

**Opportunity Title:** Biomimetic Nanofibrous Scaffold Research (MS/PhD)

**Opportunity Reference Code:** N39467-027

**Organization** U.S. Navy

**Reference Code** N39467-027

**How to Apply** This ORISE opportunity is managed by the DoD ORISE operations, please use the direct link provided below to access the announcement:

Direct URL:

<https://www.pcrecruiter.net/pcrbin/apply.asp?r=WIEQYCjz4QlPhCTfXXBeCaEUhtgjPTtGRJ3etuPG7YPBibL23utdj7IShAT6>

**Description** One research opportunity is available with NAMRU- SA. Qualified candidates must have at least a MS (PhD is preferred) in Bioengineering or related field. The opportunity includes, but is not limited to, the following:

Develop a novel biomimetic nanofibrous scaffold through electrospinning composed of natural polymers capable of releasing bioactive agents. The scaffold would be designed to serve as a wound dressing. This project requires state-of-the-art research of scaffold fabrication, evaluation of scaffold architecture, and the use of analytical tools to correlate scaffold properties with biological performance in-vitro and in-vivo. In this project it will be necessary to optimize and execute laboratory assays for development of a scaffold with appropriate properties to serve as a wound dressing. Under the direction of the principal investigator staff, the intern will assist with:

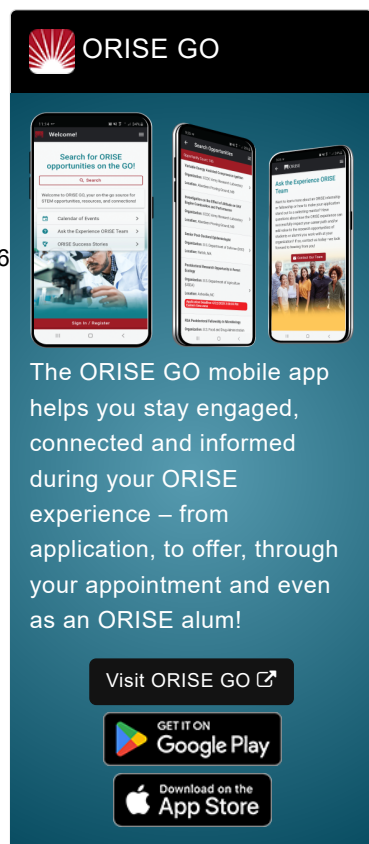
- Fabricating a scaffold via electrospinning and optimize the parameters necessary to achieve a biomimetic scaffold on the nanoscale level that releases bioactive agents.
- Performing mechanical and physical testing of the fabricated scaffold as well as ascertain images using various imaging devices (SEM, TEM, AFM, etc).
- Cell cultivation, cell characterization and basic molecular assays to ascertain the bioactivity of the scaffold.
- Performing statistical analysis and interpretation of research findings.
- Preparing research manuscripts based on the findings.
- Developing and writing research proposals.

An ideal candidate would be highly motivated and detail-oriented and have demonstrated ability to work both independently and in a team.

**Qualifications** MS or PhD Biomaterials, Biomedical engineering, Bioengineering, Tissue engineering, Molecular biology or related field


U.S. Citizenship is required.


- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
  - **Degree:** Master's Degree or Doctoral Degree.
  - **Discipline(s):**
    - **Environmental and Marine Sciences** ([1](#)👁)
    - **Life Health and Medical Sciences** ([45](#)👁)




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