



Dr. JONNALAGADDA SARADA
Designation : Assistant Professor

Department of Microbiology

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Academic Qualification:

- **B.Sc. - BZC** from Kakatiya University, Warangal, (1986).
- **M.Sc. Biochemistry** from Andhra University, Visakhapatnam, (1988).
- **Qualified in Joint CSIR-UGC NET exam**
- **Ph.D. in Microbiology** from Osmania University, Hyderabad, (1995). on "Strain Development and Indigenous Production of Cephamycin C by *Streptomyces clavuligerus*".
- **Post doctoral experiance in D.B.T. funded Project** entitled "Cloning and expression of *Vitreoscilla* hemoglobin in *S.clavuligerus* for Cephamycin C fermentation (April 1997 to February 2000). Doctoral and Post Doctoral work carried under the guidance of Dr. Padma Sridhar, Professor, Department of Microbiology, Osmania University, Hyderabad, India.

Academic positions :

- Member in Board of studies Microbiology at Osmania university 2010-2012
- College Academic Council Committee member
- Coordinator for college Library committee
- Member in Research Innovations and Extension Committee
- Member in Merit cum means Scholarship Committee

Areas of Interest :

Quorum sensing and Quenching, Nanobiotechnology, Microbial Biotechnology, Enzyme biotechnology, Bioinformatics

Research Projects Undertaken:

Successfully completed UGC Major Research project entitled: "Screening & Evaluation of phytochemicals for quorum quenching activity against pathogenic bacteria." In 2012 for a period of 3 years(2012-15) with an amount of Rs.14,08,300/.

Research experiance :

- ❖ Research guide for 2 students from Bharitidasan University for M.Phil Degrees in 2007 & 2008
- ❖ Research Guide for one Ph.D student at JNTU from 2012- 2015.
- ❖ Currently guiding 4 Research scholars in Microbiology department for Doctoral degrees from Osmania University.2016-2021
- ❖ Supervising student research projects at U.G & P.G level.

Industrial Experience:

Worked as **Scientist** at Sudershan Biotech Private Limited, Hyderabad, India (October 2000 to November 2001). Sudershan Biotech is a fast growing Biotech company which is mainly concentrating on bulk production of industrially important enzymes by fermentations and biotransformation. Job role was involvement in R & D work of scaling up of the Bioprocess at Lab scale.

Teaching Experience:

Currently Teaching : Microbial Biochemistry; Molecular Biology and Microbial Genetics, Microbial Ecology and Plant Microbe interactions and Cell & Molecular Biotechnology.

Total 19 years of P.G & U.G.teaching .

Publications: (20)

International

1. Anju, S., & Sarada, J. (2020). Comparative analysis of biofabricated silver nanoparticles as antibiofilm agents on *Pseudomonas aeruginosa*. *Current Trends in Biotechnology and Pharmacy*, 14(1), 51-61.
2. J.Mani Kanta, Kumari Neelam S.Anju , J.Sarada, (2019). Growth promotional activity of green synthesized nanoparticles on Phyllosphere and Rhizosphere Microflora of *Capsicum baccatum* , *Rosa* species and *Murraya koenigii*. *International Journal of Scientific Research in Biological Sciences*, 06(01), 1-7.
3. Renuka Ambilgeker, S. Anju, V. Selva Kumar, J. Sarada, (2019). Evaluation of growth promoting activity of *Pleurotus ostreatus* extract on *Trigonella foenum*, *Cicer arietinum*, *Brassica nigra*, *Coriandrum sativum*. *International Journal of Scientific Research in Biological Sciences*, 06(01), 8-13.

