

CURRICULUM VITAE
Dr. G. J. SATHISHA, Ph.D.



Work Address:

Dr. G. J. Sathisha, Professor, Department of Biochemistry

Kuvempu University, Shankaraghatta – 577 451, Shivamogga (Dist.), Karnataka,

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Education

Institution and Location	Degree	Year (s)	Field of Study
Sri Guru Kottureshwara College, Kottur, Karnataka, India	B.Sc.	1993	CBZ (Chemistry, Botany and Zoology)
Gulbarga University, Gulbarga, Karnataka, India	M.Sc.	1995	Biochemistry (Spl. in Biotechnology)
Gulbarga University, Gulbarga, Karnataka, India	M.Biotech.	1996	Biotechnology
Karnatak University, Dharwad, Karnataka, India	Ph.D.	2008	“Studies on Fungal Lectins”

Graduate Training (September 2004 – September 2007)

Ph.D. Thesis: “Studies on Lectins: Molecular Characterization of *Sclerotium rolfsii* Lectin and its Interaction with Human Cervical Cancer Cells HeLa and SiHa”

Administrative Experience

Positions	Period
Chairman	13-01-2012 to 16-10-2013
	01-02-2016 to 28-02-2018
Chairman, BOE	2012-13
	2016-17
Chairman, BOS	2016-2019
RUSA Nodal Officer (Kuvempu University)	Since 2019

Employment

1998-2004

Lecturer, Dept. of Biochemistry, Sahyadri Science College (Autonomous), Shivamogga, Karnataka, India

2004-2009

Senior Scale Lecturer, Dept. of Biochemistry, Sahyadri

2009-2012	Science College (Autonomous), Shivamogga, Karnataka, Reader , Dept. of Biochemistry, Kuvempu University, Shankaraghatta, Shivamogga, Karnataka, India
2012-2015	Associate Professor , Dept. of Biochemistry, Kuvempu University, Shankaraghatta, Shivamogga, Karnataka, India
2015-	Professor , Dept. of Biochemistry, Kuvempu University, Shankaraghatta, Shivamogga, Karnataka, India

BOE Chairman: Kuvempu University, Shankaraghatta & Kodagu University, Kodagu

BOE member: Kuvempu University, Karnatak University, Davanagere University, Tumkur University, Gulbarga University, Mysore University, Bangalore University, Mangalore University, JSS University, MLA College, Bangalore

BOS Chairman: Kuvempu University

BOS Member: Kuvempu University, Karnatak University, Davanagere University, Central University, Kerala, Mangalore University, Bangalore University, JSS University, MLA College, Bangalore

PhD thesis Adjudicator: Karnatak University, Mysore University & CFTRI, Bangalore University, Davanagere University, Mangalore University, Nagarajuna University, Yogivemana University, Sri Krishnadevaraya University, Bharathidasan University, Osmania University and Nagarjuna University.

MSc (Ag) Projects Adjudicator: University of Agricultural Sciences, Dharwad.

Research Grants Awarded: 01

Major Research Project: Rs. 7.5 lakhs funded by **UGC, New Delhi, India**

Title of the Project: “Studies on cell wall degrading enzymes of fungi causing fruit rot (Koleroga) in areca nut - A potential target of disease control”

Period: 1-2-2010 to 30-1-2013

Number of MPhil Guided: 01

Number of PhD Guided: 10

DST-FIST: Co-investigator, Dept. of Biochemistry, Kuvempu University, Shankaraghatta

Memberships

- ❖ Life member for Society of Biological Chemists (INDIA)
- ❖ Life member for Indian Society of Human Genetics (ISHG).
- ❖ Life member for National Book Trust of India (NBT)
- ❖ The Indian Science Congress Association (ISCA)
- ❖ Indian Society of Analytical Scientist (ISAS)

