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CIBM MRI CHUV-UNIL Research Infrastructure
Fees and Access Policies

Effective January 2023

The following access policies are applicable to the CIBM MRI CHUV-UNIL research infrastructure (3T MRI Prisma, 0.55T MRI Free.Max and related equipment) located at the Radiology and Interventional Diagnostic Service, CHUV (main building) in Lausanne Switzerland.

Equipment and Service Fees

The CIBM equipment and service fee structure has been revised in CIBM Convention d'Execution CE37 with an hourly rate scheme as described in Table 1.

Human MR Imaging Infrastructure	3T MRI, 0.55T MRI	
Research	Peak hours Mon -Fri 3T MRI: 13h00-18h00 0.55T MRI: 8h00-18h00	Off-peak hours Mon-Fri 18h00-8h00, week-end & holidays
Type 1: Application	250 CHF/h	125 CHF/h
Type 2: Development*	125 CHF/h	125 CHF/h
Operator Service	Included during peak hours	
Specific Service	According to agreement	
Safety Training	Free of charge	
Operator Training	Hourly fee max 1500 CHF/person	

Table 1 CIBM MRI CHUV-UNIL Infrastructure and Service Fees

Type 1. Application corresponds to time slots used for data acquisition outside of development purpose.

Type 2. Development* corresponds to time slots used for developing acquisition sequences, protocols, new RF coils, or projects aligned with the CIBM MRI CHUV-UNIL Section objectives. The scientific and technical outcomes of this development will be integrated into the CIBM resources portfolio and shared with the CIBM research community upon completion. Approval for accessing Type 2 Development hours and associated fees must be obtained from the MRI Section.

* 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:
A fully qualified and professional radiology technician (RT) support can be requested during peak hours. If RT coverage is needed, it should be clearly stated in the formal project online application form. RT support is mandatory for studies involving patients and/or children <13. Upon request and agreed upfront, additional fees will apply during off-peak hours.

Specific Service : Applied hourly upon request and agreed upfront. Examples of specific services include, but not limited to,
- Assistance with the processing of the data
- Assistance with the programming of stimulations for fMRI experiments
- Assistance with image reconstruction

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
- +60%: Non-Swiss academic institutions
- +100%: Industry Start-up companies
- +300%: Industry Small Medium Enterprise (SME), Multi-National Company (MNC)

Booking

The scanner booking system Calpendo cibm-ch.calpendo.com provides the PI and researchers of approved projects easy access to reservations and scanner usage information throughout the project. Once the study is approved, the PI and designated researchers will be sent user account login information.

For users who depend on CIBM MRI CHUV-UNIL staff for scanning, the scan time bookings will be done by said staff, to ensure availability of the necessary resources.

For users who do not depend on CIBM MRI CHUV-UNIL staff for scanning, scan time bookings can be made autonomously without CIBM MRI CHUV-UNIL staff.

Please note that access to the scanner booking system will be granted after proper training and successful completion of an on-line MR safety test. All researchers entering the scanner room will have to repeat the MR safety test on an annual basis.

A tutorial for Calpendo will be provided to each user prior to the first booking.
For any inquiries about the Calpendo booking system please contact itsupport@cibm.ch.

Time slots: Users are allowed to book scanner time 30 days in advance. Exemptions to the 30-day notice may be granted upon request to the CIBM MRI CHUV-UNIL Section Head (Matthias.Stuber@chuv.ch) if extraordinary circumstances, such as logistics peculiar to the specific research study, apply. All scanner bookings including nights and weekends have to be registered in the online booking calendar. Investigators with approved calendar bookings are entitled to have access during their reserved time slots.

3T MRI Prisma Peak Hours: MONDAY TO FRIDAY 13h00-18h00

- A maximum of 5 hours/week can be booked for each PI/group.
- The first two hours (13h00-15h00) are dedicated to patient studies (MR radiology technician mandatory) or to studies for which the support of an MR radiology technician is required.
- In cases where this first slot has not been reserved between 5 and 2 working days prior to the actual date, it can be reserved for general scanning for which no technician support is needed.
- Should slots not be claimed 2 working days prior to the actual date, they may be used for clinical work.
- The slots after 15h00 which are not reserved for the next day, can be reserved as a supplement to the 5 hours/week allowed.

0.55T MRI Free.Max Peak Hours: MONDAY to FRIDAY 08h00-18h00

- A maximum of 10 hours/week can be booked for each PI/group.

