

Chickpea regeneration: Development of rescue media using hormone profiling analysis of anthers and young ovules

Dr. Suzanne Abrams

National Research Council – Plant Biotechnology Institute

SPG Contributions	Project Status	Duration/Timeline of Project (Year to Year)	Total Project Cost
\$131,417.00	Completed	April 2009 – April 2011	\$131,417.00

Project Description

To determine the hormone profiles necessary for rescue media for culturing chickpea embryos for interspecific hybrid development; to determine the hormone profiles necessary for chickpea breeding through doubled haploid technology.

Outcome

Using measurement of plant hormones in 4-, 8- and 12-day old seeds from pea, chickpea and lentils showed that early embryo development stages in these legume species appears to be regulated by phytohormones. This information will be used for subsequent alteration of the current tissue culture media to provide and/or induce synthesis of needed phytohormones for the development of embryos from interspecific crosses.

Research Objective

OBJECTIVE 1

To determine the hormone profiles necessary for rescue media for culturing chickpea embryos for interspecific hybrid development.

OBJECTIVE 2

To determine the hormone profiles necessary for chickpea breeding through doubled haploid technology.