

## **Dr. Jeevigunta Naveena Lavanya Latha**

Assistant professor,  
Department of Biotechnology,  
Krishna University,  
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### **Present Appointment**

October 2009- Assistant Professor, Department of Biotechnology, Krishna University

### **Academic qualifications**

- Scientist (2006 July-2009 Sept) Dr.Reddys laboratories, Hyderabad.
- DBT Postdoctoral fellow (2005 July-2006 June) CCMB, Hyderabad.
- Research associate (2004 May-June-2005) Dept of Biochemistry, Osmania University, Hyderabad.
- Ph.D (2005) Biochemistry, O.U  
Title of the thesis: “Toxic metal ion interactions with cell wall bound calcium in *Neurospora crassa*: implications on metal transport and calcium homeostasis”.
- M.Sc (1999) Biochemistry, ANU. First division
- B.Sc (1997) Botany, Zoology and Chemistry, ANU First division

### **Awards & Honours**

1. Gold medalist in Botany during Undergraduation
2. Junior Research Fellowship award by CSIR (1999-2001)
3. Senior Research Fellowship award by CSIR (2001-2004)
4. Postdoctoral fellowship award by DBT (2005-2006)
5. Best poster award by Madras diabetes research institute in Indo-swedish symposium on proteomics and genomics of diabetes, Chennai (2006).

## Research Activities

### Ph.D Guidance

S. No	Name	Degree & PT/FT	Regd Year	Status
1	Ms. L. Suseela	Ph.D (PT)	2010	Thesis Submitted
2	Ms. M. Anupama	Ph.D (PT)	2010	Pre-colloquium completed
3	Mr. N.V. Ramana	Ph.D (PT)	2013	Ongoing
4	Mr. K. Ashok Kumar	Ph.D (PT)	2015	Ongoing
5	Ms. Handu Haveela	Ph.D (PT)	2015	Ongoing
6	Ms. Parameswari	Ph.D (PT)	2015	Ongoing
7	Ms. S. Lavanya	Ph.D (PT)	2015	Ongoing
8	Ms. T.S. Padmavathi	M. Phil (PT)	2015	Ongoing

### Research Publications

1. **Naveena Lavanya Latha, J.** and P.Maruthi Mohan. Role of cell wall bound calcium in *Neurospora crassa*.–Microbiological Research, 166 (5) 419-29, 2011 (IMPACT FACTOR-2.9)
2. **Naveena Lavanya Latha, J.** and P. Maruthi Mohan Metal transport in *Neurospora crassa*–surface-bound metal ions are not transported into cells.–Canadian J. Microbiol. 51, 1-6pp., 2005. (IMPACT FACTOR-1.262)
3. Debanjan Guin, Sunkara V Manorama, **J Naveen Lavanya Latha**, and Shashi Singh Photoreduction Of Silver On Bare And Colloidal Tio<sub>2</sub> Nanoparticles/Nanotubes: Synthesis, Characterization, And Tested For Antibacterial Outcome. J. Phys. Chem. C., 111 (36), pp 13393-13397, 2007 (IMPACT FACTOR-4.87)
4. **J. Naveena Lavanya Latha**, Susinjan Bhattacharya, R. Kumaresan and S. Shashi Singh. Cloning and expression of human islet amyloid polypeptide in cultured cells. Biochem. Biophys. Research Commun., 356, 622-28, 2007. (IMPACT FACTOR-2.4)
5. D.Karunasagar, J.Arunachalam, K.Rashmi, **J.Naveena Lavanya Latha**, and P. M. Mohan. Biosorption of inorganic and methyl mercury by a biosorbent from

*Aspergillus niger*. In *World Journal of Microbiology and Biotechnology*, 19, 291-295 (2003). (IMPACT FACTOR-1.082)

