



Database developer for preclinical medical images

A grant for a 1-year position is available for a Research Fellow in the team of Dr. Dario Longo (Institute of Biostructures and Bioimaging, IBB, National Research Council of Italy, CNR) at the Molecular Imaging Center headed by Prof. Silvio Aime (www.cim.unito.it) - University of Torino (Torino, Italy) starting September/October 2019.

About the lab:

The Longo lab (www.cim.unito.it/website/PI/Longo/home.html) is interested in developing non-invasive MR imaging approaches for the in vivo characterization of tumor microenvironment, including acidosis, vascularization and hypoxia and in assessing therapeutic response to inhibitors of cancer metabolism in preclinical tumor murine models.

A second objective is focused on the development of novel post-processing procedures for medical images and for the storage and sharing of biomedical image data.

Environment:

The position will work in a stimulating interdisciplinary environment at the Molecular Imaging Center of the University of Torino, Dept. of Molecular Biotechnology and Health Sciences (DBMSS), an interdisciplinary research center dedicated to develop imaging-based approaches for understanding the fundamental biology underlying diseases and for improving diagnosis and monitoring treatment effects in several diseases (cancer, inflammation, diabetes, neurodegeneration and cardiovascular diseases). Our center offers an extraordinary range of services and instrumentations, covering biology, biotechnology, medicine, imaging and image analysis.

The DBMSS is coordinating the Multi-Modal Molecular Imaging Italian Node (MMMI) of Euro-BioImaging (EuBI), the European Research Infrastructure for Imaging Technologies in Biological and Biomedical Sciences that provides open physical user access to a broad range of state-of-the-art technologies in biological and biomedical imaging for life scientists (<http://www.eurobioimaging.eu/>). It is also involved in the EuBI coordinating Hub by contributing to the activities of the Hub section devoted to medical imaging (Med-Hub).

Position Highlight:

We are recruiting a highly motivated research fellow interested in developing new tools for the management, archiving, restricted access and post-processing of preclinical medical images.

Key responsibilities will include the development of new methodological approaches, algorithms, and software analysis pipelines and tools for several imaging modalities, including MRI, PET, CT, OI, OA, US imaging. Potential research activities include i) development of novel tools for the centralized management of medical images based on the XNAT platform (<https://xnat.org/>); ii) implementation of annotation practices for finding, accessing, sharing and reusing of data (FAIR principles).

The successful candidate will join an internationally renowned lab with a highly multi-disciplinary working environment with access to state of the art instrumentations covering all the imaging modalities. The fellow will work within a multidisciplinary team of biomedical engineers, chemists,



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biologists and biotechnologists. The candidate is expected to publish results in high quality, peer-reviewed journals as part of the successful completion of the fellowship.

Candidate requirements:

- MSc or PhD degree in Computer Science or Computer Engineering, electrical engineering or related disciplines earned within the last three years that enables her/him to develop software tools
- Applicants will need to demonstrate interest and proficiency in programming ability, in particular python, SQL and C++
- acquired experience in managing and processing of medical images is considered a plus
- Experience with web-page development (html, javascript, css, XML)
- Working knowledge of Matlab is desirable but not mandatory
- Demonstrated record of relevant experience as evidenced by training and publications
- The candidate should be able to work both independently and interactively in a team setting and possess a noticeable enthusiasm for research
- Fluid in spoken and written English

While the above mentioned experience will be an asset for obtaining the position, candidates that lack specific experience but make up for it with exceptional experimental abilities and motivation towards the work are also encouraged to apply.

The successful applicant will initially have a 1-year contract, with the possibility of extension. The offered salary will depend on the relevant experience in this field and seniority.

Interested candidates should send a single PDF file that includes a full curriculum vitae (including photograph and date of birth) with publications, a short description of previous training and work experiences and the names and contact details of at least one referee (former professor/advisor/mentor) to Dr. Dario Longo via email to: dario.longo@unito.it.

Please indicate “Database developer for preclinical medical images” in the subject line.