

# GDCB SEMINAR

4:10-5 p.m.

Tuesday, March 2, 2021

## “Mechanisms and network for plant steroid hormone signaling in plant growth and stress responses”

**Summary:** Plant steroid hormone Brassinosteroids (BRs) play important roles in plant growth and plant responses to environmental stresses such as drought. BRs act through receptors and a cascade of signaling components to regulate BES1 and BZR1 transcription factors that mediate the expression of thousands of target genes for BR responses. We have established that BES1 regulatory network includes genes involved in drought stress response and autophagy process. BES1 activities are modulated by posttranslational modifications such as phosphorylation and ubiquitination. Through a genetic approach, we have recently found that BES1 can be modified by nitrosylation and BES1 nitrosylation inhibits its function. Our results establish BES1 as a hub that coordinates plant growth and stress responses.



**Yanhai Yin**

Iowa State  
University

Chair and Professor,  
Department of Genetics,  
Development and Cell  
Biology

**Join meeting:**

<https://iastate.webex.com/iastate/j.php?MTID=mb238d165439455f48123c9a3d116aef8>

**IOWA STATE UNIVERSITY**

**Department of Genetics, Development and Cell Biology**