

Vijay Joshi

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Professional Experience:

Assistant Professor (System Physiologist), Uvalde, TX (since 2015-)

Scientist: Dow AgroSciences, Portland, Oregon (2013-2015)

Associate Scientist (Trait screening): Dow Agrosociences, 2010-13

Research Associate: Boyce Thomson Institute for Plant Research (BTI), Cornell University, NY (2003-10).

Research Scholar: North Carolina State University, Raleigh, NC. (2001- 02).

Research Associate: Plant Molecular Biology, National Chemical Laboratory, India (1999-01)

Selected Research Publications

1. Huang T, **Joshi V**, Gander, J (2014) The catabolic enzyme MGL methionine gamma-lyase limits methionine accumulation in potato tubers. **Plant Biotechnology Journal**, 12(7): 883-893.
2. Adio AM, Casteel CL, De Vos M, Kim JH, **Joshi V**, Li B, Juárez C, Daron J, Kliebenstein DJ, Jander G. et al.; (2011) Biosynthesis and defensive function of Nδ-acetylornithine, a jasmonate-induced Arabidopsis thaliana metabolite. **Plant Cell**. Sep;23(9):3303-18
3. Jander G and **V. Joshi** (2010) Deciphering the biosynthesis of aspartate-derived amino acids in plants: Metabolic networks & regulation mechanisms. **Molecular Plant** 3(54-65)
4. **Joshi V**, JG Joung, Z. Fei and G Jander (2009) Transcriptional regulation and synthesis of branched chain amino acids osmolytes in plants under drought and cold stress. **Amino acid**; 39(4):933-47
5. **Joshi V** and G Jander (2009) Arabidopsis thaliana methionine gamma-lyase is regulated according to isoleucine biosynthesis needs, but plays a subordinate role to threonine deaminase. **Plant Physiology**; 151:367-378.
6. Jander G and **V Joshi** (2009) Aspartate-derived amino acid biosynthesis in Arabidopsis. **The Arabidopsis Book** Rockville, MD: American Society of Plant Biologists (<http://www.aspb.org/publications/arabidopsis/>)
7. **Joshi V**, K. Laubengayer, N. Schauer, A. Fernie, and G. Jander (2006) Two Arabidopsis threonine aldolases are non-redundant and compete with threonine deaminase for a common substrate pool. **Plant Cell** 18: 3564-3575.
8. G. Jander, SR. Norris, **V Joshi**, M. Fraga, A. Rugg, S. Yu, L Li, and RL. Last (2004) Application of a highthroughput HPLC-MS/MS assay to Arabidopsis mutant screening; evidence that threonine aldolase plays a role in seed nutritional quality. **Plant Journal**. 39 (3) 465-475.
9. Telang, Srinivasan, Patankar, Harsulkar, **V Joshi**, Damle, Deshpande, Sainani, Ranjekar, G. Gupta, A. Birah, S. Rani, M. Kachole, Giri & V. Gupta (2003) Bitter gourd proteinase inhibitors: potential growth inhibitors of *Helicoverpa armigera* & *Spodoptera litura*. **Phytochemistry**. 63(6) 643-652.
10. **Joshi, V** and SD Ugale (2002) Involvement of higher order gene interactions addressing complex polygenetically controlled inheritance of downy mildew (*Sclerospora graminicola* S), resistance in pearl millet (*P glaucum*). **Euphytica** 127(2): 149-161.
11. Shetty, **V Joshi**, N. S. Vasanthi, B. R. Sarosh, K. R. Kini, and S.D.Ugale (2001) Inheritance of downy mildew resistance, beta-1,3 glucanases and peroxidases in pearl millet (*Pennisetum glaucum*) crosses. **Theoretical and Applied Genetics**. 103:1311.