CURRICULUM VITAE

1. Name : **Dr. T. SHARMILA**

2. Designation & address : Professor, Dept. of Microbiology & Biotechnology,

JnanaBharati Campus, Bangalore University,
Bangalore -560056
Office phone: 080 22961461
Mobile : 9480365667

3 Date of Birth : 22nd January 1966

Ph.D. in Microbial Biotechnology, at the **Department of Food Microbiology, C.F.T.R.I.,**

Mysore on "Studies on Anaerobic Cellulolytic Bacteria with Special reference to Cellulase production**".**

4. Research Experience : 25 years.

* Worked as a Scientist (Biotech Division) for about 4 years at **M/s. Sami Labs Ltd.,** Bangalore.

5. Teaching experience : 20 Years

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6. Areas of Research : Microbial Nutraceuticals, Industry collaboration

research work on Development of potent herbal combinations against dermatophytes including dandruff causing fungi and other related projects.

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PAPERS PUBLISHED

Total of 35 publications

1. Sharmila Tirumale, Sreeramulu, G. & Krishna Nand (1998) Purification and Characterization of □-1, 4- glucosidase from *Clostridium Papyrosolvens.* Biotechnology and Applied Biochemistry, Vol. 27 (2), 175 - 179. Wiley Blackwell.**SCI**

2. Sharmila Tirumale, Swaroopa Rani, D & Krishna Nand (2001) Control of Cellulase Formation by Trehalose in *Clostridium Papyrosolvens* C F R 703. Process Biochemistry. Elsevier. **SCI**

3. Sharmila Tirumale and Krishna Nand (1994) Influence of Anaerobic Cellulolytic Bacterial Consortia in the anaerobic digesters on bio-gas production. Biogas Forum, Germany, Vol.58, 12-15.

4. Swaroopa Rani D, Sharmila Tirumale & Krishna Nand (2004) Production of Cellulase by *Clostridum Papvrosolvens* CFR 703. World Journal of Microbiology and Biotechnology Vol. 20 629-632. Springer. **SCI**

5. Swaroopa Rani, D. and Thirumale, Sharmila and Nand, Krishna (2003) Methane generation from corncobs treated with xylanolytic consortia. Journal of Material Cycles Waste Management, 5. pp. 125-129. **SCI**

6. Sharmila Tirumale*, Soumya K, Sreelatha G L, Krishnanand†

Purification and Kinetic Studies of Exo-β-1, 4- glucanase and Endo-β-1,4-glucanase from a new strain of *Clostridium papyrosolvens*

Journal of pure and Applied Microbiology, Vol.7(2) 2013. IF :0.6 **SCI**

7. Soumya. K, Narasimha Murthy. K, Sreelatha. G. L, Srinivas. C and Sharmila. T

Influence of growth factors on pigmentation of *Chaetomium cupreum SS – 02* and the antibacterial efficacy of the pigment against *Ralstonia solanacearum*

International Journal of Advanced Research, Vol. 1 (10), 2013, 212 – 219. IF :4.588

8. K. Soumya, L. Swathi, G. L Sreelatha and Sharmila. T

Light influences pigment, biomass and morphology in *Chaetomium cupreum SS – 02* – A photoresponse study.

International Journal of Current Microbiology and Applied Sciences, Vol. 3 (4), 2014, 53–64. IF :2.937

9. Soumya. K, Narasimha Murthy. K, Sreelatha. G. L, Srinivas. C and Sharmila. T

Optimization of fermentation conditions for the pigment production of *Chaetomium cupreum SS – 02* and its *in vitro* antibacterial efficacy against *Ralstonia solanacearum*

Journal of Theoretical and Experimental Biology, special Issue – Volume 10 (3), 2014.. (Abstract publication).

