44th International Symposium on the Separation of Proteins, Peptides & Polynucleotides

Munich (Campus Garching), Nov. 9 – 12, 2025

SUNDAY, NOVEMBER 9, 2025

10:00	Start of Registration	

PRE-CONFERENCE WORKSHOPS

11:00 – 12:00	**WORKSHOP 1** **Michel Eppink** TU Delft, Byondis B.V. **Egbert Müller** Tosoh Bioscience GmbH	Oligonucleotide production, purification and application in biopharmaceutical processing and their quality requirements
12:15 – 13:15	**WORKSHOP 2** **Michel Eppink** TU Delft, Byondis B.V. **Sonja Berensmeier** TU Munich	Insights in Polynucleotide Production: Overcoming Purification Challenges in mRNA and Plasmid Manufacturing
13:30 – 14:30	**WORKSHOP 3** **Cristina Cabral** University of Beira Interior	Microcalorimetry as a Tool in Preparative Chromatography: Versatility and Power
14:45 – 16:15	**WORKSHOP 4** **Alois Jungbauer** acib GmbH & BOKU University	Purification and characterization of viral cell and gene therapy vectors

ISPPP CONFERENCE

17:00	Welcoming Remarks by Sonja Berensmeier	
Key Note Lecture – Chair: Sonja Berensmeier		
17:20	**Scott Wheelwright** BioChromatographix International Pte. Ltd.	Purification of viruses for gene therapy and vaccines: A comparison of convective and diffusive chromatography
18:00	Welcome Reception	

MONDAY, NOVEMBER 10, 2025

Key Note Lecture – Chair: Alois Jungbauer		
08:30	**Alois Jungbauer** acib GmbH & BOKU Univ.	Key Note & Session Introduction
08:35	**Stefano Menegatti** North Carolina State University	Stimuli-responsive peptides: A kaleidoscope of applications
Session 1: Advances in Separation Processes - Chair: Alois Jungbauer		
09:15	**Aleš Podgornik** University of Ljubljana	Effect of support microstructure on compression and pressure drop during flow-through applications
09:35	**Fernando De Mathia** BOKU University	Purification and characterization of a recombinant neuraminidase influenza virus vaccine candidate
09:55	**Robert Klausser** Technical University Vienna	Protein denaturation maps – Charting a course for the solubilization and refolding of bacterial inclusion bodies
10:15	Refreshment Break	
Session 2: Hybrid Processing and New Technologies- Chair: Egbert Müller		
10:35	**Egbert Müller** Tosoh Bioscience GmbH	Session Introduction
10:40	**Pedro Ferreira** University of Beira Interior	A reusable nanodiamond-based platform for selective purification of RNA
11:00	**Michał Kołodziej** Rzeszów University of Technology	Isolation and purification of monoclonal antibodies using combined precipitation and crystallization process
11:20	**Lisa Meier** Technical University of Munich	Electrochemically modulated purification of plasmid DNA using graphite electrodes in static and flow systems
11:40	**Peter Mayrhofer** Technical University of Munich	Light-controlled protein purification using a short photo-switchable affinity tag
12:00	Lunch Break	
Session 3: Flash and Spin-off Talks – Chair: Michel Eppink		
13:30	**Michel Eppink** TU Delft & Byondis B.V.	Session Introduction
13:35	**Flash Talks**	
	Yannick Krauke Knauer Wissenschaftliche Geräte GmbH	Large scale purification and quality control of therapeutic oligonucleotides
	Edina Császár Biomay AG	mRNA manufacturing: from template DNA to lipid nanoparticles – An integrated platform approach
	Djuro Josić Juraj Dobrila Univ. of Pula	Direct application of undiluted human plasma and other complex biological fluids to polymethacrylate-based monoliths and subsequent isolation of biologically active therapeutic proteins and other biopolymers

	Jonas Wege Tosoh Bioscience GmbH	Towards seamless mAb purification: Dual-Step Multi-Column Chromatography
	Marina Linova Technical University of Denmark	Advancing *K. phaffii* bioprocesses: Evaluation of continuous perfusion processes and suitable purification strategies
14:10	**Spin-off Talks**	
	Nils Brechmann MAGic BioProcessing	Comparative economic modeling of magnetic bead-based processing as an alternative to legacy mAb manufacturing
	Robin Karl Technical University of Munich	Holistic pilot-scale magnetic separation platform development
	Eike Theel Technical University of Munich	Potential-controlled affinity membrane chromatography (pcMAC) - Redefining gentle biomolecule purification
	Andreas Reichert Technical University of Munich	Light-controlled antibody purification via a photoswitchable protein A platform
	Simone Dimartino University of Edinburgh	Planet Crafting Labs: Empowering the biotech industry to drive sustainable innovation
15:15	Refreshment Break	
Session 4: Continuous and Intensified Processing – Chair: Mirjana Minceva		
15:45	**Mirjana Minceva** Technical University of Munich	Session Introduction
15:50	**Mark Dürkop** Novasign GmbH	Process modeling as key to intensify continuous bioprocess development
16:10	**Sabrina Leigheb** BOKU University	Continuous flow ultracentrifugation enables efficient capture of adeno-associated viruses from clarified lysates
16:30	**Julian Galbusera** Technical University of Munich	Development and economic evaluation of an intensified magnetic nanoparticle-based purification process for microbial proteins
16:50	**Markus Berg** enGenes Biotech GmbH	Continuous production of plasmid DNA: Advances in integrated separation and purification
17:10	**Jonas Arnecke** Technical University of Applied Sciences Mannheim	Process intensification for protein purification: Continuous multi-column isolation of napin and cruciferin
17:30	Short Break	
17:40	Guided Lab Tours	
18:45	**Poster Party (incl. Snacks)**	
20:15	End of Day 2	

