

Summer Internship in Fungal and Plant Genomics/Proteomics

About the Program: The NCSU Fungal Genomics Laboratory is a state-of-the-art facility with the mission to discover and analyze the function of genes from economically important fungi. These include fungi that pose a threat to plant health, those that generate manufactured products, as well as those that serve as a nutritional staple. The information we obtain provides new insights into cellular processes and development and may lead to the design of novel plant protection strategies and fungal-based products.

Program Activities: We offer a ten-week summer internship at the NCSU Fungal Genomics Laboratory through an award from the National Science Foundation. Students will explore the latest technologies and advancements in genetics, genomics, bioinformatics, proteomics, and plant pathology. As part of this program to study rice blast, students will be offered the opportunities to:

- sequence and analyze DNA
- clone mutated genes
- design and execute micro-array experiments for functional genomics
- work with bioinformatics group analyzing and annotating DNA sequences
- create cassettes for protein expression and subsequent precipitation with anti-bodies

Other Information: A major initiative in fungal genomics is the study of the interaction between rice and the rice blast fungus, *Magnaporthe grisea*. This fungal pathogen is one of the main pathological threats to food supplies worldwide and accounts for the decimation of enough rice to feed over 60 million people a year.

Students will be offered a weekly stipend, lodging, meals, and the opportunity to travel to a collaborating institution for one week.

For more information:

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