



Österreichische Gesellschaft für Zytometrie
Austrian Society for Cytometry

AlpenFlow 2019

5. – 7. December 2019



Kongress & Theaterhaus
Bad Ischl, Austria

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

Thursday, 5.12.2019

07:30 – 08:30 **Registration**

08:30 – 12:00 **Workshops I & II**

08:30 – 10:00 **Workshop I** (3 in parallel, each WS 1.5 hours)

1. BD Life Sciences Biosciences

“Get moving with BD Innovations“

- Multiomics and Rhapsody
Johannes Ulbrich, Multiomics, BD
- High End Flow Cytometers: BD FACSymphony and BD Sorter S6
Uwe Speck, Application Specialist Sorter, BD
- Innovations in Automation and Standardisation in Clinical Flow Cytometry -
BD FACSLyric™ & BD FACSDuet™
Sylvia Unger, Product Manager, BD

2. Biolegend

- Single Cell Analysis: From Multicolor Flow Cytometry to CITEseq for
simultaneous RNA and Protein Analysis
Carsten Wiethe, Biolegend - Biozym, Germany/Austria

3. Cytognos

- Infinicyt™ software: new strategies in flow cytometry data analysis.
Cytognos, The Netherlands

10:00 – 10:30 Break

10:30 – 12:00 **Workshop II** (3 in parallel, each WS 1.5 hours)

1. Beckman Coulter

• **Clinical Research**

“Achieving scientific rigor in immune oncology studies using DURAClone
antibody panels”

*Michael Kapinsky, Marketing Manager Reagents and Applications, Business
Unit Flow Cytometry, Beckman Coulter, Germany*

• **Diagnostics**

“Flow cytometry of hematological malignancies: Standardized solutions and
future visions”

*Michael Kapinsky, Marketing Manager Reagents and Applications, Flow
Cytometry, Beckman Coulter, Germany*

2. Miltenyi Biotec

- Understand nature's complexity: New platforms for 3D and ultra high content imaging.

Parts: UltraMicroscope II light sheet microscope

Ultra high content imaging with the MACSima™ Imaging Platform

Uwe Schröder & Stefan Eulitz, Miltenyi Biotec B.V. & Co. KG, Germany

3. Luminex

- CCD based flow cytometry enables advanced applications in immunology

Carsten Ludwig, Luminex, Germany

12:00 – 14:00 **Lunch & Registration**

14:00 – 19:00 **Workshops III - V**

14:00 – 15:30 *Workshops III* (3 in parallel, each WS 1.5 hours)

1. Fluidigm

- From cell types to tissue: analyse >40 functional and phenotypic markers simultaneously on the Helios and Hyperion™ Imaging System, powered by CyTOF® technology

Mayur Bakshi, Field Application Specialist, Fluidigm, Germany

2. TissueGnostics

- Pattern recognition und AI Algorithms in Blood and Tissue: the Revolution in Medical Diagnostics

Andreas Baur, Erlangen, Germany

3. Thermo Fisher Scientific

- New Strategies for Cell-Based Immune Assay Design
Hands-on Demonstration of the Attune NxT Flow Cytometer

Werner Einig, Technical Sales Specialist Flow Cytometry, Zug, Switzerland

15:30 – 15:45 Break

15:45 – 17:15 *Workshops IV* (3 in parallel, each WS 1.5 hours)

1. Quality Control

- Validation and QC in Cytometry

Karl Schrattbauer, Vienna, Austria & NN

2. Molecular Cytometry

- Genomics, Transcriptomics and Proteomics at the single cell level

Sieghart Sopper & Anne Krogsdam & Martina Sykora, Innsbruck, Austria

3. Minimal Residual Diseases

- Standardized MRD diagnostic – Multiple Myeloma and more

Martin Willheim, St. Pölten Austria & Wolfgang Hübl, Vienna, Austria

17:15 – 17:30 Break

17:30 – 19:00 **Workshops V** (3 in parallel, each WS 1.5 hours)

1. Multicolor: The Basics

- Multicolour, FMO and data spreading

Julia Stemberger & Dieter Printz, Vienna, Austria

2. Cytex Biosciences

- 32 – the answer to all your questions ... or the hitchhikers guide to spectral flow (please bring a towel ...)