6. R.Sri Rajyalaxmi, **J.Naveena Lavanya Latha**, K.Rashmi and P.Maruthi Mohan. Cobalt-resistance in wall-less mutant (fz; sg; os-1) of *Neurospora crassa*. *Biometals*, 16, 529-537 (2003) (IMPACT FACTOR-3.1)
7. **J.Naveena Lavanya Latha**, K.Rashmi, T.N.Sowjanya, P.Kiranmayi and P.Maruthi mohan. *Neurospora* in full bloom, *Current Science*, 85, 1670-1672 (2003) (IMPACT FACTOR-0.967)
8. Karna Rama Rao, **J.Naveena Lavanya Latha**, K.Rashmi and P.Maruthi Mohan. Bioremediation of toxic metal ions with alkali extracted biosorbent prepared from spent waste biomass of *Aspergillus fumigatus*. *Indian Journal of Biotechnology*, 2005. (IMPACT FACTOR-0.5)
9. P.Maruthi Mohan, **J.Naveena Lavanya Latha** and K.Rashmi. Metal resistance in *Neurospora crassa*. In *Proceedings of National Symposium on Developments in Microbial Biochemistry and its impact on Biotechnology (book)* 2002. Osmania University, Hyderabad, India (2002). pp. 103- 121.
10. **J. Naveena Lavanya Latha** and P. Maruthi Mohan. Calcium mobilization in *Neurospora crassa*. *Frontiers in plant sciences (book)* (pg 381-394) Eds. KK Mukerji, KVBR Tilak, SM Reddy, LV Gangwane, P Prakash, IK Kunwar (2005) IK Intl Pvt Ltd, New Delhi, India.
11. K.Rashmi, **J.Naveena Lavanya Latha**, and P. M. Mohan- Isolation and Characterization of a cobalt-sensitive mutant of *Neurospora crassa*: potential in bioremediation. *Journal of Coastal Life Medicine* 2014; 2(12): 953-961. (IMPACT FACTOR-1.12)
12. Mynam Shilpa, C. Shobha Devi, Penumaka NB, **J. Naveena Lavanya Latha**, and S. Satyanarayana. Ruthenium(II) ethylenediamine complexes with dipyrrodo phenazine ligands: Synthesis, characterization, DNA-interactions and antiproliferative activities: Published Yr: 2013. Journal: *Journal of Coordination Chemistry* Volume 66, Issue 10, M, pages 1661-1675, (Impact factor 1.932).
13. Mynam Shilpa, Penumaka NB, **J. Naveena Lavanya Latha**, A.Gayatri Devi, A.Nagarjuna, Yata Praveen Kumar and S. Satyanarayana. DNA - interactions of ruthenium(II) & cobalt(III) phenanthroline and bipyridine complexes with a planar aromatic ligand 2-(2-fluoronyl) 1H-imidazo [4, 5-f] [1, 10 phenanthroline]. Published Yr: 2011. Journal: *Journal of inclusion phenomena of Macrocyclic chemistry*, 70(1):187-195 DOI: 10.1007/s10847-010-9891-4. (Impact Factor: 1.22).
14. Penumaka NB, **J. Naveena lavanya latha**, Mynam Shilpa, P. Pallavi, Rajender reddy, C. Shobha Devi, S. Satyanarayana. DNA-binding and Cleavage studies of Imidazole Cobalt(III) Ethylenediamine Complexes. *Jl. Chem and Pharm Research*, 2(6):144-153.

ISSN No: 0975-7384, CODEN(USA): JCPRC5. Published Yr: 2010. (IMPACT FACTOR-1.06)