4. Sanmita Belde, S. Anju, V. Selva Kumar, J. Sarada, (2019). Comparative analysis of plant growth promoting activity of iron, silver and zinc oxide metalnanoparticles. *International Journal of Scientific Research in Biological Sciences*, 06(01), 14-18.
5. B. Sree Vani Sagar, B. Sai Deepak , G. Sai Tejaswini ,Y. Aparna, J. Sarada, (2019). Evaluation of Prodigiosin pigment for antimicrobial and insecticidal activities on selected bacterial pathogens & household pests.. *International Journal of Scientific Research in Biological Sciences*, 06(01), 96-102.
6. S.Anju, P.Sai Gayathri , KNS Sushmitha, Sri Charani and Dr.J.Sarada (2019) Evaluation of medicinal plant extracts and biosynthesized nanoparticles for antibiofilm activity against *Pseudomonas* biofilm., *International journal of Scientific Research in Biological sciences*, 06(01),133-141.
7. K. Anuradha and J.Sarada (2018). Citations and h index as key indicators of quality research, *New Man International Journal of Multidisciplinary Studies*, Vol 5(special issue), 12–15.
8. Y.Aparna and J. Sarada (2017) Metaanalysis of Lactonases for identification of conserved sequences using bioinformatics tools. *Interanational Journal of Advance Research in Science and Engineering*, 6(1), 263-266.
9. S. Anju and J.Sarada (2017). Comparative analysis of microbial nitrate reductase structure using bioinformatics. *Interanational Journal of Advance Research in Science and Engineering*, 6(1), 1.251-257.
10. S.Anju and J.Sarada. (2016). Quorum sensing inhibiting activity of silvernanoparticles synthesized by *Bacillus* isolate. *International Journal of Pharmacy and Biological Sciences*, 6(1), 47-53.
11. Sarada jonnalagadda, Uma kranthi deshabathini. (2016). Anti quorum sensing potential of moringa oleifera seed extract. *International Journal of Pharmacy and Pharmaceutical Sciences*, 8(1), 76-82.
12. Y. Aparna. And J.Sarada, . (2015). Quorum quenchers –Past ,Present and Future of this novel therapeutics. *World Journal of Pharmaceutical and Life Sciences*,1(3), 108–128.
13. Y.Aparna, Lalitha . Narayanan. & J. Sarada. (2014). Quorum quenching ability of dietary spice *Cinnamomum verum* on pathogenic bacteria. *International Journal of Pharmacuetical Sciences and Research*, 5(12), 1000-07.
14. S.Sudha Murthy, CH. Aparna Sharma, J.V Aaditya, J. S. (2014). The role and significance of Immunohistochemical method in Oral Neoplasia. *International Journal of Recent Scientific Research*, 5(6), 1108–1111.
15. Y. Aparna, S. Uma Kranthi, and J. S. (2014). *Syzygium aromaticum* - A common food spice with potential Quorum quenching activity on *Serratia* sps YAJS. *International Journal of Current Microbiology and Applied Sciences*, 3(7), 93–102.

16. S. Uma Kranthi, Y. Aparna. and J. Sarada. (2014). Biofilm dispersal activity of DNase produced by *Serratia* sps YAJS. *International Journal of Current Microbiology and Applied Sciences*, 3(6), 839-849 .
17. Sarada.J & Uma Kranthi. S. (2014). Quorum sensing inhibitory activity of *Calotropis gigantean*: a tropical Indian medicinal plant. *International Journal of Pharmacogony and Phytochemical Research*, 6(2), 29–37.
18. Swapna reddy, Usha, Rajeshwari, L. N. and J. S. (2007). Evaluation of cost effective substrate for enhancement of protease production by *Asperigillus niger*. *AJMBES.*, 9(4), 939-944.
19. Sarada J & Padma Sridhar. (2007). Isolation, Characterization and identification of *Vitreoscilla* sp., from hypoxygenic soil samples of Himalayan region. *AJMBES.*, 9(4), 965–972.
20. Sarada, I., & Sridhar, P. (1998). Nutritional improvement for Cephamicin C fermentation using a superior strain of *Streptomyces clavuligerus*. *Process Biochemistry*, 33(3), 317-322.

