

GENERAL FRAMEWORK FOR USE OF IMB CORE FACILITIES

PREFACE

JGU's master Terms of Use serve as a template for this document; these Terms of Use have been adjusted to suit IMB.

Core Facilities (CF) are central, scientific infrastructure and service units that operate according to CF concepts at the Institute of Molecular Biology (IMB) gGmbH in Mainz. The use of the CF is governed by the binding **General Framework for Use of IMB Core Facilities** and the specific **Terms of Use** of each respective CF in accordance with § 11. This framework allows for a simple, uniform and transparent manner of cooperation between CFs and users.

§ 1 DEFINITIONS

- (1) Core Facilities provide scientific services (hereinafter referred to as **services**). Services are differentiated into
 - a) **operator service**, which refers to CF staff providing services or in-house produced products for the users, or
 - b) **application service**, which refers to authorized users operating CF instruments largely independently.
- (2) Each CF has specific **Terms of Use**. These regulate the intersection between users and CFs.
- (3) **PIs** are heads of scientific research groups. They are ultimately responsible for the execution of scientific projects.
- (4) **Users** are persons who make use or want to make use of a CF service.
- (5) **Internal users** are persons with an IMB contract or groups with IMB CF budget or those who are members of institutions that have active collaboration agreements with IMB or the Core Facilities.
- (6) **External users** are all other users not included in (5).
- (7) A **booking** is
 - i. a reservation of usage time for application service or
 - ii. a commissioning of an operator service.
- (8) **Access to CFs** describes the registration of users for potential use of CF services.

- (9) **Access to services** describes the basic eligibility to book or commission services.
- (10) **Management platform** for some CF services is the „OpenIRIS“ web application. It is used for depicting, booking and invoicing of CF services. The following terms are used in the context of OpenIRIS:
- a) **Providers** offer services. CFs are set as providers.
 - b) **Resources** describe CF instruments that are offered by a provider.
- CFs are free to utilize other management platforms if better suited for their services, such as LIMS.
- (11) **CF User Committees** are composed of the Director of Core Facilities, the Head of the CF and representatives of the PIs. Further details are outlined in the CF operating concept.
- (12) **Cost-bearing unit** at IMB is each working group with its own cost center, at JGU, UMC, MPIP, LIR, each organizational unit and each legal entity, its employees, vicarious agents or otherwise associated persons who make use of CFs.

§ 2 SCOPE OF APPLICATION

- (1) These regulations govern the use of the services offered by IMB CFs.
- (2) The Terms of Use of each CF refer to this General Framework for Use of IMB Core Facilities. In the event of contradictions, the provisions of the General Framework for Use shall apply.
- (3) The General Framework for use is binding for all persons using the services of CFs at IMB.

§ 3 ACCESS TO CF

- (1) Access to CF is regulated for various user groups:
 - a) Groups with an IMB Core Facility budget are prioritized and automatically have access or are granted access after request.
 - b) Internal users (see §1(5)) without an IMB Core Facility budget have access either automatically or after CF access request, as long as free capacity is available.
 - c) External users are granted access upon request in case of legitimate interest and available capacities (see § 4).

§ 4 ACCESS TO CF SERVICES

- (1) At the discretion of CF management, access to CF service is granted automatically with access to the CF or, depending on type of service, after consultation and in the case of justified interest while considering instrument-specific third-party funding lock-up periods. Access may be limited in time and linked to a training.

- (2) Access regulations vary between CFs due to spatial conditions and legal frameworks (e.g. biosafety requirements) and are therefore defined by the CF Terms of Use in accordance with § 11.

§ 5 BOOKINGS

- (1) For application service, booking of usage time is mandatory. For application service, the person entered in the booking bears full responsibility for the correct use of the resource.
- (2) Booking procedure for services is determined by the CF-specific Terms of Use in accordance with § 11.
- (3) In case of internal use, the person entering the booking must specify the project to which the ordered/booked service belongs (e.g. by specifying the "cost center" or the "billing object").
- (4) For operational reasons, CF may cancel a booking on short notice.

