Österreichische Gesellschaft für Zytometrie

Austrian Society for Cytometry

# AlpenFlow 2026

*7. – 9. May 2026*

**Location:** *Kongress & TheaterHaus Bad Ischl*
Kurhausstraße 8
4820 Bad Ischl, Austria

**Thursday, 07.05.2026**

9:00 – 10:00 Registration

10:15 – 10:30 **Opening of the AlpenFlow**

## *Key note lecture*

10:30 – 11:15 Cells in the Limelight
***Andreas Radbruch, Berlin, Germany***

## Multiparameter in various settings

11:15 – 11:40 Modern Metrics for Spread and Resolution: Cytometry in the Era of 50+ Colors
***Florian Mair, Zurich, Switzerland***

11:40 – 12:05 Advanced Spectral Flow Cytometry for Immunophenotyping: Impact of Sample Preservation and Overnight Staining
***Friedrich Neubauer, Vienna, Austria***

12:05 – 12:30 Mapping the Cerebrospinal Fluid Immune Landscape in Multiple Sclerosis Using 39-Color Spectral Flow Cytometry
***Sina Zaic, Vienna, Austria***

12:30 – 14:00 Lunch & Networking

## Data analysis

14:00 – 14:25 Handling big Data flows as a Core Facility
***Bernhard Hochreiter, Klosterneuburg, Austria***

14:25 – 14:50 Before and after Data Analysis: Data Acquisition and Data Management
***Sophia Derdack, Vienna, Austria***

14:50 – 15:15 Flow Cytometry Data Analysis Workflows using R
***Aleander Tolios, Vienna, Austria***

15:15 – 16:30 Break & Networking

16:30 – 18:00 ***Workshop I*** (3 in parallel, each WS 1.5 hours)

1. **Multicolor Flow Cytometry**
   *"An updated Step-by-Step guide for Spectral Panel Design from 5-50 Colors"*
   ***Florian Mair, Zurich, Switzerland***

2. **BioLegend**

   *"Single-Cell Multiomics with TotalSeqT: From Multicolor Flow Cytometry to Simultaneous RNA and Protein Analysis"*
   Multiomics has transformed traditional sequencing experiments by providing exceptional protein and genetic analysis. In this presentation BioLegends newest TotalSeq Antibodies will be highlighted, now also enabling the analysis of Cytokines and Nuclear Protein Staining.
   ***Samuel Körner, BioLegend From Revvity, Germany***

3. **Sartorius Lab Instruments GmbH**

   *"Maximize Performance at Market Leading Speed: Meet the New iQue5"*
   In high throughput screening and companion diagnostics, time to result is key to success. See for yourself how the iQue5 acquires microtiter plates within minutes and how ForeCyt software organizes multiplexed assays and empowers cross-plate analysis.
   ***Kathrin Dienst & Matthias Anstaett, Sartorius Lab Instruments, Germany***

18:15 – 21:00 **Get together –** Kongress & TheatherHaus Bad Ischl

**Friday, 08.05.2026**

## Extracellular Vesicles

8:30 – 8:55 Extracellular Vesicles as Novel Therapeutics Promises and Challenges
***Johannes Grillari, Vienna, Austria***

8:55 – 9:20 Nanoanalytics for EV characterization
***Jaroslaw Jacak, Linz, Austria***

9:20 – 9:45 Human Cell-Derived Extracellular Vesicles as Novel Drug-Candidates: First-in Human Experience
***Eva Rohde, Salzburg, Austria***

9:45 – 10:10 Bacterial Extracellular Vesicles: What we know, what we guess, and what's next
***Irma Schabussova, Vienna, Austria***

10:10 – 10:45 Break

10:45 – 12:15 ***Workshop II*** (3 in parallel, each WS 1.5 hours)

1. **Beckman Coulter**

   ***"****Small Particles, Smart Strategies: single particle workFLOW optimization"*
   Gain a clear, practical framework for the complete workflow of single-particle EV cytometry – from optimizing conventional instruments and implementing rigorous cleaning, controls, and calibration to applying validated staining and analysis strategies. The experts will also share case examples illustrating how flow cytometry is enabling deeper biological insights in EV studies.
   ***Maximilian Haertinger, Vienna, Austria & Martin Wolf, Salzburg, Austria***

**2. OLS OMNI Life Science**

***"****The NovoCyte Opteon Spectral Flow Cytometer: From Panel Design with Easypanel to R-Based Analytics"*
This workshop introduces a complete spectral flow cytometry workflow, from acquisition on the NovoCyte Opteon to computational analysis. We will cover rational panel design using "Easypanel" and practical considerations for high-dimensional experiments. The session concludes with R-based strategies for advanced analysis and visualization of multiparameter flow data.