TUESDAY, NOVEMBER 11, 2025

Key Note Lecture – Chair: Elena Dominguez Vega		
08:30	**Elena Dominguez Vega** Leiden University Medical Centre	Key Note & Session Introduction
08:35	**Charlotte Uetrecht** CSSB / DESY / University of Lübeck	Flying viruses – mass spectrometry meets X-rays
Session 5: Analytics – Chair: Elena Dominguez Vega		
09:15	**Christoph Gstöttner** Roche Diagnostics GmbH	Analytical techniques for rAAV genome integrity and identity assessment
09:35	**Katharina Dietmann** Ludwigs-Maximilians-Universität München	In-line infrared spectroscopic detection of chromatographic protein separation for medical diagnostics
09:55	**Flash Talks**	
	Roland Drexel Postnova Analytics GmbH	Multi-detector Field-Flow Fractionation for the assessment of critical quality attributes of AAVs
	Tomas Mesurado acib GmbH	Novel analytical HPLC method for characterization and quantification of VLPs
10:10	**Balasubrahmanyam Addepalli** Waters Corporation	Critical quality attribute analysis of RNA therapeutics by novel ribonuclease specificities
10:30	**Cláudia Paiva** iBET	Real-time monitoring in ultra- and diafiltration of adeno-associated virus and lentiviral vector using Raman Spectroscopy
10:50	Refreshment Break	
11:00	**Poster Session**	
12:30	Lunch Break	
Session 6: Separation and Purification of Bionanoparticles – Chair: Nico Lingg		
13:30	**Nico Lingg** acib GmbH & BOKU University	Session Introduction
13:35	**Patricia Pereira Aguilar** acib GmbH	Functionalized non-woven fibers for the harvest, clarification and purification of bionanoparticles
13:55	**Ricardo M. Silva** Instituto Superior Técnico	Single-step extracellular vesicles isolation strategy using steric exclusion chromatography
14:15	**Mauri Belasko** Isolere Bio	Scalable purification of adherently-produced lentiviral vectors using IsoTag™ LV reagent

14:35	**Flash Talks**	
	Ronaldo Moraes Preto Instituto Butantan	Tangential flow filtration and multimodal chromatography as promising strategies for purification of outer membrane vesicles (OMVs) from *Neisseria lactamica*
	Ana Carolina Moreno Pássaro Instituto Butantan	Protein purification of soluble and insoluble Rhizavidin-fused potential *Schistosoma mansoni* antigen: a comparison of chromatographic performance
	Pragya Prakash Indian Institute of Technology, Delhi	Comparative analysis of chromatography-based approaches in the downstream processing of virus like particles
14:55	Refreshment Break	
Session 7: Oligo- and Polynucleotides – Chair: Aleš Podgornik		
15:25	**Aleš Podgornik** University of Ljubljana	Session Introduction
15:30	**Natalia Vereszki** RotaChrom Tecnologies PLC	Isolation of oligonucleotides by scalable IEX-centrifugal partition chromatography
15:50	**Ana Rita da Silva Santos** Instituto Superior Técnico	3D-printed matrices for steric exclusion chromatography of plasmid DNA
16:10	**Mikael Andersson Schönn** Bio-Works AB	Ion exchange as a sustainable alternative to reversed phase chromatography for the purification of TIDES molecules
16:30	**Francisco Marques** Instituto Superior Técnico	shRNA precipitation strategies for sustainable RNA-based biopesticides
16:50	**Sara Sousa Rosa** University College London	Simplifying mRNA manufacturing using alternative separation techniques
17:10	**End of session**	
19:30	**Conference Dinner**	

WEDNESDAY, NOVEMBER 12, 2025

Session 8: Affinity-based technologies– Chair: Jürgen Hubbuch		
09:00	**Jürgen Hubbuch** Karlsruhe Institute of Technology	Session Introduction
09:05	**Ana Roque** NOVA University	Improving the design and production of mixed-mode and affinity ligands
09:25	**Timon Kalchmayr** BOKU University	Designing for sustainability: Modelling the impact of buffer choice in chromatography
09:45	**Vanessa Kohl** Merck Life Science KGaA	Exploring the Nanofitin® Affinity Ligand Platform: Showcasing case studies from novel modalities to diverse protein classes

10:05	**Flash Talks**	
	Yasmin Kaveh Baghbaderani Technical University of Munich	Optimizing antibody-binding stoichiometry via the linker-region
	Cristina Dias-Cabral University of Beira Interior	*In situ* analysis of monoclonal antibody fragment adsorption on phenylboronic acid chromatography media
	Gregor Stitz BOKU University	Cationic polymers reduce host cell protein burden for subsequent chromatographic mAb purification
10:25	Refreshment Break	
Session 9: Fundamentals and modelling – Chair: Cristina Cabral		
10:45	**Cristina Cabral** University of Beira Interior	Session Introduction
10:50	**Sponsored Talk** **Martin Sichting** Cytiva Europe GmbH	DoE, mechanistic modelling and artificial intelligence in chromatography
11:10	**Nitika Nitika** Indian Institute of Technology Delhi	Application of machine learning for sustained verification of chromatography unit performance.
11:30	**Dorota Antos** Rzeszów University of Technology	Bulk crystallization for protein processing: new concepts, challenges and opportunities
11:50	**Eric von Lieres** Forschunsgzentrum Jülich	High-definition simulation of packed-bed chromatography in laterally unconfined compartments
12:10	**Marcel Ottens** Delft University of Technology	Host cell proteins profiling and characterization for model-based DSP design
12:30	Presentation of Poster Awards and Concluding Remarks by Sonja Berensmeier	
13:00	End of conference	

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