§ 6 PROVISION OF DATA

- (1) The measurement data and results generated during **operator services** shall be recorded by CF in a suitable manner, stored digitally and made available to the users.
- (2) For **application service**, the data can be temporarily stored on the measuring devices used. Users are strongly encouraged to transfer the data collected on the measuring devices to a central IT storage structure immediately after measurement.
- (3) The storage and archiving of data is the responsibility of the user unless otherwise noted and agreed upon with the respective CF (e.g. Bioinformatics, Genomics).

§ 7 OCCUPATIONAL SAFETY

- (1) Instructions from CF personnel must be strictly observed.
- (2) The CF is solely responsible for workplace-specific safety instruction. The responsibility for general safety instructions lies with the user's supervisor. The CF may specify in the core facility-specific Terms of Use according to § 11 which topics must be covered by the general safety instruction. Sentence (1) shall remain unaffected by this.
- (3) CF instrument operation requires documented safety instruction by an authorized person.
- (4) Prior to booking and use, applicable statutory provisions must be observed. Users must ascertain whether special legal requirements have to be met for the intended use (see CF-specific Terms of Use according to § 11).

A non-exhaustive list of examples:

- Occupational health and safety regulations (also regarding the use of lasers etc.),
- Ordinance on Hazardous Substances

- Genetic engineering laws (GenTG, GenTSV, GenTAufzV)
- Ordinance on Biological Substances (BioStoffV)
- Animal protection laws (TierSchG)
- Disposal of chemical waste

§ 8 COSTS

- (1) The use of CFs is subject to a charge. The costs will be charged to the cost-bearing unit.
- (2) Prices are based on the legal and tax requirements for the respective project. The same usage fees shall apply within the usage groups. The current price list is part of the CF Terms of Use. The price list valid at the time service is provided shall apply; previous price lists shall become invalid accordingly.
- (3) If the costs to be invoiced are higher than the costs that can be invoiced via a third-party funded project, the CF may show these in a separate invoice.
- (4) Booked times will be charged if they are not canceled in due time, regardless of use. Cancellation deadlines are defined in the CF specific Terms of Use (§ 11).

§ 9 PUBLICATIONS AND GOOD SCIENTIFIC PRACTICE

- (1) JGU¹ regulations and DFG² Guidelines for Safeguarding Good Scientific Practice in the CF apply.
- (2) CF staff who make a substantial scientific contribution to a publication are to be treated in the same way as all other researchers involved. Co-authorship is independent of cost sharing.
- (3) As soon as instruments or services (including in-house produced products) of a CF have contributed to a publication, the CF must be named in the publication. Further details are regulated in the CF-specific Terms of Use in accordance with § 11. **The CF acknowledgment must also include the funding code/project number of publicly funded large-scale equipment.**
- (4) Publications (papers, patents and theses) based on work carried out at the CF must be submitted to the CF. Further details are governed by the CF-specific Terms of Use in accordance with § 11.
- (5) In the event of non-compliance, § 12 (1) shall apply.

§ 10 LIABILITY

¹ https://gwp.uni-mainz.de/files/2023/04/JGU-Mainz_Ordnung-zur-Sicherung-guter-wiss-Praxis_2023-02-13.pdf

² <https://zenodo.org/record/6472827>

- (1) CF's liability towards users is limited to intent and gross negligence. In particular, CF assumes no guarantee for the test material and no liability for loss of data.
- (2) Users shall be liable in accordance with the statutory provisions. Any damage or malfunction must be reported to CF staff immediately. In the event of gross misconduct, CF management reserves the right to charge the costs incurred to the cost-bearing unit of the relevant user.

§ 11 CORE FACILITY TERMS OF USE

- (1) The individual Core Facility must at least list the following information in their Terms of Use:
 - a) Scope of the General Framework for Use of IMB Core Facilities
 - b) Person(s) of contact
 - c) Equipment
 - d) Operating hours and allocation of usage time (application service)
 - e) Commissioning of services (operator service)
 - f) Cancellation and no-show conditions
 - g) Criteria for the allocation of usage time in the event of overbooking
 - h) Requirements/ necessary instructions/ necessary preparations for use (in particular preparation of the test material, necessary permits)
 - i) Return of sample(s)
 - j) Data processing, forwarding and, if applicable, archiving
 - k) Legal safety regulations and the resulting necessary instructions
 - l) Acknowledgment of the core facility used and naming of equipment funding in publications
 - m) CF services and prices (appendix)
- (2) The Terms of Use shall be linked on the management platform (iris.uni-mainz.de) and made available on the publicly visible homepage of the respective CF.

