

**Dr. SHILPA P.**

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**OBJECTIVE**

Intend to build a career in leading areas with committed & dedicated people and to excel professionally, gaining experience in a growth oriented organization where I can enhance my knowledge and contribute towards the success of the Organization.

**WORK EXPERIENCE**

Working as Head of the Department and Assistant Professor, Dept of Clinical Nutrition and Dietetics and Dept of Biotechnology at Padmashree Institute of Management and Science, Kommaghatta, Bengaluru-60, from June 2018 to till date. I have taught UG – (B Sc- Clinical Nutrition and Dietetics, Biotechnology and B.Voc -Food Processing) and PG (M Sc – Biotechnology, Biochemistry and Clinical Nutrition and Dietetics,) students and also guided students for project work. As a part of my experience at Padmashree I have been BOE and BOS member, NAAC criteria co-ordinator, involved with the team of experts to frame a curriculum/ syllabus for NEP.

Worked as Senior Research Fellow at Molecular Biology Lab, Division of Biotechnology, Indian Institute of Horticultural Research, Bangalore from Feb 2010 – March 2015.

Work done at IIHR includes

- Drought tolerance studies in banana such as role of Cuticular wax in preventing water loss, water use efficiency, and stomatal studies.
- Screening of different tomato varieties for carotenoid content, Total Sugars, Vitamins, physiological factors related to quality of tomato.

- Candidate gene analysis for the genes involved in the carotenoid biosynthesis pathway which majorly contribute for lycopene and beta carotene accumulation.
- Cloning and transformation experiments to identify the gene regulation.
- Genotyping of contrasting phenotypes using molecular markers (SSRs) to identify major polymorphic markers and their association with the trait.
- qPCR / Real Time PCR for quantification of the genes involved in the pathway at different stages of fruit development to study the gene regulatory mechanism.
- Promoter analysis to study the regulation of key enzymes / genes which control the gene expression.

Worked as research associate trainee in INSILICO (Computational chemistry) department in Jubilant Biosys, Bangalore, from June 2007 to July 2008. Worked on preparation of unnatural amino acids database. Calculation of physiochemical properties of unnatural amino acids using Qikprop from Schrodinger software. These properties were used in finding out correlation between the properties and find out which compound can be a potential drug.

## EDUCATION

I have been awarded Ph.D on my research work “Molecular characterization of Lycopene content in tomato” in April 2019 under the guidance of Dr.K..V. Ravishankar, Principal Scientist, IIHR, Bangalore to JNTUH, Hyderabad.

Class/Course	Name of Institute	Board/University	Year of Passing	Marks%
M.Sc (Biotechnology)	VV Pura College of Science	Bangalore University	June 2006	72%
B.Sc (Biotechnology, Chemistry, Home science)	VHD Institute of Home Science	Bangalore University	July 2004	67.15%
PUC	S.Nijalingappa PU College, Bangalore	Pre-University Board	2001	58%

SSLC	Max Muller High School, Bangalore.	Board Of Secondary Education	1999	78.4%
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## UG & PG PROJECT DETAILS

### Project 1

Title : **Technologies for regenerative medicine**  
 Areas worked : Biochemistry, Biophysics and Human Genetics  
 Carried out at : St.Johns Medical College, Bangalore from June 2002- July 2002

### Project 2

Title : **Improvement of pulse crops under drought tolerance**  
 Area worked : Plant Biotechnology  
 Carried out at : Jain Institute of Vocational and Advanced Studies, Bangalore from December 2002- February 2003.

### Project 3

Title : **Techniques involved in immune diagnosis**  
 Area worked : Immunology  
 Carried out at : Jain Institute of Vocational and Advanced Studies, Bangalore in August 2003.

### Project 4

Title : **Vermicomposting & Organic manuring in waste management**  
 Area worked : Environmental Biotechnology  
 Carried out at : Dissertation project in February 2004

### Project 5

Title : **Protein structure prediction & modeling**  
 Area worked : Bioinformatics  
 Carried out at : Edubiotech training division of ibx - Integrated Biotechnology Extension in June 2006.

## AREAS OF INTEREST

Plant biotechnology, Plant& animal tissue culture, Molecular biology, Microbiology, Analytical techniques, Bioinformatics.

## TECHNIQUES KNOWN

Molecular biology techniques such as DNA and RNA isolation, PCR, qPCR, gel electrophoresis, cloning and transformation, Multiplex PCR analysis.

Plant tissue culture, Biochemical analysis of carotenoids in plants. Bioinformatics tools used in sequence analysis, motif identification, transcription factor analysis.

