



Stanford MEDICINE

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Postdoctoral Scholar – AI and Computational Pathology for Precision Oncology

The Integrative Imaging and Molecular Diagnostics Lab is recruiting a highly motivated postdoctoral research scholar at Stanford University School of Medicine. Major focus of the Lab is to develop AI and machine learning approach for the prediction of treatment response and prognosis for precision cancer medicine. Recent work from the lab has been published in premier basic science journals such as *Nature Machine Intelligence*, *Nature Communications*, *Science Bulletin*, as well as in high-impact medical journals including *Lancet Digital Health* (2021, 2022), *JAMA Oncology*, *Annals of Oncology*, *Annals of Surgery*, *JAMA Network Open*, *Radiology*, etc. The lab is generously funded by 4 active NIH R01 grants (total funding: \$12 million). For more information, please visit <http://med.stanford.edu/lilab>

The project involves the development of novel machine learning and deep learning approaches for histopathology imaging analysis including routine H&E and multiplex immunofluorescence imaging. This information will be integrated with clinical, radiology, genomics, and transcriptomics data to predict immunotherapy response and outcomes in cancer patients. Special focus includes multi-modal machine learning, self-supervised learning, graph neural network, and interpretable AI. We closely work with a multidisciplinary expert team of computer scientists and clinicians including surgeons, pathologists, and oncologists at Stanford.

Candidates from a diverse background are encouraged to apply. The applicant may hold a PhD either in physical sciences/engineering with a strong interest in translational research and motivation to solve biomedical problems, or a PhD in biomedical sciences with a strong interest to apply AI and machine learning approaches. The ideal candidates will have strong analytic and computational skills, as well as prior experience in histopathology image analysis.

Major awards to postdocs and students in the lab include the prestigious NIH K99/R00 Pathway to Independence Award (which provides \$1,000,000 over 5 years), Natural Sciences and Engineering Research Council of Canada (NSERC) postdoc fellowship, ASTRO Clinical/Basic Science Research Award, and Basic/Translational Science Award. Recent lab trainees have secured tenure-track faculty positions in top-tier institutions such as the UT MD Anderson Cancer Center (ranked as No. 1 cancer center in the US). and Shanghai Jiaotong University (top 3 engineering school in China).

This is an excellent opportunity not only for those motivated to pursue an academic career, but also for those interested in entrepreneurship with the goal of commercialization and translation of new technology into clinical practice, which will ultimately improve survival for cancer patients.

Interested applicants should send a 2-page research statement, CV, and names of three references to: Ruijiang Li, PhD.