



MASSACHUSETTS  
GENERAL HOSPITAL



HARVARD  
MEDICAL SCHOOL

**Postdoctoral opportunity in *Detector readout development and imaging instrumentation*  
at the Massachusetts General Hospital and Harvard Medical School**

**Position Description:** Radiation Physics and Instrumentation Lab (RPIL) at GCMI-Radiology, Massachusetts General Hospital (MGH) and Harvard Medical School (HMS) has an opening for highly qualified and motivated individual at the post-doctoral level to join multidisciplinary team working on development of NIH-funded imaging devices. Current active projects at RPIL (<https://scholar.harvard.edu/sabet>) are developing high-performance cardiac SPECT system, novel time of flight brain and small animal PET detector systems, photon counting CT detector, and multimodality time of flight intraoperative imaging system. The successful candidate will have joint appointments at MGH and HMS.

**Roles and responsibilities:** Successful candidate will work on readout electronics development, PCB design and fabrication, detector characterization, and system integration for imaging systems such as TOF-PET, and cardiac SPECT. This includes working on high frequency readout for MCP-based detectors, characterization of new scintillators, and take part on the ongoing external collaborations pertaining ASIC design and development. The candidate is expected to prepare research results through reports, peer reviewed articles, conference proceeding, and intellectual property.

**Requirements:** Applicants must have obtained a Ph.D. in electronics, physics, biomedical engineering, or related fields. S/he must be self-motivated, should have strong problem-solving and communications skills. A good command of English is required. The candidate must have expertise in electronic circuit design and PCB fabrication, imaging instrumentation & system integration, and data acquisition design. Experience in TOF-PET instrumentation and Cherenkov detector is preferred. Experience in VLSI design is plus.

**Application:** If interested, please send a CV, letter of interest, and name of three reference to Dr. Hamid Sabet ([hsabet@mgh.harvard.edu](mailto:hsabet@mgh.harvard.edu)), Assistant Professor of Radiology at MGH-HMS. Review process will begin immediately and will continue until the position is filled. The initial appointment is for two years and can be renewed based on performance.

MGH & HMS are equal-opportunity, affirmative action employers.