Off Peak Hours : MONDAY T0 FRIDAY 18h00-08h00, WEEKENDS, HOLIDAYS

- The investigator must have written approval of the CIBM MRI CHUV-UNIL Section Head (Matthias.Stuber@chuv.ch) for scanning during the night (6PM-8AM) or on weekends/holidays.
- Investigators need to be in possession of a personal CHUV identification badge.
- Scanning of patients is not permitted.
- Scanning of human subjects is permitted only if 2 investigators are present at the scanner console.
- Scanning of phantoms and technical developments are strongly encouraged during nights, weekends and holidays.

Billing

The fees applicable to the use of the equipment are indicated in Table 1. The billing will occur twice annually based on Calpendo reservations.

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, and mid-November, respectively.

Should a booked slot not be used, a 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 terminate outside of the above billing cycles, the PI of the study may request an invoice at any time.

Studies in Human Subjects

No human study can be performed without a current and valid Ethics Committee Approval.
It is the principal investigator's responsibility to ensure that a valid Ethics Committee Approval is secured and that all aspects of the human study shall be performed consistent with that approval.

- Studies in human subjects must be performed by an MR technician or by an investigator who has written approval by the Section Head to scan independently.
- Prior to entering the scan room, the study subject must have read, understood, signed, and dated the consent form.
- The consent form must be signed and dated by the investigator.
- The safety checklist must be completed, signed, and dated by both the investigator and the study subject.
- The operator is responsible for the safety of the study subject and individuals who meet exclusion criteria cannot be scanned.
- During off-peak hours, a minimum of two investigators need to be present simultaneously at the scanner console and scanning of patients is not permitted.

Should the study participants (healthy volunteers) already be registered in the hospital database, a study number must be obtained from the Radiology Dept. (ask for the document "Request to Generate an MR Study Number" at rad.cibmprojects@chuv.ch .

Studies involving patients must have an official Study Number from Radiology and should be mentioned when filling out the MR exam request form. The Radiology front desk on the 7th floor will provide the corresponding barcode strips that have to be attached to the individual MR exam requests.

Scanning of human subjects below the age of 13 must always be performed by a radiology technician.

Animal Studies:

Animal studies are not permitted on the CIBM MRI CHUV-UNIL infrastructure.

Phantom Studies:

Should there be a need to scan new and non-standard phantom equipment such as self-made phantoms, moving phantoms, phantoms with electronic components, etc., their use must first be approved by the CIBM MRI CHUV-UNIL Scanner Use and Policy Committee. The request for using such equipment should be sent via email to rad.CIBMprojects@chuv.ch.

MR Safety Training:

An annual MR safety test for working in the MRI environment must be successfully completed by the researcher to keep Calpendo online booking system privileges and to have access to the scanner control room. Information about this test is provided by the CIBM staff.

MRI Operator Training:

All investigators who want to scan independently without CIBM MRI CHUV-UNIL staff support must complete a training module provided by the CIBM MRI CHUV-UNIL staff or by a researcher already accredited for independent scanning. After successful completion, written approval to scan independently can be requested from the CIBM MRI CHUV-UNIL Section Head.

Support and Services

CIBM MRI CHUV-UNIL may offer research/technical support as mentioned above and it should be clearly requested in the formal project online application form.

The *Free Running MRI Framework* is a specific service that may be requested in the online application form and may entail additional fees.

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, the Operational Manager, and assigned CIBM MRI CHUV-UNIL 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

Scanner software and or hardware upgrades may occur occasionally. Such upgrades lead to improved scanner performance and the CIBM MRI CHUV-UNIL Section can therefore continuously provide 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 software, who use WIP products from the vendor, or who benefit from C2P arrangements, such upgrades may necessitate additional steps. For these reasons, notifications will be sent via e-mail to all the PIs 6-8 weeks prior to the planned upgrade.

Non-Standard Use of Equipment:

The CIBM MRI CHUV-UNIL Section 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 CHUV-UNIL Section Head (Matthias.Stuber@chuv.ch).

At the end of each session, the system must be put back into its original state, after which a successfully completed phantom scan is mandatory to ensure proper functioning of the equipment for ensuing clinical scanning.

While CIBM MRI CHUV-UNIL staff will apply best scientific standards to support the study performed under the project, the Principal Investigator acknowledges that such study is a research endeavour, which by its nature, is uncertain in its outcome.

