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Qualifications:

Since 2002 Research Scientist at Embrapa Recursos Genéticos e Biotecnologia, Head of the Laboratory of Genomics and Proteomics.

2010-2011 Post-doctoral stay at Universidad de Sevilla, Spain. Laboratory of Dr. Javier Florencio (Biochemistry).

2000 - 2002 PhD in Genetics and Molecular Biology of Microorganisms, UNICAMP, Campinas, SP, Brazil.

1998 – 2000 MSc in Genetics and Molecular Biology of Microorganisms, UNICAMP, Campinas, SP, Brazil.

1994 - 1997 Bachelors in Biology, University of Londrina, PR, Brazil.

Research interests:

Our research group focuses mainly on plant-pathogen interactions. We are interested in identifying genes and proteins involved in plant resistance and defense mechanisms. Among the systems we are currently studying are bacteria-, virus- and nematode-plant interactions. At present the main project we are working on is entitled “ Plant-bacteria interactions: identification of proteins involved in the resistance to *Xanthomonas campestris*”. Another area we are interested in is somatic embryogenesis. We investigate the global changes in the different stages of embryogenesis of plants such as coffee and *Elaeis guineensis*.

Selected publications:

1. VASCONCELOS, EAR ; SANTANA, CG ; GODOY, CV ; SEIXAS, CDS ; SILVA, MS ; MOREIRA, LRS ; OLIVEIRA-NETO, OB ; PRICE, D ; FITCHES, E ; FILHO, EXF ; MEHTA, A ; GATEHOUSE, JA ; GROSSI-DE-SA, MF. A new chitinase-like xylanase inhibitor protein (XIP) from coffee (*Coffea arabica*) affects Soybean Asian rust (*Phakopsora pachyrhizi*) spore germination. BMC Biotechnology (Online), v. 11, p. 14, 2011.

2. CARAZZOLLE, MF.; RABELLO, FR.; MARTINS, NF.; SOUZA, AA.; AMARAL, AM.; FREITAS-ASTUA, J; PEREIRA, GAG ; MACHADO, MA.; MEHTA, A. Identification of defence-related genes expressed in coffee and citrus during infection by *Xylella fastidiosa*. European Journal of Plant Pathology, v. 130, p. 529-540, 2011.

3. FRANCO, OL.; PEREIRA, JL.; COSTA, PHA; ROCHA, TL.; ALBUQUERQUE, EVS; GROSSI-DE-SÁ, MF.; CARNEIRO, RMDG; CARNEIRO, RG; MEHTA, A. Methodological evaluation of 2-DE to study root proteomics during nematode infection in cotton and coffee plants. Preparative Biochemistry & Biotechnology, v. 40, p. 152-163, 2010.

4. VILLETH, GR; REIS, FB; TONIETTO, A; HUERGO, L; DE SOUZA, EM; PEDROSA, FO; FRANCO, OL; MEHTA, A. Comparative proteome analysis of *Xanthomonas campestris* pv *campestris* in the interaction with the susceptible and the resistant cultivars of *Brassica oleracea*. FEMS Microbiology Letters, v. 298, p. 260-266, 2009.

5. FRANCO, O. L.; PELEGRINI, P. B.; GOMES, C. P.; Souza A; COSTA, F. T.; Domont, GB; QUIRINO, B.; EIRA, M. T. S.; MEHTA, A.. Proteomic evaluation of coffee

zygotic embryos in two different stages of seed development. *Plant Physiology and Biochemistry (Paris)*, v. 47, p. 1046-1050, 2009.

6. MEHTA, A.; Magalhães, BS; Souza, DSL; VASCONCELOS, E. A. R.; SILVA, L. P.; Grossi de SA, M. F.; FRANCO, O. L.; COSTA, P. H. A.; ROCHA, T. L.. Rooteomics: the challenge of discovering plant defense-related proteins in roots. *Current Protein and Peptide Science*, v. 9, p. 108-116, 2008.

7. ANDRADE, A. E.; SILVA, L. P.; PEREIRA, J. L.; NORONHA, E. F.; REIS JUNIOR, F. B.; BLOCH JUNIOR, C.; SANTOS, M. F.; Domont, GB; FRANCO, O. L.; MEHTA, A.. In vivo proteome analysis of *Xanthomonas campestris* pv *campestris* in the interaction with the host plant *Brassica oleracea*. *FEMS Microbiology Letters*, v. 281, p. 167-174, 2008.