10. Sreelatha,G.L, Babu, U.V, Sharath kumar, L.M, Soumya, K and Sharmila, T

Investigation on biochemical characterization and invitro antifungal efficacy of plant extracts on *Malassezia furfur*

International Journal of Pharma and Biosciences. Vol. 06(3), 2015, 1027-1041. IF :5.121 **SCI**

11. Sreelatha,G.L, Lakshmeesha, T.R , Sharath kumar, L.M, Soumya, K and Sharmila, T.

Anti-yeast efficacy of *Cinnamomum verum* extracts on dermatologically prevalent yeast *Malassezia furfur*

International Journal of Advanced Research Vol. 3 (7), 2015, 1292-1298 IF :4.588

12. S.B.Ranganath, T.Sharmila and B.V.Balasubrahmanyam

Optimisation of media for the growth and production of bacteriocin from *Bacillus coagulans*

International Journal of Innovative Research in Technology, Science and Engineering

Vol. 1(4), 2015, 109-114.

13. Sreelatha,G.L, Lakshmeesha, T.R, Soumya, K, Jayashree, B and Sharmila, T.

Insignificant antifungal activity of plant extracts on *Malassezia furfur*".

Journal of Pharmaceutical Negative Results. Vol. 7(1), 2016. **SCI**

14. Nazir Ahmad Wani1, K. Soumya and T. Sharmila

Antimicrobial activity of secondary metabolites from C*haetomium cupreum*-ss02 isolated from soil.
International Journal of Pharma and Bio Sciences **SCI**
2016 July ; 7(3): 459 – 464

15. Antibacterial activities of endophytic fungal strains isolated from aromatic plants
T. Sharmila*, G. L. Sreelatha, P. Geethanjali and S. Subramanya

Asian Journal of Pharmaceutical Science & Technology
Vol 7|Issue 1| 2017 |28-33.

16. Rashmi, D. and Sharmila, T. Probiotic non lactic acid bacteria: study of bacteriocin for the antagonistic activity**.** International Journal of Advance Research**,** 2017*;* 5 (4): 1427-1433.

17. NA Wani, S Tirumale
In-Vitro Inhibitory Effect Of Different Extracts of Chaetomium Cupreum on Alpha Glucosidase, Alpha Amylase and Hepg2 Cancer Cells
Research and Reviews: J of pharmacognosy and phytochemistry
2017 5(1) 71-78

18. Rashmi, D., Srinivas Sistla, and Sharmila, T. Study of antagonistic properties of bacteria from pulses by real-time surface plasma resonance biosensor (Biacore). Asian Journal of Pharmaceutical Science and Technology. 2018, Vol 8|Issue 1| 10-15.

19. Rashmi, D., Srinivas Sistla, and Sharmila, T. Study of antagonistic properties of bacteria from cow's milk by real-time surface plasma resonance biosensor (Biacore)**.** Journal of Pharmaceutical, Chemical and Biological Sciences 2018 5(4): 365-370.

20**.** K. Soumya, K. Narasimha Murthy, G.L. Sreelatha and S. Tirumale*

Characterization of a red pigment from Fusarium chlamydosporum exhibiting selective cytotoxicity against human breast cancer MCF-7 cell lines. Journal of Applied Microbiology 2018 vol 125, p 148-158

21. Nazir Ahmad Wani, Sharmila Tirumale*
Phytochemical analysis and biomass estimation of *Chaetomium cupreum* extracts through submerged fermentation (SmF). Research Journal of Pharmacognosy and Phytochemistry 2018, Vol. 10, Issue-01, P 1-8

22. Tessy Anu Thomas[1],Anoop Thomas [2],Jayanta Kalai [3],Lalithamma [4], Nirmani Thilakaratne[5], Sharmila Tirumale*.(2018).

Evaluation of Antimicrobial Efficacy of the Pigment by *Fusarium chlamydosporum* Against Emerging Nosocomial and Opportunistic Pathogens.

International Journal of Research in Applied Science and Engineering Technology.

2018 vol 6(4) 4609-4613.

23. Sharmila Tirumale*[1], Rashmi D[2], Tessy Anu Thomas[3], Suguna S.R[4]

Combinatorial study of bacteriocin from *Acinetobacter variabilis* with essential oils against food borne pathogens. International Journal of Emerging Technologies and Innovative Research.
Journal of Emerging Technologies and Innovative Research,Vol 5 (6): 1-9, June- 2018.

