CARDIOVASCULAR HEALTH NETWORK
MOUSE OR RAT CARDIOVASCULAR PHENOTYPING

REQUEST FOR CARDIAC IMAGING BY POSITRON EMISSION TOMOGRAPHY (PET)

For more information contact Jacques Rousseau at: jacques.a.rousseau@usherbrooke.ca or (819) 346-1110 and 11861

Return completed form in pdf to Cécile Nagy: cecile.nagy@icm-mhi.org

A. General Information (Please print clearly):

Principal Investigator: _____Date of request: _____
Department: _____Institution: _____
Address: _____
_____
_____
Phone : _____ Fax : _____ E-mail : _____

Contact Person, Phone and Cellular: _____
Associate Researcher: _____ IRCM ☐ ICM ☐ Other ☐

1. Specific cardiac physiologic question to be addressed: This must be completed before request will be considered.

_____
_____
_____
_____
_____

2. Mouse/rat Strain/Mutation/Transgenic to be studied: _____
3. Number of Mice/rat: _____
4. Animal Studies Committee Approval Number: _____
5. Animal Studies Committee Approval Date: _____

B. Services: **Check Services Requested**

1. ÉVALUATION OF THE LEFT VENTRICULAR FUNCTION (^{18}FDG)

The left ventricular function evaluation is used for the assessment of the quality of the left ventricular motion. This is a non-invasive procedure performed under isoflurane anesthesia using ^{18}FDG, an analog of glucose as a radiotracer. Is included in the study: the measurement of the left ventricular wall thickness, the ejection fraction and the left diastolic and systolic volume. These measurements are especially useful in the evaluation and follow-up of myocardial infarction. The animals can be returned to the user at the end of the measurements.

2. MEASUREMENT OF THE MYOCARDIAL GLUCOSE CUMSOMPTION (^{18}FDG)

^{18}FDG is analogous to glucose and is used for the measurement of myocardial glucose consumption. This is a non-invasive procedure performed under isoflurane anesthesia.

^{18}FDG imaging measures myocardial metabolic activity and is often used in conjunction with perfusion measurements to assess myocardial viability of the ischemic or infracted heart. The animals can be returned to the user at the end of the measurements.

3. PET MEASUREMENT OF THE CARDIAC PERFUSION ($^{13}NH_3$)

The distribution of $^{13}NH_3$ in the myocardium is proportional to blood flow and this method is well adapted for the assessment of cardiac blood flow and coronary reserve under stress. This is a non-invasive procedure performed under isoflurane anesthesia. The basic study includes the assessment of the myocardial perfusion rate (ml/min/g) and the perfusion images. A Dobutamine or Propofol rest-stress study is also available for the measurement of the coronary reserve. The animals can be returned to the user at the end of the measurements.

4. PET MEASUREMENT OF THE MYOCARDIAL OXYGEN CONSUMPTION (^{11}C ACETATE)

^{11}C-Acetate uses a sophisticated compartmental model analysis that within a single exam yields both the myocardial blood flow and the oxygen consumption. Unlike $^{13}NH_3$ however, ^{11}C-Acétate does not produce volumetric heart images. The animals can be returned to the user at the end of the measurements.

5. MEASUREMENT OF THE FATTY ACIDS UTILIZATION BY THE MYOCARD (18FTHA)

^{18F}THA is analogous to palmitate and is used to assess myocardial consumption of lipids. This is a non-invasive procedure performed under isoflurane anesthesia. One application of this method is in the evaluation of myocardial metabolism of diabetic animals. The animals can be returned to the user at the end of the measurements.

C. Cost

1. ÉVALUATION OF THE LEFT VENTRICULAR FUNCTION

TEP-Sherbrooke Scanner (Rat):	$325
LabPET™ Scanner (Mice/Rat):	$375

2. MEASUREMENT OF THE MYOCARDIAL GLUCOSE CONSUMPTION (^{18}FDG)

TEP-Sherbrooke Scanner (Rat):	$325
Ventricular function and glucose consumption:	$425
LabPET™ Scanner (Mice/Rat):	$375
Ventricular function and glucose consumption:	$475

3. PET MEASUREMENT OF THE CARDIAC PERFUSION ($^{13}NH_3$)

TEP-Sherbrooke Scanner:	
Basic exam:	$370
Basic exam and coronary reserve:	$455
Scanner LabPET™ :	
Basic exam (Mice/Rat):	$420
Basic exam and coronary reserve:	$505

4. PET MEASUREMENT OF THE OXYGEN CONSUMPTION (^{11}C-ACETATE) BY THE MYOCARD

TEP-Sherbrooke Scanner (Rat):	$570
LabPET™ Scanner (Mice/Rat):	$620

5. MEASUREMENT OF THE FATTY ACIDS UTILIZATION BY THE MYOCARD (^{18}FTHA)

TEP-Sherbrooke Scanner (Rat):	$570
LabPET™ Scanner (Mice/Rat):	$620

6. OTHERS SERVICES

If the requester wishes it, we can collect the heart, blood samples or other tissues. Allow a cost of $30 for the removal of each tissue. The requester must pay the transport fees, particular methods of tissue preservation will be charged separately.

HOUSING:

For studies requiring a housing of more than 3 days in our laboratories, for example during a follow-up study, a housing costs of $5.00 per day per animal will be added to the cost of the study.

D. Terms

- A health assessment including serologic tests and the detection of internal and external parasites is required before transferring the animals to our laboratories. Contact us for a complete description of the requirements.
- The requester has to pay the transport fees to our laboratories and the fees to return the animals to the requester.
- Charges may be subject to change, we recommend strongly that you to communicate with us in order to obtain an estimate before you begin an imaging project.
- In case of scientific collaborations or if the animal volume is over 10, a rebate can be applied.

We can't be held responsible for the death of an animal occurring during a study, his transport or his housing.

I understand the terms and fees for the services and I agree to pay the invoices from the Phenotyping Service of the Cardiovascular Health Network for the services I have requested.

_____ _____

P.I. Signature Date

Billing contact person: _____ Phone_____

- Please use the FRSQ and the RSCV to acknowledge this work in publications

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FINAL BILLING STATEMENT

Date of the study completed _____

Number of animals which completed full requested protocol _____

Amount reduced for the RSCV contribution _____

Final Charge_____ Technician Initial _____