H-index, i-10 index and Citation index: 10, 11 & 389

Honors/Awards/Ranks

- ❖ **Postdoctoral Training:** awarded UGC sponsored **CV Raman Fellowship** to pursue postdoctoral training in the Department of Biochemistry & Molecular Biology, Department of Biochemistry & Molecular Biology, Cancer Center, CN 1109C # 1410, Laney Walker BLVD, **Georgia Regents University, Augusta, GA-30912. USA.**
- ❖ **Awarded Teachers Fellowship to pursue PhD** under Faculty improvement program sponsored by University Grant Commission (UGC), New Delhi, India during 2004-2007.
- ❖ **Qualified joint CSIR-JRF-NET** (National Eligibility Test) for Junior Research Fellowship cum Lectureship – Council of Scientific and Industrial Research (CSIR), Government of India, 1997.
- ❖ **Obtained 1st rank both in Masters Degree in Biochemistry (1995) & Masters Degree in Biotechnology (1996),** Gulbarga University, Gulbarga, Karnataka, India.
- ❖ **Qualified in Graduate Aptitude Test in Engineering-95 (GATE-95) – 91.66 percentile.**
- ❖ **Won two gold medals** for securing highest marks in M.Sc. Biochemistry (1995).
- ❖ **Won one gold medal** for securing highest marks in M. Biotech (1996).

PhD thesis Adjudicator: Davanagere University, Mysore University & CFTRI, Tumkur University, Karnatak University, Bangalore University, Mangalore University, JSS University, Yogivemana University, Sri Krishnadevaraya University, Osmania University, Nagarajuna University, Bharathidasan University.

Editorial Member: Biomedicine

Research paper reviewer: Agricultural Research Communication Centre Journals, Biomedicine, Qeios, Journal of Physiology & Pharmacology, Journal of Farm Sciences, Asian Journal of Pharmaceutics, 3 Biotech.

Publications

1. Bhalla, D., Dinesh, S., Sharma, S., & **Sathisha, G. J. (2024).** Gut-Brain Axis Modulation of Metabolic Disorders: Exploring the Intertwined Neurohumoral Pathways and Therapeutic Prospects. *Neurochemical Research*, 1-25.
2. Hanumegowda, S. M., Srinivasa, C., Shivaiah, A., Venkatappa, M. M., Shankar, R. L., Lakshmaiah, R. K., **Gonchigar S. J., & Sannanigaiah, D. (2023).** Kenaf Seed Cysteine Protease (KSCP) Inhibits the Intrinsic Pathway of the Blood Coagulation Cascade and Platelet Aggregation. *Current Protein & Peptide Science*, (25(5), 394-408.
3. Kenchappa PG, Karthik Y, Vijendra PD, Hallur RLS, Khandagale AS, Pandurangan AK, **Jayanna SG, Alshehri MA, Alasmari A, Sayed S, Shantaram M and Mushtaq M (2023).** In vitro evaluation of the neuroprotective potential of *Olea dioica* against A β peptide-induced toxicity in human neuroblastoma SH-SY5Y cells. *Frontiers in Pharmacology*, 14, 1139606
4. Hanumegowda, S. M., Srinivasa, C., Shivaiah, A., M. Venkatappa, M., Santhosh, S., **Gonchigar, S. J., & Sannanigaiah, D. (2023).** Antioxidant and Antithrombotic Activities of Kenaf Seed (*Hibiscus cannabinus*) Coat Ethanol Extract in Sprague

