

# MCB PLANT BIOLOGY SEMINAR

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"Multiple roles of molecular chaperone HSP90 in *Arabidopsis thaliana*"

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3:30 p.m.

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## ABSTRACT:

HSP90 is a highly conserved molecular chaperone that is involved in modulating a multitude of cellular processes under both physiological and stress conditions. In *Arabidopsis thaliana*, there are seven HSP90 isoforms (AtHSP90.1 to AtHSP90.7) that are localized in either cytoplasm/nucleus or organelles. The role of HSP90s in *Arabidopsis* has been implicated in resistance of abiotic and biotic stresses as well as in regulating normal plant growth and development. We have analyzed the roles of some cytosolic and organellar HSP90s by transgenic approaches and demonstrated that properly controlled expression of HSP90 is required for plant normal growth and stress resistance. The pathways in which HSP90s are involved are investigated by proteomics approaches with a focus on organelle HSP90s.