

CIBM MRI EPFL Preclinical Imaging Research Infrastructure Fees and Access Policy

Effective January 2023

The CIBM MRI EPFL Preclinical Imaging Research Access Policy is applicable to the CIBM MRI EPFL Infrastructure (hereafter "Equipment").

Equipment and Service Fees

Access to CIBM equipment has been subject to charges since 2012. After more than a decade and careful consideration of the researchers needs, the fee structure has been revised in CE37 to an hourly rate scheme as described in Table 1.

Pre-Clinical Imaging Infrastructure		9.4T MRI, 14.1T MRI, PET	
Research	Description	Mon-Fri 7h-23h00	Mon-Fri 23h00-7h00 & wknd
Type 1: Application	Type 1a. Application: in-vivo	143 CHF/h	Not available
	Type 1b. Application : ex-vivo ^{&}	46 CHF/h	46 CHF/h
Type 2: Development*	Type 2a. Development*: in-vivo	120 CHF/h	Not available
	Type 2b. Development*: ex-vivo ^{&}	46 CHF/h	23 CHF/h
Services	Operator Service	58 CHF/h	
	Specific Service	73 CHF/h	
	Safety Briefing	250 CHF/person	
	Operator Training	hourly fee max 1500 CHF/person	

Table 1 CIBM MRI EPFL Preclinical Imaging Infrastructure and Service Fees

Type 1. Application corresponds to time slots used for data acquisition of biological samples, animal cohorts or any closed-access development.

Type 1a. Application in-vivo: includes basic user support to enable routine experiments with animal physiology monitoring and standard consumables

Type 1b. Application ex-vivo : includes phantoms/solutions/organs[&]

Type 2. Development*: corresponds to time slots used to develop an acquisition sequence, a protocol or a new RF coil which will be added to the CIBM portfolio of resources and made available to the CIBM research community. Two presentations per year will be expected on the advancement of these types of projects in the CIBM MRI EPFL AIT meeting

Type 2a. Development* in-vivo: Limited number of hours and agreed upfront during the acceptance of the "[Preclinical Imaging Research Project Application](#)."

Type 2b. Development* ex-vivo : includes phantoms/solutions/organs[&]

& Priority is given for usage of **Type 1a. Application in-vivo**

* For projects of **Type 2. Development***, there is a pro-rata annual fee capped to

- 6,000 CHF/year for PhD students
- 12,000 CHF/year for Post-Doctoral researchers.

Operator Service : Applied hourly in addition to the Application or Development cost, agreed upfront when a PI does not have the resources to run the scans independently after training, available for a limited number of MRI/MRS protocols and as a feasibility study, when Acquisition Protocols are already available, involving a max of 5-6 animals/samples. For PET experiments this is a mandatory additional cost due to radioprotection considerations.

Specific Service : Applied hourly upon request and agreed upfront. Examples of specific services include, but not limited to,

- Specific surgeries or cares/follow-up/scoring *before* or *after* MRI experiments including the training from the veterinary team at CIBM
- Assistance during processing of the data or preparation of phantoms or ex-vivo samples for MRI/MRS
- Usage of the bench.

The recommended session duration for the use of the **PET scanner** is of 5 hours according to the availability of the Operational manager and of the availability of the tracer which is coming from off-site and on specific days.

Extra services provided by a CIBM MRI EPFL AIT staff, extra equipment, and the use of contrast agents, PET tracers or other drugs are not included in the hourly rates, these will be predefined and charged separately, if any.

An additional overhead % to the hourly fees are applicable for projects led by Principal investigators not affiliated to the CIBM founding partner institutions CHUV, UNIL, EPFL, UNIGE, HUG according to

- + 20% : Swiss academic institutions
- + 40% : Non-Swiss academic institutions
- + 50% : Industry: Start-Up
- + 60% : Industry : Small Medium Enterprise (SME), Multi-National Company (MNC)

Booking

The Calpendo online booking system cibm.calpendo.com was chosen by CIBM so as to give the project PI and researchers easy access to the booking and scanner usage information throughout the project. Once the study is approved, the PI and designated researchers will be sent a user account login information.

For users who rely on CIBM MRI EPFL staff for scanning, the scan time bookings will be done internally, allowing for both scanner and staff availability.

For autonomous users of the MRI systems at CIBM MRI EPFL, the scan time bookings can be made independently.

Please note that access to the scan time booking for resources approved in the project will be granted after proper training - if required - and successful completion of an on-line MR safety test. All researchers entering the scanner room will have to repeat the safety test on an annual basis.

A tutorial for properly booking in Calpendo will be provided to each user before the first booking.

For any enquiries on the Calpendo booking system please contact itsupport@cibm.ch.