8. MEHTA, A. ; BRASILEIRO, A. C. M. ; Souza, DSL ; ROMANO, E. ; CAMPOS, M. ; Grossi de SA, M. F. ; SILVA, M. S. ; FRANCO, O. L. ; FRAGOSO, R. ; BEVITORI, R. ; ROCHA, T. L. . Plant-pathogen interactions: what is proteomics telling us?. *The FEBS Journal*, v. 275, p. 3731-3746, 2008.

9. KOSHINO, L. L. N. ; GOMES, C. P. ; SILVA, L. P. ; EIRA, M. T. S. ; BLOCH JUNIOR, C. ; FRANCO, O. L. ; MEHTA, A. . Comparative proteomical analysis of zygotic embryo and endosperm from *Coffea arabica* seeds. *Journal of Agricultural and Food Chemistry*, v. 56, p. 10922-10926, 2008.

10. RABELLO, A. R. ; GUIMARAES, C. M. ; RANGEL, P. H. N. ; da SILVA, F. R. ; SEIXAS, D. ; SOUZA, E. M. ; BRASILEIRO, A. C. M. ; SPEHAR, C. R. ; FERREIRA, M. E. ; MEHTA, A. . Identification of drought-responsive genes in roots of upland rice (*Oryza sativa* L). *BMC Genomics*, v. 9, p. 485, 2008.

11. MEHTA, A. ; SILVA, M. S. ; GONZALEZ, S. G. ; CARRER, H. ; Takita, MA ; MARTINS, N. F. . Signaling pathways in a Citrus EST database. *Genetics and Molecular Biology*, v. 30, p. 734-751, 2007.

12. SIMOES, T. H. ; GONÇALVES, E. R. ; ROSATO, Y. B. ; MEHTA, A. . Differentiation of *Xanthomonas* species by PCR-RFLP of the *rpfB* and *atpD* genes. *FEMS Microbiology Letters*, v. 271, p. 33-39, 2007.

13. GUIDETTI-GONZALEZ, S. ; FREITAS-ASTUA, J. ; AMARAL, A. M. ; MARTINS, N. F. ; MEHTA, A. ; SILVA, M. S. ; CARRER, H. . Genes associated with hypersensitive response (HR) in the citrus EST (CitEST) database. *Genetics and Molecular Biology*, v. 30, p. 943-956, 2007.

14. VIEIRA, L. G. E. ; ANDRADE, A. C. ; COLOMBO, C. A. ; MEHTA, A. ; ALBUQUERQUE, E. V. S. ; SILVA, F. R. ; Pereira, GAG ; TEIXEIRA, J. B. ; SA, M. F. G. ; EIRA, M. T. S. . Brazilian coffee genome project: an EST-based genomic resource. *Brazilian Journal of Plant Physiology*, v. 18, p. 95-108, 2006.

15. MEHTA, A.; ROSATO, Y. B. Identification of differentially expressed genes of *Xanthomonas axonopodis* pv. *citri* by representational difference analysis of cDNA. *Genetics and Molecular Biology*, v. 28, p. 140-149, 2005.

16. TAHARA, S. T.; MEHTA, A.; ROSATO, Y. B. Proteins induced by *Xanthomonas axonopodis* pv. *passiflorae* in the interaction with leaf extract of the host plant (*Passiflorae edulis*). *Proteomics*, v. 3, p. 95-102, 2003.

17. MEHTA, A. ; ROSATO, Y. B. A simple method for in vivo expression studies of *Xanthomonas axonopodis* pv. *citri*.. *Current Microbiology*, v. 47, p. 400-404, 2003.

18. MEHTA, A.; LEITE JR, R. P.; ROSATO, Y. B. Assessment of the genetic diversity of *Xylella fastidiosa* isolated from citrus by PCR-RFLP of the 16S rDNA and 16S-23S intergenic spacer and rep-PCR. *Antonie van Leeuwenhoek*, v. 79, p. 53-59, 2001.

19. MEHTA, A.; ROSATO, Y. B. Phylogenetic relationships of *Xylella fastidiosa* strains from different hosts based on 16S rDNA and 16S-23S intergenic spacer sequences. *International Journal of Systematic Bacteriology*, v. 51, p. 311-318, 2001.

20. MEHTA, A.; ROSATO, Y. B. Differentially expressed proteins in the interaction of *Xanthomonas axonopodis* pv. *citri* with leaf extract of the host plant. *Proteomics*, v. 9, p. 1111-1118, 2001.