Knut Petkau & Sebastian Lunemann, Cytex Biosciences, Germany

3. Sample preparation & cell controls

- Optimal preparation of cells and 3D cell cultures for flow cytometry
- Online monitoring in microfluidics and micro(bio)reactors with integrated optical chemical sensor

Beate Rinner & Eleonore Fröhlich & Torsten Mayr, Graz, Austria

19:00 – 21:30 **Get together** – Kongress & TheaterHaus Bad Ischl

The get together is musically accompanied by the group *Remix*
... just good music – best of 70s, 80s, 90s ...

Friday, 6.12.2019

8:30 – 8:45 **Opening of the AlpenFlow**

Key note lectures

8:45 – 9:25 Searching for rare immune cells

Marcello Pinti, Modena, Italy

9:25 – 10:05 Eine kleine Immun-Musik: How microbiome, genetics and pathogens orchestrate our immune system.

Thomas Liechti, Bethesda, United States

10:05 – 10:30 Break

Immune Deficiencies / Clinical Haematology

10:30 – 11:00 CD Maps - antigen density measurements of CD1-CD100 on human lymphocytes and thymocytes

Tomas Kalina, Prague, Czech Republic

11:00 – 11:30 Flow cytometric monitoring of patients with immunotherapies

Ulrich Sack, Leipzig, Germany

11:30 – 12:00 CD34 subtyping by flow cytometry

Gerhard Frisch, Vienna, Austria

12:00 – 12:30 The clinical significance of flow cytometric immunophenotyping in 2019

Peter Bettelheim, Linz, Austria

12:30 – 12:45 FlowMe – A Clinical Decision Support System for Minimal Residual Disease Quantification for Acute Lymphoblastic Leukemia
Markus Diem, Vienna, Austria

12:45 – 13:45 Lunch

Bioinformatics

Moderation: Attila Tarnok, Leipzig, Germany

13:45 – 14:15 The good, the bad and the ugly - a shallow dive into dimensionality reduction
Alexander Tolios, Vienna, Austria

14:15 – 14:45 Analysing Cytometry Data with the FlowSOM algorithm
Sofie van Gassen, Gent, Belgium

14:45 – 15:05 From Diva to FlowJo and back
Uwe Speck, Becton Dickinson

15:05 – 15:25 FCS Express: Turning Cytometry Data into Results
Andrea Valle, De Novo Software, Glendale, California, United States

15:25 – 15:45 From data to insight - how Cytobank can support high complexity flow cytometry.
Nicole Weit, Beckman Coulter, Germany

15:45 – 16:15 Break

Multiparameter Imaging

16:15 – 16:40 **Overview**
Imagine all the colors
Marion Gröger, Vienna, Austria

16:40 – 17:05 **Flow Imaging**
Localization of CD48 in Haploinsufficiency assessed by Imaging Cytometry
Claudia Dumrese, Zurich, Switzerland

17:05 – 17:30 **Imaging CyToF**
Highly Multiplexed Immunohistochemistry
Visualize >40 functional and phenotypic markers simultaneously on the Hyperion™ Imaging System, powered by CyTOF® technology
Marc Reudelsterz, Field Application Specialist, Fluidigm Germany

17:30 – 17:55 **Cell-based Image Analysis**
Developments in cell-based image analysis: High content screening
Eleonore Fröhlich, Graz, Austria

19:00 – 23:00 **Common Dinner in the Cafe-Restaurant Zauner**
pre-registration required – fee applies 25€

Saturday, 7.12.2019

Workshops VI & VII

9:00 – 10:30 *Workshop VI* (3 in parallel, each WS 1.5 hours)

1. Flow Cytometry

- Update on Pitfalls and Troubleshooting
Heimo Strohmaier, Graz, Austria & Andreas Spittler, Vienna, Austria

2. Sartorius Austria GmbH

- Data analysis and Integrity in High throughput Flow
Ben Tiburzy & Matthias Anstaett, Sartorius Corporation

3. Immune Monitoring in the Clinic

- Reproducibility of Flow Cytometry through Standardization: The EuroFlow experience
Tomas Kalina, Prague, Czech Republic
- Immune phenotyping data networks based on flow cytometry standardization: Experiences from the ONE-Study
Mathias Streitz, Berlin, Germany

10:30 – 10:45 Break

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

1. Single cell preparation for downstream analyses

- Principles and Tips
Matthias Schiemann, Munich, Germany

2. Multiparameter Analysis

- Opening the flow cytometric space to more dimensions
Sieghart Sopper & Martina Sykora, Innsbruck, Austria
- High Dimensional Data Analysis with FCS Express
Andrea Valle, De Novo Software, Glendale, California, United States
- Using Cytobank to analyze, visualize and manage cytometry data
Kanutte Huse, Oslo, Norway

