

CURRICULUM VITAE

SURESH KUMAR GUPTA

ADDRESS

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RESEARCH EXPERIENCE

Postdoctoral Research:

Dec 2015 - Feb 2021, Department of Ornamental Plants and Agricultural Biotechnology, Institute of Plant Sciences, ARO, Volcani Center, Israel (**Research Advisor, Dr. Tzahi Arazi**) **Job title- Post-doctoral Fellow**

- Functional characterization of microRNA164 in tomato fruit ripening
- Elucidation of control of ovule development and molecular mechanism underlying fertilization dependent fruit set mediated by *SIAGL6*

Oct 2014 - Nov 2015, Repository of Tomato Genomics Resources, School of Life Sciences, University of Hyderabad, India, (**Research Advisor, Prof. R. P. Sharma**) **Job title- Research Associate**

- Molecular and metabolic characterization of tomato *spa3like* mutant isolated from the natural accession through EcoTILLING. The results indicate that SPA3LIKE protein negatively regulate the carotenoids accumulation in fruits

Doctoral Research: Repository of Tomato Genomics Resources, School of Life Sciences, University of Hyderabad, India, **2008- 2014 (Research Advisor Prof. R. P. Sharma)**

Thesis title: “**Characterization of fruit ripening in tomato mutants defective in phytochromes and ethylene signaling**”

EDUCATION

2014	Ph. D. Plant Sciences RTGR, School of Life Sciences, University of Hyderabad, India (1 st October 2014)
2006	M. Sc. Botany Chhatrapati Shahu Ji Maharaj University, Kanpur, India
2003	B. Sc. Botany, Zoology, Chemistry Deen Dayal Upadhyay Gorakhpur University, Gorakhpur, India

PUBLICATIONS

Suresh Kumar Gupta, Sulabha Sharma, Parankusam Santisree, Himabindu Vasuki Kilambi, Klaus Appenroth, Yellamaraju Sreelakshmi, Rameshwar Sharma (**2014**) Complex and shifting interaction of

phytochrome regulate fruit development in tomato. **Plant Cell & Environment**, 37:7 1688-1702, doi: 10.1111/pce.12279 [IF: 6.362]

Vijee Mohan, Soni Gupta, Sherinmol Thomas, Hanjabam Mickey, Chaitanya Charakana, Vineeta Singh Chauhan, Kapil Sharma, Rakesh Kumar, Kamal Tyagi, Supriya Sarma, **Suresh Kumar Gupta**, Himabindu Vasuki Kilambi, Sapana Nongmaithem, Alka Kumari, Prateek Gupta, Yellamaraju Sreelakshmi, Rameshwar Sharma (2016) Tomato fruits show wide phenomic diversity but fruit developmental genes show low genomic diversity. **PLOS ONE**, 11(4): e0152907, doi:10.1371 [IF: 2.870]

Reddaiah Bodanapu¹, Suresh Kumar Gupta¹, Pinjari Osman Basha , Kannabiran Sakthivel , Sadhana, Yellamaraju Sreelakshmi and Rameshwar Sharma (2016) “Nitric oxide overproduction in tomato *shr* mutant shifts metabolic profiles and suppresses fruit growth and ripening. **Frontiers in Plant Science**, 7:1714, doi: 10.3389 [IF: 4.300, ¹equal contribution]

Chen Klap, Ester Yeshayahou, Anthony M. Bolger, Tzahi Arazi, **Suresh Kumar Gupta**, Sara Shabtai, Björn Usadel, Yehiam Salts, Rivka Barg (2017) Tomato facultative parthenocarpy results from *SIAGAMOUS-LIKE 6* loss of function. **Plant Biotechnology Journal**, 15:634-647, doi: 10.1111/pbi.12662 [IF: 8.154]

Subha damodaran¹, Shira Corem¹, **Suresh Kumar Gupta**, Tzahi Arazi (2018) Tuning of *SIARF10A* dosage by sly-miR160a is critical for auxin-mediated compound leaf and flower development . **The Plant Journal**, 96(4):855-868, doi.org/10.1111/tpj.14073 [IF: 6.141]

Suresh Kumar Gupta, Rivka Barg, Tzahi Arazi (2021) Tomato *agl6* parthenocarpy is facilitated by ovule integument reprogramming involving the growth regulator KLUH. **Plant Physiology** (In press, published on 23 Dec 2020) [IF: 6.902]

Suresh Kumar Gupta, Abhay Pratap Vishwakarma, Hawi Deressa Kenea, Hagai Cohen, Asaph Aharoni, and Tzahi Arazi (2021) CRISPR/Cas9 mutants of tomato *MIR164* genes uncover their functional specialization in development (Accepted- **Plant Physiology**, manuscript number PP2021-RA-00143 [IF: 6.902]

Lin Wanping, **Suresh Kumar Gupta**, Tzahi Arazi, and Ben Spitzer-Rimon (2021) *MIR172d* is required for floral organ identity and number in tomato (Accepted - **International journal of molecular Sciences**, Manuscript ID: ijms-1177897)[IF:4.556]

TECHNICAL EXPERIENCE

Molecular genetics: DNA isolation; RNA isolation; Real time PCR; RNA-seq; characterization of candidate genes; molecular cloning; generation and characterization of tomato mutants through CRISPR/Cas9 and tomato tissue culture.

Biochemical: Metabolites profiling by GC-MS and phytohormones analysis through LC-MS; Quantifications of carotenoids by UHPLC and HPLC.

Morphology and Physiology: Various phytohormones and stress condition assays; Monitoring of auxin distribution in seedlings by GUS staining; Fruit Age determination; Chromometer; Handling of tomato mutants; Maintenance and characterization of large number of tomato plants developed for genetic mapping, TILLING and EcoTILLING; Genotyping and Phenotyping.

Microscopy and Bioinformatics: Histology of ovules and other tomato tissues (wax and plastic embedding), Light and Confocal microscopy, bioinformatics tools (MetaboAnalyst, BLAST, PRASENP, CODDLE, Construction of phylogenetic tree, gene and SNP browsing from tomato genome browser database), Statistical analysis, and handling of large set of data.

CONFERENCES AND SEMINARS

- Poster presentation in 16th Solanaceae Genome Workshop (SOL 2019) Yield and Nutrition organized by The Hebrew University of Jerusalem, Israel.
- Plenary talk in 6th Plant Sciences Colloquium-2014 held in Department of Plant Sciences, University of Hyderabad, Hyderabad, India.
- Poster Presentation in 9th Solanaceae Genome Workshop (SOL 2012) from Bench to Innovative application organized by University of Neuchâtel, Switzerland.
- Oral presentation in Plant Science Colloquium-2012, organized by Department of Plant Sciences, University of Hyderabad, India.
- Poster presentation in '6th Solanaceae Genome Workshop' (SOL 2009) organized by University of Hyderabad, Delhi University and the Department of Biotechnology (DBT) at Hotel Le Meridien in New Delhi, India.

PROMINENT ACHIEVEMENTS

- Recipient of an award of publishing a research paper in high impact journal (4.0 or above) in 6th Plant Sciences Colloquium-2014 held in Department of Plant Sciences, University of Hyderabad, Hyderabad, India.
- Recipient of Junior Research Fellowship (**JRF**) and Senior Research Fellowship (**SRF**) from Council of Scientific and Industrial Research (CSIR, India; 2009 -2013).
- Qualified **GATE** (Graduated Aptitude Test for Engineering), **2008** in subject Life Sciences. All India rank 575 with score 427 (95.66 percentile)

REFERENCES

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Date: March, 2021

Place: ARO, Israel

S. Kumar

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