



Project Title: Plasma surface modification of Alternating Current Electrospun nanofibers for bio-integration

Project Reference Code: Bayer-TrueSpin

Name of Project Leader: Dr. Anthony Brayer

Host Facility: TruSpin Nanomaterial Innovation

Internship Location: 1500 1st Ave N, Birmingham, AL 35203 <https://www.truspin.com/>

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Project Description:

TruSpin Nanomaterial Innovation (“TruSpin”) is seeking a summer intern with a passion for plasma to explore the plasma surface modification of exotic nanofiber compositions. The intern will apply knowledge gained in academia in the most direct manner possible as they learn about TruSpin’s materials, work with leadership to understand desired properties, conceptualize solutions to achieve those properties, and then conduct experiments to test those solutions. The intern will gain hands-on experience with novel next-generation nanofiber production equipment and the various types of nanofibers it produces. TruSpin will provide mentorship, regular exposure to a commercial lab environment, unfettered access to all laboratory assets, and will approve any equipment purchases proposed by the intern within reason. Some experience with plasma surface modification is preferred but not mandatory.

Disciplines: Material Science, Biomedical Engineering, Life Sciences, Nanomaterials Physics, Experimental Plasma Physics, Applied Physics.

Importance: TruSpin develops better ways to make advanced materials that are foundational to next-generation technologies. Those advanced materials are called nanofibers.

Requirements:

- **Preferred Major**
 - any STEM students
- **Class work**
 - NA
- **Programming knowledge**
 - NA
- **Software knowledge**
 - NA
- **Other**

Biography:

Dr. Brayer is the Co-founder and Chief Technology Officer at TrueSpin Nanomaterials. He received his Master of Science and Doctor of Philosophy applied physics from the University of Alabama at Birmingham.

Is U.S. citizenship required to participate in this project? No

Contact information: Dr. Anthony Brayer (anthony@truspin.com) Phone: 205-532-0067

Name(s) of Mentor(s) and contact information: Dr. Anthony Brayer (anthony@truspin.com) Phone: 205-532-0067

Internship Coordinator/ HR manager: Dr. Anthony Brayer (anthony@truspin.com) Phone: 205-532-0067

The name and contact information of personnel at the host facility is provided for further assistance with questions regarding the host facility or the project.

Interns will not enter into an employee/employer relationship with the host facility. No commitment with regard to later employment is implied or should be inferred.