

PET Physicist and Modeler Positions

The Research Imaging Centre (RIC) at the Centre for Addiction and Mental Health (CAMH) in Toronto has two full-time permanent positions, a PET physicist and a kinetic modeler. We are looking for motivated candidates to join the Image Methodology group within the RIC to develop methods, and provide strong scientific support, for both the pre-clinical and clinical PET programs in CAMH.

PET Physicist

The Research Imaging Centre (RIC) at the Centre for Addiction and Mental Health is seeking an outstanding candidate as PET physicist. The candidate will be expected to oversee the operation of the preclinical and clinical PET scanners in the Centre, as well as the associated auxiliary equipment (dose calibrators, automated blood sampling system and gamma-counters). The successful candidate will be responsible for the integrity of all PET and associated data, as well as working in close collaboration with the kinetic modeler, to integrate the PET data into the kinetic analysis. Some knowledge of kinetic modeling will be an asset. The successful candidate will be responsible for developing and implementing PET methodology for both the preclinical and clinical PET tomographs, and in addition, will be expected to develop appropriate solutions to overcome challenges associated with newer PET tomographs. A goal for this position is to build local, national and international collaborations, provide practical supervision of undergraduate, graduate and post-doctoral trainees and staff, as well as lead research activities and publications through extramural funding sources.

The successful candidate will report to the Director of the RIC, and will work closely with faculty, fellows and students within the Centre. Applicants must possess a post-secondary degree in a discipline relevant to PET physics. Expertise in human PET tomographs is mandatory, whilst a working knowledge of preclinical systems will be considered favorably.

The successful candidate will have expertise with PET tomographs, with a working understanding of system setup, calibrations and the necessary corrections required to generate quantitative data. Experience in processing PET image data, including image reconstruction and registration is expected. Experience with software development, (MATLAB, python, or another appropriate language) to address the requirements of the program at the RIC, and a knowledge of image formats (e.g. nifti, DICOM, ecat, etc.) will be considered favorably.

Excellent written and communication skills are essential. The candidate must be willing to provide flexibility and the ability to adapt to a fast-paced research environment, as well as to work independently, in a highly collaborative working environment.

PET Modeler

The Research Imaging Centre (RIC) at the Centre for Addiction and Mental Health is seeking an outstanding candidate as a kinetic modeler with expertise in medical physics pertaining to positron emission tomography (PET). The successful candidate must have experience in kinetic modeling for neuroimaging and will be responsible for developing and applying kinetic modeling strategies to analyze and interpret preclinical and clinical PET imaging data. In addition, the successful candidate will be expected to develop appropriate solutions to overcome challenges associated with the discovery of novel radiotracers, and will work in close collaboration with the PET physicist to maintain data integrity from acquisition and through analysis. A goal for this position is to build local, national and international collaborations, provide practical supervision of undergraduate, graduate and post-doctoral trainees and staff, as well as lead research activities and publications through extramural funding sources.

The successful candidate may be nominated for a faculty position in the Department of Psychiatry at the University of Toronto, and will report to the Director of the CAMH Research Imaging Centre, and will work closely with faculty, fellows and students within the Centre.

Applicants must possess a PhD in a discipline relevant to PET physics and/or tracer kinetic modeling combined with 1-5 years of post-doctoral experience, depending on the research program. Whilst expertise in human PET neuroimaging imaging studies is mandatory, any additional knowledge and expertise of preclinical imaging will be considered an asset.

The successful candidate will ideally have expertise in quantitative kinetic modeling of central nervous system (CNS) PET data and interpretation of kinetic modeling results, especially as it applies to novel PET tracer discovery. Experience in processing PET image data, including image registration is required. An ability to develop appropriate solutions to overcome challenges associated with the discovery of novel PET tracers for neuroimaging is essential. Experience with study design, oriented to characterize selectivity, specific signal, tissue/plasma kinetics of novel PET tracers, MATLAB, python or another appropriate software language, programming tools for data analysis, multiple image formats (e.g. nifti, DICOM, ecat, etc.) are assets.

Excellent written and communication skills are essential. The candidate must be willing to provide flexibility and the ability to adapt to a fast-paced research environment, as well as to work independently, in a highly collaborative working environment.

For further information please contact

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