CIBM MRI CHUV-UNIL staff is not responsible for the failure of the study to deliver the desired results or any results at all.

Conduct of Study & Courtesy Guidelines:

It is the responsibility of the investigators to ensure on-time arrival of research subjects, their suitability for study, and the availability of any non-standard materials (hardware, coils, software, pulse sequences, ancillary equipment) required for the study.

As a courtesy to the others and for equal access, each investigator is responsible to finish his/her study on time. Time for setup, clean-up and data storage must not infringe on the time of the following investigator. Unforeseen events such as failure of the equipment, late arrival of volunteers 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, overtime that exceeds 15min is not tolerated. The investigator on whose watch the overtime occurs is responsible for communicating the delay to all the investigators with reservations that follow. The same applies to standard clinical activity that infringes on research scanner time.

It is the responsibility of the users **to clean up** when finished:

a. trash is to be emptied;

b. linen is to be deposited in the linen hamper;

c. all coils and scanner equipment are to be cleaned and stowed away properly;

d. any scanner or equipment problem is to be reported immediately to the chief radiology technician (Chantal.Rohner@chuv.ch, +41 (0)79 556 17 71) or the CIBM staff jean-baptiste.ledoux@chuv.ch, +41 (0)79 556 04 65).

Incidental Findings:

Incidental findings are a rare but known risk to imaging studies performed in healthy subjects. The investigators are asked to inform the study subjects about this potential risk on the consent form (see language below).

Should an incidental finding indeed occur during one of your studies, the involvement of a physician trained in medical imaging will become necessary. For these reasons, the investigators are asked to obtain the agreement of a trained professional to be the referent medical imaging specialist in their study. This should occur prior to the submission of the study protocol to the Ethics Committee. Please contact Eleonora.Fornari@chuv.ch or Patric.Hagmann@chuv.ch should you have further questions on the procedure.

Language for Incidental Findings on Consent Form:

« Cette étude n'est pas conçue à des fins de diagnostic clinique et les investigateurs ne sont pas formés à un tel diagnostic. Par conséquent, nous ne sommes pas responsables de la non-détection d'une anomalie. Cependant, si une anomalie devait être remarquée, nous soumettrons vos images au Prof. Patric Hagmann spécialiste en radiodiagnostic. S'il confirme cette anomalie, il vous en informera et vous prendra en charge médicalement en informant votre médecin traitant. Il vous expliquera la nature de l'anomalie découverte et vous fera la meilleure recommandation médicale possible. Dans ce cas, toutes les procédures médicales qui en découleront seront à charge de votre assurance maladie ou de vous-même (en cas de franchise) ».

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 investigators responsibility to store and backup their own data on CDs, external hard drives, PACS for research etc. It is further the PI's responsibility to anonymize the data prior to their storage on the research PACS system or on devices that are not exclusively housed on CHUV premises. Data cannot currently be stored on the PACS dedicated to clinical use.

Co-Authorship

Co-authorship by a CIBM MRI CHUV UNIL member is warranted when:

1. significant contribution to the conception, design of the study, scanner protocol design, data acquisition, or data analysis have been made;
2. drafting the article or critical revision has been made
3. Final approval of the version to be published has been granted.

Authors should meet condition 1, 2 and 3

Acknowledgments:

All publications involving data acquired at CIBM or involving the expertise of CIBM staff must acknowledge CIBM using at least the following statement:

"We acknowledge the CIBM Center for Biomedical Imaging for providing expertise and resources to conduct this study."

Annex 1 – CIBM MRI CHUV-UNIL contact information

Scanner Use and Policy Committee: rad.cibmprojects@chuv.ch

Section Head:

Prof. Matthias Stuber, Matthias.Stuber@chuv.ch, +41 (0)21 314 75 34

MRI Operational Managers:

Dr. Eleonora Fornari, Eleonora.Fornari@chuv.ch, +41 (0)21 314 44 53

Dr Jérome Yerly, Jerome.yerly@chuv.ch +41 (0)21 314 13 50

MRI radiology Technicians:

Jean-Baptiste Ledoux, Jean-Baptiste.Ledoux@chuv.ch, +41 (0)79 556 04 65

Chantal Rohner , Chantal.Rohner@chuv.ch, +41 (0)79 556 17 71