§ 12 RESTRICTION OF USE

- (1) In the event of improper use of the CF, disregard of rules or usage regulations or disregard of the instructions of CF staff, the CF management or its representative shall have the right to temporarily exclude the person or group concerned from using the CF with immediate effect. The same applies to users repeatedly failing to observe the rules of good scientific practice, including proper acknowledgment of CFs in publications. The CF User Committee shall decide on any exclusion lasting more than three months or permanent exclusion after hearing the CF management and the person and/or PI concerned.
- (2) Users shall not be entitled to compensation for damages due to the refusal, revocation, or subsequent restriction of access in accordance with §1.

§ 13 DATA PROTECTION

(1) CF is entitled to store all data necessary for the processing of the use, including personal data of the users, and to use it to the extent necessary. The data will not be passed on to third parties for any purpose other than those mentioned above.

§ 14 SEVERABILITY CLAUSE

Should any provision of these Terms of Use be or become wholly or partially unenforceable or void, or should a loophole be found in these Terms of Use, this shall not affect the validity of the remaining provisions. The invalid or unenforceable provision shall be replaced or the loophole filled by a valid and enforceable provision that achieves the original legal and economic intent and purpose. If the invalidity of a provision is based on a measure of performance or time (deadline or date) specified therein, the provision shall be reconciled with a legally permissible measure that comes closest to the original measure.

§15 TAKING EFFECT

These Master Terms of Use become effective on 01.01.2025. At the same time, any previous Terms of Use of the Core Facilities shall cease to apply.

Mainz, 17. December 2024



Dr Andreas Vonderheit
Director of Core Facilities and Technology
Institute of Molecular Biology Mainz

TERMS OF USE FOR GENOMICS CORE FACILITY

1. SCOPE OF MASTER TERMS OF USE FOR IMB CORE FACILITIES

Use of the Genomics CF (GCF) occurs in accordance with the General Framework for use of IMB Core Facilities, which can be found here <https://www.imb.de/core-facilities/> as well as the following defined content.

2. POINTS OF CONTACT

For training requests or advice, please contact the Genomics team (genomics@imb-mainz.de) or the CF Head (m.mendez-lago@imb-mainz.de). Further contact details for the CF team are available in OpenIRIS (<https://iris.uni-mainz.de>) as well as online <https://www.imb.de/core-facilities/genomics>.

CF Head:

- Dr Maria Mendez-Lago: m.mendez-lago@imb-mainz.de; genomics@imb-mainz.de

3. EQUIPMENT AND SERVICES

Currently, GCF offers the following services for NGS projects:

- Consultation for planning a NGS experiment and sample preparation
- Quality control of submitted samples
- Preparation of sequencing library
- Quality control of sequencing library
- High-throughput sequencing

Genomics CF supports the library construction of mRNA, small RNA and total RNA-seq, (D)RIP-seq, CHIP-seq, CUT&RUN, Amplicon-seq and GLOE-seq, among others (see Appendix A). In addition, we offer 10x Genomics (see Appendices B and C) single cell sequencing applications for sc-RNA or Multiome (ATAC and RNA) sequencing workflows. Aside from 10x Genomics, we also offer single cell RNA-seq by SPLiT-seq commercial solutions (Scale Biosciences and Parse Biosciences), which consist of rounds of combinatorial barcoding to index fixed and permeabilized cells. We also tailor our protocols to meet researchers' special requests. Please see the internet site or an updated list of available applications: <https://www.imb.de/core-facilities/genomics>.