- Dawley Rats. *Applied Biochemistry and Biotechnology*, 195(2), 772-800.
5. Edachery, S., Patil, P., Mohan, R., Aradhya, B., Shetty, J., Kabekkodu, S P., Santra MK, **Gonchigar S J**, & Shetty P (2022). Loss of miR-936 leads to acquisition of androgen-independent metastatic phenotype in prostate cancer. *Scientific Reports*, 12(1), 17070.
 6. Vijendra, P. D., **Jayanna, S. G.**, Kumar, V., Sannabommaji, T., Rajashekar, J., & Gajula, H. (2020). Product enhancement of triterpenoid saponins in cell suspension cultures of *Leucas aspera* Spreng. *Industrial Crops and Products*, 156, 112857.
 7. Hanumegowda, S. M., Srinivasa, C., Shivaiah, A., Venkatappa, M. M., Hanumanthappa, R., Rangappa, R., Laxmaiah RK, **Gonchigar S J**, & Sannanigaiah, D. (2022). Protein extract of kenaf seed exhibits anticoagulant, antiplatelet and antioxidant activities. *Asian Pacific Journal of Tropical Biomedicine*, 12(2), 47-58.
 8. Chebet, J., Masarbo, R. S., Karegoudar, T. B., Nayak, A. S., **Gonchigar, S. J.**, & Achur, R. (2023). Studies on decolourisation of azo dye Orange G by bacterium isolated from dye contaminated sites. *International Journal of Environmental Analytical Chemistry*, 103(18), 6415-6431.
 9. Evaluation of latex proteins for Lectin, protease, antibacterial activities and protein profiling from the genus *Artocarpus*. Vasanthraj B, Anitha Nelliankla, Sameer R Patil, Ghouseul Azam, **Sathisha J Gonchigar**. *International Journal of Botany Studies*, Volume 7, Issue 3, 2022, Pages 251-259.
 10. Phytochemical screening and in-vitro evaluation of antiproliferative activity of extracts and fractions of *Rhus mysorensis* against human triple negative MDA-MB-231 breast cancer cells. Ghouseul Azam, **Sathisha G. Jayanna**, Anitha Nelliankla, Vasanthraj Boraiah, Ramya G. Thippeswamy, Chaithra Rudrappa and Riaz Mahmood. *Biomedicine*: 2022; 42(1): 33-40.
 11. Evaluation of in vitro antioxidant, anti-inflammatory, anticoagulant and antiplatelet potential of *Rhus mysorensis*. Ghouseul Azam, **Sathisha G. Jayanna**, Anitha Nelliankla, Vasanthraj Boraiah, Sujatha M. Hanumegowda, Devaraja Sannanigaiah, Poornima D. Vijendra, Vadlapudi Kumar and Riaz Mahmood. *Biomedicine*: 2021; 41(4): 724-731.
 12. Protein extract of kenaf seed exhibits anticoagulant, antiplatelet and antioxidant activities. Hanumegowda SM, Srinivasa C, Shivaiah A, Venkatappa MM, Hanumanthappa R, Rangappa R, Laxmaiah RK, **Gonchigar SJ**, Sannanigaiah D. *Asian Pacific Journal of Tropical Biomedicine*. 2022 Feb 1;12(2):47.
 13. Studies on decolourisation of azo dye Orange G by bacterium isolated from dye contaminated sites. Chebet J, Masarbo RS, Karegoudar TB, Nayak AS, **Gonchigar SJ**, Achur R. *International Journal of Environmental Analytical Chemistry*. 2021 Aug 10:1-
 14. Product enhancement of triterpenoid saponins in cell suspension cultures of *Leucas aspera* Spreng. Poornima D Vijendra, **Sathisha G Jayanna**, Vadlapudi Kumar, Torankumar Sannabommaji, Rajashekar J, Hari Gajula (2020) *Industrial Crops & Products*. 156, 112857.
 15. Carbidopa is an activator of aryl hydrocarbon receptor with potential for cancer therapy Jiro Ogura, Seiji Miyauchi, Kazumi Shimono, Shengping Yang, **Sathisha Gonchigar**, Vadivel Ganapathy and Yangzom D. *Bhutia Biochemical Journal*; Portland Press (2017)

