



Postdoctoral Research Fellow Position: Immunology or Cellular/Molecular Biology

Position:

The TIME Lab (Tumor Immune Microenvironment & Mechanics Laboratory, <https://timelab.nd.edu>) at the University of Notre Dame seeks highly motivated and enthusiastic candidates for a postdoctoral fellowship in the area of brain tumor immunology. Glioblastoma is the most difficult to treat primary brain tumor in adults, and recent immunotherapeutic approaches have largely failed to benefit patients. Our lab seeks to explore new mechanisms of resistance posed by different facets the abnormal tumor microenvironment, including the immune compartment, the blood-tumor barrier, residential populations (neurons, microglia, astrocytes), and aberrant physical forces. This NIH-supported project will involve utilizing cellular, organotypic, and mouse models of glioblastoma to reveal and target novel vulnerabilities to improve therapeutic outcomes. State-of-the-art techniques including single-cell RNA sequencing, multiplexed proteomics, and intravital imaging in mice will be utilized to dynamically explore stromal-immune-cancer interactions in the tumor microenvironment.

Essential Qualifications:

- PhD or equivalent in immunology, biology, bioengineering, or a similar field.
- Experienced in standard molecular and cellular biology techniques.

Additional Qualifications:

- Candidates with expertise in cancer immunology, cancer biology, and/or neuroscience are encouraged to apply.
- Experience in mouse models, spectral flow cytometry, specialized sequencing (TCR-, single-cell, ATAC-, ChIP-), multi-omics approaches, and/or bioinformatics will be favorably reviewed.

Appointment, salary, and benefits:

- 2-year appointment, subject to renewal for a longer period
- Full time salary (subject to candidate experience, based on current NRSA Stipend Levels) and university benefits

Applicants should send a brief description of their research interests, a curriculum vitae, anticipated start date, and at least three letters of references to **Prof. Meenal Datta**: mdatta@nd.edu.

Starting date: **September 1, 2021** or after agreement.

**Postdoctoral Research Fellow Position: Bioinformatics****Position:**

The TIME Lab (Tumor Immune Microenvironment & Mechanics Laboratory, <https://timelab.nd.edu>) at the University of Notre Dame has an opening for a bioinformatics postdoctoral fellow in brain tumor immunology. Glioblastoma is the most difficult to treat primary brain tumor in adults, and recent immunotherapeutic approaches have largely failed to benefit patients. Our lab seeks to explore new mechanisms of resistance posed by different facets the abnormal tumor microenvironment, including the immune compartment, the blood-tumor barrier, residential populations (neurons, microglia, astrocytes), and aberrant physical forces. This NIH-funded project involves mining publicly available datasets – as well as newly produced results within the lab from cellular, organotypic, and mouse models of glioblastoma, and patient samples from clinical collaborators – to explore the relationship between immune cells and the other components of the microenvironment. The fellow will employ robust and state-of-the-art computational approaches to analyze single-cell transcriptomics and other next-generation sequencing data to reveal novel vulnerabilities that can be targeted therapeutically.

Essential Qualifications:

- PhD or equivalent in bioinformatics, computational biology, systems biology, computer science engineering, statistics, mathematics, bioengineering, or a similar field.
- Candidates with a science/medical degree are also able to apply if they can demonstrate extensive experience in computational/bioinformatics analyses.
- Analytical skills and experience in applying/developing algorithms in standard languages (e.g., Python, R) and statistical analyses with large datasets (e.g., RNA-sequencing)

Additional Qualifications:

- Candidates with experience in immunology, cancer biology, and/or neuroscience are encouraged to apply.
- Ability to integrate “omics”-based datasets with patient clinical information.
- Candidates interested in validating key findings at the bench will be favorably reviewed.

Appointment, salary, and benefits:

- 2-year appointment, subject to renewal for a longer period
- Full time salary (subject to candidate experience, based on current NRSA Stipend Levels) and university benefits

Applicants should send a brief description of their research interests, a curriculum vitae, anticipated start date, and at least three letters of references to **Prof. Meenal Datta**: mdatta@nd.edu.

Starting date: **September 1, 2021** or after agreement.



Animal Research Technician – Murine Cranial Surgeries

Position:

The TIME Lab (Tumor Immune Microenvironment & Mechanics Laboratory, <https://timelab.nd.edu>) at the University of Notre Dame is seeking a full-time Research Technologist to perform small animal surgeries. Our lab studies the brain tumor microenvironment and how it influences tumor progression and treatment response. Our investigations focus on fundamental biology, as well as on the identification and validation of new therapeutic targets. We seek candidates to contribute to a dynamic team environment, to support students and junior fellows through basic technical training, and to providing an example of best lab practices. Lab duties will be centered around surgical procedures in mouse models including but not limited to: stereotaxic brain implantations, transparent cranial window implantations for longitudinal in vivo imaging, and tissue retrieval, dissection, and preservation.

