# **Curriculum vitae**

# Dr. Shripad Nagnath Surwase

## Permanent address

60/61, Mantri Chandak Vihar, Asara Chowk, Behind Essar Pertol Pump, Hotagi road, Solapur Maharashtra, India – 413003 Contact no. 9850509315 Email- shripad.surwase@gmail.com



 $\label{link-https://scholar.google.co.in/citations?user=djd8GwkAAAAJ\&hl=en} \begin{tabular}{ll} ORCID ID Link - $$\underline{$https://orcid.org/0000-0002-7115-4125}$ \end{tabular}$ 

## 1. Academic record

Examination	Name of Board/University	Year of Passing	% of Marks obtain ed	Class/ Division	Subjects (specializati on)
Ph. D	Shivaji University, Kolhapur	2012	-		Microbiology
M. Phil/Pre. PhD Theory	Shivaji University, Kolhapur	2010	4.5 Grade Point	A Grade	Microbiology
M. Sc.	Shivaji University, Kolhapur	2008	66.37 %	First	Microbiology
B.Sc.	Shivaji University, Kolhapur D.B.F. Dayanand College, Arts and Science, Solapur	2006	72.36%	Distinction	Microbiology
B. Ed	Solapur University, Solapur Kasturbai college of Education, Solapur	2014	70 %	Distinction	Education
H.S.C.	Maharashtra State Board Pune	2003	66.33 %	First	-
S.S.C.	Maharashtra State Board Pune	2000	66.93 %	First	-
Certificate Course in German Language	Shivaji University, Kolhapur	2011	68.67 %	First	German Language

# 2. Work Experience

Employer	Position held	Date of	Date of	Pay
		Joining	Leaving	Scale
Punyashlok Ahilyadevi Holkar Solapur University, Solapur. Department of Microbiology, School of Life Science	Assistant Professor (Contract Basis)	01/09/2021	Currently Working	Rs. 22,000/- per month
Punyashlok Ahilyadevi Holkar Solapur University, Solapur. Department of Microbiology, School of Life Science	Assistant Professor (Contract Basis)	14/12/2020	31/07/2021	Rs. 22,000/- per month
D.B.F. Dayanand College, Arts and Science, Solapur	Assistant Professor (Visiting Faculty)	16/08/2018	15/03/2020	Rs. 20,500/- per year

# 3. Patents

Patent no.	Application No.	Country	Status	Title
285412	2941/MUM/2011	Indian	Granted on 19 July 2017	A process for increased melanin production

## 4. PhD Thesis title:

A novel approach for biotransformation of L-tyrosine to melanin by microbial system.

## 5. Awards and Honors

- 'Junior Research Scholarship' award for cancer related research by Lady Tata Memorial trust, Mumbai, Maharashtra, India. http://www.ladytatatrust.org
- **2. 'Certificate of Merit'** award for standing first in B.Sc. III Microbiology, with 78 % marks from Dayanand College, Solapur, Maharashtra, India.
- **3. 'Certificate of Merit'** in **German language** with **A+ grade** by Department of Foreign Languages, Shivaji University, Kolhapur, India.
- 4. Certificate of Accomplishment with Distinction for online course on 'Programmed cell death' Offered By Ludwig-Maximilian Universität, Münche(LMU), Germany

# 6. Research Publication

	International Journals	National Journals	Univ./State level Journals	Seminar Proceeding etc.	Total
A) Published	17	0	0	0	17
B) In Press	0	0	0	0	
C) Accepted for Publications	0	0	0	0	
Total	17	0	0	0	17

