

***Medicago truncatula* Workshop Instructions for Abstracts**

Abstracts for oral and poster presentations should be submitted in electronic form, preferably using Word rich text format. Please follow the format indicated below. All abstracts must fit within the space indicated.

Abstracts should be sent by email to Doug Cook at drcook@ucdavis.edu
Abstracts must be received by May 1, 2001.

DEVELOPING A GENETIC SYSTEM IN *Medicago truncatula*: CHARACTERIZATION OF NON-NODULATING AND HYPER- NODULATING MUTANTS.

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In response to compatible bacteria (rhizobia), leguminous plants undertake the development of a unique plant organ, the root nodule, wherein bacteria fix atmospheric dinitrogen into ammonia. The molecular mechanisms underlying nodulation, including signal transduction and the modification of cellular/developmental programs remain to be elucidated. Plant mutants would be useful tools in elucidating these mechanisms and should facilitate the identification and isolation of the responsible plant genes.

We performed a large scale mutagenesis in the model legume *Medicago truncatula* using the chemical mutagen EMS (ethyl methanesulfonate), and in the following generation (M2) analyzed seedlings using a visual screen for altered nodule morphogenesis. From this screen, and by using a *R. meliloti* strain that constitutively expresses the marker *lacZ* gene, we identified several mutants, including: (1) a recessive mutation that confers pleiotropy over rhizobial (non-infection) and mycorrhizal ...etc.

Abstract title should be in bold, capital letters.

Authors' names should be on the line immediately following the title, including institutional affiliations.

The body of the abstract should not have indents, and paragraphs should be separated by a full line space.

*Font: Times New Roman
Size: 11 point*