

**Time:** 04. - 05.03.2024, 2024

**Place:** Universität Regensburg

**Target group:** PhD students at the TRR 374, open for medical doctoral students and PostDocs in the TRR 374 and interested doctoral students (via the graduate schools)

**Credit Points:** Full participation can be counted as a method course with 0.6 CP within the Curriculum of the Graduate Schools (RIGel, BioMediGS, life@FAU)

**Maximum number of participants:** 10

**Registration and contact:** [michaela.kritzenberger@ur.de](mailto:michaela.kritzenberger@ur.de)

- Registration for TRR-members requested by 19.02.2024  
Costs for TRR members are covered by the Z3 project of the TRR 374
- Registration for non-TRR-members: 20. - 26.02.2024 (first come - first serve)

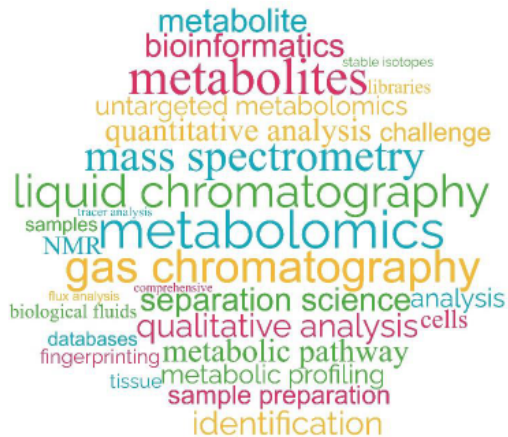
## 2-Day Metabolomics Workshop

Institute of Functional Genomics, University of Regensburg

Am BioPark 9, Biopark I, 93053 Regensburg

### Content

- Introduction to metabolomics
- Sample preparation for metabolomics
- Analytical techniques
- Qualitative and quantitative metabolomics
- Tracing analysis
- **Hands-on:**
  - Sample preparation of cell pellets
  - Instrumental analysis
  - Data analysis for untargeted metabolomics (mzMine, MSDial)
  - Targeted metabolomics - quantitative analysis
  - Basic statistical data analysis
- Discussion of pitfalls



**Course instructors:** Dr. Katja Dettmer-Wilde

Prof. Dr. Wolfram Gronwald

Simon Heckscher, Fabian Kellermeier, Lisa  
Ellmann, Sakshi Kamboj

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## **First day**

10:00 - 10:15 am	Welcome and introduction (Katja Dettmer-Wilde, Wolfram Gronwald)
10:15 – 11:45 am	Introduction to metabolomics, sample preparation for metabolomics (KDW)
11:45 – 12:30 am	Lab safty instructions, first steps of sample preparation (lab work) (Team IFG)
12:30 – 1:30 pm	Lunch break
01:30 – 3:00 pm	Lab work and introduction to GC-MS, LC-MS, NMR during waiting periods (KDW, WG, Team IFG)
03:00 – 3:15 pm	Break
03:15 – 05:00 pm	Introduction to instruments, set-up of instrumental analysis (Team IFG)

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## **Second day**

9:00 - 10:30 am	Data analysis of HPLC-HRMS data with mzMine (Team IFG)
10:30 – 10:45 am	Break
10:45 – 12:30 am	Data analysis of GC-MS data, quantitative analysis, untargeted analysis with MSDial (Team IFG)
12:30 – 1:30 pm	Lunch break
01:30 – 3:00 pm	Introduction to statistical data analysis of metabolomics data (Wolfram Gronwald)
03:00 – 3:15 pm	Break
03:15 – 04:15 pm	Analysis and discussion of acquired data, quantitative versus qualitative data (all)
04:15 – 04:30 pm	Closing remarks