16. Antioxidant status during *in vitro* plant regeneration in *Lucas aspera* Spreng Poornima D. Vijendra, **Sathisha G. Jayanna**, Vadlapudi Kumar, Hari Gajula, Rajeshkar J. Torankumar Sannabommaji and Giridhara Basappa, International Journal of Pure and Applied Bioscience (2017).
17. Antioxidant Activity of Different Tea Samples. Charitha G. S., Ramesh C. K., **Sathisha G. J.**, Sameera Parveen and Pallavi M. European Journal of Biomedical and Pharmaceutical sciences, Vol 4. Pp. 1047-1054, 2017.
18. Rapid *in vitro* propagation of *Lucas aspera* Spreng. A potential multipurpose Indian medicinal herb. Poornima D. Vijendra., **Sathisha G. Jayanna.**, Vadlapudi Kumar., Hari Gajula., Rajashekar J., Torankumar Sannabommaji., Giridhara Basappa, Anuradha C.M. Industrial Crops and Products, Volume 107, 15 November 2017, Pages 81-287.
19. Effect of extrusion and flaking on the retention of nutrients and phenolic Compounds in millet grains. **Sathisha G.J.** & Giridhar Goudar. International Journal of Food Science and Nutrition, Vol 1 (4), 8-11, 2016.
20. Development of HPTLC chromatographic profiles for evaluation of phenolic acids in various landraces of foxtail millet (*Setaria italica*). **Sathisha G.J.** & Giridhar Goudar. International Journal of Chromatographic Science, Volume 6 (1), 1-5, 2016.
21. Effect of Processing on Ferulic Acid Content in Foxtail Millet (*Setaria italica*) Grain Cultivars Evaluated by HPTLC. **G. J. Sathisha** & Giridhar Goudar. Oriental Journal of Chemistry, Volume 32 (4), 2251-2258, 2016.
22. Physiological and Biochemical Changes in Moth Bean (*Vigna aconitifolia* L.) under Cadmium Stress. Poornima D. Vijendra, Kavitha M. Huchappa, Roopa Lingappa, Giridhara Basappa, **Sathisha G. Jayanna** and Vadlapudi Kumar. Journal of Botany, 2016.
23. *Sclerotium rolfsii* lectin expressed in tobacco confers protection against *Spodoptera litura* and *Myzus persicae*. Gulamnabi L. Vanti, H. Vishwanathreddy, Hemalatha Venkat, Ganapati G. Bhat, Venkatesh Padmanabhan, N. S. Jayaprakash, Vamadevaiah Hiremath, Ishwarappa S. Katageri, **Sathisha J. Gonchigar**, Shashikala R. Inamdar, Bale M. Swamy. Journal of Pest Science, 2016, Vol 89, Issue 2, pp 591–602.
24. Molecular Cloning, Carbohydrate Specificity and the Crystal Structure of Two *Sclerotium rolfsii* Lectin Variants. Vassiliki I. Peppas, Hemalatha Venkat, Anastassia L. Kantsadi, Shashikala R. Inamdar Ganapati G. Bhat, Sachin Eligar, Anupama Shivanand, Vishwanath B. Chachadi, **Gonchigar J. Sathisha**, Bale M. Swamy, Vassiliki T. Skamnaki, Spyridon E. Zographos and Demetres D. Leonidas, *Molecules* 2015, 20(6), 10848-10865; doi:10.3390/molecules200610848.
25. Metabolite profiling for six 'B' vitamins using LC-MS in tomato genotypes at different stages of fruit maturity. P. Kavitha, K.S. Shivashankara, T.K. Roy, K.C. Pavithra, V.K. Rao, A.T. Sadashiva, K.V. Ravishankar and **G.J. Sathisha**. Journal of Horticultural Science, Vol 10 (1), 30-37, 2015.
26. Differential response of two safflower (*Cathamus tinctorius* L.) cultivars to NaCl stress. Poornima D. V., Divakara R., Roopa K., Hari Gajula, Rajashekar J., **Sathisha G. J.**, Vadlapudi Kumar. The Journal for Cell Biology, Volu106, 2015.
27. Influence of seed fatty acids on seed viability and corky tissue development in sapota (*Manilkara achras*) fruits cv. "Cricket ball". Sumathi Manoharan,

