

Genome Sciences Seminar

W UNIVERSITY of WASHINGTON



Dr. Jose Dinneny

Carnegie Institution for Science, Stanford University



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One of our greatest challenges in the next 50 years will be to realize a global society that is fully sustainable. Water is the most limiting resource for plant growth while agriculture uses between 70-80% of the fresh water supply. Despite its critical importance, key questions remain regarding how plants sense, transport and efficiently use water (Robbins and Dinneny, 2015). My research aims to understand plant-environment interactions using a holistic approach that emphasizes the importance of developmental pathways and molecular genetic mechanisms in guiding acclimation and homeostatic processes (Feng et al., 2016; Dinneny, 2015a). This work has led to the exploration of water-stress responses in plants at unparalleled spatial and temporal resolution (Duan et al., 2013; Geng et al., 2013; Dinneny et al., 2008), the discovery of novel adaptive mechanisms used by roots to capture water (Sebastian et al., 2016; Bao et al., 2014) and the invention of imaging methods that enable multidimensional studies of plant acclimation (Rellán-Álvarez et al., 2015). Today's research goals focus on understanding the signaling mechanisms plants use to sense water availability and the characterization of the molecular-genetic basis for naturally occurring adaptive innovations that allow plants to survive water-limiting environments.

“Putting things into context: the systems biology of plant-environment interactions”

Wednesday, November 16, 2016

3:30

Foege Auditorium, S-060

Refreshments served outside the Auditorium at 3:20pm

Questions? Contact Brian Giebel at bgiebel@uw.edu or visit the Seminar website at <http://www.gs.washington.edu/news/seminars.htm>

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