15. Penumaka NB, **J. Naveena lavanya latha**, and S. Satyanarayana. Synthesis, characterization, interaction with double-helical DNA, cleavage and anticancer activity studies by pyrazole cobalt (III) ethylenediamine complex. Published Yr: 2009. Journal: Journal of Iranian Chemical Society, 6, 145-152. (Impact factor: 1.36)
16. Penumaka NB, **J. Naveena Lavanya Latha**, Y. Prashanthi, Satyanarayana.S. DNA-binding and photocleavage studies of cobalt (III) ethylenediamine complexes: [Co(en)2phen]3+ and [Co(en)2bpy]3+ Published Yr: 2009. Journal: JI. Chem and Pharm Research, 1(1): 238-249. (IMPACT FACTOR-0.87)
17. Penumaka NB, **J. Naveena Lavanya Latha**, Mynam Shilpa, Karthikeyan, M. Rajesh, and S. Satyanarayana. Interaction of novel cobalt(III) polypyridyl mixed complexes containing asymmetric ligands with DNA. Transition metal chemistry, 33, 1027-1033. DOI 10.1007/s11243-008-9148-x; (Impact Factor: 1.223). Published Yr: 2007. (IMPACT FACTOR-1.62)
18. P.Pallavi, Penumaka NB, **J. Naveena Lavanya Latha** and S. Satyanarayana. Kinetics and Binding studies on the reaction of cyanopropyl(aqua)cobaloxime with amines Published Yr: 2006. Journal: Indian Journal of Chemistry, 45A, 2628-2631. (Impact Factor: 0.65.)
19. Penumaka NB, **J. Naveena Lavanya Latha** and S. Satyanarayana. DNA-binding studies of mixed-ligand Ruthenium (II) ethylenediaminecomplexes. Chemistry & Biodiversity, 3, 11, 1219-1229. DOI: 10.1002/cbdv.200690123, Published Yr: 2006. (Impact Factor is 1.926)
20. Penumaka NB, **J. Naveena Lavanya Latha**, Pallavi, P., Satyanarayanana, S. Studies on antimicrobial activity of Co (III) complexes, *Canadian Journal of microbiology* 52 (12) 1247-1254 (2006). (IMPACT FACTOR-1.262)
21. Penumaka NB, Mynam Shilpa, **J.Naveena Lavanya Latha**, Ira Bhatnagar, P.N.B.S.Srinivas Y. Praveen Kumar, K. Laxma reddy, and Satyanarayana,S. Synthesis, Characterization, DNA Binding Properties, Fluorescence Studies and Toxic activity of cobalt(III) and ruthenium(II) polypyridyl complexes J Fluoresc. 2011 Mar; 21(2):563-72. (IMPACT FACTOR-2.017)
22. Mynam Shilpa & Penumaka NB & Y. Praveen Kumar & **J. Naveena Lavanya Latha** & M. Rajender Reddy & K. S. Karthikeyan & Nazar Md. Gabra & Sirasani Satyanarayana. Synthesis, Characterization , Luminiscence Studies and Microbial Activity of Ethylenediamine Ruthenium (II) Complexes with Dipyrindophenazine Ligands J Fluoresc **21** (3):1155-1164 (2011) (IMPACT FACTOR-2.1)

23. **J. Naveena Lavanya Latha\***, Penumaka. NB, P. Rakesh, K. Ashok Kumar, M. Anupama, L. Susheela. Fungal Cell Walls as Protective Barriers for Toxic Metals. *Advances in Medicine and Biology*. Volume 53, pp. 181-198, 2012
24. **GenBank Submission:** Singh, S., **J. Naveena Lavanya Latha\*** and Bhattacharya, S., "Homo sapiens islet amyloid polypeptide precursor (IAPP) mRNA, complete cds," *GenBank ID: DQ516082*, 2006.
25. A. Umadevi, P. Divakar and **J. Naveena Lavanya Latha\***, Bioremediation of toxic metal ions. *Journal of Applicable Chemistry*, 2 (2):359-363 2013 (IMPACT FACTOR-2.9)
26. K. Ashok Kumar, M.Anupama, SK. Gousia and **J. Naveena Lavanya Latha\***. A review on phytochemical constituents and biological assays of *Averrhoa bilimbi*, *Int Journal of pharmaceutical research*, 3 (4): 136-139, 2013
27. Sk. Gousia, K. Ashok Kumar, T. Vinay Kumar and **J. Naveena Lavanya Latha\***. Biological activities and medicinal properties of *Couropita guianensis*. *Int Journal of pharmaceutical research*, 3 (4): 140-143, 2013
28. L. Suseela, P.Muralidhar, TV. Narasaiah and **J. Naveena Lavanya Latha\***. Isolation of actinobacteria and its antagonistic effects on native organisms from Northern black soils of Katheru (A.P.), India. *Applied Cell Biology*, 2 (1) 31-36, 2013.
29. M.Anupama, T. Vinay Kumar and **J. Naveena Lavanya Latha\***. Growth and metal removal by *Neurospora crassa* from marine water. *International Journal of Biological & Pharmaceutical Research*. 2014; 5(1): 22-26 (IMPACT FACTOR-1.34)
30. Suseela L, Anupama M, Prudhvilal B. Narasaiah TV and **Naveena Lavanya Latha J\*** Isolation and characterization of lipase producing fungi from POME obtained from Pedavegi, A.P. India *International Journal of Biological & Pharmaceutical Research*. 2014, 5 (7), 559-565. (IMPACT FACTOR-1.34)
31. Suseela L, K. Ashok Kumar and **J. Naveena Lavanya Latha\***. *Neurospora Bloom* on left over Palm bunch wastes. *Asian journal of biological and pharmaceutical Research*, volume 3, 51-52, 2013
32. Suseela Lanka, Muralidhar Pydipalli & **J. Naveena Lavanya Latha\***. (2015), Optimization of Process Variables for Extracellular Lipase Production from *Emericella nidulans* NFCCI 3643 Isolated from Palm Oil Mill Effluent (POME) Dump Sites Using OFAT Method, *Research Journal of Microbiology*, 10(2), pp.38-53.
33. Suseela Lanka & **J. Naveena Lavanya Latha\***. (2015), Response Surface Methodology as a Statistical Tool for Fermentation Media Optimization in Lipase Production by Palm Oil Mill Effluent (POME) Isolate *Emericella nidulans* NFCCI 3643, *International Journal of Innovative Research in Science, Engineering and Technology*, 4(4), pp.2535-2545.