Essential Qualifications:

- BS in laboratory animal science or a basic science field and appropriate knowledge of and experience in animal science.
- A minimum of 1 year experience in small animal surgery is required. Candidates with experience in mouse models, particularly in cranial techniques, will be prioritized.

Additional Qualifications:

- Candidates with experience in brain cancer or neuroscience research, and/or with additional skills in molecular and cellular biology will be favorably reviewed.
- Experienced persons seeking senior technician and/or lab manager positions will be considered and are strongly encouraged to apply.

Applicants should send a resume and contact information for at least three references to **Prof. Meenal Datta**: mdatta@nd.edu.

Starting date: **September 1, 2021** or after agreement.



Research Technician: Cellular & Molecular Biology

Position:

The TIME Lab (Tumor Immune Microenvironment & Mechanics Laboratory, <https://timelab.nd.edu>) at the University of Notre Dame is seeking a full-time Research Technologist to perform basic molecular biology and cell culture methods. Our lab studies the brain tumor microenvironment and how it influences tumor progression and treatment response. Our investigations focus on fundamental biology, as well as on the identification and validation of new therapeutic targets. We seek candidates to contribute to a dynamic team environment, to support students and junior fellows through basic technical training, and to providing an example of best lab practices. Lab duties will include cellular and molecular biology/biochemical techniques such as cell culture, transfection, DNA/RNA/protein extraction from cells and tissues PCR, Western blot, ELISA, and flow cytometry/FACS.

Essential Qualifications:

- BS in a basic science field and appropriate experience.
- Expertise in standard molecular and cellular biology techniques.

Additional Qualifications:

- Candidates with the following experience will be reviewed favorably: animal (mouse) work, sensitive cell culture (e.g., neurons, pluripotent cells), tissue/organotypic culture, sequencing, CRISPR-based genome editing, basic immunohistochemistry, microscopy/imaging.
- Experienced persons seeking senior technician and/or lab manager positions will be considered and are strongly encouraged to apply.

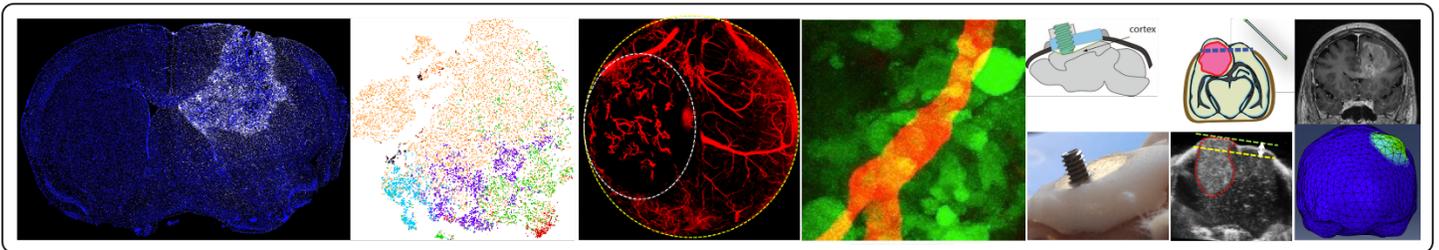
Applicants should send a resume and contact information for at least three references to **Prof. Meenal Datta**: mdatta@nd.edu.

Starting date: **September 1, 2021** or after agreement.



The Tumor Immune Microenvironment & Mechanics Laboratory:

The TIME Lab at the University of Notre Dame is a new bioengineering research group studying the tumor immune microenvironment with a particular focus on difficult to treat brain tumors like glioblastoma, brain metastases, and pediatric CNS tumors. We use mechanism-based preclinical approaches to broaden our understanding of these cancers and inform new treatment strategies. State-of-the-art techniques are employed for basic and translational research including organotypic and mouse models, intravital imaging, and single-cell technologies. With the support of intramural institutes including the Harper Cancer Research Institute and the Institute for Precision Health, and external connections to the Indiana University School of Medicine and Purdue University, we provide a vibrant and collaborative laboratory experience. The TIME Lab is committed to providing a safe, supportive, and equitable space for all researchers. Women and members of other underrepresented groups are encouraged to apply.



Equal Employment Opportunity Statement:

The University of Notre Dame seeks to attract, develop, and retain the highest quality faculty, staff and administration. The University is an Equal Opportunity Employer, and is committed to building a culturally diverse workplace. We strongly encourage applications from female and minority candidates and those candidates attracted to a university with a Catholic identity. Moreover, Notre Dame prohibits discrimination against veterans or disabled qualified individuals, and requires affirmative action by covered contractors to employ and advance veterans and qualified individuals with disabilities in compliance with 41 CFR 60-741.5(a) and 41 CFR 60-300.5(a).