

Dr. Mulpuri Sujatha, M.Sc., M. Phil., Ph.D

DATE OF BIRTH: 19-09-1961

Affiliation: Principal Scientist, Directorate of Oilseeds Research, Rajendranagar, Hyderabad 500 030, India

E-mail: mulpurisujata@yahoo.com

Fax: 91(040) 24017969; Phone: (O) 24598110; (R) 23308008, 9440880335

Academic background:

- Masters in Plant Science from University of Hyderabad, Hyderabad (1981-83) and University first in Plant Sciences
- M.Phil in Advanced Biochemical Genetics from University of Hyderabad, Hyderabad (1983-84)
- PhD in Genetics from Osmania University, Hyderabad (1990-96)- Doctoral Thesis: Genetic and tissue culture studies in castor (*Ricinus communis* L.) and related genera.
- Recipient of UNESCO-Biotechnology Action Fellowship (1997), Netherlands Government Fellowship (2002 and 2004), Prestigious Woman Agricultural Scientist Award of Indian Council of Agricultural Research (ICAR) for the year 2004; Recipient of the DBT overseas Associateship; FAO-GIPB award during 2009; TWAS-CAS Fellowship for the year 2011.
- Published more than 50 articles in peer reviewed journals.

Expertise: Main areas of interest are genetics, reproductive biology, tissue culture and genetic transformation, crop breeding with specific reference to introgressive breeding and molecular markers.

Important Publications

1. George F, Oliver J, **Sujatha M.** 2013. Non-toxic *Jatropha* plants as a potential multipurpose multi-use oilseed crop. *Industrial Crops and Products*. 42: 397-401.
2. **M. Sujatha**, S. Vijay, S. Vasavi, N. Sivaraj and S. Chander Rao. 2012. Combination of thidiazuron and 2-isopentenyladenine promotes highly efficient adventitious shoot regeneration from cotyledons of mature sunflower (*Helianthus annuus* L.) seeds. *Plant Cell Tissue and Organ Culture* DOI 10.1007/s11240-012-0202-1
3. **M. Sujatha**, S. Vijay, S. Vasavi, P. Veera Reddy and S. Chander Rao. 2012. *Agrobacterium*-mediated transformation of cotyledons of mature seeds of multiple genotypes of sunflower (*Helianthus annuus* L.). *Plant Cell Tissue and Organ Culture* 110: 275-287
4. Zhao Liu, J.A. Jan, **M. Sujatha**, J. Feng, B.A. Vick, C.C. Jan. 2011. Molecular mapping of the Rf3 fertility restoration gene to facilitate its utilization in breeding confection sunflower. *Molecular breeding*. 29: 275-284
5. N. Sunil, **M. Sujatha**, Vinod Kumar, M. Vanaja, S.D. Basha and K.S. Varaprasad. 2011. Correlating the phenotypic and molecular diversity in *Jatropha curcas* L. *Biomass and Bioenergy* 35: 1085-1096

6. T. Sudhakar Johnson, Nalini Eswaran, **M. Sujatha**. 2011. Molecular approaches to improvement of *Jatropha curcas* Linn. as a sustainable energy crop. *Plant Cell Reports* 30: 1573-1591
7. K. Sri Shilpa, V. Dinesh Kumar, **M. Sujatha** 2010 *Agrobacterium*-mediated genetic transformation of safflower (*Carthamus tinctorius* L.) *Plant Cell Tissue and Organ Culture* 103:387–401
8. Santha Lakshmi Prasad M, **M. Sujatha** and Chander Rao S. 2009. Analysis of cultural and genetic diversity in *Alternaria helianthi* and determination of pathogenic variability using wild *Helianthus* species. *Journal of Phytopathology* 157: 609-617.
9. **Mulpuri Sujatha**, Zhao Liu, Jiuhuan Feng, Thomas J. Gulya and Chao-Chien Jan. 2009. Inheritance and molecular mapping of a downy mildew resistance gene, *Pl₁₃* in cultivated sunflower (*Helianthus annuus* L.). *Theoretical and Applied Genetics* 119: 795-803
10. Narasimha Rao N, Harinath D, Yamini KN, **M. Sujatha** and Dinesh Kumar V. 2009. Expression of sunflower cytoplasmic male sterility-associated open reading frame, *orfH522* induces male sterility in transgenic tobacco plants. *Planta* 229: 987–1001
11. Basha SD, Francis G, Makkar HPS, Becker K, **M. Sujatha**. 2009. A comparative study of biochemical traits and molecular markers for assessment of genetic relationships between *Jatropha curcas* L. germplasm from different countries. *Plant Science* 176: 812–823
12. Basha SD and **M. Sujatha**. 2009. Genetic analysis of *Jatropha* species and interspecific hybrids of *Jatropha curcas* using nuclear and organelle specific markers. *Euphytica* 168: 197-214
13. **M. Sujatha**, Lakshminarayana M, Tarakeswari M, Singh PK, Tuli R. 2009. Expression of the *cryIEC* gene in castor (*Ricinus communis* L.) confers field resistance to tobacco caterpillar (*Spodoptera litura* Fabr) and castor semilooper (*Achoea janata* L.). *Plant Cell Reports* 28: 935-946
14. **M. Sujatha**, A.J. Prabakaran, S.L. Dwivedi and S. Chandra. 2008. Cytomorphological and molecular diversity in backcross derived inbred lines of sunflower (*Helianthus annuus* L.). *Genome* 51: 282-293.
15. M. Sailaja, M. Tarakeswari and **M. Sujatha**. 2008. Stable genetic transformation of castor (*Ricinus communis* L.) via particle gun mediated gene transfer using embryo axes from mature seeds. *Plant Cell Reports* 27: 1509-1519.
16. **M. Sujatha**, T.P. Reddy, M.J. Mahasi. 2008. Role of biotechnological interventions in the improvement of castor (*Ricinus communis* L.) and *Jatropha curcas* L. *Biotechnology Advances* 26: 424–435.
17. S.D. Basha and **M. Sujatha**. 2007. Inter and intra-population variability of *Jatropha curcas* (L.) characterized by RAPD and ISSR markers and development of population-specific SCAR markers. *Euphytica* 156: 375-386.
18. **M. Sujatha** and V. Dinesh Kumar. 2007. *In vitro* bud regeneration of *Carthamus tinctorius* and wild *Carthamus* species from leaf explants and axillary buds. *Biologia Plantarum* 51: 782-786.
19. **M. Sujatha** and M. Lakshminarayana. 2007. Resistance to *Spodoptera litura* (Fabr.) in *Helianthus* species and backcross derived inbred lines from crosses involving diploid species. *Euphytica* 155: 205-213.
20. K. Radhika, **M. Sujatha** and T. Nageshwar Rao. 2006. Thidiazuron stimulates adventitious shoot regeneration in different safflower explants. *Biologia Plantarum* 50(2): 174-179.

