



Melvin Prasad

Nationality: Indian **Date of birth:** 28/06/1984 **Gender:** Male

Phone number: (+36) 707827057 **Email address:** melvinprasad@gmail.com

Home: Retek utca, 21/A, 7th floor, door 20, 6723 Szeged (Hungary)

WORK EXPERIENCE

Research associate

Biological research center Szeged [04/11/2021 – Current]

City: Szeged

Country: Hungary

- Design and perform experiments
- Stress induction in plants and phenotyping
- DNA methylation studies
- Identification of chromatin marks
- Gene editing & data analysis

Post-doctoral Research associate

National center for biological sciences [26/11/2015 – 30/06/2021]

City: Bengaluru

Country: India

- Design and perform plant molecular biology and biochemical experiments
- Analysis of stress-responsive proteins
- AGE accumulation studies
- Data analysis

EMBO – Short Term Fellow

Department of Biology, Ole Maaloes Vej 5, University of Copenhagen [24/05/2012 – 03/12/2012]

City: Copenhagen

Country: Denmark

Design and perform plant molecular biology experiments, *In vitro* kinase activity, molecular cloning and expression of MAP kinases

Project Fellow

Department of Studies in Biotechnology, University of Mysore, Manasagangothri [01/04/2009 – 31/01/2012]

City: Mysore

Country: India

Design and perform plant molecular biology experiments, *In vitro* kinase activity, molecular cloning and expression of MAP kinases

Project Assistant

Central Food Technological Research Institute (CFTRI) [15/01/2008 – 25/03/2009]

City: Mysore

Country: India

Design and perform food analysis, detoxification of Jatropha seed meal, and use the detoxified meal as poultry feed supplement

TEACHING EXPERIENCE

Guest faculty : Department of Biotechnology, Maharani's Science collage, Mysore – 570 005, Karnataka, India

[2015]

Handling theory and Practical classes to Bachelor students.

Guest faculty : Department of Studies in Biotechnology, University of Mysore, Manasagangotri, Mysore – 570 006, Karnataka, India

[2014]

Handling theory and Practical classes to master students

EDUCATION AND TRAINING

Doctor of Philosophy

University of Mysore [17/05/2010 – 01/01/2016]

City: Mysuru

Country: India

Website: <https://uni-mysore.ac.in/>

Master of Science

University of Mysore [01/07/2005 – 30/06/2007]

City: Mysuru

Country: India

Website: <https://uni-mysore.ac.in/>

Short-term course on Real time PCR

State of the Art Genomics Training Facility, Life Technologies [2012]

City: Bangalore

Country: India

Website: <https://www.lifetechindia.com/>

Short-term course Plant Tissue Culture and Molecular Biology Techniques

Coffee Biotechnology Research Centre, Coffee Board [2004]

City: Mysore

Country: India

Website: <https://www.indiacoffee.org/Division.html>

PUBLICATIONS

[Double DJ-1 domain containing Arabidopsis DJ-1D is a robust macromolecule deglycase](#)

[2022]

New Phytologist, 236(3), 1061-1074

Prasad, M., Kataria, P., Ningaraju, S., Buddidathi, R., Bankapalli, K., Swetha, C., ... & Shivaprasad, P. V.

[Induction of drought tolerance in Pennisetum glaucum by ACC deaminase producing PGPR-Bacillus amyloliquefaciens through Antioxidant defense system](#)

[2021]

Microbiological Research, 253, 126891.

Murali, M., Singh, S. B., Gowtham, H. G., Shilpa, N., **Prasad, M.**, Aiyaz, M., & Amruthesh, K. N.

Induction of drought tolerance in tomato upon the application of ACC deaminase producing plant growth promoting rhizobacterium Bacillus subtilis Rhizo SF 48

[2020]

Microbiological Research, 234, 126422.

Gowtham H G, Brijesh Singh S, Murali M, Shilpa N, Melvin Prasad, Mohammed Aiyaz,..& Niranjana S R

RNA Blot Analysis for the Detection and Quantification of Plant MicroRNAs

[2020]

The Journal of Visualized Experiments , doi:10.3791/61394

Tirumalai, V., **Prasad, M.**, Shivaprasad, P. V.

Major Domestication-Related Phenotypes in Indica Rice Are Due to Loss of miRNA-Mediated Laccase Silencing

[2018]

The Plant Cell, 30(11), 2649-2662

Swetha, C., Basu, D., Pachamuthu, K., Tirumalai, V., Nair, A., **Prasad, M.**, & Shivaprasad, P. V.

A Novel and One-pot Green Synthesis of Vanadium Oxide Nanorods Using a Phytomolecule Isolated from Phyllanthus amarus

[2018]

ChemistrySelect, 3(13), 3860-3865

Prasad, K. S., Shivamallu, C., Shruthi, G., & **Prasad, M.**

Methylglyoxal detoxification by a DJ-1 family protein provides dual abiotic and biotic stress tolerance in transgenic plants

[2017]

Plant molecular biology, 94(4-5), 381-397.

Melvin, P., Bankapalli, K., D'Silva, P., & Shivaprasad, P. V.