# 7. Research publications details

Sr. No.	Name of Author's	Year of publication	Title of the Paper	Name of Journal	Volume No.	Page Nos.
1.	Surwase S. N., Jadhav J. P.	2011	Bioconversion of L-tyrosine to L-DOPA by a novel bacterium <i>Bacillus</i> sp. JPJ.	Amino Acids (IF: 3.063)	41	495-506
2.	Phugare S. S., Kalyani D. C., Surwase S. N., Jadhav J. P.	2011	Ecofriendly degradation, decolorization and detoxification of textile effluent by a developed bacterial consortium.	Ecotoxicology and Environmental Safety (IF: 4.872)	74	1288- 1296.
3.	Surwase S. N, Patil S. A., Jadhav S. B., Jadhav J. P.	2012	Optimization of L-DOPA production by <i>Brevundimonas</i> sp. SGJ using response surface methodology.	Microbial Biotechnology (IF: 5.328)	5(6)	731- 737
4.	Surwase S. N., Patil S. A., Apine O. A., Jadhav J. P.	2012	Efficient microbial conversion of L-tyrosine to L-DOPA by <i>Brevundimonas</i> sp. SGJ.	Applied Biochemistry and Biotechnology (IF: 2.277)	167	1015- 1028
5.	Surwase S. N., Jadhav S. B., Phugare S. S., Jadhav J. P.	2012	Optimization of melanin production by <i>Brevundimonas</i> sp. SGJ using response surface methodology.	3 Biotech (1.798)	3	187-194
6.	Jadhav S. B., Surwase S. N, Phugare S. S., Jadhav J. P.	2012	Response surface methodology mediated optimization 3 of Remazol Orange decolorization in plain distilled water 4 by <i>Pseudomonas aeruginosa</i> BCH.	International Journal of Environmental Science and Technology (IF: 2.540)	10	181-190

7.	Jadhav S. B., Surwase S. N., Kalyani D. C., Gurav R. G., Jadhav J. P.	2012	Biodecolorization of azo dye remazol orange by Pseudomonas aeruginosa BCH and toxicity (oxidativestress) reduction in Allium cepa root cells.	Applied Biochemestry and Biotechnology. (IF: 2.277)	168	1319- 1334
8.	Kalyani D. C., Telke A. A., Surwase S. N., Jadhav S. B., Lee J. K., Jadhav J. P.	2012	Effectual decolorization and detoxification of triphenyl methane Dye malachite green (MG) by <i>Pseudomonas aeruginosa</i> NCIM 2074 and its enzyme system.	Clean Technologies and Environmental policy. (IF: 2.429)	14	989- 1001
9.	Patil P. S., Phugare S. S., Kalyani D. C., Surwase S. N., Jadhav J. P.	2012	Bioremediation perspective of Navy Blue RX–containing textile effluent by bacterial isolate.	Bioremediation Journal (IF: 1.724)	16	185-194
10.	Patil S. A., Surwase S. N., Jadhav S. B., Jadhav J. P.	2013	Optimization of medium using response surface methodology for L-DOPA production by <i>Pseudomonas</i> sp. SSA.	Biochemical Engineering Journal. (IF: 3.475)	74	36-45
11.	Gurme S. T., Surwase S. N., Patil S. A., Jadhav S. B., Jadhav J. P.	2013	Optimization of biotransformation of L-tyrosine to L-DOPA by Yarrowia lipolytica-NCIM 3472 using Response Surface methodology.	Indian Journal of Microbiology. (IF: 1.830)	53	194-198
12.	Inamdar S. A., Surwase S. N., Jadhav S. B., Bapat V. A., Jadhav J. P.	2013	Statistically optimized biotransformation protocol for continuous production of L-DOPA using <i>Mucuna monosperma</i> callus culture	SpringerPlus	2	570-578
13.	Jadhav J. P., Apine O. A., Patil S. A., Surwase S. N.	2013	Biological sources of L-DOPA : An alternative approach.	Advances in Parkinson's Disease	2	81-87
14.	Gurme S. T., Surwase S. N., Patil S. A., Jadhav J. P.	2014	Evaluation of Various Factors Affecting Bioconversion of- Tyrosine to-DOPA by yeast Yarrowia lipolytica -NCIM 3450 Using Response Surface Methodology.	Natural Products and Bioprospectus	4	141-147

15.	Gurme S. T.,	2018	An Organic Bipolar Resistive	Physica status solidi (a)	215	1800550
	Dongale T. D,		Switching Memory Device	(IF - 1.759)		-1800558
	Surwase S. N,		Based on Natural Melanin			
	Kumbhar S. D.,		Synthesized			
	More G. M.,		From Aeromonas sp. SNS.			
	Patil V.L.					
	Patil S. P.,					
	Kamat R. K.,					
	Jadhav J. P.					
16.	Gurme S. T.,	2019	Synthesis of melanin mediated		27	2428 -
	Aware C. B.,		silver nanoparticles	and the Environment		2438
	Surwase S. N.,		from aeromonas sp. sns using	(IF - 2.572)		
	Chavan C. S.,		response surface methodology:			
	Jadhav J. P.		characterization with the			
			biomedical applications and			
			photocatalytic degradation of			
			brilliant green.			
17.	Gurme S. T.,	2020	Application Studies of Purified	Journal of Biologically	10	233-249
	Aware C. B.,		Tyrosinase from Isolated	Active Products from		
	Surwase S. N.,		Aeromonas sp.	Nature (TABP)		
	Aware C. B.,		SNS with Detailed			
	Vyavahare G. D.		Characterization and Kinetic			
	Jadhav J. P.		Studies.			

