

**BIOINFORMATICS 2018 Spring SEMINAR SERIES**

Hosted by: Department of Computer and Information Sciences,  
Department of Electrical and Computer Engineering &  
Center for Bioinformatics and Computational Biology  
<http://bioinformatics.udel.edu/Seminars/Current>

**MONDAY, March 5, 2018****3:30pm****DBI Room 102****The development and function of aerial roots in plants*****Erin Sparks***

***Assistant Professor, Department of Plant and Soil Sciences, Delaware  
Biotechnology Institute, University of Delaware***

**ABSTRACT:**

The yield potential of agricultural crops is limited by the ability of plants to support their own weight and withstand external forces. The failure of plants to stay upright, termed lodging, can have a dramatic impact on crop yields. Lodging can occur when the stem breaks (stalk lodging) or when the root system loses contact with the soil and is up-rooted (root lodging). Although stalk lodging has been the focus of much research attention, it is suggested that root lodging is more prevalent. In some crops (e.g. corn and sorghum) specialized aerial roots, called brace roots, are thought to play an important role in stability to prevent root lodging. Yet, the benefit of brace roots to the plant and what makes a good brace root is unknown. Our lab focuses on understanding the development and function of brace roots in crops. We leverage techniques from engineering, computational biology, and molecular biology to address these research questions.