National (5)

1. Y.Aparna and J.Sarada. (2017). Anti quorum sensing activity of *Enterobacter* spp. Isolated from soil. *Indian Journal of Science and Technology*, 10(8), 1-4.
2. S. Anju, Srinivasa Rao Kondari, D. J. S. (2014). Bioprocess of Silver extraction from used X-ray & MRI films. *Acta Biologica Indica*, 3(1), 561-568.
3. Y Aparna and J Sarada. (2012). Molecular characterization and Phylogenetic analysis of *Serratia* sp. YAJS - An extracellular Dnase producer isolated from rhizosphere soil. *Science Research Reporter*, 2(1), 104-109.
4. Y. Aparna, K. S. and J. S. (2010). Evaluation of phytochemicals in certain Indian spices for quorum sensing inactivation sin plant pathogenic bacteria. *Bioscan*, 5,(4), 571-572.
5. Sailaja Rani G, Sarada. I. Anindya. Sircar. & Padma. Sridhar. (1996). Development of Indicators for Cephamicin bioassay. *Ind.J.of Exp.Biol*, 34, 816-817.

Book publication: (5)

- S.Anju, Y.Aparna, K.Anuradha and J.Sarada. (2021) Book Chapter 9 in Vol.1- “*Intestinal Microbiome - Macromolecule signaling that mediates inflammation and immune system interaction*” published in Book title Microbiome in Human Health and Disease, ISBN: 9789811631559. International Book Published by Springer Nature Biomedicine, Editor : P Veera Bramha Chari
- J.Sarada, S.Anju, Y. Aparna and .K.Anuradha (2021) Book Chapter11in Vol 1- “*Microbiome Therapeutics - Emerging concepts and challenges*” published in Book title Microbiome in Human Health and Disease, ISBN: 9789811631559. International Book Published by Springer Nature Biomedicine, Editor : P Veera Bramha Chari
- Aparna.Y, K.Anuradha, S.Anju and J.Sarada (2021) Book Chapter- 3in Vol 1- “*Systematic review on cross talk between microbiome and immune system with respect to its beneficial aspects and disease pathogenesis*” published in Book title Microbiome in Human Health and Disease, ISBN: 9789811631559. International Book Published by Springer Nature Biomedicine, Editor : P Veera Bramha Chari
- S.Anju ,Y.Aparna, J. S. and B. B. (2018). *Title of the chapter 21: Novel insights on Bacillus Quorum sensing Mechanism: its role in competence, Virulence , sporulation and Biofilm formation* published in Book title - Implication of Quorum sensing system in Biofilm formation and Virulence (P. V. Bramha Chari (Ed.)). Springer. ISBN: 978-981-13-2429-1.
- J.Sarada,Y.Aparna,S.Anju, N. B. (2008). *A text book of Biochemistry*. for B.Sc I year (State wide common syllabus) Maruthi publications.ISBN: 978-81-907052-6-4

Conference papers presented in last five years (23)

1. Ayesha Abdul Alim, Kumari Neelam & Dr. J Sarada presented paper on “Edible biofilm as bio packaging material with antimicrobial agents to control food spoilage” in National conference on Holistic Nutrition for Healthy Nation ,Organized by Department of Biochemistry, BVC and Koti Women’s College Hyderabad. (23rd & 24th September ,2021).(First Prize)
2. S. Anju and J.Sarada presented paper on “Evaluation of Quorum Quenching Potential of Biogenic Silver Nano Hydrogels for Biomedical applications”in International Conference on Biotechnology and Interdisciplinary Technologies iCBIT-2021CBIT, Hyderabad. (8th-12th November 2021), (First Prize)
3. S.Anju & J.Sarada, Combined effect of biofabricated nanoparticles and *Terminalia chebula* extract on biofilm of *Pseudomonas aeruginosa* YU-V10 isolated from Urinary Catheter”-presented in 2nd World Congress on Infectious Diseases, IISC, Bengaluru. (17th October 2020).

