

# **User Guidelines**

# **CECAD Lipidomics Core Facility**

CECAD Research Center

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1st floor

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#### 1. Services

The Lipidomics Facility offers the qualitative and quantitative analysis of lipids in biological samples. The service includes the entire workflow from the sample preparation, the analysis of the requested lipid classes by chromatographic and mass spectrometric techniques as well as the analysis of the generated raw data. The users hand over their samples (tissues, cell pellets, ...) to the Facility and receive the analyses results in excel files containing the complete data evaluation.

Furthermore the Facility offers help with the experimental design and data interpretation. The usage of the Facility can be financed through third-party funding for which the Facility can provide the required information.

## 2. Contact persons

#### **Dr. Susanne Brodesser**

Head of the Lipidomics Facility Room 1.011

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The CECAD Lipidomics Facility can be found on the Internet: http://cecad.uni-koeln.de/Lipidomics-Facility.291.0.html?&L=0

#### 3. Equipment

- QTRAP 6500 Mass Spectrometer (SCIEX)
- TripleTOF 6600 Mass spectrometer (SCIEX)
- SelexION interface for Differential Ion Mobility Spectrometry (SCIEX)
- 7890A/5975C GC/MSD System (Agilent)
- 1260 Infinity Binary LC System (Agilent)
- Ekspert MicroLC 200 System (Eksigent)
- TriVersa NanoMate (Advion)
- Linomat 5, TLC Scanner 3, TLC-MS Interface (CAMAG)
- Workstation with data analysis software:
   Analyst, MultiQuant, LipidView, MarkerView, PeakView, MasterView, LibraryView (SCIEX)

#### 4. Access to the Facility services

The CECAD Lipidomics Facility is accessible to all research groups from (i) CECAD, (ii) the University and the University Hospital of Cologne and (iii) any other public research institute outside of Cologne. However, CECAD groups and, in a second step, non-CECAD members from the University and the University Hospital of Cologne, are privileged in terms of analysis priority and prices. The Lipidomics Facility reserves the right to reject analyses for groups of external institutions. Service analyses for commercial companies are not intended.

#### 5. Terms of usage

#### 5.1 Co-Authorship, Acknowledgments

To ensure that the Lipidomics Facility can continue to provide the best service possible by using state of the art technical equipment funding by the Deutsche Forschungsgemeinschaft (DFG) is mandatory. Since the DFG evaluates and supports Core Facilities on the basis of their number of co-authorships, acknowledgements and citations, the CECAD Lipidomics Facility performs analyses always on the



basis of a scientific collaboration. Therefore it is important that all users adhere to the following guidelines:

If data generated in the CECAD Lipidomics Facility are used for publication, the participation of the Facility has to be documented. In case of a substantial scientific contribution (e.g. design of experiment, method development, data analysis, data interpretation, text contributions, manuscript proofreading), common rules for co-authorship apply to the Lipidomics Facility staff members. In all other cases the contribution has to be mentioned in the acknowledgement section. This includes publications, talks, as well as Bachelor, Master and PhD theses. The following phrase has to be used:

"We thank Dr. Susanne Brodesser and the CECAD Lipidomics Facility for their support."

The head of the CECAD Lipidomics Facility has to be informed whenever data are used for publication or the Facility is acknowledged.

#### 5.2 User fees

Analyses performed by the CECAD Lipidomics Facility are charged in order to keep the Facility fully operational (e.g. purchase of software updates, reference substances and consumables). For the three user groups mentioned in section 4. graduated prices apply. Bills are sent out quarterly. For enquiries concerning prices of analyses please contact Dr. Susanne Brodesser.

The guidelines regarding co-authorship and acknowledgments (see section 5.1) apply independently of the user fees.

### 6. Analysis priorities

Regarding the processing order of samples the following rules apply:

- a) Samples of CECAD research groups are processed first.
- b) Samples of non-CECAD members of the University and the University Hospital of Cologne are processed next.
- c) In case of free capacities also samples of research groups outside of Cologne are accepted.
- d) Urgent samples, e.g. to meet publication or revision deadlines, are prioritized.



In case of conflicting demands the Lipidomics Facility Committee (Dr. Susanne Brodesser, Prof. Jens Brüning, Prof. Martin Krönke, Prof. Thomas Langer, Prof. Carien Niessen) will determine which user will be given highest priority.

## 7. Contacting the Facility and sample handover

Research groups interested in using the CECAD Lipidomics Facility should initially make an appointment with the head of the Facility, Dr. Susanne Brodesser, to discuss the scientific background of the respective project, the appropriate analytical technique as well as time and cost aspects. The Lipidomics Facility treats details of user projects as strictly confidential.

Samples handed over to the Lipidomics Facility should be frozen and transported on dry ice. Sample tubes have to be labeled unambiguously and legibly using permanent ink. Users have to provide an excel file with details on the sample type, sample names and contact details of the responsible Ph.D. student or PostDoc (name, institute/department, phone number, e-mail address, name of the group leader). The sample names in the excel file have to match the labeling of the sample tubes.

For samples containing "Genetically Modified Organisms" (GMOs) of Risk Group 1 the user has to provide a copy of the "Formblatt Z". GMOs of risk group 2 cannot be handled in the CECAD Lipidomics Facility.

#### 8. Data analysis and storage

Data acquired by mass spectrometry are automatically and daily backed up to a network-attached storage (NAS) system provided by the regional computing center of the University Cologne (RRZK). Data processing and analysis is carried out by the staff of the Lipidomics Facility. Excel files containing the complete data analysis are sent to the users via e-mail.

#### 9. Usage of the Facility equipment

The devices of the CECAD Lipidomics Facility (see section 3.) are solely operated by the staff of the Facility. An operation by the users is only intended in exceptional cases and under supervision of the Facility staff.



## 10. Consequences in case of violation of guidelines

By using the services of the CECAD Lipidomics Facility the user accepts the present guidelines. In case of violation of the guidelines, the respective group can be excluded from further usage of the CECAD Lipidomics Facility.

Cologne, 04/14/2016

Dr. Susanne Brodesser

Head of the CECAD Lipidomics Facility