- Seshadri Shivashankar, **Sathisha Gonchigar J.** International Journal of Scientific and Research Publication, Vol 5 (2), PP 1-8, 2015.
28. Impaired starch degradation in sapota fruit (*Manilkara achras*) affected by corky tissue, a physiological disorder. Sumathi Manoharan, Seshadri Shivashankar, **Sathisha G. J.** International Journal of Scientific and Research Publication, Vol 5 (4), pp 1-8, 2015.
 29. Genotypic variability for antioxidant and quality parameters among tomato cultivars, hybrids, cherry tomatoes and wild species. Pilla kenchappa Kavitha, Kodthalu S Shivashankara, Vala K Rao, Avverahally T Sadashiva, Kundapur V Ravishankar and **Gonchigar J Sathisha.** J Sci Food Agric 2014; 94: 993–999.
 30. *Momordica charantia* seed extract exhibits strong anticoagulant effect by specifically interfering in intrinsic pathway of blood coagulation and dissolves fibrin clot. Bhagyalakshmi Manjappa, Sowmyashree Gangaraju , Kesturu S. Girisha, Kempaiah Kemparaju, **Sathisha J. Gonchigar**, Rohit L. Shankard, Manohar Shindea and Devaraja Sannanangaiah. Blood Coagulation and Fibrinolysis 26 (2): 191-199, 2015.
 31. Changes in Nitrogen assimilating enzymes during *in vitro* plant regeneration in *Plumbago zeylanica* L. Vadlapudi Kumar, Ramakrishna Golla, Poornima D. V., Anuradha C. M., Sureshkumar Chita, **Sathisha G. J.** An International Research Journal of Pharmacy and Plant Science-1(1): 1-14. 2012.
 32. X-ray sequence ambiguities of *Sclerotium rolfsii* lectin resolved by mass spectrometry. Sathisha G J, Prakash Y K, Chachadi V B, Nagaraja N N, Inamdar S R, Leonidas D D, Savithri H S, Swamy B M. Amino Acids. 2008 Aug;35(2):309-20. Structural basis for the carbohydrate recognition of the *Sclerotium rolfsii* lectin. Leonidas DD, Swamy BM, Hatzopoulos GN, **Gonchigar SJ**, ChachadiVB, Inamdar SR, Zographos SE, Oikonomakos NG. J Mol Biol. 2007 May 11;368(4):1145-61.

Patents Granted:

Application No **30/MUM/2008 A**; Application filed on: 04/01/2008; Published on : 2010-07-23 International Classification: C07K14/195; C07K14/0

“Recombinant Lectin and method of preparing thereof” A patent filed at the Indian patent office, Mumbai, India.

Bale M. Swamy, Shashikala R. Inamdar, Hemalatha V.*, Radhika, S.*, Vishwanath B. Chachadi, Nagaraja N. Nagre, **Sathisha J. Gonchigar**, Vinita Morey*., and Candadai S. Ramadoss*.

Department of Biochemistry, Karnatak University, Dharwad-580 003, Karnatak, India.

* Unichem Laboratories Ltd., Biosciences R & D Centre, SID, IISc Campus, Bangalore-560012. Karnatak, India.

Hands on Training:

1. **"Separation and characterization of glycoprotein And glycolipid oligosaccharides"** from August 11-15, 2014 at Complex Carbohydrate Research Center (CCRC), **University of Georgia, Athens (UGA), USA.**

2. **"Structural Characterization of Glycosaminoglycans"** from August 18-20, 2014 at Complex Carbohydrate Research Center (CCRC), **University of Georgia, Athens (UGA), USA.**

Area of Research Interest

- **Lectins:** Molecular characterization, structure-function relationships, glycobiology, glycomics.
- **Cell Biology:** Cancer biology, Cell-Cell interaction, Signal transduction, Cell-cycle regulation.
- **Mass Spectrometry:** Proteomics, Cancer biomarker discovery, Non-covalent interaction studies
- **Nanotechnology:** Synthesis, Characterization and biological functions.

Scientific Area of Work Competence

- **Protein Chemistry:** Isolation, Purification and characterization, Protein-protein interactions.
- **Proteomics:** Protein sequencing by mass spectrometry, Oligomeric structures of proteins by Nano-electro spray ionization technique.
- **Ligand-Cell surface interaction:** *In-vitro* cell-culture-interaction studies with cancer cell surface with labeled lectins using flow cytometry, confocal microscopy and western blotting techniques.
- **Animal cell culture, RT-PCR, Q-PCR,** trasfection, Western blotting, FACS, Confocal microscopy & animal studies.

