

CURRICULUM VITAE

Dr. V. SWABNA

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To work in a challenging and creative environment, get explore my talents and effectively contribute towards the goals of the organization.

Academic Profile

Doctorate of Philosophy

2010-2015 **Ph.D- Environmental Biotechnology**
Bharathidasan University,
Tiruchirapalli, Tamilnadu.
Highly Commended

Post Graduate

2007-2009 **Master of Science– M.Sc.Biotechnology**
Bishop Heber College,
Tiruchirapalli, Tamilnadu.
Percentage Secured **79%**

Diploma

2007-2008 **P.G.Diploma in Bioinformatics**
Bishop Heber College,
Tiruchirapalli, Tamilnadu.
Percentage Secured **79%**

Under Graduate

2004-2007 **Bachelor of Science– B.Sc.Microbiology**
Shrimati Indira Gandhi College.
Tiruchirapalli, TamilNadu.
Percentage Secured **69%**

Awards and Honors

Awarded **UGC NRCBS Fellowship** for the period of 3 months (Jan-Apr 2012) at Department of Biological Sciences, Madurai Kamaraj University, Madurai.

Project Description

- * **PG. Diploma in Bio Informatics** - Comparative Sequence Analysis Of Tlr-2 Gene.
- * **M.Sc Biotechnology**- Chromosomal analysis of Leukemia and Prostate Cancer patients using G-banding technique.
- * **Ph.D Environmental Biotechnology**- Characterization, toxicity evaluation, metabolization and deportation of distillery based pigment- Melanoidins.

Project Grants

- 2024 - 2026 - St. Joseph's College Research Grant, received Rs. 1,04,000.

Papers Accepted

- Dr. V. Swabna and D.A.Asha Monica. Isolation, molecular identification and optimization of phytase production by *Bacillus firmis* strain. Bulletin of Environment, Pharmacology and Life Sciences.

Genome Sequence Published

- Tomy, T. L., Snega, S., Edward, A., Asha Monica, A., Swabna, V. and Arutchelvi, J. 2024. GenBank Accession Number: NZ_JBFLGM000000000 (*Bacillus cereus* strain SJCBTGEN01; Whole genome shotgun sequencing project)
https://www.ncbi.nlm.nih.gov/nuccore/NZ_JBFLGM000000000.1

Gen Bank Deposition

- **Swabna,V.**, Asha Monica,A. and Edward,A. 2023. GenBank Accession Number: OR889352 *Stutzerimonas stutzeri* SWDS01.
- **Swabna. V.** 2023. GenBank Accession Number: OR150434.1 *Alcaligenaceae bacterium* SWDS2
- Sneha,N. and **Swabna,V.** 2023. GenBank Accession Number: OR150428 *Streptococcus*

mutans SW02

- Sneha,N. and **Swabna,V.** 2023. GenBank Accession Number: OR150420.1 *Streptococcus oralis SW 01*
- Sneha,N. and **Swabna,V.** 2023. GenBank Accession Number: OR150410 *Bacillus firmis SW01*
- Ramya,R. and **Swabna,V** 2023. GenBank Accession Number: OR150414.1 *Macrocooccus caseolyticus SW02*
- Ramya,R. and **Swabna,V** 2023. GenBank Accession Number: OR150416.1 *Staphylococcus aureus SW03*
- **Swabna,V.,** Asha Monica,A. and Edward,A 2023. GenBank Accession Number: OR889409.1 *Paracandidimonas soli SWDS04*
- **Swabna,V.,** Asha Monica,A. and Edward,A 2023. GenBank Accession Number: OR889355.1 *Alcaligenaceae bacterium SWDS03*
- **Swabna,V.,** Asha Monica,A. and Edward,A 2023. GenBank Accession Number: OR889353.1 *Pseudomonas saudiphocaensis SWDS02*
- **Swabna. V.** 2023. GenBank Accession Number: OR150434.1 *Alcaligenaceae bacterium SWDS2*
- Edward,A., Asha Monica,A., **Swabna,V.,** Arutchelvi,J. and Gowtham,R. 2023. GenBank Accession Number: OR889153.1 *Solenopsis geminata voucher HBPUACDNA0071*
- Edward,A., Asha Monica,A., **Swabna,V.,** Arutchelvi,J. and Gowtham,R. 2023. GenBank Accession Number: OR889152.1 *Tetraponera rufonigra voucher HBPUACDNA0072*
- Edward, A., Asha Monica, A., **Swabna, V.,** Arutchelvi, J. and Gowtham, R. 2023. GenBank Accession Number: OR889116 *Anoplolepis gracilipes voucher HBPUACDNA0070*
- Edward, A., Asha Monica, A., **Swabna, V.,** Arutchelvi, J. and Gowtham, R. 2023. GenBank Accession Number: OR889100 *Camponotus compressus voucher HBPUACDNA0069*
- Edward, A., Asha Monica, A., **Swabna, V.,** Arutchelvi, J. and Gowtham, R. 2023. GenBank Accession Number: OR889097 *Paratrechina longicornis voucher HBPUACDNA0068*
- Sowmiya, B., Arutchelvi, J., Edward, A., Asha Monica, A. and **Swabna, V.** 2024_GenBank