List of available instruments

Instrument	Description	Service Type	(OpenIRIS Link)
2100 Bioanalyzer (01.421)	Nucleic Acid Analysis System	application service	2100 Bioanalyzer (01.421)
2100 Bioanalyzer (02.533)	Nucleic Acid Analysis System	application service	2100 Bioanalyzer (02.533)
TapeStation 4200	Nucleic Acid Analysis System	application service	TapeStation 4200
Femto Pulse	Nucleic Acid Analysis System	application service	Femto Pulse
COVARIS E220	Sonicator	application service	Covaris E220
Qubit 4	Nucleic Acid Quantification	application service	Qubit 4
QX200 Droplet Digital PCR (01.251)	Nucleic Acid Quantification System	application service	QX200 Droplet Digital PCR
QuantStudio 5 Real-Time PCR	Nucleic Acid Quantification System	application service	QuantStudio 5
Integra ASSIST PLUS	8-channel pipetting robot	application service	Integra ASSIST Plus
Integra VIAFLO	96-channel pipetting robot	application service	Integra VIAFLO
Pippin Prep HT	Fragment selector	operator service	
Mosquito HV	Pipette Robot	operator service	

Illumina MiniSeq	Sequencer	operator service	
Illumina NextSeq2000	Sequencer	operator service	
MinIon ONT and GPU	Sequencer	operator service	
10X Genomics iX Chromium	Single Cell Technology	operator service	
10X Genomics CytAssist	Spacial Transcriptomics Technology	operator service	

4. OPERATING HOURS AND ALLOCATION OF USAGE TIME (APPLICATION service)

For our Sequencing service:

Hours of Operation

Mon – Fri	Sat – Sun, incl. holidays
Pick up of reagents, kits, consumables 09:00 – 16:00	Pick up of reagents, kits, consumables Not available
Application service Internal/access permit: all day	Application service Internal/access permit: all day
External: 07:00 – 19:00	External: not available

The CF reserves the right to adjust hours of operations or closing times.

In order to make sure that the GCF staff has time for you, please make an appointment.

Sample submission is always possible in the dedicated fridge.

• Allocation of usage time for CF services:

Admissible users of the GCF include:

- Members of IMB
- Members of Johannes Gutenberg University Mainz
- Members of the University Medical Center Mainz
- Collaborators of IMB researchers
- Scientific community in Mainz
- Approval of all other external users is granted per project and depends on the available capacity

Priority is given to Mainz researchers. All samples are processed on a first-come, first-served basis.

Allocation of usage time for CF instruments

Before you can book/use any instrument in the facility, you have to participate in an introduction by GCF staff on the particular setup you want to use. After the introduction, you will be able to book the instruments for which you have been trained via an online calendar (<https://researchinfrastructure.uni-mainz.de>). To register for an introduction, send an email to [genomics \(at\) imb-mainz.de](mailto:genomics@imb-mainz.de).

Booking of instruments before use is obligatory. Instruments can be booked up to four weeks in advance by registered users using the online calendar (<https://researchinfrastructure.uni-mainz.de>).

5. COMMISSIONING OF CF SERVICE

A user meeting with GCF staff and signing the Terms of Use is mandatory before any project-related work will be conducted by GCF staff.

Sample submission is allowed only when all needed information is entered in our LIMS (laboratory information management system, <https://parkour.imb.uni-mainz.de/login/>) following the guidelines for submission in LIMS (see documentation, including a demo video, clicking on the book icon on the top right corner of the LIMS display).

The Terms of Use can be downloaded from the internet page (<https://www.imb.de/core-facilities/genomics>). For project requests, please contact GCF staff via email: [genomics \(at\) imb-mainz.de](mailto:genomics@imb-mainz.de).

6. CANCELLATIONS AND NO-SHOW TERMS

For single-cell projects, a cancellation fee of €150 will be applied if the project is cancelled on the day of the scheduled experiment, prior to the start of the library preparation. If a kit is already in use and the user decides to cancel the ongoing library preparation, the full price will be charged.

7. DECISION CRITERIA FOR THE ALLOCATION OF USAGE TIME IN THE EVENT OF OVERBOOKING

In the event of overbooking, internal users with IMB core facility budget are prioritized over other internal users and these ahead of external users. In the case that further prioritization is necessary, it will be determined with the CF's User Committee.

