

Michael G. Hahn
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Education and Training

University of Oregon, Eugene	Chemistry/Ind. Studies	B.S./B.A., 1974
University of Colorado, Boulder	Chemistry	Ph.D., 1981
University of Wisconsin, Madison	Plant Pathology	Postdoc, 1981-1982
Albert-Ludwigs Universität Freiburg, Germany	Plant Biochemistry	Postdoc, 1982-1984
Salk Institute, La Jolla, California	Plant Biology	Postdoc, 1984-1986

Professional Experience

2007-Present	Professor, Department of Plant Biology and Complex Carbohydrate Research Center, University of Georgia, Athens
2007-Present	Faculty Participant, DOE BioEnergy Science Center
1994-2007	Associate Professor, Department of Plant Biology and Complex Carbohydrate Research Center, University of Georgia, Athens
1988-1994	Assistant Professor, Department of Plant Biology and Complex Carbohydrate Research Center, University of Georgia, Athens
1986-1988	Assistant Research Scientist, Complex Carbohydrate Research Center, University of Georgia, Athens

Representative Publications

- Puhlmann, J., E. Bucheli, M.J. Swain, N. Dunning, P. Albersheim, A.G. Darvill, and **M.G. Hahn**. 1994. Generation of monoclonal antibodies against plant cell wall polysaccharides. I. Characterization of a monoclonal antibodies to a terminal α -(1 \rightarrow 2)-linked fucosyl-containing epitope. *Plant Physiol.* **104**: 699-710.
- DiLaurenzio, G., J. Wysocka-Diller, J.E. Malamy, L. Pysh, Y. Helariutta, G. Freshour, **M.G. Hahn**, K.A. Feldmann, and P.N. Benfey. 1996. The *SCARECROW* gene regulates an asymmetric cell division that is essential for generating the radial organization of the Arabidopsis root. *Cell* **86**: 423-433.
- Williams, M.N.V., G. Freshour, A.G. Darvill, P. Albersheim, and **M.G. Hahn**. 1996. An antibody Fab selected from a recombinant phage display library detects deesterified pectic polysaccharide rhamnogalacturonan II in plant cells. *Plant Cell* **8**: 673-685.
- Freshour, G., R. Clay, M.S. Fuller, P. Albersheim, A.G. Darvill, and **M.G. Hahn**. 1996. Developmental and tissue-specific structural alterations of the cell-wall polysaccharides in *Arabidopsis thaliana* roots. *Plant Physiol.* **110**: 1413-1429.
- Vaughn, K.C., J.C. Hoffman, **M.G. Hahn**, and L.A. Staehelin. 1996. The herbicide dichlobenil disrupts cell plate formation: immunogold characterization. *Protoplasma* **194**: 117-132.
- Enkerli, K., **M.G. Hahn** and C.W. Mims. 1997. Ultrastructure of compatible and incompatible interactions of soybean roots infected with the plant pathogenic oomycete *Phytophthora sojae*. *Can. J. Bot.* **75**:1493-1508.
- Enkerli, K., **M.G. Hahn** and C.W. Mims. 1997. Immunogold localization of callose and other plant cell wall components in soybean roots infected with the plant pathogenic oomycete *Phytophthora sojae*. *Can. J. Bot.* **75**:1509-1517.
- Fleck, J., W.K. Fitt and **M.G. Hahn**. 1999. A proline-rich peptide originating from decomposing mangrove leaves is one natural metamorphic cue of the tropical jellyfish *Cassiopea xamachana*. *Mar. Ecol. Prog. Ser.* **183**: 115-124.
- Geurtsen, R., F. Côté, **M.G. Hahn** and G.-J. Boons. 1999. A novel chemoselective glycosylation strategy for the rapid convergent assembly of phytoalexin elicitor-active oligosaccharides and their photoreactive derivatives. *J. Org. Chem.* **64**:7828-7835.

