



## DEPARTMENT OF HEALTH AND HUMAN SERVICES NATIONAL INSTITUTES OF HEALTH Staff Scientist/Image Bioinformatics High-Throughput Imaging Facility (HiTIF) Laboratory of Receptor Biology and Gene Expression (LRBGE)

The Center for Cancer Research (CCR) at the National Cancer Institute (NCI) invites applications for a Staff Scientist position in the High-Throughput Imaging Facility (HiTIF)/LRBGE. Qualified candidates will have a strong background and extensive experience in high-throughput image processing and analysis, machine learning, and deep learning. In this position, the Image Bioinformatics Scientist will drive the development and implementation of automated image and data processing workflows to analyze large image datasets generated by high-throughput confocal microscopes. These projects will involve researching innovative approaches for segmenting (sub) cellular structures from multi-dimensional optical images using state-of-the art techniques (deep learning algorithms and graph-cuts), multi-modal image registration, feature extraction, unsupervised classification of phenotypic high-content/high-throughput imaging-based screens, and spatio-temporal analysis of single-cell level data. In addition, the successful candidate will be responsible for setting up and managing the HiTIF computational infrastructure. The Image Bioinformatics Scientist will work in a fast-paced research environment, will collaborate on a daily basis with molecular cell biologists. She/He is expected to be self-motivated and to demonstrate the willingness and ability of developing novel image analysis workflows.

## Who We Are

The CCR HiTIF is a shared resource for CCR and NIH Investigators. We work with them in a collaborative fashion to design and execute novel high-throughput, fluorescence microscopy-based imaging assays, which are used to identify and dissect the molecular mechanisms underlying a variety of physiological and pathological cellular processes. More importantly, we have a demonstrated successful record in developing cutting edge computational workflows on high-performance CPU and GPU batch clusters to study a variety of biological pathways involved in genome architecture, chromatin regulation, the DNA Damage Response, cancer and aging, among others. For more information visit our webpage. CCR is the intramural research component of NCI. CCR's enabling infrastructure facilitates clinical studies at the NIH Clinical Center, the world's largest dedicated clinical research complex, and provides extensive opportunities for collaboration; and allows scientists and clinicians to undertake high-risk, high-impact laboratory- and clinic-based investigations. For an overview, please visit the CCR website.

## Eliaibility

The successful candidate will hold a Ph.D. degree in either Image Processing, Computer Vision, Biomedical Engineering, or Quantitative Biophotonics, have at least three years of post-doctoral experience, and a strong publication record in the field. Previous hands-on experience in setting up and managing computational infrastructure for image analysis workflows in a shared environment is preferred. Salary is commensurate with education and experience. A full benefits package is available, including retirement, health insurance, life insurance, long-term care insurance, annual and sick leave, and Thrift Savings Plan (401k equivalent). This position is not restricted to U.S. citizens.

## How to Apply

The search will remain open until a qualified applicant is found. Consideration of applicants will begin on or around 8/1/2019. Interested individuals should send a brief cover letter, a CV and the contact information for three references to:

Attn: Gianluca Pegoraro, Facility Head High-Throughput Imaging Facility (HiTIF) LRBGE, National Cancer Institute E-mail: gianluca.pegoraro@nih.gov