3. Liquor diagnostic

- Flow cytometry for immunophenotyping of cerebrospinal fluid cells: opportunities and limitations.
Andrea Harrer, Salzburg, Austria & Catharina Gross, Münster, Germany

Organisation:

Dieter Printz

Children's Cancer Research Institute, Vienna, Austria

Beate Rinner

Medical University Graz, Core Facility Alternative Biomodels & Preclinical Imaging, Graz, 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

Martin Willheim

Universitätsklinikum St. Pölten, St. Pölten, Austria

Approbation:

The conference of the "Austrian Society for Cytometry" (5-7.12.2019) is approved for the Diploma Training Program of the ÖÄK with **23 Medical DFP Points** and by *biomed austria - Austrian Professional Association of Biomedical Analysts* with **60 CPD points**.

Speakers and Presenters:

Anstaett, Matthias

Sartorius Corporation

Bakshi, Mayur

Fluidigm

Baur, Andreas

Universitätsklinikum Erlangen, Department of Dermatology, Erlangen, Germany

Bettelheim, Peter

Laborgemeinschaft für Spezialdiagnostik, Linz, Austria

Diem, Markus

TU Vienna, Institute of Visual Computing & Human-Centered Technology Computer, Vienna, Austria

Dumrese, Claudia

University Zurich, Cytometry Facility, Zurich, Switzerland

Einig, Werner

Thermo Fisher Scientific

Eulitz, Stefan

Miltenyi Biotec B.V. & Co. KG, Germany

Fleischer, Jens

Becton Dickinson

Frahm, Jennifer

Fluidigm

Fritsch, Gerhard

Children's Cancer Research Institute, Vienna, Austria

Fröhlich, Eleonore

Medical University Graz, Core Facility Imaging, Graz, Austria

Gröger, Marion

Medical University of Vienna, Core Facility Imaging, Vienna, Austria

Gross, Catharina

Westfälische Wilhelms-Universität Münster, Institute of Translational Neurology, Münster, Germany

Harrer, Andrea

University of Salzburg, Department of Neurology, Salzburg, Austria

Huse, Kanutte

Oslo University Hospital, Institute for Cancer Research, Norway

Kalina, Tomas

Charles University of Prague, Prague, Czech Republic

Liechti, Thomas

National Institute of Health, Bethesda, United States

Ludwig, Carsten

Luminex

Kapinsky, Michael

Beckman Coulter

Krogsdam, Anne

Medical University Innsbruck, Institute of Bioinformatics, Innsbruck, Austria

Mayr, Torsten

Graz University of Technology, Institute of Analytical Chemistry and Food Chemistry, Graz, Austria

Petkau, Knut

Cytek Biosciences

Pinti, Marcello

University of Modena, Modena, Italy

Printz, Dieter

Children's Cancer Research Institute, Vienna, Austria

Reudelster, Marc

Fluidigm Germany

Rinner, Beate

Medical University Graz, Core Facility Alternative Biomodels & Preclinical Imaging, Graz, Austria

Sack, Ulrich

University of Leipzig, Leipzig, Germany

Schiemann, Matthias

Technical University Munich, Institute of Medical Microbiology, Immunology & Hygiene, Munich, Germany

Schrattbauer, Karl

Sozialmedizinisches Zentrum Ost – Donauspital, Institute for Laboratory Medicine, Vienna, Austria

Uwe Schröer

Miltenyi Biotec B.V. & Co. KG, Germany

Sopper, Sieghart

Medical University Innsbruck, Core Facility Flow Cytometry, Innsbruck, Austria

Speck, Uwe

Becton Dickinson

Spittler, Andreas

Medical University of Vienna, Core Facility Flow Cytometry & Surgical Res. Lab., Vienna, Austria