Salicylic acid seed priming instigates defense mechanism by inducing PR-Proteins in Solanum melongena L. upon infection with Verticillium dahliae Kleb

[2017]

Plant Physiology and Biochemistry, 117, 12-23

Mahesh, H. M., Murali, M., Pal, M. A. C., **Melvin, P.**, & Sharada, M. S

Reference gene selection and validation for gene expression studies in downy mildew infected pearl millet by quantitative real-time PCR

[2017]

Australasian Plant Pathology, 46(5), 441-452

Anup, P. C., **Melvin, P.**, & Kini, K. R.

Chitosan and β -amino butyric acid up-regulates transcripts of resistance gene analog RGPM213 in pearl millet to infection by downy mildew pathogen

[2016]

Journal of Applied Biology & Biotechnology Vol, 4(05), 001-006

Ranjini, P., **Prasad, M.**, Kumar, J. S., Sekhar, S., Kesagodu, D., Shetty, H. S., & Kini, K. R.

Molecular cloning of a coiled-coil-nucleotide-binding-site-leucine-rich repeat gene from pearl millet and its expression pattern in response to the downy mildew pathogen

[2016]

Molecular biology reports, 43(3), 117-128

Veena, M., **Melvin, P.**, Prabhu, S. A., Shailasree, S., Shetty, H. S., & Kini, K. R.

Cloning, expression and purification of resistance gene analogue RGPM 301 from pearl millet in Escherichia coli

[2016]

Journal of Applied Biology & Biotechnology Vol, 4(02), 053-059

Veena, M., **Melvin, P.**, Shailasree, S., & Kini, K. R.

Proteomic analysis of elicitation of downy mildew disease resistance in pearl millet by seed priming with β -aminobutyric acid and Pseudomonas fluorescens

[2015]

Journal of proteomics, 120, 58-74

Anup, C. P., **Melvin, P.**, Shilpa, N., Gandhi, M. N., Jadhav, M., Ali, H., & Kini, K. R

The pearl millet mitogen-activated protein kinase PgMPK4 is involved in responses to downy mildew infection and in jasmonic- and salicylic acid-mediated defense

[2015]

Plant molecular biology, 87(3), 287-302.

Melvin, P., Prabhu, S. A., Veena, M., Shailasree, S., Petersen, M., Mundy, J., ... & Kini, K. R

β -Amino Butyric Acid – Resistance Inducing Agent in Pearl Millet

[2015]

J Plant Biochem Physiol, 2(144), 2.

Shailasree, S., & **Melvin, P**

Immuno-affinity purification of PgIPGIP1, a polygalacturonase-inhibitor protein from pearl millet: studies on its inhibition of fungal polygalacturonases and role in resistance against the downy mildew pathogen

[2015]

Molecular Biology Reports, 42(6), 1123-1138

Prabhu, S. A., Wagenknecht, M., **Melvin, P.**, Kumar, B. S. G., Veena, M., Shailasree, S., ... & Kini, K. R

Involvement of mitogen-activated protein kinase signalling in pearl millet-downy mildew interaction

[2014]

Plant Science, 214, 29-37

Melvin, P., Prabhu, S. A., Anup, C. P., Shailasree, S., Shetty, H. S., & Kini, K. R.

Synthesis, spectral characterization, DNA interaction studies, anthelmintic and antimicrobial activity of transition metal complexes with 3-(2-hydroxybenzylideneamino)-2-methylquinazolin-4(3H)-one and 1,10-phenanthroline

[2011]

Biointerface Res Appl Chem, 1, 127-138

Prasad, S. K., Kumar, S. L., **Prasad, M.**, Jayalakshmi, B., & Revanasiddappa, H. D.

Oxovanadium Complexes with Bidentate N, O Ligands: Synthesis, Characterization, DNA Binding, Nuclease Activity and Antimicrobial Studies

[2011]

Chemical Sciences Journal, 12, 1-10

Prasad, K. S., Kumar, L. S., Shekar, S. C., **Prasad, M.**, & Revanasiddappa, H. D

Novel Organotin(IV)-Schiff Base Complexes: Synthesis, Characterization, Antimicrobial Activity, and DNA Interaction Studies

[2010]

Bioinorganic Chemistry and Applications, 2010

Prasad KS, Kumar LS, Prasad M, Revanasiddappa HD

Effect of detoxified expeller pressed and dehulled Jatropha (Jatropha curcas) meals in poultry feed formulations

[2009]

Journal of Food Science and Technology Nepal 5, 85–95

Melvin Prasad, Rakshit Kodekalara Devappa, Servapeddha Muthukumar and Bhagya Swamylingappa.