4. S.Anju & J.Sarada, Evaluation of Combinatorial effects of Silver nanoparticles with QS agents on Biofilm of *Pseudomonas aeruginosa* YU-V10- presented in International e-Conference on Advances in Microbial Biotechnology and Biotherapeutics,OU, (10th -12th September 2020).
5. P.N.L.Srilalitha and J.Sarada, Antibiofilm activity of selected plant extracts on multispecies biofilms isolated from Solid sewage waste (Sludge) presented in International e-Conference on Advances in Microbial Biotechnology and Biotherapeutics, OU, (10th -12th September 2020).
6. C. Pravalika and J. Sarada,Inhibition of bacterial biofilms isolated from spoiled milk by employing plant extracts presented in Two day National seminar on Eco-freindly strategies for sustainable environment ,organized by Faculty of Life sciences ,BVC,Hyderabad, (28th & 29th February ,2020).
7. Vaishnavi Yadav and J.Sarada , Screening and characterization of bacterial surfactant producers presented in Two day National seminar on Eco-freindly strategies for sustainable environment ,organized by Faculty of Life sciences ,BVC,Hyderabad, (28th & 29th February ,2020).
8. Harshavardhan and J.Sarada ,Development of Biofilter using Psuedomonas biofilm for waste water treatment presented in Two day National seminar on Innovations in Nanobiotechnology ,Organized by Departmens of Microbiology & Biochemistry,BVC,Hyderabad,(27th & 28th February ,2019).
9. Priyanka yadav and J.Sarada,Screening for antifungal activity exhibiting plant extracts on selected pathogens -*Alternaria and Fusarium* presented in Two day National seminar on Innovations in Nanobiotechnology, Organized by Departments of Microbiology & Biochemistry, BVC, Hyderabad, (27th & 28th February, 2019).
10. P. Grace and J.Sarada, Comparative analysis of Paraoxonases enzyme (PON 1) activity in serum samples of Cardiovascular disease and Obese patients in twin cities presented in Two day National seminar on Innovations in Nanobiotechnology ,Organized by Departments of Microbiology & Biochemistry, BVC, Hyderabad,(27th & 28th February ,2019).
11. Sravanthi and J.Sarada, Analysis of Paraoxonase enzyme (PON 1) activity in serum samples of Thyroid patients in twin cities presented in Two day National seminar on Innovations in Nanobiotechnology ,Organized by Departmens of Microbiology & Biochemistry,BVC,Hyderabad, (27th & 28th February ,2019).
12. Sreevani Sagar and J.Sarada , Study on Antimicrobial and Insecticidal activity of Prodigiosin produced by *Serratia marcescens* presented in Two day National seminar on Innovations in Nanobiotechnology ,Organized by Departmens of Microbiology & Biochemistry,BVC,Hyderabad, (27th & 28th February ,2019).
13. B. Sai Deepak and J. Sarada,Evaluation of Insecticidal activity of Prodigiosin on domestic and Garden pests presented in Two day National seminar on Innovations in Nanobiotechnology ,Organized by Departmens of Microbiology & Biochemistry,BVC,Hyderabad, (27th & 28th February ,2019).