34. Suseela Lanka & **J. Naveena Lavanya Latha\***. (2015), Purification and characterization of a new cold active lipase, EnL A from *Emericella nidulans* NFCCI 3643, *African Journal of Biotechnology*, 14(22), pp.1897-1909.
35. Suseela Lanka, Venkateswar Rao Talluri, V. Ganesh & **J. Naveena Lavanya Latha\***. (2015), Homology Modeling, Molecular Dynamic Simulations and Docking Studies of a New Cold Active Extracellular Lipase, EnL A from *Emericella nidulans* NFCCI 3643, *Trends in Bioinformatics*, 8(2), pp.37-51.
36. Suseela Lanka & **J. Naveena Lavanya Latha\***. (2015), A Short Review on Various Screening Methods to Isolate Potential Lipase Producers: Lipases-the Present and Future Enzymes of Biotech Industry, *International Journal of Biological Chemistry*, 9(5), pp.207-219.
37. Suseela Lanka and **J. Naveena Lavanya Latha\*** (2015) Taguchi design of experiments for the optimization of lipase production by *Emericella nidulans* DAOM 222012 isolated from Palm Oil Mill Effluent (POME) dump sites. *International Journal of Applied Biology and Pharmaceutical Technology*, 6 (3), pp. 64-71.
38. M. Anupama, K. Ashok Kumar and **J. Naveena Lavanya Latha\*** (2015) Isolation and Characterization of Strontium Resistant Mutant of *Neurospora crassa*. *Asian Journal of Biochemistry* 10 (4): 156-164.
39. K. Ashok Kumar, S.K. Gousia and **J. Naveena Lavanya Latha\*** (2015) Evaluation of Biological Activity of Secondary Metabolites of *Neurospora crassa* from Machilipatnam Sea Water. *Research Journal of Microbiology* 10 (8): 377-384.
40. M. Anupama, K. Ashok Kumar and **J. Naveena Lavanya Latha\*** (2015) Mechanism of Strontium uptake and transport in *Neurospora crassa*. *EJPMR*, 2016,3(5), 379-386

#### **Conferences attended:**

1. 70<sup>th</sup> Annual Meeting of the SBC (I), Osmania University, Hyderabad, India, Dec-2001.
2. 22<sup>th</sup> Fungal Genetics Conference, Asilomar, California, USA, Mar-2003.
3. 55<sup>th</sup> Ann. Meeting of the Indian Phytopathological Society (IARI), O.U., India, Jan-2003.
4. Paper presented in "M. J. Narasimhan merit academic award contest" (zonal level) in National symposium on "Plant pathogens diversity in relation to plant health" organized by Dept of Botany, O. U., Hyderabad, India, Jan-2003.
5. Paper presented for Young Scientist Award contest in 'National Seminar On Modern Biology, Nagarjuna University, Guntur, India, Aug-2003.

6. Paper presented in 'National Conference on Biodiversity and Applied Biology of Plants' Dept of Botany, University of Lucknow, India, Jan-2003.
7. 10<sup>th</sup> FAOBMB Congress, Bangalore, India, Dec-2003.
8. Indo-swedish symposium on proteomics and genomics of diabetes, Chennai, Mar-2006.
9. Poster presented on "**Mercury toxicity in Machilipatnam coastal region**" in International conference on Biodiversity and aquatic toxicology held on 12-14<sup>th</sup> February, 2011 by ANU.
10. Paper presented in "Lake Kolleru-the wet land ecosystem: conflict between development and environment" has been organized on 2-3 february , 2011 by dept of Biotechnology, Krishna University
11. Participated as resource person in National seminar on "Chemistry-our life, our future: held at KRU-PG centre, Nuzvid, on 29<sup>th</sup> Dec, 2011
12. Paper presented on "Differences in proteomes of candida albicans in diverse environmental conditions" at AP-Sciecn congress, held at ANU, in 2012.
13. Paper presented on "Construction of phylogenetic tree" in National seminar cum workshop on Bioinformatics: Basics and Languages by DBT-BIF, ANU, Guntur, 2012.
14. Paper presented in National seminar on "Recent trends in surface science and Nanotechnology" at Pottisriramulu CMR college of engg and tech on 29-30 Nov, 2013.
15. Paper presented in International Science Congress by Karunya University on 9-12<sup>th</sup> December, 2013
16. Participated in international symposium on "Current trends in Environmental therapeutics" held by Vikrama Simhapuri University, Nellore on 18-19 December, 2012
17. Participated in the international symposium on Environmental pollution, Nutrition and Genetics held by Vikrama Simhapuri University, Nellore on 27-29 December, 2013
18. Paper presented in International conference on "Environmental Biotechnology and Biodiversity" conducted by Andhra University, Vizag on 3-4<sup>th</sup> March, 2014.

