

Scientist Profile



Dr. SaurabhaBhimraoZimare

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**Jr. Scientist,
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1.) PERSONAL INFORMATION –

FULL NAME	:	SAURABHA BHIMRAO ZIMARE
FATHER'S NAME	:	BhimraoBajiraoZimare
MOTHER'S NAME	:	BharatiBhimraoZimare
PERMANENT ADDRESS	:	"Tejonidhi", 4B, VighnahartaHsg. Soc., Medha Road, AtPost Kondave, Satara – 415 001, Maharashtra.
DATE OF BIRTH	:	27 th June, 1983
GENDER	:	Male
NATIONALITY	:	Indian
CATEGORY and CASTE	:	Scheduled Caste (SC), Nav-Bauddha
MOTHER TONGUE	:	Marathi
MARITAL STATUS	:	Married
LANGUAGES KNOWN	:	Marathi, Hindi and English
INTERESTS	:	Reading novels, playing cricket, visiting tourist places, gyming/exercising, swimming.

2.) EDUCATIONAL QUALIFICATIONS:

Exam. Passed	Board/University	Year of Passing	Percentage/ Grade Awarded	Subject Offered
Ph. D.	SavitribaiPhule Pune University (Formerly, Univ. of Pune)	2016	Degree Awarded	Botany
M. Phil.	University of Pune, Pune	2009	60.00 % A – Grade	Botany
M. Sc.	University of Pune, Pune	2007	63.80 %	Botany
B. Ed.	Shivaji University, Kolhapur	2005	50.00 %	Science, Maths.
B. Sc.	Shivaji University, Kolhapur	2003	50.88 %	Botany
H.S.C.	Maharashtra State Board	2000	45.00 %	Eng, Mar, Geog, PCB.
S.S.C.	Maharashtra State Board	1998	56.40 %	Mar, Hin-Sansk, Eng, Maths, Sci, SocSci.

3.) TEACHING EXPERIENCE –

Institution	Position held	Subject	Exp. in years	Reason for leaving
Modern College of Arts, Science & Commerce, Shivajinagar, Pune	Assistant Professor (CHB)	Botany, Agri-biotechnology	1 year (2009–10)	Appointed as Project Assistant under DST-PURSE program in Dept. of Botany, University of Pune.
H. V. Desai College, Pune.	Assistant Professor (Full time-Consolidated basis)	Botany	From 19/09/2016 till date	30st April, 2017

4.) RESEARCH PROFILE –

(1.) M. Phil. (Botany) (2007 - 2009):

- Degree awarded from University of Pune, Pune.
- Dissertation entitled: “*In vitro* propagation and secondary metabolites production in *Daturametel* L.”

(2.) Project Assistant(Botany) (1st April 2010 - 31st March, 2012):

Appointed as Project Assistant under DST–PURSE program in Department of Botany, University of Pune.

Following work was carried out –

- Collection of plant material from different localities of Western Ghats.
- Seed germination experiment.
- Standardization of protocols for plant tissue culture experiments.
- Mycorrhiza experiment.
- Standardizations of TLC and HPTLC protocol for gymnemic acid and gymnemagenin.
- *Agrobacterium* mediated genetic transformation experiment.

(3.) Ph. D.(Botany) (2011 – 2016) :

- Awarded Doctorate degree from Savitribai Phule Pune University.
- Thesis entitled: “Exploring Pathogenesis-related (PR) proteins and enhancement of gymnemic acid in *Gymnemasylvestre* (Retz.) R. Br. ex Schult. using *in vivo* and *in vitro* cultures.”

Following work has been carried out –

- Collection of plant material from different localities of Western Ghats.
- Experiment on seed germination.
- Standardization of protocol for plant tissue culture experiments.
- Standardization of TLC and HPTLC protocol for gymnemic acid and gymnemagenin.
- Establishment of shoot and cell suspension cultures.
- Study of growth and production kinetics
- Enhancement of secondary metabolites using precursors, elicitors and mycorrhiza.
- Exploring pathogenesis related proteins.
- *Agrobacterium* mediated genetic transformation.