## ABSTRACTS

- Stomatal Studies and its Relation to Drought Tolerance in *Musa* in 2011, published in **ISHS/ProMusa symposium “Bananas and plantains: Toward sustainable global production and improved uses”**.
- The Role of Cuticular Wax in Drought Tolerance in *Musa* in 2011, published in **ISHS/ProMusa symposium “Bananas and plantains: Toward sustainable global production and improved uses”**.
- Lycopene and  $\beta$  carotene gene sequence polymorphism in contrasting tomato genotypes in **OMICS International Conference 2012**.
- Breeding tomato for high nutritive value, **was awarded best poster presentation at 6th Indian Horticulture Congress 2014**.
- Assessment of genotypic variability of tomato volatiles, **6th Indian Horticulture Congress 2014**.

## PUBLICATIONS

- Research article published online on 8th April 2016 for publication in the journal **“Journal of Biosciences”**  
**Title: “Differential expression of carotenoid biosynthetic pathway genes in two contrasting tomato genotypes for lycopene content”. Shilpa Pandurangaiah,**

Kundapura V Ravishankar , Kodthalu S Shivashankar, Avverahally T Sadashiva, Kavitha Pillakenchappa, Sunil Kumar Narayanan.

- Research article published online 26th April 2016 for publication in the journal **“Functional Plant Biology”**

**Title: “Barrier against water loss: Relationship between epicuticular wax composition, gene expression and water retention capacity in banana”.** Megha Hastantram, Ravishankar Kundapura, Shivashankar Kodthalu, Tapas Roy, Laxman Hunashikatti, Rekha Ajitha, **Shilpa Pandurangaiah.**

- Review article published on December 2017 in Journal of Horticultural Sciences

**Title: “Molecular mechanisms involved in the biosynthesis and regulation of carotenoids in plants”.** **Shilpa Pandurangaiah,** Kundapura V Ravishankar, Kodthalu S Shivashankar, Avverahally T Sadashiva, Sunil Kumar Narayanan.

- Research article published in Proceedings at International Conference on biotechnology and bioengineering trends conducted on March 23<sup>rd</sup>- 25<sup>th</sup> 2018 at JNTU, Hyderabad

**Title: Comparison and characterization of lycopene beta cyclases gene promoter region in contrasting tomato genotypes for carotenoid content.** **Shilpa Pandurangaiah,** Kundapura V Ravishankar, Kodthalu S Shivashankar, Avverahally T Sadashiva, Sunil Kumar Narayanan.

- Research article published in June 2020 in Journal of Horticultural Sciences

**Title: “Carotenoid content in cherry tomatoes correlated to the colour space values L\*, a\*, b\*:** **A non-destructive method of estimation.** **Shilpa Pandurangaiah,** Sadashiva A.T., Shivashankar K.S., Sudhakar Rao D.V. and Ravishankar K.V

- Presented Paper in National Conference on **“ Best Practices in implementation of NEP”** on September 9<sup>th</sup> and 10<sup>th</sup> September 2022

## **SEMINARS & WORKSHOPS**

- Participated in JANARJANA 2005, a national symposium on “Recent trends in life sciences” held on 2 & 3 March 2005 at Oxford Educational Institutions, Bangalore.
- Participated in the one-day symposium on “Role of microbiology in biotechnology” on 31 August 2005 at Jnana Jyothi Auditorium, Central College, Bangalore.

- Participated in ASRT (Asian Solanaceous Roundtable) held on September 9 and 10, 2014 at Bangalore.
- Was a resource person in a three day workshop on “Skills and Strategies for a successful research career” conducted from Nov 15<sup>th</sup> to Nov 17<sup>th</sup>, 2018 at Padmashree Institute of Management and Science, Kommaghatta, Bengaluru-60
- Attended the Seminar on “Science vocational education: perspectives of industry and academia”, July 22, 2018, Jnanajyothi auditorium, Bangalore University, Bangalore
- Was a resource person in a three day seminar done on account of “National Nutrition Week 2019” organized on 6<sup>th</sup> and 7<sup>th</sup> September 2019 at Padmashree Institute of Management and Science
- Attended 5 days Training of the Trainers programme on Nutrition and Health from 24<sup>th</sup> to 28<sup>th</sup> June 2019 at IIHMR, Bangalore
- Attended one day FosTAC training program from FSSAI on Catering(Level 2) - Food Safety Supervisor on 12<sup>th</sup> December 2019

#### **EXTRA CURRICULAR HIGHLIGHTS**

- Participated and won prizes in various cultural, quiz and sport activities in school and college.
- Passed junior exam in Carnatic instrumental music in veena.

#### **PERSONAL DETAILS**

Date of Birth : 13.09.1983  
Husband's Name : DINESH.S  
Nationality : Indian  
Language Known : English, Kannada, Hindi.

#### **DECLARATION:**

I do hereby declare that the above furnished information is true to the best of my knowledge and belief.

Place: Bangalore

Yours sincerely,

(Shilpa P.)