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Research Fellow Position at The University of Michigan, USA – Job Posting # 215445

How to Apply

A cover letter is required for consideration for this position and should be attached as the first page of your resume. The cover letter should address your specific interest in the position and outline skills and experience.

Job Summary

The Castro/Lowenstein Laboratory within the Department of Neurosurgery is accepting applications for a Post-Doctoral Fellowship position funded by NIH. The successful candidate will join an exciting and productive research team focused on elucidating the molecular and physical basis of brain tumor growth, invasion and response to novel therapeutics. The project will study molecular and cellular mechanisms involved in tumor progression; the role of the extracellular matrix in tumor growth; the formation and function of oncostreams as described in a recent publication (see below); and the molecular mechanisms which mediate *in vivo* migration of immune cells into the tumor micro-environment. The project will also utilize state-of-the-art “omics” technologies such as Single Cell RNASeq, ChIP-Seq, ATAC-Seq, as well as advanced Bioinformatics. The project has a strong translational component focusing on the development and implementation of novel therapeutic approaches in human clinical trials for brain cancer; these include gene therapy strategies, small molecules, and nano-technologies. The lab is utilizing novel gene therapy and combination therapies to explore ways to translate the research into novel Phase I clinical trials for GBM.

- Comba et al., Spatiotemporal analysis of glioma heterogeneity reveals COL1A1 as an actionable target to disrupt tumor progression. <https://doi.org/10.1038/s41467-022-31340-1>. **Nature Communications**, 2022, 13:3606.
- Comba et al., Uncovering Spatiotemporal Heterogeneity of High-Grade Gliomas: From Disease Biology to Therapeutic Implications. **Frontiers in Oncology**, 2021, 11: doi: 10.3389/fonc.2021.703764
- Alghamri et al., G-CSF secreted by mutant IDH1 glioma stem cells abolishes myeloid cell immunosuppression and enhances the efficacy of immunotherapy. **Science Advances**, 2021, 7 : eabh3243.

For further references, please search in PubMed for “Lowenstein P”

Required Qualifications

- PhD in a recognized field of science related to the position, potentially supplemented by at least 2 years of experience in a research setting relevant to the position
- A strong work ethic
- The ability to work independently combined with a willingness to work in a highly interactive and collegial group.
- The applicant is expected to provide significant input into the development of experiments, procedures and research design as well as to assist the principal investigator in determining research goals.
- Excellent decision making and the ability to assume a substantial portion of the research project work.
- Excellent written and oral communication skills;
- The ability to conduct experiments independently or with supervision;
- A broad spectrum of laboratory techniques, such as basic molecular biology, immunocytochemistry, confocal microscopy, in vivo 2-photon microscopy, immunological techniques, flow cytometry, scRNA seq, ChipSeq, proteomics and bioinformatics.
- The selected candidate will be responsible for accurate scientific research and documentation of results in addition to evaluation, analysis, and interpretation of data. Presentation of data at lab meetings will be required.
- Preparation of posters, abstracts, papers and reviews will also be required.
- Knowledge of Microsoft Office, PowerPoint, PhotoShop, Adobe Illustrator and Endnote or similar programs is required.