Time slots:

Users are allowed to book scanner time 60 days in advance. Exemptions to the 60-day notice may be considered upon application to the CIBM MRI EPFL Head (dimitri.vandeville@epfl.ch) for extraordinary reasons, such as logistics peculiar to the specific research study. All scanner bookings including nights and weekends have to be registered in the online calendar. Investigators with calendar bookings are entitled to have access during their reserved time.

MONDAY TO FRIDAY: A maximum of two time slots/week can be booked for each study during weekdays, if available.

NIGHTS AND WEEKENDS: Over-the-weekend slots are permitted for very long ex vivo acquisitions and can be started on Friday afternoon (3pm) and finished on Monday morning (7am). Presence alone in the building outside office hours (6pm - 8am) is not permitted, and investigators who are not in possession of an EPFL Camipro Card with building access should be accompanied by CIBM MRI EPFL technical or scientific staff on evenings and weekends.

Note: Scanning of phantoms, ex vivo samples and technical developments which do not require veterinary support are strongly encouraged during nights and weekends.

Billing

The fees applicable to the use of the Equipment are those indicated in [Table 1](#). The billing will occur twice annually in accordance to the hours reserved in the Calpendo booking calendar.

A project booking and usage report will be sent to the Principal Investigator for validation

- early May for bookings occurring between November 1st - April 30th
- early November for bookings occurring between May 1st - October 31st

An invoice according to the booking and usage report will follow mid-May, mid-November, respectively.

Should a booked slot not be used, justification is required and cancellations are accepted until 24 hours prior to the slot at no charge.

Should payment for the prior cycle be outstanding, the CIBM may revoke your permission for scheduling.

Should a study end before the billing periods, an invoice may be requested at that time.

Studies in vivo animals / ex vivo samples:

No animal study can be performed without a current, valid, authorization for animal experiments delivered by the appropriate authority. It is the User's responsibility to ensure that a valid authorization for animal experiments is in place, and that all aspects of the animal study shall be performed consistent with that approval.

Specific quarantine rules apply for animal transfers from and to other animal facilities. The User should contact the CIBM MRI EPFL vets (cibm-vets@groupes.epfl.ch) for details.

- Study feasibility needs to be discussed in advance.
- If the study involves live animals, an approved authorization for animal experiments is mandatory and a copy of the [Form A: Application for licence to perform animal experiment](#) and Form B need to be submitted to CIBM MRI EPFL vet team (cibm-vets@groupes.epfl.ch).
- If one or many CIBM MRI EPFL staff members are to perform experiments, their names and the location of the experiment should be explicitly included in the animal authorization.
- Studies in animals must be performed by a CIBM MRI EPFL research/technical staff scientist or by an investigator employed by the USER who has written approval by the CIBM MRI EPFL Operational Manager to scan independently (hereafter "Scanner Operator").
- The Scanner Operator is responsible for the safety of the scan.
- The CIBM MRI EPFL staff can perform feasibility studies, when Acquisition Protocols are already available, involving a max of 5-6 animals or 6 time slots. If the requirements of the Project are higher, then a person from the User's Principal Investigator's group needs to be trained to perform the study under the Project or a CIBM MRI EPFL Scanner Operator needs to be requested. EPFL may invoice additional costs for such training or for extended assistance with scanner operation.
- After 6pm and on weekends, a minimum of two investigators either from EPFL or the USER, including the Scanner Operator need to be present simultaneously on site.

Phantom Studies:

Should there be a need to scan a new and non-standard phantom (mimicking a real object) such as self-made phantoms, moving phantoms, phantoms with electronic components etc., their use first has to be approved by the designated CIBM MRI EPFL Operational Manager via email CIBMprojects@epfl.ch.

MRI Scanning Training:

All investigators who want to scan independently without CIBM MRI EPFL staff support must undergo a training period of 2 months done by the CIBM MRI EPFL Operational Managers or a researcher already accredited to scan alone. In this case a final approval by the CIBM MRI EPFL Operational Manager will be needed.

MRI Safety Test:

An annual safety test for working in an MRI environment must be successfully completed by the User in order to maintain their booking rights of MRI scan time in the Calpendo online booking system. Information is provided by the CIBM MRI EPFL Operational Manager on the process and modalities of such safety test.

Support and Services

CIBM MRI EPFL may offer research/technical support and it should be clearly requested in the formal study protocol application.

For studies on animals CIBM MRI EPFL offers veterinary support for monitoring animal physiology under anesthesia during MRI experiments. If veterinary support is needed, it should be clearly requested in the formal protocol application.

If veterinary support is requested outside the scanning time, this also needs to be clearly stated in the formal protocol application and a pre-determined fee may be charged.

Grant Submissions:

Should grant submissions be planned that include MR as part of the study protocol, the feasibility of the MR study and the allocation of resources needs to be discussed with the CIBM Section Head, Operational Manager and assigned CIBM MRI EPFL staff prior to submission. For grants that are submitted without prior discussion, access to the scanner and adequate support may not be guaranteed.

