

**Sungmin Nam, PhD**

Multiscale Mechano-Medicine Laboratory
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Summary

We are actively seeking a highly motivated postdoctoral fellow to contribute to our dynamic research environment. The candidate will delve into innovative research that integrates biomaterial design, mechanobiology, stem cell and cancer biology, along with genetic and metabolomic techniques. This research aims to address fundamental questions in mechanobiology and metabolism, and develop state-of-the-art therapeutic strategies for injury repair, tissue degeneration, fibrosis, and cancer treatment. The principal investigator is committed to nurturing a collaborative and inclusive lab atmosphere, and will actively support the candidate's professional growth, aiding in paper preparation, fellowship applications, and presentation opportunities at both national and international conferences.

Who we are

Our lab is dedicated to a fundamental understanding of mechanotransduction—the process by which cells and tissues respond to mechanical cues from their environment or those externally applied—and harnessing these insights for therapeutic advancement. Recent studies have demonstrated that mechanical signals can regulate a variety of cellular activities, including proliferation, differentiation, and migration. Beyond the current biological and chemical strategies in modern medicine, the modulation of cells through these mechanical signals is poised to lead the next generation of therapy and medicine.

Relevant publications: [Google scholar](#)

Qualifications

The ideal candidate for this position should possess the follow qualifications.

- A Ph.D. or M.D./Ph.D. degree in Biomedical sciences or Engineering or relevant fields
- Familiarity or background in metabolomics is an asset
- A minimum of two first-author primary research articles published in international journals
- Strong written and oral communications skills
- Motivation to engage in high-quality research to address novel scientific questions
- A commitment to mentoring others and collaboration

Relevant background

- Multiomics – Metabolomics, Proteomics, Transcriptomics, Genomics,
- Cell biology, Molecular biology & engineering
- Advanced imaging techniques

How to apply

Prospective candidates who meet the outlined criteria are invited to submit a detailed curriculum vitae (CV), and complete contact information (including email addresses) for three references. Please direct your application to Dr. Sungmin Nam. Submissions should be sent via email to: sungminn@umich.edu

There is no specific deadline, and it will proceed on a rolling basis.