# 8. Citations

Citations	577
h-index	12
i10 -index	12

 $\textbf{Google Scholar Link -} \underline{https://scholar.google.co.in/citations?user=djd8GwkAAAAJ\&hl=en$ 

# 8. Professional Training Received

Year	Nature of Training	Duration	Organization where training was provided
2007	Summer research training	23 Days	Rashtrya Chemicals and
		May 7- 30	Fertilizers (RCF), Mumbai
2009	Management of IPR (Intellectual Property	3 Days	Biotech consortium India
	Rights) in Biotechnology	February 5-6	Limited, New Delhi, India
2012	Advance Microbiology, Molecular biology,	3 Month 15 days	Helix Biogenesis Pvt. Ltd,
	Plant Biotechnology, Biochemistry and	February 1 to	Noida, NCR, New Delhi,
	Chromatography with Research Project	May 15	India.
2012	Animal cell culture	26 Days	Biozeen, Banglore, India.
		September 3- 28	

2015	Flow cytometry Experimental Designing	3 days	Flow cytometry solution and
	and Data Analysis	March 11-12	Jawaharlal Nehru Center for
			advanced and Scientific
			Research, Banglore, India
2015	Flow Cytometry Basics, Apoptosis, Cell	3 days	Venture Center, Pune, India
	cycle and Data analysis	April 15-17	
2016	Confocal Microscopy	2 days	Venture Center, Pune, India
		February 2 -3	
2017	Basic Training in NGS Instrument	2 days	Thermo Fisher Scientific,
	Next Generation DNA sequencing	June 14 -16	Gurgaon, NCR, New Delhi,
			India

# 9. Conferences / Seminars/ Workshops attended

Year	Conferences / Seminars attended	Title of poster presented
2006	Seminar Cum Workshop on Role of Biotechnology for Mankind organized by Department of Zoology, Walchand	Attended
	College of Arts and Science, Solapur,	
2006	Maharashtra, India National Conference on Microbial	
2000	Technology for Sustainable Agriculture organized by Department of Microbiology, D. B. F. Dayanand college of Arts and science, Solapur, India	Attended
2007	National Seminar on Biotechnology for Sustainable Development organized by Shri Shivaji Mahavidyalay, Barshi, Solapur, Maharashtra, India	Attended
2008	2 <sup>nd</sup> International conference on Biotechnology for Industrial and Rural Development organized by P. G. Department of Studies and Research in Biotechnology, Gulbarga University, Gulbarga, Karnataka, India.	Attended
2008	3 <sup>rd</sup> International congress on Bioprocesses in Food Industries and 5 <sup>th</sup> convention of Biotech research Society of India organized by Department of Microbiology, University College of Technology, Osmania University, Hyderabad, India.	Presented a poster - A novel approach for the melanin production by bacterial isolates.
2009	50 <sup>th</sup> International Annual conference of Association of Microbiologists of India as 'Third Golden Era of Microbiology' at National Chemical Laboratory, Pune, India.	Presented a poster - Optimization of fermentation conditions for melanin production from a bacterial isolate

2010	National conference on Molecular Medicine and Nanobiotechnology, organized by Sir M. Visveswaraya Institute of Technology and Reva Institute of Science Bangalore, India. National conference on Recent trends in life sciences, organized by Department of Biochemistry, Shivaji University, Kolhapur,India.	Presented a poster - Production of L-DOPA an antiparkinson's drug by <i>Pseudomonas</i> sp. SSA.  Presented a poster - Production of L-DOPA from <i>Brevudimonas diminuta</i> strain B34.
2011	International conference on New Horizoins in Biotechnology organized by Biotech research Society of India and National institute of Interdisciplinary Science and Technology, CSIR Trivendrum, India.	Presented a poster - Efficient microbial conversion of L-tyrosine to L- DOPA by Brevundimonas sp. SGJ
2011	International conference on 'Biotechnology for Bettter Tommarow' organized by Dr. Babasaheb Ambedkar University, Sub-Campus, Usmanabad, Maharashtra, India	Attended

# 10. Membership of Professional Bodies

Name of the Body	Statues of Membership
Microbiologists Society, India	Life

# 11. Practical skills and Instrumentation handling

# 1. Microbiology and Fermentation technology

Isolation and screening of microorganisms from various habitats, Maintenance and preservation of microbial and fungal cultures, Microbial strain improvement by UV-mutation, Growth curve studies, antimicrobial assay, Optimization physical and nutritional parameters for fermentations by Response Surface Methodology (RSM).

