

Michael A. Held, Ph.D.

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Research Experience and Interests

Plant cell walls consist of independent, yet interacting networks of cellulose, crosslinking glycans, pectins, glycoproteins, and lignin. Studying the biosynthesis of these cell wall constituents and the nature of their intermolecular interactions has, thus far, been my life's work. In this time, I have acquired expertise in real-time quantitative PCR, proteomics, chromatographic techniques (HPLC, LC, GC, TLC, and paper), enzymology and enzyme purification, plant tissue culture, and heterologous transgene expression. I also have experience with mass spec. and NMR. I continue to build my repertoire of skills as a post-doctoral researcher in Nick Carpita's lab at Purdue University, where I am using viral-induced gene silencing in barley to identify genes encoding the mixed-linkage (1→3),(1→4) β-glucan synthase complex.

Professional Experience

Purdue University
Department of Botany and Plant Pathology
Post-doctoral Researcher Advised by Dr. Nick Carpita
June 2004-present

Education

Ohio University
Department of Chemistry and Biochemistry
Ph. D. Advised by Dr. Marcia J. Kieliszewski
June 2004

Publications and Symposium Lectures

“Towards the identification of the catalytic components of the mixed-linkage (1→3),(1→4)-β-glucan synthase complex.” Presented Aug. 6, 2005, at the Cell Wall Biosynthesis Meeting, Asilomar Conference Grounds, Monterey, CA.

Michael A. Held, Li Tan, Abdolreza Kamyab, Michael Hare, Elena Shpak, and Marcia J. Kieliszewski. Di-isodityrosine Is the Intermolecular Cross-link of Isodityrosine-rich Extensin Analogs Cross-linked *in Vitro*. (2004) *J. Biol. Chem.* **279**, 55474-55482.

Patents

Marcia J. Kieliszewski and Michael A. Held. “Cross-Linkable Glycoproteins and Methods of Making the Same.” #04005. April 19, 2004.

Awards and Professional Memberships

Member of the American Chemical Society 2005.

Donald R. Clippinger, Ohio University, Department of Chemistry Research Award 2004.

Member of the American Society of Plant Biologists 2003.

References

Dr. Nick Carpita

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