24. Characterization of ankaflavin from *Penicillium aculeatum* and its cytotoxic properties
Soumya Krishnamurthy, Konappa Narasimha Murthy & Sharmila Thirumale

Natural Product Research (Taylor and Francis) 2018, P 1-6

25. Sharmila Tirumale and Nazir Ahmad Wani
Bilogical control of phytopathogenic fungi using different extracts of *Chaetomium cupreum.*
Asian j Pharmacology and Clinical Research. 2018 11(9) 1-5.

26. Nazir Ahmad Wani and T. Sharmila
Evaluation of antioxidant properties of different extracts of *Chaetomium cupreum* SS02

Bulletin of Faculty of Farmacy, Cairo University 2018,
Vol 56(2) p 191-198

27. NA Wani, WI Khanday, S Tirumale
Evaluation of anticancer activity of Chaetomium cupreum extracts against human breast adenocarcinoma cell lines
Matrix Science Pharma 2020 4 (2), 31-40

28. Biosynthesis of iron oxide nanoparticles using ethyl acetate extract of Chaetomium cupreum and their anticancer activity
NA Wani, WI Khanday, S Tirumale
Matrix Science Pharma 2020 vol 40 (2), 23-30

29. Biological evaluation of ethyl acetate extract of Chaetomium cupreum against Ehrlich ascites carcinoma cells in Swiss albino mice
I Waseem Khanday, A Sheihk Ali, S Tirumale
Egyptian Pharmaceutical Journal 2020 vol 19 (3), 274-282

30. Evaluation of In vitro antioxidant potential of active metabolite constituents of different extracts of Chaetomium cupreum-SS02 by spectrophotometric method
NA Wani, WI Khanday, S Tirumale
Matrix Science Pharma 2020 vol 4 (2), 50-59

31. Phytochemical analysis and evaluation of antibacterial activity of different extracts of soil-isolated fungus chaetomium cupreum
NA Wani, WI Khanday, S Tirumale
Journal of Natural Science, Biology and Medicine 2020 vol 11 (1), 72-80

32. Evaluation of antifungal activity and phytochemical analysis of selected plant extracts against *Malassezia furfur*. Suguna SR1, Tessy Anu Thomas, Sharmila Tirumale,
International Journal of Botany Studies, 2021 ;6(2): 455-458.

33. An Indigenous Study on Malassezial Susceptibility Testing by Selected Plant extracts. Indo Global Journal Of Pharmaceutical Sciences 2022; 12: 253-257

34. Comparative proteome profiling of *Fusarium chlamydosporum* and elucidation of pigment biosynthetic pathway under nitrogen stress. Tessy Anu Thomas, Sharmila Tirumale

Journal of Proteomics 2023 Vol.277 104851

35. Production of Lycopene by *Fusarium chlamydosporum* and its Anti-inflammatory Activity on Raw Macrophage Cell Line T. A. Thomas and S. Tirumale

Applied Biochemistry and Microbiology, 2023, Vol. 59, No. 3, pp. 308–315.

Book Chapters

1. Sharmila Tirumale and Nazir Ahmad Wani
"Biopigments: Fungal Pigments" 2018: 413-426 A book chapter in the book titled "Fungi and their Role in Sustainable Development: Current Perspectives".

Publishers- Springer

2. Sharmila Tirumale and Tessy Anu Thomas
"Pathogenesis of Cholera: Recent Prospectives in Rapid Detection and Prevention of Cholera"
Book chapter published in the book 'Bacterial Pathogenesis and Antibacterial Control' 2018

Publishers : "INTECH OPEN" open access publishers

Papers presented at national and international Conferences

About 30 papers have been presented, some of which are given below.