Stemberger, Julia

Children's Cancer Research Institute, Vienna, Austria

Streitz, Matthias

Charité Berlin, Institute for Immunology, Berlin, Germany

Strohmaier, Heimo

Medical University Graz, Core Facility Imaging, Graz, Austria

Sykora, Martina

Medical University Innsbruck, Hematology Oncology, Innsbruck, Austria

Tarnok, Attila

University of Leipzig, Leipzig, Germany

Tiburzy, Ben

Sartorius Corporation

Tolios, Alexander

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

Ulbrich, Jannes

Becton Dickinson

Unger, Sylvia

Becton Dickinson

Valle, Andrea

De Novo Software

Van Gassen, Sofie

Ghent University, Department of Information Technology, Gent, Belgium

Weit, Nicole

Beckman Coulter

Wiethe, Carsten

Biologend,

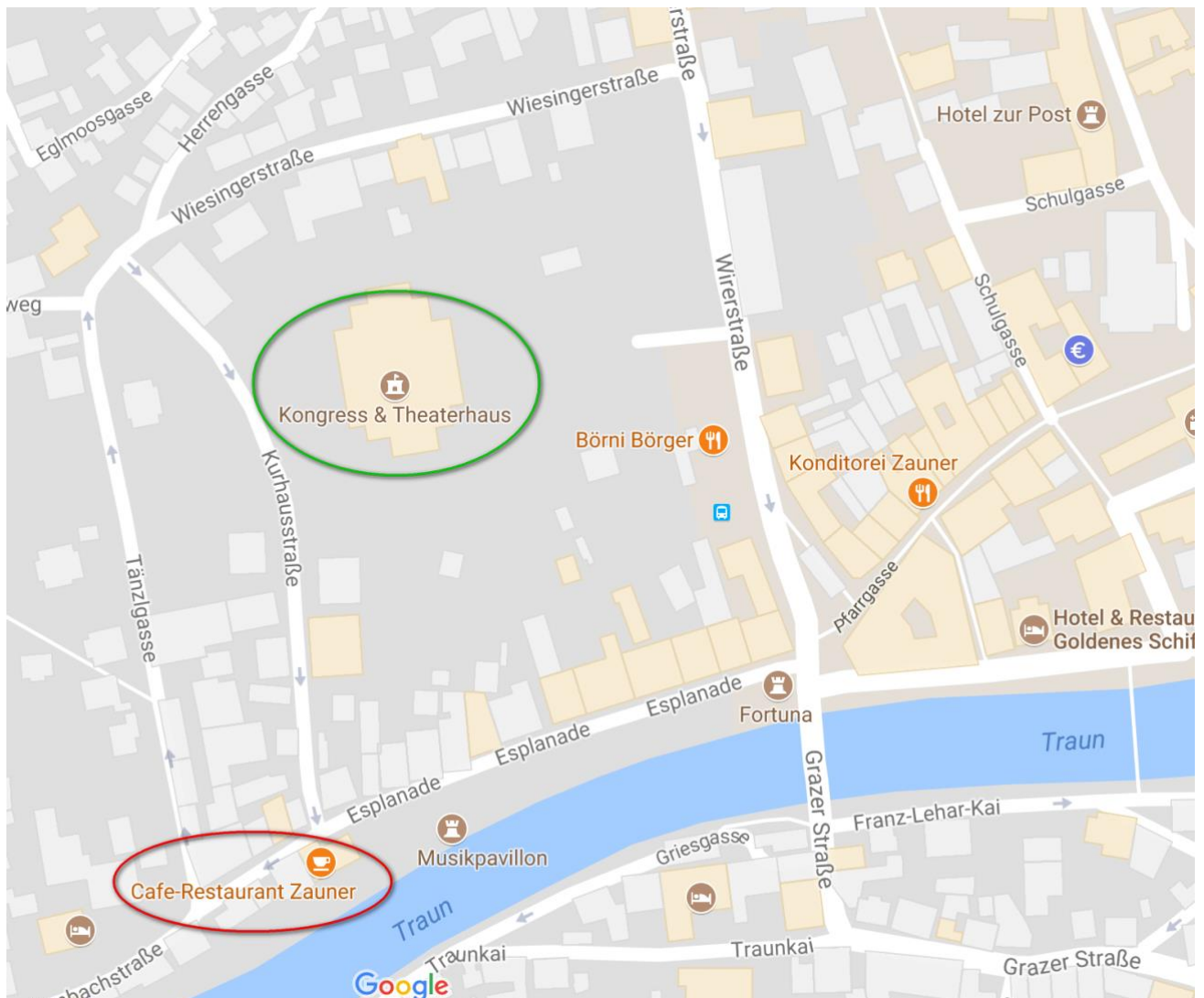
Willheim, Martin

Universitätsklinikum St. Pölten, Klinisches Institut für Laboratoriumsmedizin, St. Pölten, Austria

Main Sponsors of the OEGfZ



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



Imprint:

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