***Thorsten Rieling, Sales and Product Specialist, Bremen, Germany***

**3. Milteny Biotec**

*"Dimensions matter - From dissociated cells to spatially resolved and cleared organoids"*
This workshop demonstrates an integrated 1D–2D–3D workflow for organoid research, starting with gentle sorting of dissociated cells using the MACSQuant Tyto Lux. Two-dimensional multiplex spatial analysis on the MACSima enables interpretation of cell states within their spatial context rather than in isolation. Three-dimensional analysis of cleared whole organoids using the UltraMicroscope Blaze extends this by capturing cellular organization and architecture across the entire organoid volume.

***Nina Fülle & Oliver Petters & Stephan Werk, Miltenyi Biotec, Bergisch Gladbach, Germany***

12:15 – 13:15 Lunch & Networking

## Imaging

13:15 – 13:40 Integrative Spatial Proteomics by Imaging Mass Cytometry and MALDI-MSI uncovers Tumor- and Microenvironment-driven Heterogeneity in Breast Cancer.
***Klara Brozova, Vienna, Austria***

13:40 – 14:05 Flow Cytometric Profiling of Erythroid Cells: Identification of Morphological and Phenotypic Subclasses
***Michael Eigenschink, Vienna, Austria***

14:05 – 14:30 Decoding Tumor Plasticity by Multiplexed Imaging: Spatial Insights into Metastatic Breast Cancer
***Eva Chrenkova, Vienna, Austria***

14:30 – 15:00 Break

## Workshops

15:00 – 16:30 ***Workshop III*** (2 in parallel, each WS 1.5 hours)

**1. Imaging Analysis**

*"Image analysis: segmentation, clustering, and overprocessing"*

***Manuel Campos-Medina, Vienna, Austria***

**2. Waters Biosciences (formerly BD Biosciences)**

*„Design smarter. Discover deeper“*
With BD's CellView™ technology, you can analyze and sort cells based on their morphological features using flow cytometry, adding a powerful new dimension to single-cell research. This enables you to link cell shape and structure directly with phenotypic and functional markers in one integrated workflow.
The new BD Real Dyes™ dramatically simplify panel design thanks to their optimized spectral properties and deliver more robust performance, particularly in large, complex panels.
In combination with the BD FACS Discover™ platform, these modern tools help you generate more accurate, reproducible results and deeper biological insight, even as experimental complexity increases.

***Karen Hogg, York, UK & Uwe Speck, Waters Biosciences, Heidelberg, Germany***

16:30 – 16:45 Break

16:45 – 18:15 ***Workshop IV*** (2 in parallel, each WS 1.5 hours)

**1. Cytek Biosciences**

*“Shedding Light on Extracellular Vesicles with Imaging and Spectral Flow Cytometry”*
Flow cytometric analysis of extracellular vesicles (EVs) remains challenging due to the nanoscale size of the majority of EVs. To address these challenges, we have adopted both the Cytek® Amnis® ImageStream® imaging flow cytometry platform and our Full Spectrum flow cytometry systems (Northern Lights™, Aurora™, and Aurora™ CS). In this workshop, we will demonstrate end-to-end workflows for EV acquisition, including instrument setup, and share practical strategies to enhance EV detection and analytical resolution.

***Peter Rhein, Cytek Biosciences, Amsterdam, The Netherlands***

**2. Sony Biotechnology**

*"Performance and portability for spectral analysis and cell sorting with the ID7000 and FP7000"* (1h)
Learn how the ID7000 spectral cell analyzer is used for phenotyping antigen-specific T cell responses and supporting multi-site standardization.
We also highlight the seamless portability between the ID7000 and FP7000, allowing effortless transitions from analyzer to sorter.

***Karim Boustani, Sony***

*„Establishment of a 20-color spectral flow cytometry panel for the characterization of murine antigen-specific CD8 T cell subsets on the SONY ID7000.“* (0.5h)
The purpose of the panel is to delineate CD8 T cell memory (TEM, TCM, and TRM) and various effector CD8 T cell (TE) subsets, along with their activation states upon systemic virus infections in mice. Tetramer staining was employed to define CD8 T cell specificity. Overall, this 20-colour panel provides a powerful and flexible tool for in-depth analysis of antigen-specific CD8 T responses.

