcement of best presentation awards. Concluding Remarks and End of Satellite Symposium (CVB 2023 starts at 17:00 in the same building) |