Accession Number: PP718026 *Bacillus subtilis* strain AR02

- Janani,G.R., **Swabna,V.**, Asha monica,A., Edward,A., Arutchelvi,J. and Naveenkumar,T. 2024_GenBank Accession Number: PP712915 *Brevundimonas vancouverensis* strain *PHBJS01*
- Keerthana,S., **Swabna,V.**, Asha monica,A., Edward,A., Arutchelvi,J.2024. GenBank Accession Number: PP712907 *Enterobacter asburiae* strain *MPKS02*
- Keerthana,S., **Swabna,V.**, Asha monica,A., Edward,A., Arutchelvi,J.2024. GenBank Accession Number: PP712905 *Enterobacter ludwigii* strain *MPKS01*

Papers published

- Asha Monica Alex Rajarathinam, Sathish kumar, **Vivekanadam Swabna**, Edward Arockiasamy, (2024). Green synthesis and characterization of Silver nanoparticles from Santalum album and their Antimicrobial Antioxidant and Anticancer activity. International Journal of Zoological Investigations. Vol. 10, No. 1, 355-363.
- Balraj Sudha, KS Athinath, **Vivek Swabna** and Sundaravadivelu Sumathi, 2023. Keratinase mediated fabrication and partial characterization of gold nanoparticles and its antibacterial potential. Indian Journal of Experimental Biology. Volume 61: 59- 65. DOI: 10.56042/ijeb. v61i01.51286.
- Jayaprakash S, **Swabna V** and Hareeni selvam, 2020. Production and Optimization of Xylanase by *Aspergillus niger* through Solid state fermentation using Lignocellulosic wastes as a substrate. IJSDR Volume 5, Issue 10 pg 69-77.
- B. Sudha, S. Sumathi and **V. Swabna**, 2020. Enzyme mediated synthesis and characterization of silver nanoparticles using keratinase enzyme producing micro-organisms. Annals of Phytomedicine 9(1): 147-153.
- **Swabna Vivekanandam**, Vasanthi Muthunarayanan*, Selvakumar Muniraj, Lydia Rhyman, Ibrahim A. Alswaidan and Ponnadurai Ramasami, 2019. “Ingenious Bioorganic Adsorbents for the removal of distillery-based pigment- Melanoidin: Preparation and Adsorption Mechanism” Journal of Macromolecular Science, Part A: Pure and Applied Chemistry. Vol. 56, 1-12.
- Karthika Arumugam, Vasanthi Muthunarayanan*, Seeth devi Ganesan, **Swabna Vivek** 2015. “Efficacy of Vermicomposting for Recycling *Tectona grandis* and Casuarina Leaf Litter for Organic Fertilizer Production” Indian Journal of Advances in Chemical Science 3(2) (2015) 122-127.