Sl. No.	Title	Author & co-authors	Conference / seminar	Date & Venue
1.	Antifungal activity of some medicinal plants on *Malassezia furfur*.	Sreelatha G L, Soumya. K, Ranganath.B.S and **Sharmila. T.**	The 'National Conference on Biopharmaceuticals and Healthcare'	Conducted by Sir M. Vishweshwariah Institute of Technology, Bangalore in Nov 2011
2.	Antifungal activity of medicinal plants on *Malassezia furfur*.	Sreelatha G L, Soumya. K, and **Sharmila. T.**	The '**International Conference on Exploration of Biotechnology**'	Conducted by Shridevi Institute of Engineering and Technology, Tumkur in June 2012

3.	"Photoresponse in C*haetomium globosum* SS - 02 and its influence on Biomass, Pigment production and Cultural morphology"	Soumya. K, Sreelatha G L and **Sharmila. T.**	Seminar on "Current perspectives of fungi in health care and environment (KAVAASTHA)" conducted by Mycological Society of India (MSI)	13th & 14th March, 2013. Department of Microbiology and Biotechnology, Bangalore University, Bangalore,
4.	Optimisation of fermentation conditions for the pigment production of *Chaetomium cupreum* SS—02 and its *in vitro* antibacterial efficacy against *Ralstonia solanacearum*	Soumya K, Narasimha Murthy K, Sreelatha G L, Srinivas C and **SharmilaT**	National seminar on Microbes in the present scenario	Department of Microbiology, Mangalore University, Chikkaluvara, Coorg, Karnataka in March 2014
5.	"Red Pigment from *Fusarium chlamydosporum* Exhibiting Anticancer activity against Human Breast Cancer MCF – 7 Cell lines"	Soumya. K Sreelatha G L, and **Sharmila. T.**	The 10th International Mycological Congress	3rd to 8th Aug, 2014. Queen Sirkit National Convention Centre, **BANGKOK, THAILAND**
6.	"Optimisation of cultural and nutritional parameters for the production of bacteriocin like substance from *Bacillus coagulans"*	S.B.Ranganath and **Sharmila T.**	National conference Conducted on "Recent Advances In Biosciences" Bioblooms -2014,	28th March 2014. Department of Life Science, M.S. Ramaiah college of Arts and Science, Bangalore,
7.	Investigation of invitro susceptibility of *Malassezia furfur*	Sreelatha G L, Soumya. K and **Sharmila. T.**	International conference on medicinal plants	Organised by centre for advanced studies

	to essential oils.		ans herbal drugs for human welfare	in Botony and centre for herbal sciences University of Madras.
8.	Isolation and characterisation of bacteriocin from food borne bacteria.	Rashmi.D and **Sharmila T.**	National Symposium on Microbes and Human Welfare	Organised by Postgraduate Department of Biotechnology, JSS College in association with 'Association of Microbiologists of India (Mysore Chapter)
9.	Isolation of bacteriocin producing bacteria from food sources.	Rashmi.D and **Sharmila T.**	11th Kannada Vijnana Sammelana Karnataka Science Congress	Organized by Swadeshi Vijnana Andolona at Raichur on 13-15th September, 2015.
10.	Isolation and identification of a bacterium producing bacteriocin like substance.	S.B.Ranganath and **Sharmila T.**	11th Kannada Vijnana Sammelana Karnataka Science Congress	Organized by Swadeshi Vijnana Andolona at Raichur on 13-15th September, 2015.
11.	Study on antimalassezial potential of clove mediated zinc oxide super-structures on *Malassezia furfur*.	Sreelatha. G.L, Nagabhushana .H, Lakshmeesha .T.R, Daruka Prasad. B and **Sharmila. T**	8th National Women's Science Congress	Organized by Swadeshi Vijnana Andolona Bangalore on 7-8th November, 2015.
12.	Manipulation of the nutritional parameters and its effect on growth and production of bacteriocin from *Bacillus coagulans*.	S.B.Ranganath, **T. Sharmila**	International Conference on Innovative Research and Technology (ICIRT-2015)	Organized by Sri Venkatshwaraa College of Arts & Science, Dharmapuri District, Tamilnadu, India. on 23-5-2015,

