

**IFCC**  
**Medical Life Science and Technology**

## Course Description

**Course title:** Cell Processing and Purification

**Course organizer:** Dr. Matthias Schiemann

**Email address:** matthias.schiemann@tum.de

**Institute/Clinic:** Institut für medizinische Mikrobiologie, Immunologie und Hygiene

**Maximum number of participants:** 25

**Level (Basic or Advanced):** basic and advanced

**Prerequisites for attending** (list all skills, techniques, theoretical knowledge needed to participate in this course, especially if this is an advanced course):

None

**Describe the contents and context of this course** (e.g.: Are you teaching certain techniques in the context of a specific disease or system? If so, how does that affect the way the course is taught? Or are you teaching certain techniques as widely used tools focusing on their theoretical background? How and why? Is the course about how to perform a technique, which techniques to use for a certain question or about developing the experimental design? Etc.):

Flow cytometry related course with focus to clinical cell-therapy. Flow cytometry basics - also advanced aspects and practical work included.

This workshop will cover a variety of topics related to cell processing and purification, including advances in instrumentation and techniques, software for FCS analysis, intracellular cytokine detection, advances in methods to measure T cell proliferation and advances in the usage of reversible reagents. We have invited experts to discuss their work in an informal lecture setting, discussion and workshop groups.

**List the techniques that will be taught in this course:**

- Flow cytometry and cell sorting - experimental setup
- Multi color panel design
- Software for FCS analysis
- Data analysis/statistic
- Micro particles and artefacts
- practice on T cell subsets and reversible reagents, clinical cell processing

**Type and Duration of Exam:**

written Exam – multiple Choice – 90 minutes

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**Provide a schedule of the course including the following information:**

<b>Day/Date</b>	<b>Location</b>	<b>Start Time</b>	<b>End Time</b>	<b>Topic</b>	<b>Instructor</b>
24.09.2018	MIH	10.00	18.00	Basics flow cytometry and cell sorting Cell sorting and purification HD analysis	Matthias Schiemann (Munich) Immanuel Andrä (Munich) Tomas Kalina (Prague) Antonio Cosma (Paris)
25.09.2018	MIH	9.00	17.00	Multicolor Panel Design Data analysis/statistic	Tomas Kalina (Prague) Jonas Mir (Munich)
26.09.2018	MIH	9.00	17.00	FCS analysis Analysis of lymphocytes B and T differentiation in the diagnosis of primary immune deficiencies	Claudio Vallan (Zurich) Andreja Natasa Kopitar (Ljubljana)
27.09.2018	MIH	9.00	17.00	Micro particles and artefacts	Andreas Spittler (Vienna) Immanuel Andrä (Munich)
28.09.2018	MIH	9.00	16.00	Behind the scenes QC and viability FACS, GMP and clinical cell processing Examination and discussion	tbd Martin Hildebrand (Munich) Ulrich Sack (Leipzig) Matthias Schiemann (Munich)