Seminars / Conferences / Workshops Attended

- Attended several National and International seminars/conferences/workshops

Research Papers Presented

- **Purification and Characterization of a Novel Lectin from Edible Tubers of *Xanthosoma Violaceum* and Its *In-Vitro* Antiproliferative Activity against Triple Negative Breast Cancer (TNBC) Cell Lines.**
Anitha N. and **Sathisha G. J.**
International conference on Recent Trends in Agriculture, Biotechnology and Food Processing, Organized by University of Agricultural Sciences, Bangalore & College of Agriculture, Hasan, on 5-7th July 2017.
- **Evaluation of Lectin Activity, Antibacterial activity and protein profiling of Latex from four Artocarpus Species.**
Vasantharaj B. and **Sathisha G. J.**
International conference on Recent Trends in Agriculture, Biotechnology and Food Processing, Organized by University of Agricultural Sciences, Bangalore & College of Agriculture, Hasan, on 5-7th July 2017.
Metabolomics approach to understand carotenoids distribution and to identify carotenoids rich lines in tomato
Kavitha P., Shivashankara K. S., Sadashiva A. T., Ravishankar K. V., Roy T. K. and **Sathisha G. J.**
International conference on Recent Trends in Agriculture, Biotechnology and Food Processing, Organized by University of Agricultural Sciences, Bangalore & College of Agriculture, Hasan, on 5-7th July 2017.
- **"Screening and optimization of pectinase and xylanase activity from *Phytophthora meadii* causing fruit rot in areca nut"**
Sameer R Patil & **Sathisha J. Gonchigar**

2nd International conference on Frontiers in Biological Sciences organized by the Dept. of Life Science, National Institute of Technology (NIT), Rourkela, Odisha, India on 22-24th Jan 2015.

- **"Isolation and Partial Purification of Lectin from *Xanthosoma violaceum* (XVL)"**
Anitha N & **Sathisha J. Gonchigar**
International Conference on Environment, Genes, Health and Disease (EGHD)-2011 organized by the Dept of Zoology, School of Life sciences, Bharathiar University, Coimbatore – 641046, Tamilnadu, 9-11th December, 2011 India
- **"HPTLC to Develop Chromatographic Finger Prints of Phenolic acids in Foxtail millet (*Setaria italica*) Grains.**
Gridhar Goudar., **Sathisha G. J.**, Rama K. Naik & Mahadev C. Khetagoudar.,
3rd International conference on Food Technology (Incoftech-2013) organized by Indian Institute of Crop Processing Technology, Ministry of Food Processing, Govt. of India, Tanjavur, TN on 4-5th Jan 2013.
- **"Antioxidant Activity & Chromatographic Fingerprints of Phenolic Acids in Little millet.**
Gridhar Goudar., **Sathisha G. J.**, Kamatar M. Y. , Mahadev C. Khetagoudar., Hemalatha S & Rama K. Naik.
National Conference on " Emerging Avenues in Food Technology for Better Health and Safety" organized by the Department of Food Technology, TKM Institute of Technology, Kollam, Kerala on 8-9th March 2013.
- **Isolation and Partial Purification of Lectin from *Xanthosoma violaceum* (XVL)"**
Anitha N and **Sathisha J Gonchigar**
“International Conference on “Environment, Genes, Health & Diseases” organized by Human Molecular Genetics Laboratory, Department of Zoology, School of Life sciences, Bharathiar University, Coimbatore, TN, on Dec 9-11, 2011.
- **“Identification of Glycosylation Changes on Human Cervical Cancer Cell Lines, HeLa and SiHa Using a Novel TF Antigen Binding Lectin from *Sclerotium rolfsii* (SRL)”**
Sathisha G. J., Radha P., Chachadi, V. B., Inamdar, S. R., Shastry P. and Swamy B. M. 5th International Symposium on Genetics, Health and Disease held on February 17-19, 2008, organized by Department of Human Genetics, Guru Nanak Dev University, Amritsar, India.
- **Anuradha G. Bhat, G. J. Sathisha and Shashikala. R.** “Histochemical studies of a TF antigen binding lectin from *Sclerotium rolfsii*”. Society of Biological Chemists (INDIA), 71st Annual meeting, Punjab Agricultural University, Ludhiana, India. November 14 - 16, 2002.