14. S.Anju & J.Sarada, Silver Nanoparticles fabricated with Garcinia Cambogia fruit extract as an Antibiofilm Agent- presented 59th Annual Conference of Association of Microbiologists of India & International Symposium on Host – Pathogen Interactions, HCU.(9th-12th December 2018)
15. K.Anuradha and J.Sarada,Citations and h index as key indicators of quality research presented in National Seminar on Revised NAAC Frame work : The road ahead towards excellence in quality education,organized by Bhavan's Vivekananda college.(21st April ,2018).
16. Y.Aparna and J.Sarada, Metaanalysis of Lactonases for identification of conserved sequences using bioinformatics tools, oral paper presentation at Two day National seminar on Internet of things –Applications and security ,organized by department of Computers Bhavan's Vivekananda College ,Secunderabad,(7th & 8th September 2017)
17. S.Anju and J.Sarada, Comparative analysis of microbial nitrate reductase structure using bioinformatics" oral paper presentation at Two day National seminar on Internet of things –Applications and security,organized by department of Computers Bhavan's Vivekananda College ,Secunderabad, (7th & 8th September 2017).
18. Y.Aparna & J.Sarada, Antimicrobial activity of Pseudomonas sps. isolated from Soil , poster presentation at Two day National conference Frontiers in Microbial Biotechnology organized by Department of Microbiology , Osmania University, (22nd & 23rd February ,2017)
19. .Anju & J.Sarada, Biofilm inhibition and dispersal activity using AgNp's and Natural QSI agents poster presentation at Two day National conference Frontiers in Microbial Biotechnology organized by Department of Microbiology , Osmania University, (22nd & 23rd February ,2017)
20. S.Anju & J.Sarada, Detection and optimization of Microbial Nitrate reductase enzyme for lab scale production of silver Nanoparticles poster presentation at National seminar on Advances in Bioprocess engineering – practical approach for Today's bioprocess challenges organized by Departments of Biotechnology & Microbiology ,Kasturiba Gandhi degree and P.G College ,Hyderabad, (24th and 25th November 2016)
21. Y.Aparna & J.Sarada, Screening and isolation of quorum quenching bacteria from soil poster presentation at National seminar on Advances in Bioprocess engineering – practical approach for Today's bioprocess challenges organized by Departments of Biotechnology & Microbiology ,Kasturiba Gandhi degree and P.G College ,Hyderabad, (24th and 25th November 2016)
22. J.Sarada and Y.Aparna, Novel strategy of food preservation by using natural QSI agents poster presentation at Two day national seminar on Recent advances in food biotechnology, organized by Microbiology & Biochemistry Departments ,BVC, (17th and 18th February,2016).

23. J.Sarada and Y.Aparna, Detection of food pathogens based on quorum sensing signals, poster presentation at Two day national seminar on Recent advances in food biotechnology, organized by Microbiology & Biochemistry Departments ,BVC, (17th and 18th February,2016)
24. J.Sarada, S.Anju, S.Shalini Devi, Impact of biologically synthesized silver nano particles on *Corynespora cassiicola*-Tomato plant pathogen, poster presentation at Two day national seminar on Recent advances in food biotechnology, organized by Microbiology & biochemistry Departments ,BVC, (17th and 18th February,2016).
25. Uma B. and J.Sarada , Quorum sensing---- on pathogenic bacteria , poster presentation at National conference on Recent Trends in Microbial Biotechnology, Department of Microbiology ,Osmania University ,Hyderabad,(26th -28th February,2015).

Awards/ Recognitions:

- **University First Rank and Gold Medal** in B.Sc , Kakatiya University in 1986
- **L.N. Gupta Gold Medal** for Highest Score from A.P Government in 1986
- **National Merit Scholarship** & NTC award in 1986-88.
- **University Second Rank** in M.Sc in 1989
- **CSIR – UGC (NET)**fellowship for five years of research.(1989-1995)
- **GATE** qualified(1989)
- ◆ • **Credit: Indian PATENT 1557/MAS/96** on Indigenous production of Cephamycin C.(1996)
- **Sudha Gorthi Award for excellence in Teaching in 2018 by BVC.**
- **5-6 Best paper awards / prizes for conference papers.**

Resource person:

1. Resource person for Little flower Degree college organized FDP on ***Research Methodology*** and Presented Talk on *Research & Publication Ethics* May 2021.
2. Resource person in *Online National level five day FDP on Recent technological advancements in Life sciences* organized by Department of Microbiology in November 16th - 19th November, 2021. Presented talk on *Y Break, an Ministry of Ayush Initiative programme.*
3. Faculty Coordinator for Manav Scientific reading and Comprehension self assessment module for students for PG Microbiology students in Sepetember to October 2021

Invited Guest Lectures:

- ❖ Delivered Guest lecture at St. Pious Degree college on *Radioisotopes in Biology*. August 2021
- ❖ Delivered guest lectures at **Palamuru University , Little flower college, Shadan College , Begumpet Government College for Women. Aurora College and Avanathi College.**
- ❖ Invited lecture On **Research Ethics** in National seminar Organized by IQAC, BVC in 2020.
- ❖ Delivered lecture in **Research Committee Orientation Programme** in 2018 in BVC.