➤ **Publications in Science Cited Indexed (SCI) journals and UGC approved journals:**

1. **S. B. Zimare** and N. P. Malpathak(2011) Production of hyoscyamine and scopolamine using stress in *Datura metel* L. Biotechnology an Indian Journal. 5 (5): 316-322.
2. Nikalje G. C, **Zimare S. B.** and N. P. Malpathak(2013)A comparative pharmacognostic study on the leaf, stem and root components of *Gymnemasylvestre* (Retz) R. Br. ex. Sm, ProcNatlAcadSci India Sect B BiolSci, Vol 83 (1): 125-134.
3. **Zimare S. B.**, Borde M. Y, Jite P. K and N. P. Malpathak (2013) Effect of AM fungi (*Gf*, *Gm*) on biomass and gymnemic acid content of *Gymnemasylvestre* (Retz.) R. Br. ex Sm. ProcNatlAcadSci India Sect B BiolSci, Vol 83 (3): 439-445.
4. **Saurabha B. Zimare** and Nutan P. Malpathak (2016) *In vitro* multiple shoot and gymnemic acid production in *Gymnemasylvestre* (Retz.) R. Br. ex. Sm. Indian journal of biotechnology. **In press.**
5. **Zimare S. B. Kakade P. S** and N. P. Malpathak (2017)Unorganized (cell suspension) cultures: a biotechnological tool for enhancement of biomass and gymnemic acid in *Gymnemasylvestre*. Plant cell biotechnology and Molecular biology. **In press.**

➤ **Manuscript communicated and under Review**

1. **Zimare S. B.** and N. P. Malpathak (2016) Precursor feeding of MVA pathway and enhanced production of gymnemic acid. IJEB/ ACK/ 2016 EB160611-1, (**Under review**).
2. **Zimare S. B.** Javir G, Pai K. and N. P. Malpathak. "Qualitative and quantitative analysis of thaumatin like proteins (TLPs) in nonpathogenated *in vitro* and *in vivo* cultures of *G. sylvestre*". JPPR232017-2b, (**Under review**).

➤ **Manuscript Preparation**

1. **Zimare S. B.** Kakade P. Sand N. P. Malpathak. Biotic elicitation: A strategy for enhancement of antidiabeticgymnemic acid from *Gymnemasylvestre*.

SEMINARS AND CONFERENCES ATTENDED:

1. Presented a poster in “Plant biodiversity for sustainable development” organized by Department of Botany, University of Pune from 10th – 12th March, 2011.
2. Presented a poster in “Sustainable crop production through physiological intervention” organized by Department of Life Sciences, RamnarainRuia College, Matunga, Mumbai and ISPP, Pusa, New Delhi from 24 – 26th November, 2011.
3. Presented a poster in the National Conference on “Biodiversity, biotechnology and climate change” organized by Science, Arts and Commerce College, Sonai, Ahemadnagar from 26-28th July, 2012. **Received “Best poster Award”**.
4. Presented a poster in the National Seminar “Exploring strategies for enhancement of secondary metabolites in medicinal plants” organized by the Department of Botany University of Pune, Pune organized from 13–14th February, 2013.
5. Presented a poster in the 7th International Symposium on “Recent advances in natural products” held from 15-17th Nov, 2012 at Amity University, Noida Campus.
6. Presented a poster in the 35th Annual meeting of PTCA (India) & National Symposium on advances in plant molecular biology & biotechnology held at IISER, Pune from 10 – 12th March, 2014.
7. Presented a poster in the 36th Annual Meeting of PTCA (India) & National Symposium on biotechnology & molecular biology for industry and common man held at St. Aloysius college, Mangalore from 29 – 31th January, 2015.

5.) TECHNIQUES KNOWN AND USED:

➤ **Plant Tissue Culture Techniques–**

- Preparation of different media, establishment and maintenance of organized and unorganized culture systems, hardening of shoot cultures, *Agrobacterium* mediated genetic transformation, biomass and secondary metabolite production and enhancement using precursors and elicitors, extraction of secondary metabolites, quantification of secondary metabolites using spectrophotometer.
- Use of Nanodrop, High Performance Thin Layer Chromatography (HPTLC).
- **Proteins** – Extraction of proteins, SDS-PAGE, Western blot, ELISA.
- **Plant DNA isolation**– DNA Extraction, PCR, use of molecular markers for genetic diversity analysis.
- **Computer skills:** Statistical analysis using SPSS and M-STATC.

SaurabhaB.Zimare