13.	ANTI-BACTERIAL ACTIVITY OF SECONDARY METABOLITES FROM *CHAETOMIUM CUPREUM*-SS02 ISOLATED FROM SOIL	Nazir Ahmad Wani and T.Sharmila	85th S B C meet on Theme: "Innovations in Biological Research for health, disease and environment"	At CFTRI, Mysore from 21st to 24th November, 2016.
14	ANTI-FUNGAL ACTIVITY OF SECONDARY METABOLITES FROM *CHAETOMIUM CUPREUM*-SS02 ISOLATED FROM SOIL	T.Sharmila and Nazir Ahmad Wani	International Conference at	The Dept. of Biotechnology, Thiruvalluvar University, Vellore, Tamil Nadu Date : 14th to 16th February, 2017
15	Isolation and Identification of Non-Lactobacillus Bacterium for Bacteriocin Production from a Calcareous Gemstone	T.Sharmila and S.B.Ranganath	International Round Table Conference on 'PATHWAYS TO GLOBAL SUSTAINABILITY': STRATEGIES AND FRAMEWORKS	Acharya Institute of Management Studies, Peenya, Bangalore Date : 10th and 11th March, 2017
16	Optimisation of media components for bacteriocin production from a bacterium isolated from gemstone	T.Sharmila and S.B.Ranganath	UGC- Sponsored Two-day National Conference on "Environment and Pollution"	Date: 23rd & 24th March 2017 at National College, Basavanagudi, Bangalore

PATENTS

1. U S Patent with patent number -7217546

Title: "Commercially viable process for the production of high purity fatty alcohol C24 to C36 from sugarcane and ricebran and their cosmetic applications for skin,hair and nails."

Inventors : Majeed Muhammed, Satyan K.S., Geetha K.G., **Sharmila T.,** Subbulakshmi P.

SAMI LABS LTD. Bangalore.

2. U S Patent (pending)

Title: "Natural ethyl p-methoxycinnamate: Method of manufacture and its in cosmetic preparations".

Inventors : Majeed Muhammed, Satyan K.S., **Sharmila T.,** Subbulakshmi P.

SAMI LABS LTD. Bangalore.

AWARDS

1. Awarded with 'Certificate of Excellence' (Ist Prize) for the research paper presented at the 'National Conference on Biopharmaceuticals and Healthcare'
   Conducted by Sir M. Vishweshwariah Institute of Technology, Bangalore
   in November, 2011.

2. Awarded with **Ist Prize** for the research paper presented at the '**International Conference on Exploration of Biotechnology'** Conducted by Shridevi Institute of Engineering and technology in June 2012.

3. Awarded with **"TOP 100 SCIENTISTS – 2012"** in the arena of Scientific Research in Microbiology by International Biographical Association, Cambridge, England, U K

4. Awarded "Best Poster" for the research paper presented at the '**National Seminar on Microbes in Present Scenario'** Conducted by Department of studies and Research in Microbiology, Mangalore University Post Graduate Campus, Chikkaluvara in February 2014.

5. Obtained **"Woman Scientist Award"** (Mahila Vignana Prashasthi) for the research paper presented at the 11th Kannada Vijnana Sammelana (Karnataka Science Congress), organized by Swadeshi Vijnana Andolona,Karnataka at Raichur on 13-15th September, 2015.

6. 'The Best Poster Award' in the International conference held at Thiruvalluvar University, Vellore, Tamilnadu in February 2017.

7. Received the prestigious **"Dr.KALPANA CHAWLA YOUNG WOMEN SCIENTIST STATE AWARD"** instituted by KSCST (Karnataka State Council for Science and Technology), Govt. of Karnataka for 2015 in appreciation and recognition of the exceptional contribution in the field of Science and Technology. The award was presented by The Honourable Chief Minister of Karnataka on 12th April 2017.

Research Projects

Sl No.	Title of Project	Funding Agency	Amount (Rs.)	Duration	Status
1	Production of pigments from microbial source for food and cosmetics	Bangalore University Internal Research Fund	Rs. 1,00,000	1st April 2011 to March 31, 2012	Completed

		(BUIRF)			
2.	Characterization of pigments from *Chaetomium cupreum* and their pharmaceutical applications	UGC, New Delhi	15,20,000/-	January 2016 to December 2018	Completed
3.	Impact of microbial contaminants on herbal medicines from post harvest stage till the final industrial products	Bangalore University Internal Research Fund	2,00,000/-	July 2021 till to date	On going

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