***Leonie Wolf, Innsbruck, Austria***

18:30 **Special Lecture – "**Memory of Mankind – Cerabyte"
***Martin Kunze, Hallstadt, Upper Austria, Austria***

The most durable data carriers (in the form of ceramic tablets), stored deep in the oldest salt mine in the world will carry our stories hundreds of thousand of years into the future. www.memory-of-mankind.com


20:00 – 23:00 **Common Dinner** in the ***Cafe-Restaurant Zauner***
pre-registration required – fee applies 40€

**Saturday, 09.05.2026**

## Immune deficiencies

9:00 – 9:25 Precision diagnostics of Inborn Errors of Immunity by cytometry - chances and limits
***Elisabeth Förster-Waldl, Vienna, Austria***

9:25 – 9:50 Inflammatory Landscape of HLH Patients
***Manuel Trebo, Innsbruck, Vienna, Austria***

9:50 – 10:25 Applying Flow Cytometry to Investigate the Tumor Microenvironment of Aggressive Lymphoma
***Aleander Deutsch, Graz, Austria***

10:25 – 11:00 Break

## New techniques and Basics

11:00 – 11:25 Performance of Fluorochromes used for Flow Cytometry
***Sieghart Sopper, Innsbruck, Austria***

11:25 – 11:50 Developing Novel Fluorescent Dyes via Sustainable Synthesis
***Danica Drpic, Vienna, Austria***

11:50 – 12:15 A Snapshot of Single Cell Proteomics
***Karl Mechtler, Vienna, Austria***

12:15 – 12:40 A first Glimpse at Cells: Imaging with the S8 Sorter
***Sebastian Peer, Innsbruck, Austria***

12:45 Farewell

## Organisation:

*Maximilian Härtinger*
Medical University of Vienna, Department of Pathology, Vienna, Austria

*Sieghart Sopper*
Medical University Innsbruck, Core Facility Flow Cytometry, Innsbruck, Austria

*Andreas Spittler*
Medical University of Vienna, Core Facility Flow Cytometry & Surgical Research Laboratories, Vienna, Austria

*Alexander Tolios*
Medical University of Vienna, Department of Blood Group Serology and Transfusion Medicine, Vienna, Austria

## Approbation:

The conference of the "Austrian Society for Cytometry" (7.-9.5.2026) is approved for the Diploma Training Program of the *ÖÄK* with **20 Medical DFP Points** and by b*iomed austria - Austrian Professional Association of Biomedical Analysts* with **20 CPD points.**

## Speakers and Presenters:

***Anstaett, Matthias***
Sartorius Lab Instruments

***Baumgart, Martin***
Sony Biotechnology Europe

***Boustani, Karim***
Sony Biotechnology Europe

***Brozova, Klara***
Medical University Vienna, Core Facilities, Vienna, Austria

***Campos-Medina, Manuel***
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***Chrenkova, Eva***
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***Drpic, Danica***
CeMM Research Center for Molecular Medicine, Vienna, Austria

***Derdak, Sophia***
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***Deutsch, Alexander***
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***Dienst, Kathrin***
Sartorius Lab Instruments

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***Förster-Waldl***
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***Fülle, Nina***
Miltenyi Biotec

***Grillari, Johannes***
Ludwig Boltzmann Institute for Traumatology, Vienna, Austria

***Hogg, Karen***
Technology Facility, Department of Biology, University of York, York, United Kingdom

***Jacak, Jaroslaw***
University of Applied Sciences, Linz, Austria

***Härtinger, Maximilian***
Medical University Vienna, Klinisches Institut für Pathologie, Vienna, Austria

***Hochreiter, Bernhard***
Institute of Science and Technology Austria - ISTA, Imaging and Optics Facility, Klosterneuburg, Austria

***Neubauer, Friedrich***
Medical University Vienna, Department of Pediatrics, Vienna, Austria

***Körner, Samuel***
BioLegend

***Kunze, Martin***
Hallstadt World Heritage, Hallstadt, Upper Austria, Austria

***Mair, Florian***
ETH Zurich, Institute of Molecular Health Sciences, Zurich, Switzerland

***Mechtler, Karl***
Research Institute of Molecular Pathology (IMP), Vienna, Austria

***Peer, Sebastian***
Medical University Innsbruck, Department of Internal Medicine & FACS Core Facility, Innsbruck, Austria

***Petters, Oliver***
Miltenyi Biotec

***Radbruch, Andreas***
The German Rheumatology Research Center (DRFZ), Berlin, Germany

***Rieling, Thorsten***
OLS OMNI Life Sciences

***Rhein, Peter***
Cytek Biosciences

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***Sieghart Sopper***
Medical University Innsbruck, Core Facility Flow Cytometry, Innsbruck, Austria