### 2. Molecular biology

Isolation of DNA, RNA, Agarose gel electrophoresis, Primer designing, PCR, RT-PCR, Vector selection and designing, Gene cloning and expression, Blue-white screening, Molecular biology softwares like Vector NTI and SnapGene

#### 3. Enzymology

Isolation of extracellular and intracellular enzyme from microbial strains, Development of enzyme assays, Ion exchange chromatography, Gel filtration chromatography, Native and SDS PAGE Electrophoresis.

#### 4. Animal cell culture

Handling and sub culturing of animal cell lines (BHK 21), cell culture media preparation, cryopreservation, Cell viability and cell density estimation by trypahan blue exclusion assay, MTT assay, Nuclear staining, Cary typing, Suspension culture development in spinner flasks, Scale up of suspension culture in animal cell culture bioreactor (5 L Sartorius), Micro-carrier culture development using dextran beads, (Cytodex, Sigma),

#### 5. Experimental animal handling

Albino Wistar Rats, Immunization of rats and dissection of rats for physiological and Histological studies

#### 6. Bioinformatics

Phylogenetic analysis by MEGA 4, and NCBI tools, BLAST, FASTA, PDB search, Primer 3, Emboss, Pach-Dock, Snap Gene, Vector NTI

# 12. Instrumentation handling

- 1. Lab scale fermenter / Bioreactor (Sartorius, Biostat B+, Germany)
- 2. Animal cell culture bioreactor (Sartorius, Biostat A+, Germany),
- 3. HPLC (High performance liquid chromatograpy) (Waters)
- 4. HPTLC (High performance thin layer chromatograpy) (CAMAG)
- 5. GC (Gas chromatography) (Shimadzu)
- 6. FTIR (Fourier Transform Infrared Spectroscopy) (Shimadzu)
- 7. Automated Protein purification system (Biorad, USA)
- 8. PCR and RT-PCR (Biorad, USA)
- 9. UV-Vis spectrophotometer (Shimadzu)
- 10. Flow Cytometer (FACS Caliber, BD Biosciences)

# 13. Extra-curricular activities.

- 1. Certificate course in German language with A+ grade.
- **2.** MS-CIT- 'Maharashtra State Certificate course in Information Technology' (MS-CIT) with 79 % marks.
- **3.** Certificate of participation in Microbiology Greeting card competition organized by Microbiology Club, Department of Microbiology, D. B. F. Dayanand College of Arts and Science, Solapur, Solapur.
- **4**. Certificate of participation in Microbiology Essay competition organized by Biovision Club, Department of Microbiology, Solapur.
- 5. Hobbies Pencil sketching and reading science fictions and Marathi literature.

### 14. Silent features of research work

- 1. Screening, isolation of potential L-DOPA and melanin producing bacterial species from soil
- 2. Identification of bacteria by 16rDNA and phylogenic analysis
- **3.** Optimization of fermentation conditions for L-DOPA and melanin production by using classical as well as 'Response surface methodology' using *Bacillus* sp. JPJ
- 4. Bioconversion of L-tyrosine to L-DOPA and melanin by using bacterial cell mass
- 5. Scale up of L-DOPA and melanin production using 5L lab scale bioreactor (Sartorius)
- **6.** Purification and analysis of microbial L-DOPA by various analytical techniques such as UV-Visible spectroscopy, HPTLC, HPLC, GCMS.
- **7.** Purification and analysis of microbial melanin by various analytical techniques such as UV-Visible spectroscopy, FTIR and EPR.
- 8. Purification, characterization and kinetics of tyrosinase from Bacillus sp. JPJ
- **9.** Effect of various natural plant extracts such as turmeric, saffron, sandalwood, almonds and amala on bacterial L-DOPA and melanin synthesis
- 10. Study of immune response of microbial melanin, fungal melanin in albino wistar rats.

### References

## 1. Prof. Dr. (Mrs.) J. P. Jadhav (Mentor)

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### 2. Prof. Dr. D. N. Mishra

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