CONFERENCES AND SEMINARS

Arabidopsis PARK7 homolog protein DJ-1D is a DNA deglycase

[INSTEM,(NCBS-TIFR), Bangalore, India, 2019]

Cloning and Characterization of a Mitogen-Activated Protein Kinase Gene from Pearl Millet

[3rd Global Conference, Rajasthan College of Agriculture, Udaipur, India, 2012]

Involvement of Mitogen Activated Protein Kinase signalling in Pearl Millet – Sclerospora graminicola Interaction

[ISMPP – South zone, University of Mysore, Mysore, India, 2011]

Mitogen activated protein kinase pathway in relation to Sclerospora graminicola infection in pearl millet

[World Congress on Biotechnology, Hyderabad, India, 2011]

Metal-based Drugs: Synthesis, Spectroscopic Characterization and Biological activity of Diorganotin (IV) Complexes with 4(3H) –quinazolinone derived Schiff bases

[Department of Chemistry, Karnataka State Open University, Mysore, India, 2011]

Effect of detoxified ghani pressed Jatropha meal in poultry feed formulations

[IFCON, 2008, CFTRI, Mysore, Karnataka, India, 2008]

PROJECTS

Improving tolerance traits in crops through the epigenetic control of stress-responsive genes

[03/11/2021 – Current]

Institute of Plant Biology, Biological Research Centre, **Szeged, Hungary**

Identify potential DMRs influenced by drought and salt stress through the identification of Epigenetic marks (DNA methylation and Histone modification) by using Bisulfite sequencing, RNA sequencing, and ChIP-sequencing and employing an advanced CRISPR/Cas9- based targeted methylation/demethylation system to introduce epigenetic variations for improving the adaptation to abiotic stress conditions in rapeseed

Elucidation of the role of Arabidopsis DJ-1 homologs by genetic and biochemical approaches

[26/11/2015 – 30/06/2021]

National Centre for Biological Sciences, Tata Institute of Fundamental Research (NCBS-TIFR), **Bangalore-560065, India**

understand the mechanism of stress response and biological characterization of stress-responsive proteins

Role of MAP kinases in pearl millet - S. graminicola interaction

[24/05/2012 – 03/12/2012]

Department of Biology, Ole Maaloes Vej 5, University of Copenhagen, 2200 **Copenhagen, Denmark**

Cloning and characterization of MAP kinases from pearl millet against downy mildew

[01/04/2009 – 31/01/2012]

Department of Studies in Biotechnology, University of Mysore, Manasagangotri, Mysore – 570 006, **Karnataka, India**

Effect of detoxified expeller pressed and dehulled Jatropha (Jatropha curcas) meals in poultry feed formulations.

[15/01/2008 – 25/03/2009]

Central Food Technological Research Institute (CFTRI), Mysore, India

HONOURS AND AWARDS

DBT-Research associateship

Department of Biotechnology, Govt. of India, New Delhi. [2017]

Karnataka State Eligibility Test (KSET) for Lectureship/Assistant Professor

Karnataka State Eligibility Test (KSET) Center, University of Mysore, Mysore [2014]

EMBO – Short Term Fellow Award

European Molecular Biology Organization (EMBO), Meyerhofstr.1, D- 69117 Heidelberg, Germany [2012]

ORGANISATIONAL SKILLS

Molecular Biology

Cloning, qRT-PCR, Primer and Expression vector design, ChIP-seq, RNA-seq, Genome editing by CRISPR-Cas9, Agrobacterium mediated plant transformation, generation of transgenic plants, Plant tissue culture, confocal and fluorescent microscopy

Biochemistry

Recombinant protein expression and purification, Chromatography, Immuno precipitation, ELISA, SDS-PAGE, Westernblotting, Northern blotting and enzyme kinetics.

Analytical methods

HPLC, spectrophotometry, AAS, Sanger Sequencing.

Computer /data analysis

Origin, SPSS, GraphPad Prism, endnote, Mendeley, MS-office, Basic R programming

DIGITAL SKILLS

Microsoft Office / Zoom / Basic R / Microsoft Excel / Microsoft Word / Google Drive / Social Media / Microsoft Powerpoint / Motivated / Instagram / Skype / Good listener and communicator / graphpad / Critical thinking / Photoshop / Responsibility / twitter / Internet user / Team-work oriented / Written and Verbal skills

LANGUAGE SKILLS

Mother tongue(s): **Kannada**

Other language(s):

English

LISTENING C2 READING C1 WRITING B2

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

HOBBIES AND INTERESTS

Sports

Cricket, snooker, badminton, football, table tennis

Interests

Travelling, Photography, fitness

RECOMMENDATIONS

Professor and PhD supervisor, University of Mysore, India

Name: Prof. K. Ramachandra Kini

Phone number: (+91) 8212419882

Email: krk@appbot.uni-mysore.ac.in

- I know him since last 18 years, he was my teacher, PhD supervisor and wonderful person

Professor, Biological Research Center, Szeged, Hungary

Name: Prof. Laszlo Szabados

Phone number: (+36) 62599715

Email: szabados.laszlo@brc.hu

I know him for 5 years, current supervisor, and a friendly and kind person.

Professor, Indian Institute of Science, Bengaluru, India

Name: Prof. Patrick D'Silva

Email: patrick@iisc.ac.in

I know him for 8 years, project collaborator, a wonderful biochemist.

I hereby declare that the details and information given above are complete and true to the best of my knowledge

20/07/2023



Melvin Prasad