Biology Seminar

Biology Graduate Student Association and Department of Biological Sciences
Fri.12/2 @ 4pm in SCI B 133

Genomic insights into the genetic regulation of growth and development in forest trees

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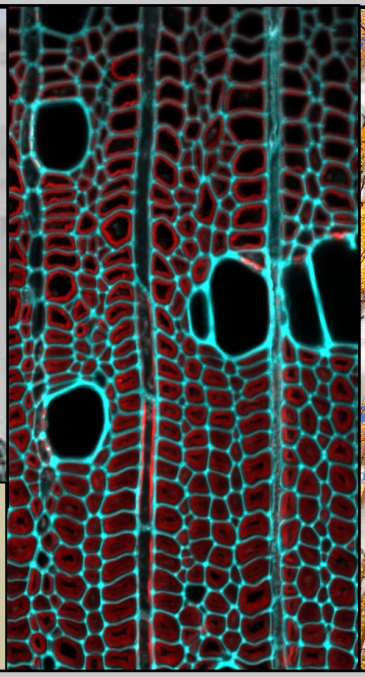

Our lab is using genomic and computational-based approaches to understand the complex regulation of traits central to the evolution and development of forest trees, including wood formation. We developed a system for studying the gravitropism of woody stems and associated "reaction wood," which creates contractile force to pull stems upward against the force of gravity. We integrated information from gene expression data, imaging data, and whole plant phenotypes to describe the molecular and genetic processes regulating how woody plant stems perceive and respond to gravity. We are now extending these finding in a phylogenetic survey of transcriptional networks underlying reaction wood formation across angiosperm tree species. Lastly, a new system will be described for functional genomic analysis of growth and development traits in poplar, including results from full genome scans for genomic regions affecting complex traits.

Biological Sciences Seminar Series venue is wheelchair-accessible. Persons who wish to request disability-related accommodations, including sign-language interpreters, should contact the Department of Biological Sciences, c/o peb112@humboldt.edu. Please request accommodations at least two days prior to the event. Some attendees may be sensitive to various scents from perfumes, shampoos, soaps, etc. Although optional, please consider refraining from wearing scented products to this event.