19. Paper presented in National level seminar on “Conceptual Advances & impact of plant derived drugs on human diseases” organized by KRU at Dr. MRAR PG Centre, Nuzvid on 5-6<sup>th</sup> March, 2014
20. Participated as resource person in National seminar and workshop on Genomics and Proteomics-an informatics approach, by ANU-DBT-BIF during 24-25 March, 2014.
21. Two days UGC- Sponsored National Seminar on Development of Advanced Materials in Physics & Electronics and their Applications, Organised by KBN College, Vijayawada, in Collaboration with Krishna University, MTM, during 15-16<sup>th</sup> October-2014.
22. UGC-DST Sponsored National Seminar on Trends in BIOCHEMISTRY, Organised by Dept.of Biochemistry, Acharya Nagarjuna University, Guntur, and Dept.of Biochemistry, University of Hyderabad, held on 17-18 October-2014.
23. International conference on THE CHALLENGES OF MOVING AHEAD:FROM DEPRIVAL TO DIGNITY OF DALITS, Conducted by CH.S.D.St.THERESAS Autonomus College for Women, Eluru, A.P, INDIA, during 6-8<sup>th</sup> November-2014.
24. International seminar on Glasses and other functional materials, organized by Dept.of Physics, Acharya Nagarjuna University, Guntur, A.P. during 13-15<sup>th</sup> Dec-2014.
25. 4Days Hands on training in Molecular Techniques, Organized by Dept. of BIOTECHNOLOGY, VIKRAMA SIMHA PURI UNIVERSITY, Nellore, during 22-25<sup>th</sup>, July-2015.
26. Organized and worked as a Event Organizer for Krishna University Inter-Collegiate Youth Festival- KRISHNA TARANG-2013, during 7-9<sup>th</sup> December-2013.

**Other Information:**

- Participated in 74<sup>th</sup> Orientation Course conducted by University of Hyderabad, sponsored by UGC from 18<sup>th</sup> January to 14<sup>th</sup> February, 2012 at Academic Staff College, UoH, Gachibowli, Hyderabad
- Participated in UGC sponsored SPECIAL SUMMER SCHOOL-2014 (refresher course) with the theme of Recent Advances in Nano Sciences conducted by UGC-ASC at University of Madras, Chennai from 20<sup>th</sup> May to 9<sup>th</sup> June, 2014.
- Organizing Treasurer for National level seminar on “Lake Kolleru-the wet land ecosystem: conflict between development and environment” organized at KRU, MTM on 2-3 February, 2011



- Organizing Secretary for National level seminar on “Conceptual Advances & impact of plant derived drugs on human diseases” organized by KRU at Dr. MRAR PG Centre, Nuzvid on 5-6<sup>th</sup> March, 2014.
- Ongoing Research Projects: Project entitled “Characterization of calcium binding proteins from cell wall of *Neurospora crassa*” sanctioned by DST under Fast track young scientist scheme (Major-23 lacs)
- Project proposal under review by ICMR, New Delhi. “Exploring the new chemical entities for treatment of *Candida vaginitis*” (39 lakhs).

### **PERSONAL DETAILS:**

**Date of Birth** :11<sup>th</sup> August, 1977.

**Nationality** : Indian

**Marital Status**:Married

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### **References:**

1. **Prof. S. Satyanarayana Singh,**  
Dept of Biochemistry, Osmania University, Hyd  
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2. **Prof. S. Satyanarayana**  
Dept of Chemistry, Osmania University, Hyd  
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3. **Prof. G. Pakki Reddy,**  
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