The CF Head also reserves the right to refuse bookings and commissions for service at his or her own discretion stating reasons.

8. REQUIREMENTS/ NECESSARY INSTRUCTIONS/ NECESSARY PREPARATIONS FOR USE (IN PARTICULAR PREPARATION OF THE SAMPLES, NECESSARY PERMITS)

The rooms of the GCF are designated biosafety level S1. You are not allowed to eat and drink in the lab area. In the docu zones, it is allowed to drink and eat. For work with genetically modified organisms (live cell experiments), permits and documents (e.g. Formblatt GO) in accordance with GenTG, GenTSV, and GenTAufzV must be available before work begin.

In the case that a user does not follow the guidelines (especially concerning the safety regulation for biomaterial), GCF staff is authorized to refuse sample processing.

9. RETURN OF SAMPLES

Towards the end of each year/ beginning of the year, GCF members will contact you or someone from your group to plan the return of the remaining samples which were not used for library prep. We will also return all libraries prepared by us but will keep the pool that was sequenced (in case there is some unused left over).

If you do not pick up your samples within 14 days after the agreed pick-up date or fail to reply to the "Return of samples" emails sent by GCF before the deadline, GCF will dispose of your samples and libraries.

10. DATA PROCESSING, SHARING AND, IF APPLICABLE, ARCHIVING

Sequencing data will either be transferred to a folder for which you will be granted access, or it will be transferred to the Bioinformatics Core Facility where they will analyze the data for you. The data is kept in that folder for 4 weeks after which time it will be deleted. Asking for data after that

time might incur in extra costs, as data is archived in a compressed format and requires special processing to revert compression.

11. STATUTORY SAFETY REGULATIONS AND THE RESULTING NECESSARY INSTRUCTIONS

The general requirements for safe work in the laboratory apply. The regulations on biological safety, genetic safety, radiation protection and laser safety must be observed. Expecting mothers are not allowed to enter room 00.551 or manipulate used sequencing cartridges. By signing the Terms of Use, the PI confirms that all applicable safety instructions have been given.

12. ACKNOWLEDGING THE CORE FACILITY AND USE OF EXTERNALLY-FUNDED INSTRUMENTS IN PUBLICATIONS

The existence and financing of core facilities depends in part on proper acknowledgment in publications. This is an important metric of the value of most core facilities, so if you publish any data that were generated with one or more instruments or with the help of the Genomics Core Facility, we ask that you include an acknowledgement in your publication. The CF used and, if applicable, the instrument funding project number and persons must be named in the acknowledgement of a publication. Please see the following examples.

Acknowledging the CF:

"The authors gratefully acknowledge the IMB Genomics Core Facility for their support and assistance in this work."

Acknowledging the CF and CF staff (including the reason why the person is being acknowledged):

"The authors thank [enter staff name] of the IMB Genomics Core Facility for their support and assistance with NGS in this work."

Acknowledging the CF, CF staff (including the reason why the person is being acknowledged) and instrument including project funding number:

"We thank the IMB Genomics Core Facility, especially [enter staff name] and [enter staff name], for their assistance with [type of assistance, e.g. library preparation] and [type of assistance]. Sequencing was performed on the NextSeq500 financed via a DFG Project Number: 329045328."

List of instruments for which the funding and the funding project number must be specified:

	Instrument	DFG Project #
Genomics	ILLUMINA NextSeq500	329045328

Before publication, the materials and methods section describing GCF methods should be submitted to the GCF for proofreading.

The Genomics Core Facility is pleased to collaborate with you on a project. Co-authorship is warranted whenever our scientists have provided substantial intellectual and/or laborious contribution to the project, e.g. when the project would require implementation, highly-specialized protocols and/or substantial intellectual assistance that are crucial for the progression of your research. Please apply the same standards as you would within your group. or collaborating groups. CF service fees are meant to cover part of the running costs and do not preclude authorship involvement in accordance with the principles of good scientific practice.

13. TAKING EFFECT

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