Workshops/ Refresher courses /Training programs Attended: (Last Five Years)

Workshops:

1. International online workshop for undergraduate Teachers on Student centric Learning strategies in organized by Department of Microbiology under DBT star college scheme from 2-11th November, 2020.
2. Three day workshop on Computational Biology and Bioinformatics course organized by St. Francis College in collaboration with HCU, 16/01/2020 - 18/01/2020.
3. Two Day online workshop on Awareness of intellectual property rights in need of the hour organized by Shivaji University, Kolhapur, UGC sponsor STRIDE component ,8 & 9 May, 2020.
4. Three day online workshop on “Online Course Design, Development and Delivery” organized by Human Resource Development Centre, University of Hyderabad, 16- 18 May 2020.
5. Workshop on "DNA and Protein Structure" University of Hyderabad , 3/1/2020.
6. Four-day Virtual CRISPR Workshop for Undergraduate Biology Educators in July 2020 organized by the Centre for Advancement of Research Skills, DRILS., University of Hyderabad Campus, Hyderabad.
7. Beta testing workshop for the 'Manav-Human Atlas Initiative' platform as a Team Owner of Biocurators .2020
8. Two Day National Open Workshop on "Getting Aligned to the Publishing Process" - Author Workshop, September 2020

9. Workshop on Research based pedagogical tools, IISER, Pune & DBT NewtonBhabha fund (British Council), at Raipur in October, 2018.

10. Workshop on Communication skills conducted by Academic Staff Colleges sponsored by UGC, 20th to 24th November, 2007.

Training :

1. Online Advanced Training Programme on Bibliometric and research output analysis organised by Information and Library Network (INFLIBNET) Centre, Gandhinagar, Gujarat from 01 to 05 February, 2021.

2. Advanced Topics in Life Sciences”, under the CSIR Integrated Skill Initiative, conducted by CSIR - Centre for Cellular and Molecular Biology, Hyderabad, India, from 8-12 February 2021.

3. Advanced training program on Bibliometric and research output analysis organized by Information and library network centre Gujarat, 22-27 July 2019.

4. Obtained training in immobilization methods at Regional Research Laboratory, Trivandrum, India, 1994.

5. Obtained training at GERU (Genetic Engineering Research Unit), Madurai Kamaraj University, Madurai, India in *Streptomyces* plasmid preparation, DNA preparation, protoplast preparation, protoplast fusion and transformation techniques, 1992.

FDPs & Refresher Courses:

1. FDP on “Advanced topics in Life Sciences” organized by CSIR, CCMB during 8th – 12th February, 2021.
2. FDP on “ Basics of Bioinformatics “ Organized by E&ICT ,NIT Warangal and ANNA University ,Madras during 26th May – 4th June 2021.
3. Online FDP on ICT enabled teaching and Learning organized Janki Devi Memorial College in collaboration with TLC, Ramanujan College from September 7 - September 13, 2020.
4. FDP on Emotional quotient-A key to success in life organized by Department of chemistry, Little Flower degree College Uppal, 19-May-20
5. FDP on Online Based Teaching Organized by IQAC ,BVC in May 2020
6. FDP programme NPTEL on line course on Managing Intellectual Property Rights at University, as , 2019.
7. FDP programme -NPTEL on line course on Introduction to Research, 2020.
8. FDP programme -NPTEL on line course on ICT in Teaching and Learning in 2019
9. Refresher course in Research Methodology in Basic Sciences, conducted by Academic Staff College sponsored by UGC, 18th November to 7th December, 2013.

Consultancy:

- ❖ Consultancy in setting State level Competitive exam for Biology and AS Rao Summer project work for School children in BIOLOGY (sponsored by AS RAO council at state level at the end of every academic year).Since 2015-till now.

Membership of Professional Bodies:

- Life member of Association of Microbiologists of INDIA (AMI).
- Annual Member in Indian Women Scientist Association (IWSA).