- Côté, F., K.A. Roberts and **M.G. Hahn**. 2000. Identification of high-affinity binding sites for the hepta- β -glucoside elicitor in membranes of the model legumes *Medicago truncatula* and *Lotus japonicus*. *Planta* **211**:596-605.
- Moraes, F., **M.G. Hahn** and M.R. Braga. 2001. Comparative analysis of leaf cell-wall polysaccharides of *Dialypetalanthus fuscescens* and *Bathysa meridionalis*: evidence of biochemical similarities between Dialypetalanthaceae and Rubiaceae-Cinchonoideae. *Rev. Brasil. Bot.* **24**:289-294.
- Pessoni, R.A.B., G. Freshour, R.C.L. Figueiredo-Ribeiro, **M.G. Hahn** and M.R. Braga. 2002. Woronin bodies in *Penicillium janczewskii* Zaleski. *Brazil. J. Microbiol.* **33**:127-130.
- Ye, Z.-H., G. Freshour, **M.G. Hahn**, D.H. Burk, and R. Zhong. 2002. Vascular development in *Arabidopsis*. *Int. Rev. Cytol.* **220**:225-256.
- Freshour, G., C.P. Bonin, W.-D. Reiter, P. Albersheim, A.G. Darvill and **M.G. Hahn**. 2003. Distribution of fucose-containing xyloglucans in cell walls of the *mur1* mutant of *Arabidopsis thaliana*. *Plant Physiol.* **131**:1602-1612.
- Zhong, R., J.W. Morrison III, G.D. Freshour, **M.G. Hahn** and Z.-H. Ye. 2003. Expression of a mutant form of cellulose synthase *AtCesA7* causes dominant negative effect on cellulose biosynthesis. *Plant Physiol.* **132**:786-795.
- Bonin, C.P., G. Freshour, **M.G. Hahn**, G. Vanzin and W.-D. Reiter. 2003. The *GMD1* and *GMD2* genes of *Arabidopsis thaliana* encode isoforms of GDP-D-mannose 4,6-dehydratase with cell type-specific expression patterns. *Plant Physiol.* **132**:883-892.
- Pessoni, R.A.B., G. Freshour, R.C.L. Figueiredo-Ribeiro, **M.G. Hahn** and M.R. Braga. 2005. Cell wall structure and composition of *Penicillium janczewskii* as affected by inulin. *Mycologia* **97**:304-311.
- Simões, K., S.M.C. Dietrich, **M.G. Hahn** and M.R. Braga. 2005. Purification and characterization of a phytoalexin elicitor from spores of the saprobe *Mucor ramosissimus*. *Revista Brasil. Bot.* **28**:735-744.
- Sterling, J.D., M.A. Atmodjo, S.E. Inwood, V.S.K. Kolli, H.F. Quigley, **M.G. Hahn**, D. Mohnen 2006. Functional identification of an *Arabidopsis* pectin biosynthetic homogalacturonan galacturonosyltransferase. *Proc. Natl. Acad. Sci. USA* **103**:5236-5241.
- Persson, S., K. Hosmer-Caffall, G. Freshour, M.T. Hilley, S. Bauer, P. Poindexter, **M.G. Hahn**, D. Mohnen and C.R. Somerville. 2007. The *Arabidopsis irregular xylem 8* mutant is deficient in glucuronoxylan and homogalacturonan which are essential for secondary cell wall integrity. *Plant Cell* **19**: 237-255.
- Peiter E., J. Sun, A.B. Heckmann, M. Venkateshwaran, B.K. Riely, M.S. Otegui, A. Edwards, G. Freshour, **M.G. Hahn**, D.R. Cook, D. Sanders, G.E.D. Oldroyd, J.A. Downie and J.-M. Ané. 2007. The *Medicago truncatula* DMI1 protein modulates cytosolic calcium signaling. *Plant Physiol.* **145**: 192-203.
- Rao, Y., T. Buskas, A. Albert, M.A. O'Neill, **M.G. Hahn** and G.-J. Boons. 2007. Synthesis and immunological properties of a tetrasaccharide portion of the B-side chain of rhamnogalacturonan II (RG-II). *ChemBioChem*. In press.

Other Professional Activities

- Service on grant panels: Member of plant growth grant review sub-panel for the Metabolic Biology Program, NSF (1988); Member of grant review panel for the Energy Biosciences Program, DOE (1991, 2003); Member of grant review panel for the Plant Growth and Development Panel of the USDA Competitive Grants Program (1995-1996, 2000); Member of grant review panel for the Integrative Plant Biology Program, NSF (1996-1998)
- Supervised and trained 30 undergraduate students over the past 16 years in independent research. Seven of these students belong to minority groups. Many of these students have gone on to post-graduate study, either in the medical sciences or in basic research.
- Senior editorship: *Physiological Molecular Plant Pathology* (2000-2006)
- Member, Craft Advisory Committee for the Research Laboratory Technology Program at the Athens Area Technical Institute, Athens, Georgia (1987-present; Chair 1998-present).