Scanner Upgrades

Software and or hardware upgrades on the Equipment may occur occasionally. Such upgrades lead to improved scanner performance and the CIBM MRI EPFL can therefore continuously provide its users with the latest MR technology and methodology. While most of the scanner protocols can easily be transferred from one software release to the next, there may be exceptions. For those users who program their own sequences upgrades may necessitate additional steps. For these reasons, notifications will be sent via email to all the PI's 6-8 weeks prior to the planned upgrade. You can request to be added to the list of recipients of that e-mail by contacting CIBMprojects@epfl.ch

Non-Standard Use of Equipment:

The CIBM MRI EPFL provides MRI machine time and is not responsible for the success or failure of an MRI study nor of the Project in general, or for failures due to non-standard MRI pulse sequences, study protocols, detector coils, interface electronics or ancillary equipment owned in full or in part by the investigator or by other third parties.

Research involving installation of a research software or hardware modifications requires the prior approval of the CIBM MRI EPFL Head (dimitri.vandeville@epfl.ch).

At the end of each session, the system must be put back into its original state.

While CIBM MRI EPFL staff will apply best scientific standards to support the study performed under the Project, the User acknowledges that such study is to be construed as research which by its nature, involves uncertainty.

CIBM MRI EPFL staff is not responsible for the failure of the study to deliver the desired results or any results.

Conduct of Study & Citizenship:

It is the responsibility of the User to ensure on-time arrival of animals, their suitability for the study, and the availability of any non-standard materials (hardware, coils, software, pulse sequences, ancillary equipment) required for the study. The User needs to follow a specific protocol for animal arrival in the CIBM MRI EPFL animal facility and should contact the CIBM MRI EPFL vets (cibm-vets@groupes.epfl.ch).

As a courtesy to the others and for fair access, the User is responsible for finishing their study on time. Time for set-up, clean-up and data storage must not infringe on the time of the following investigator. Unforeseen events such as failure of the equipment, etc. do occur and may shift or prolong the examination with a resultant infringement of the right of the subsequent investigator to start on time. While this should be a very rare exception and flexibility of all involved parties is expected, an overtime that exceeds 15min is not tolerated. The User on whose watch the overtime occurs is responsible to communicate the delay to all the investigators with reservations who follow.

Data Storage, Handling and Transfer:

The capacity of the scanner for data storage is limited. To ensure successful operation of the scanner, the database on the scanner needs to be cleared periodically.

For this reason, it is the User's responsibility to store and backup their data on their own external hard drives.

Clean Up:

It is the responsibility of the User to clean up when finished:

- a) trash is to be emptied;
- b) clean the computer and animal preparation rooms;
- c) all coils and scanner equipment are to be cleaned and put away properly;
- d) any scanner or equipment problem is to be reported immediately to CIBM MRI EPFL staff;
- e) animals must be returned to the animal facility (needs to be discussed in advance with the vet team)

Co-Authorship

Co-authorships of an individual from the CIBM MRI EPFL shall be according to the User's internal regulations. However, notwithstanding the foregoing, co-authorship of an individual from the CIBM MRI EPFL is warranted if:

1. substantial contributions to conception and design of the study, scanner protocol design and acquisition of data, or analysis and interpretation of data have been made;
2. drafting the article or revising it critically for important intellectual content is involved; and
3. final approval of the version to be published has been granted.

Authors should meet conditions 1, 2, and 3.

Acknowledgments:

Should part of the results obtained in collaboration with the CIBM MRI EPFL and/or through the use of the Equipment be published, the User agrees to include the following sentence in the 'Acknowledgments' section of the publication:

"We acknowledge the resources and expertise of the CIBM Center for Biomedical Imaging."

Enclosure 1 - Definitions

Acquisition Protocols means a standard or simple way of acquiring the data with an existing sequence on the scanner.

CIBM Annex Convention Execution n°37 concerns the billing for access to CIBM equipment and Services.

CIBM MRI EPFL means the EPFL unit as directed by Prof. Dimitri Van Der Ville.

CIBM MRI EPFL Operational Committee includes Head, Operational Managers of Equipment, Vets, Scientific and Technical staff.

CIBM MRI EPFL Operational Manager means the person who manages and provides recommendations on the CIBM MRI EPFL Infrastructure to the USER regarding a new project.

MRI Expert means the person who oversees the scanner use and who understands the MR part of the project as proposed to the CIBM MRI EPFL. This person can advise/check on the protocol set-up and is a person who can assure the success of the scanning. The MRI Expert can be either from CIBM MRI EPFL or from any other thirdparty institution.

Scanner Operator means the primary person(s) present during scanning; he/she may be running the scanner and/or accompanies the study subject/animals. The Scanner Operator can be either from the CIBM MRI EPFL or from any other third party institution.

User means

- i) the individual user in the case of a Principal Investigator from EPFL
- or
- ii) the institution or company in the case of a Principal Investigator external to EPFL.