- **Swabna Vivekanandam**, Santhiya Mahalingam, Vasanthi Muthunayanan*, Karthika Arumugam and Seethadevi Ganesan, 2014, Inquisition of the potential of *Hydrilla verticillata* to remediate nitrate encompassing aqueous solutions, Journal of Chemical, Biological and Physical Sciences Vol. 4, No. 3; 2265-2274.
- **Swabna Vivekanandam**, Vasanthi Muthunayanan*, Karthika Arumugam, and Santhiya Mahalingam 2014. Deportation of distillery melanoidins using plant based adsorbents, biosorbents and microbial inoculants- a comparative assessment, Indian Journal of Advances in Chemical Sciences 2(3) (2014) 194-203.
- Karthika Arumugam, Vasanthi Muthunayanan *, Seetha Devi Ganesan, **Swabna Vivek** and Susila Sugumar. 2014. Post-Consumer Waste Management by Virtue of Vermicomposting Enriched with Leaf Litter Journal of Chemical, Biological and Physical Sciences, Vol. 4, No. 2; 1765-1772.
- Karthika Arumugam¹, Anbuarasi Venkatachalam¹, Vasanthi Muthunayanan *¹, Seetha Devi Ganesan¹, **Swabna Vivek**¹ and Susila Sugumar¹ 2014. Role of Micro organisms in Temple wastes Management Assisted by *Eudrillus Eugenia*. Malaysian Journal of Science 33(1) 50-62.
- Karthika Arumugam, Seethadevi Ganasen, Vasanthi Muthunayanan*, **Swabna Vivek**, Susila Sugumar, Vivekanadhan “Potentiality of *Eisenia fetida* to degrade disposable paper cup waste- An eco friendly Solution to Solid Waste Pollution” 2014 Environmental Science and Pollution Research.
- Karthika Arumugam, Vasanthi Muthunayanan*, Seethadevi Ganasen , Susila Sugumar and **Swabna Vivek**, 2013 “Dynamics of Biological, Physical and Chemical parameters during vermicomposting of market waste mixed with cow dung” International Journal of Plant, Animal and Environmental Science.vol 3:4,187-192. ISSN. 2231-4490.
- Siva.D, Santhiya.M, **Swabna.V** and Vasanthi Muthunayanan.2012. Managing the Quality of Drinking Water Using Plant Based Natural Coagulants. Journal of Chemical, Biological and Physical Sciences.2 (4):2101-2107.ISSN 2249 – 1929- www.jsbsc.org.
- Mayilsamy.M, M.Santhiya, **V.Swabna** and Vasanthi Muthunayanan. 2011. Utilization of *Citrus medica* for the reduction of nitrate-nitrogen from aqueous solution. Malayasian Journal of Science. 30(3):216 - 224. ISSN-1394-3065.
- Vasanthi Muthunayanan, Santhiya. M, **Swabna. V** and Geetha, A. 2011. Phyto degradation of textile dyes by Water Hyacinth (*Eichhornia Crassipes*) from aqueous dye solutions. International Journal of Environmental Sciences.1 (7): pp 1702- 1717 Code: EIJES2117. <http://ipublishing.co.in/jcesvoll1no7.html>.

Papers published in Conference Proceedings

- Vasanthi, M., Thamarai, C., **Swabna, V.** and A. Karthika, Reuse and Recycling of Treated Distillery Spent Wash: A Novel Approach, 2014. Recent Trends in Life Sciences, M.H. Fulekar) and R.K. Kale I K International Publishing House (May 28, 2014) Chapter 12, 199- 218. ISBN-13: 978-9382332251.

Author in Book

- Asha Monica. A, **Swabna. V** and Edward. A. (2023). The blue print of life- A road map to Synthetic Biology. Alpha International publication. ISBN:978-93-5762-584-5.

Author in Book chapter Publication

- **Swabna, V** and M. Vasanthi. (2022). DNA Damage and Effects of Antioxidant Enzymes in Earthworm (*Eudrilus Eugeniae*) Exposed to Contaminated Soil with Organic Environmental Pollutant: Triclosan. Organic Pollutants Toxicity and Solutions. Springer, Pp- 279-292. ISBN 978-3-030-72441-2.
- **Swabna Vivekanandam**, Vasanthi Muthunarayanan and Selvakumar Muniraj, Melanoidin Induced DNA Damage and Effects on Antioxidative Enzymes in Earthworm (*Eudrilus eugeniae*), 2020. Bioresource Utilization and Bioprocess, 223-241.

Co-Author in Book chapter Publication

- Vasanthi, M., Thamarai, C., **Swabna, V.** and A. Karthiga, Reuse and Recycling of Treated Distillery Spent Wash: A Novel Approach, 2014. Recent Trends in Life Sciences, Chapter 12, 199- 218.

