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User Instructions  
for the  
Facility for Extracellular Vesicle Analysis  
and Liquid Biopsy (EV-Core)

## Introduction

The Facility for Extracellular Vesicle Analysis and Liquid Biopsy (EV-Core, in the following: Facility) is located at the Institute for Infection Prevention and Control (IIK) at the Medical Center – University Freiburg. It is supported by members of the research group Extracellular Vesicles of Prof. Dr. Irina Nazarenko. The services of the Facility entail the infrastructure and methodological support for scientific and clinical research projects. This set of instructions is binding to all users of the Facility.

## Contacts

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* Website: [https://www.uniklinik-freiburg.de/ev-core](https://www.uniklinik-freiburg.de/ev-corev)

## Equipment overview

* NANO-flex 180° DLS Size (Colloid Metrix GmbH, Meerbusch, Germany)
* ZetaView x20 Series, TWIN NTA, PMX220 (Particle Metrix GmbH, Inning am Ammersee, Germany)
  + lasers: 488 nm, 640 nm
* ZetaView x20 Series, QUATT NTA (Particle Metrix GmbH, Inning am Ammersee, Germany)
  + lasers: 488 nm, 500 nm, 640 nm, 660 nm
* Flow NanoAnalyzer (NanoFCM Inc., Xiamen, China and Nottingham, UK)
  + lasers: 488 nm, 532 nm, 640 nm

## Facility access

The facility resources are accessible in principle to all interested research parties (both non-commercial and commercial).

Access to equipment of the Facility can only be granted after the prospective user has signed and returned the **EV-Core User Access Form** by email. With this, the user acknowledges that they have read the User Instructions and that they will comply with them.

For the expected duration of the named project, access to the facility is granted.

User access to the Facility may be rescinded if the user does not use the Facility or its equipment properly.

Access to the instruments is dependent on availability. The prioritization of access requests is described in the **EV-Core Operational Strategy**.

## Biosafety

An **EV-Core Biosafety Form** must be filled out for every experiment that uses samples classified as Level 2/S2 by the laws Gentechnikgesetz or the Infektionsschutzgesetz of Germany. It is the user's and their project or group leader's responsibility to inform the Facility when the project changes (e.g. by the addition of a new retroviral vector). This is to determine potential risks such as aerosol formation, and to protect all people working at the Facility and all biological samples. The Facility is not certified for S3 and S4 samples.

All cells that are used for sample preparation must have tested negative for mycoplasma infection.

## General information for potential users

The Facility provides basic laboratory space for sample preparation directly for the measurement (e.g. diluting samples) and for immediate set-up. Information regarding sample preparation and measurement conditions will be discussed with the user prior to an experiment.

Training on the instruments will be given by a member of the Facility while the user's samples are being measured on an instrument. The Facility also provides help in data analysis and interpretation on request. Users can work on the NANO-flex and the NTA instruments independently once they have gained enough proficiency.

The user of the Facility must adhere to the safety measures in place and must follow the Facility Manager's instructions.

## Reservations

Booking for instruments can be requested by email contact: [Tanja.Gainey-Schleicher@uniklinik-freiburg.de](mailto:Tanja.Gainey-Schleicher@uniklinik-freiburg.de).

## Data storage

The measurement data will be made available via the private cloud solution of the Medical Center – University Freiburg, the ownCloud (https://owncloud.uniklinik-freiburg.de), within a week after the measurements. The data will be made available for at least four weeks. The data will not be archived by the Facility. Responsibility for long-term data storage lies with the user.

## User fees

User fees do not apply for publicly funded, non-commercial scientific use. For commercial use, a fee model will be developed.

## Co-authorship and acknowledgements

As no user fees are charged to non-commercial scientific users, the Facility functions under a cooperation model. Its continued existence depends on co-authorship in publications and grants.

Publications and posters that made use of the Facility are required to include the scientific head of the Facility among their authors, and, if applicable, the Facility personnel who made the measurements. These publications are also required to acknowledge the usage of the Facility in their appropriate section ("Facility for Extracellular Vesicle Analysis and Liquid Biopsy (EV-Core), Medical Center – University of Freiburg"). Presentations (e.g. oral presentations) about work that made use of the Facility should acknowledge the usage of the Facility.

Users are obliged to inform the Facility about the submission and acceptance of their peer-reviewed publications and patents that relied on the use of the Facility.

This concludes the User Instructions document.