***Speck, Uwe***
Waters Biosciences (formerly BD Biosciences)

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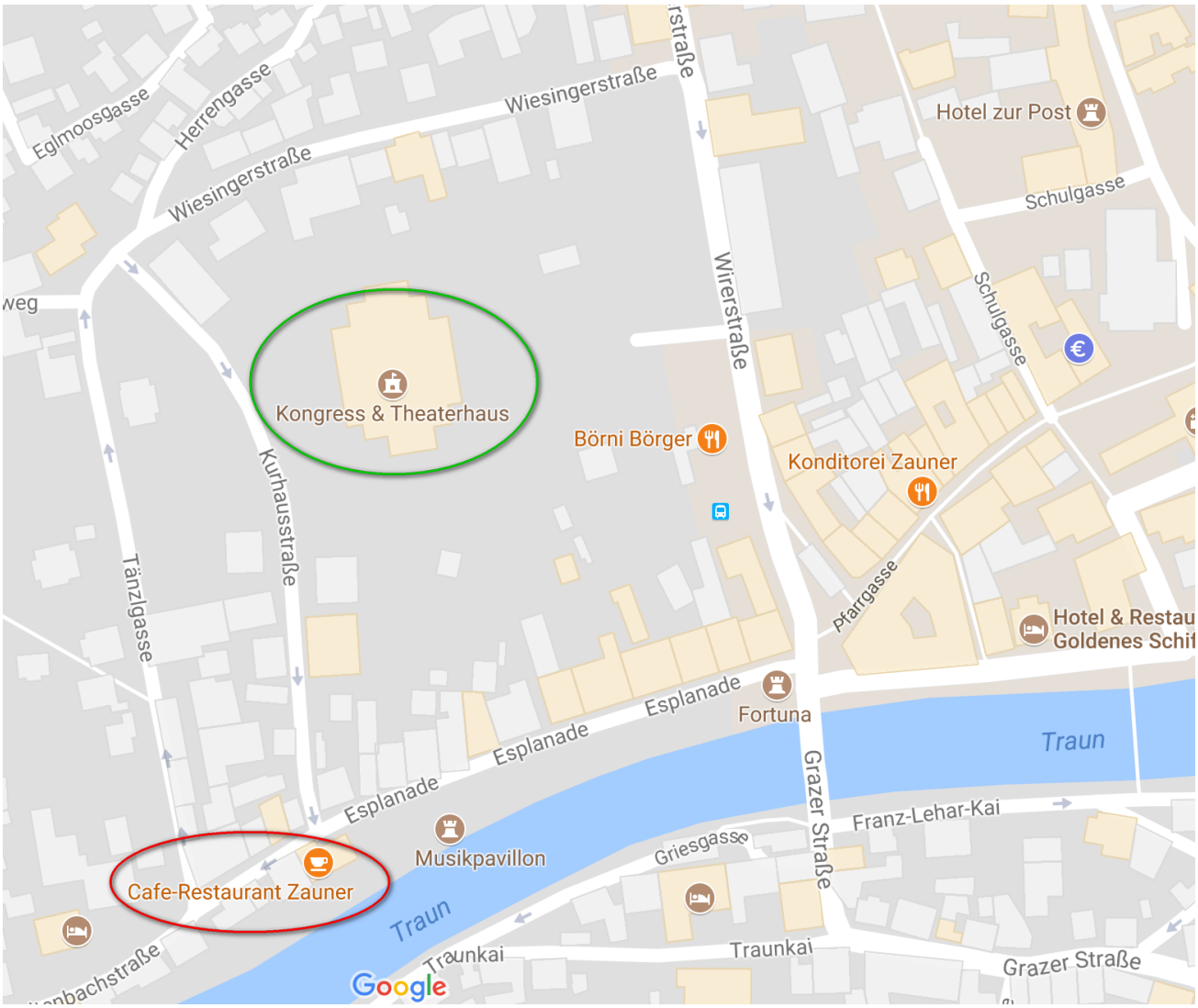
***Werk, Stephan***
Miltenyi Biotec

***Wolf, Leonie***
Medical University Innsbruck, Virology Innsbruck, Innsbruck, Innsbruck

***Wolf, Martin***
Paracelsus Medical University, Institute of Experimental and Clinical Cell Therapy, Salzburg, Austria

***Zaic, Sina***
Medical University Vienna, Department of Neurology, Vienna, Austria

The **joint dinner** for pre-registered participants takes place in the **"Cafe-Restaurant Zauner"**, Hasnerallee 2 (Esplanada), 4820 Bad Ischl (red circle).



# *Notes and drawings*

# Main Sponsors of the OEGfZ








# Sponsors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