



THE UNIVERSITY of  
**MISSISSIPPI**

DEPARTMENT OF BIOMEDICAL ENGINEERING

## Postdoctoral Research Position in Cancer Biology / Metastasis Werfel Lab (iNBS Lab), University of Mississippi, Oxford, MS

The Interdisciplinary NanoBioSciences (iNBS) Lab at the University of Mississippi ([inbslab.olemiss.edu](http://inbslab.olemiss.edu)) invites applications for a postdoctoral research position to work on a project **funded by the American Cancer Society (ACS)**. The project will investigate the role of platelets in breast cancer metastasis with the goal of discovering actionable molecular targets to disrupt platelet-mediated metastasis of triple negative breast cancers. Experimental work will span cell signaling, molecular biology, cell-cell interactions, and translational therapeutic studies in animal models of breast cancer metastasis. In addition, time will be given for the pursuit of the researcher's independent research ideas, grantsmanship, time management, and training in teaching and mentorship.

### Candidate Qualifications:

The preferred candidate will have a Ph.D. in Cell and Development Biology, Cancer Biology, Biomedical Engineering, or a related field. The candidate should have expertise in molecular cancer biology and significant experience with cancer animal models. Experimental techniques such as PCR, western blot, flow cytometry, confocal microscopy, 3D cell co-cultures, transwell migration, tumor xenograft implantation, *in vivo* drug administration, tissue harvesting, and post-mortem molecular analysis will be essential to the proposed studies. Candidates with experience in any of the following areas, in addition to cancer biology expertise, will be given preference: platelet biology / pharmacology, drug delivery principles (*e.g.* drug loading, controlled release, pharmacokinetics / biodistribution, and drug targeting), microfluidics, or single-cell analysis.



iNBS Lab in "The Grove", Summer 2021

### Required Tasks of the Job:

- Perform molecular analysis pertaining to the interaction of platelets and breast cancer cell lines
- Perform a variety of *in vitro* 3D co-culture experiments involving breast cancer cells, platelets, endothelial cells, and immune cells
- Evaluate the *in vivo* safety and efficacy of treatments for triple negative breast cancer metastasis
- Perform independent research and contribute new research ideas
- Use organizational skills and multitasking to accomplish multifaceted goals
- Develop oral and written communications skills, contributing to grant reports and new grants, patent applications, manuscripts, and conference presentations

### To Apply:

Interested candidates should apply at [careers.olemiss.edu](http://careers.olemiss.edu) by submitting a combined PDF of the following: cover letter, curriculum vitae, two sample manuscripts, and contact information for three references. The cover letter should state clearly the candidate's research experience, interests, and future career goals. Any inquiries related to the position can be sent to Dr. Thomas Werfel ([tawerfel@olemiss.edu](mailto:tawerfel@olemiss.edu)).