Co-Author in Book chapter Publication – Yet to be Published

- Asha Monica. A, **Swabna. V**, Periyasamy Vijayalakshmi and Tharmaraj Vairaperumal. Algal products to cope with antimicrobial drug resistance – Nova science publishers, USA (science direct Scopus)
- Asha Monica. A, **Swabna. V**, Periyasamy Vijayalakshmi and Tharmaraj Vairaperumal Scope of Bioremediation of Wastewater for Emerging Water Contaminants Like Pharmaceuticals, Microplastics, Antibiotics, etc. (Elsevier)

Technical Skills

- **Software:** MS Office, HTML, Basic C Programming
- **Laboratory Techniques:** Techniques in Chromatography, electrophoresis,

microbiological methods, biochemistry and environmental analysis.

Trainings and Seminars

- ⊕ Participated and presented poster in “National Seminar on Bioinformatics” organized by Bharathiyar University, Coimbatore.
- ⊕ Participated and presented paper in “KUNSED 2009” organized by Kerala University, Trivandrum.
- ⊕ Successfully completed International Symposium on “Trace Organic Pollutants in the Environment (ISOTOPE’10)” organized by Department of Environmental Biotechnology Bharathidasan University, Tiruchirappalli on 23rd January, 2010
- ⊕ National Conference on “Recent Advances and Challenges in Clinical Microbiology and Biomedical Engineering”. Organized by Department of Gene technology and Microbiology, J.J. College of Arts and Science, Pudukkottai, Tamil Nadu on 23rd & 24th September, 2010.
- ⊕ One day Regional workshop on Recent Trends in University Industry Relations held on 16th February 2012, organized by Department of Environmental Management, Bharathidasan University, Trichy, Tamil Nadu.
- ⊕ Successfully completed Science Academies Lecture Workshop on “Challenges in Environmental Restoration (SAWCER, 2012)”. organized by Department of Environmental Biotechnology, Bharathidasan University, Trichy, Tamil Nadu on 5th – 6th March 2012
- ⊕ Successfully completed National Workshop on “Research Publication: Applied Multivariate Statistical Analysis using SPSS and AMOS”. Organized by Indian Society for Education and Environment (iSee), Chennai on June 3rd -5th, 2011.
- ⊕ 35th Annual conference of Ethological Society & Symposium on “Chemical Signals in Animal Welfare” organized by Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli on 15th & 16th December, 2011.
- ⊕ Successfully completed National workshop on “Emerging Trends in Molecular and Recombinant DNA Technology” organized by Sri Venkateswara College of Engineering Pennalur, Irungattukottai, Chennai on 20 -21, September, 2013.
- ⊕ Participated in International Seminar on Career options and Job Scenario on Life sciences, organized by Department of Biotechnology and Biochemistry, St. Josephs College (Autonomous), on 23rd August, 2017.
- ⊕ Participated in New Vistas in Biodiversity and Bioresources, organized by Department of Botany, St. Josephs College (Autonomous), on 2-4 August, 2017.