21. **M. Sujatha** and A.J. Prabakaran, 2006. Ploidy manipulation and introgression of resistance to *Alternaria helianthi* from wild hexaploid *Helianthus* species to cultivated sunflower (*H. annuus* L.) aided by anther culture. *Euphytica* 152:201–215.
22. **M. Sujatha** and M. Sailaja, 2005. Stable genetic transformation of castor (*Ricinus communis* L.) via *Agrobacterium tumefaciens*-mediated gene transfer using embryo axes from mature seeds. *Plant Cell Reports* 23 (12): 803-810.
23. **M. Sujatha**, H.P.S. Makkar and K. Becker 2005. Shoot bud proliferation from axillary nodes and leaf sections of non-toxic *Jatropha curcas* L. *Plant Growth Regulation*. 47(1): 83-90.

24. A.J. Prabakaran and **M. Sujatha**, 2004. Interspecific hybrid of *Helianthus annuus* x *H. simulans*: characterization and utilization in improvement of cultivated sunflower (*Helianthus annuus* L.). *Euphytica* 135: 275-282.
25. **M. Sujatha** and A.J. Prabakaran. 2003. New ornamental *Jatropha* hybrids through interspecific hybridization. *Genetic Resources and Crop Evolution*. 50(1): 75-82.
26. **M. Sujatha** and A.J. Prabakaran 2001. High frequency embryogenesis in immature zygotic embryos of sunflower. *Plant Cell Tissue and Organ Culture*. 65(1): 23-29.
27. **M. Sujatha** and T.P. Reddy. 2000. Morphogenic responses of *Jatropha integerrima* explants to cytokinins. *Biologia, Bratislava*. 55(1): 99-104.
28. **M. Sujatha**, N. Sivaraj and M. Satya Prasad. 2000. Biochemical and histological changes during in vitro organogenesis in *Jatropha integerrima*. *Biologia Plantarum*. 43(2): 167-171.
29. A.J. Prabakaran and **M. Sujatha**. 1999. *Jatropha tanjorensis* Ellis & Saroja, a natural interspecific hybrid occurring in Tamil Nadu, India. *Genetic Resources and Crop Evolution*. 46: 213-218.
30. **M. Sujatha** and T.P. Reddy. 1998. Differential cytokinin effects on stimulation of *in vitro* shoot proliferation from meristematic explants of castor (*Ricinus communis* L.). *Plant Cell Reports* 17(6-7): 561-566.
31. K.V. Saji and **M. Sujatha**. 1998. Embryogenesis and plant regeneration in anther culture of sunflower (*Helianthus annuus* L.). *Euphytica* 103: 1-7.
32. **M. Sujatha** and N. Mukta. 1996. Morphogenesis and plant regeneration from tissue cultures of *Jatropha curcas* L. *Plant Cell Tissue and Organ Culture*. 44(2): 135-141.
33. **M. Sujatha**. 1997. *In vitro* adventitious shoot regeneration for effective maintenance of male sterile niger (*Guizotia abyssinica* L.f. Cass.). *Euphytica* 93: 89-95.
34. **M. Sujatha** and Mukta Dhingra. 1993. Rapid plant regeneration from various explants of *Jatropha integerrima*. *Plant Cell Tissue and Organ Culture*. 35 (3): 293-296.
35. **M. Sujatha**. 1992. *In vitro* plant regeneration from phylloid flowers of niger (*Guizotia abyssinica* Cass). *Current Science*. 62(6): 484-486.
36. **M. Sujatha** and N.C. Subrahmanyam. 1991. Characterization of nuclear gene controlled yellow stripe mutant of *Pennisetum glaucum* (L.) R.Br. *Plant Science* 73(1): 55-64.