



The Vall d'Hebron Institute of Oncology (VHIO) Seeks a Biomedical Image Analyst Digital

Reference: 05/2019

Number of vacancies: 1

Position Summary:

VHIO's Molecular Oncology Group, directed by Paolo Nuciforo, is now recruiting for a Biomedical Image Analyst to work with its scientists in applying commercial, open-source, and custom software towards streamlined image analysis strategies.

The appointed candidate will contribute to every stage of the image analysis pipeline, including data management, selection of investigative approach, and presentation of results. He/she will also provide technical guidance to VHIO faculty without training in digital pathology to leverage commercial image analysis tools, and help to ensure that quantitative summaries of imaging data are always of the highest quality.

Key responsibilities:

The successful candidate will serve as technical lead for the design and development of innovative algorithms to analyze histopathology images and data.

Key duties include:

- Conceiving, planning, and executing projects; defining project requirements, deliveries, and time lines; tracking progress and ensuring quality results on time.
- Customizing and running software pipelines for specialized image analysis tasks.
- Compiling and producing summary spreadsheets, plots, visualizations, and reports of image-derived data.
- Providing quality assurance/quality control of image analysis results.
- Streamlining workflows for batch processing, data collation, results management, QC, etc.
- Keeping up-to-date with - and assessing - technology advances, the competitive landscape, and job training requirements in the field of digital pathology.
- Providing technical direction, guidance and feedback to other VHIO faculty.
- Evaluating technology requirements for algorithm development and making recommendations.
- Running algorithm feasibility for new projects.

Additional duties as may be assigned by the group's Principal Investigator towards delivering on their program's operational goals.

Essential qualifications:

Formal Training/Education:

- M.S. Degree (Ph.D. favorably considered) in Computer Science, Biomedical Engineering, Electrical Engineering, or a related field.

Experience and Required Skills:

- At least two years' academic or industry R&D experience with software development for image or data analysis algorithms.
- Expert understanding of biomedical image data, especially pathology images and digital pathology imaging modalities.
- Deep understanding of fundamental image processing concepts such as image registration, segmentation, classification, pattern recognition, machine learning, etc.
- Experience in using image analysis software such as QPath, ImageJ, Visiopharm, Indica Labs HALO, or others.
- 2+ years' programming experience (Python, Matlab, C++, or similar); experience applying machine learning techniques (e.g. SVM with hand-crafted features; CNN for supervised classification of images; clustering methods for unsupervised learning).
- Exceptional critical thinking, attention to detail, scientific rigor, and strong analytical, problem solving, and troubleshooting skills.
- Ability to multi-task across multiple projects while still meeting deadlines.
- Capacity to work independently as well as collaboratively as part of a larger project.
- A positive attitude, keen will to learn new things as well as help others.

Application: Please send your CV and cover letter highlighting your scientific interests either using the form below, or emailing us at: selecciorrh@vhio.net, adding "Ref. 05/2019" in the subject box of your email.

About VHIO:

Under the leadership of Josep Tabernero, the Vall d'Hebron Institute of Oncology (VHIO), created by José Baselga in 2006, has established itself as a comprehensive cancer center of proven excellence internationally. It is thanks to Josep Tabernero's directorship and VHIO's optimal organizational structure based on a purely multidisciplinary and translational model that VHIO talents continue to anticipate and tackle the many unresolved questions in combatting this multifaceted and heterogeneous disease.

Located within the Vall d'Hebron Barcelona Hospital Campus, our researchers closely collaborate and interact with Vall d'Hebron physician-scientists. Translational science and clinical research are therefore tightly connected which promotes superb interaction and teamwork which, in turn, accelerates the bench-bedside-bed cycle of knowledge. This privileged environment affords VHIO direct access to patients as well as the entire spectrum of oncology professionals who care for them, and a second-to-none appreciation of how cancer science can translate into more powerful, targeted treatments and better practice for the care of patients.

VHIO's pioneering model and programs, coupled with its belief in combining strengths through cross-border collaborations, continue to spur advances in reversing cancer resistance, halting metastatic spread, and more effectively treating even the most undruggable tumor types.

VHIO's translation toward precision oncology: <http://www.vhio.net>.