- ⊕ Participated in Lecture series on “Translational Biotechnology for a better tomorrow”, organized by Department of Biotechnology, St. Josephs College (Autonomous), on 2nd March, 2018.
- ⊕ Participated in National Seminar on “Biotechnological solutions for Environmental Challenges” (BITSFECs-2018), organized by the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli on 17th & 18th December, 2018.
- ⊕ Successfully completed the “Two-day Intercollegiate Training Programme in Soft Skill Modules” organized by Josephs Academy of Soft Skills (JASS), St. Joseph’s College (Autonomous), Tiruchirappalli on 20th and 21st September, 2019.
- ⊕ Participated in National Seminar on Human Microbiota-An Ecological Approach, organized by Department of Botany, St. Josephs College (Autonomous), Tiruchirappalli on 22nd January, 2020.
- ⊕ Successfully completed the Recent Trends in Biological Sciences conducted by Dept. of Botany, St. Joseph’s College, Trichy, Tamil Nadu and Dept. of Botany, St. Andrew’s College, Gorakhpur, Uttar Pradesh on 3rd and 4th June 2020.
- ⊕ Participated in Basic Bioinformatics tools and techniques held on 4th December 2021 organized by Centre for Molecular and Nanomedical Sciences, Sathyabama Institute of Science and Technology, Chennai.
- ⊕ Successfully completed a Two-day workshop on “Soft skills for Faculty Members” organized by Joseph’s Academy of Soft Skills (JASS), between 25 and 26 March 2022 in Auxilium Provincial House, Salesian Sisters, Manikandam, Tiruchirappalli.
- ⊕ Successfully Participated in a one-day workshop on “Life above zero” organized by Department of Counselling Psychology, St. Josephs College (Autonomous), Tiruchirappalli on 4th March, 2023.
- ⊕ One day workshop on “FOLD-SCOPE and smart phone based tiny scope” held on 1st September, 2023, organized by the Department of Biotechnology, St. Joseph’s College (Autonomous), Tiruchirappalli.
- ⊕ Participated in Orientation Programme conducted by Higher Education Commission, Madurai Jesuit Province, Madurai held from 05th June to 7th June, 2023.
- ⊕ Successfully completed Faculty Development Program on “Research Writing” organized by St. Joseph’s College (Autonomous), Trichy on 22nd July, 2023.
- ⊕ Completed seven-day Faculty Development Program on “Emerging Trends in Intellectual Property Rights” with A⁺ grade held from 14th to 21st August, 2023 organized by Vimala College (Autonomous), Thrissur, Kerala.
- ⊕ Successfully completed a FDP on “Intricacies of writing for research publications and

projects” organized by St. Joseph’s College (Autonomous) on 27th October, 2023.

- ⊕ Participated in an FDP on “Patent and Consultancy” organized by St. Joseph’s College (Autonomous), which is held on 20th November, 2023.
- ⊕ Successfully completed a FDP on “Academic Research in Science” that was organized by St. Joseph’s College (Autonomous) and held on 9th December, 2023.
- ⊕ Participated in a week FDP on “CADD and system biology” that was organized by Holy Cross College (Autonomous), Tiruchirappalli from 18th December to 22nd December, 2023.
- ⊕ Dynamically attended a Hi-Impact FDP which was organized by Joseph’s Hub for Languages (JHL), St. Joseph’s College, Tiruchirappalli from 06th May, 2024 to 24th May, 2024.

Work Experience

Employer : St. Joseph’s College (Autonomous)

Designation : **Assistant Professor – Department of Biotechnology**

June 2017 – May 2024

Head of the Department - Department of Biotechnology

June 2024 – Till Date

Resource Person

- The workshop on Nanoparticle Synthesis using Plant extract, organized to Department of physics, St. Joseph’s College, Tiruchirappalli on 27 February 2024.
- Acted as a resource person in the Association Meeting organized by the Department of Biochemistry, St. Joseph’s College (Autonomous), Tiruchirappalli on 24th of March 2023.
- Two-day workshop on “Basic techniques of Immunology and Molecular Biology” organized by Department of Biotechnology, St. Joseph’s College (Autonomous) during 29th and 30th of September 2022.

Potentialities and Capabilities

- **Association President (2017-2024):** Department of Biotechnology, St. Joseph’s College (Autonomous).
- **Organizing Secretary:** Dr. V. Balakrishnan Memorial CME programmes on various themes, including “Fostering awareness about cancer prevention in women”(2024), "How to Protect Your Heart" (2023), "Gynaecology and Women's Health" (2022), "Oral Cancer" (2020), "Clinical Cardiology" (2019), and "Contemporary Orthopedics" (2018).

- **Organizing Secretary:** Two-day workshop on “Basic Techniques of Immunology and Molecular Biology” (29-30 September 2022).
- **Chairperson:** "Biotechnological Solutions for Environmental Challenges" (BITSFECs-2018) at Bharathidasan University (17-18 December 2018).

Research Supervision/Guidance

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Personal Profile

Full Name : Swabna Vivekanandam

Date of Birth : 25th April 1987

Sex : Female

Nationality : Indian

Marital Status: Married

Father's Name: V. Vivekanandam

Spouse Name : M.P. Kedarnath

Linguistic Abilities: English & Tamil (speak & write).