

Dr. DEVARAJU KURAMKOTE SHIVANNA

M.Sc., PhD. FISBT

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Research Interest:

Post-translational modification (PTM) of proteins by the covalent addition of functional groups that include phosphorylation, glycosylation, ubiquitination, nitrosylation, methylation, acetylation, lipidation and proteolysis and these are very important crucial modifications that brings every biological responses such as functional diversity of the proteins. Therefore, identifying and understanding PTMs becomes a critical role in the study of cell biology and to develop the treatment strategies for various disease treatment and prevention.

Currently the lab is interested to work with the reversible phosphorylation event that is driven by Kinases and Phosphatases. Protein phosphatases are known to be redundant in their action compare to Kinases. One such protein phosphatase 2B (Calcineurin), is involved in learning and memory. We have developed a method to assay Calcineurin (*IJEB, 2014*); on the other hand we are in the process of developing the peptide inhibitor for the Calcineurin (*J Biomol Struct Dyn, 2014*). Apart from that we have also developed method to detect and quantify the peroxynitrite in any biological sample including bio imaging of peroxynitrite in any cellular model (*J. Fluoresc, 2013*). We have also deliberated the gene profiling of NMDA Receptor mediated calcium binding proteins (*Genes & Diseases. 2019*).

To summaries, Research in our laboratory focuses on Post translational modifications in relevance to Neurological and Neuropsychiatric Disorders and to development of methods to diagnose or developing treatment strategies.

Educational Qualification:

1. Ph. D. in Neurochemistry: From National Institute of Mental Health and Neurosciences (Deemed University), Bangalore in the year of 2007.

2. M. Sc. in Biochemistry: From Bangalore University, Bangalore in the year of 1998.

3. B. Sc. in Chemistry, Zoology, and Seri-Culture: From Bangalore University, Bangalore in the year of 1996.

Ph.D., thesis work: “STUDIES ON PROTEIN PHOSPHATASES: Substrate(s) Specificity and Assay Methods”.

National level examinations qualified:

1. Qualified for **Junior Research Fellow** and **National Eligibility Test**, conducted by Council of Scientific and Industrial Research in the year 2000, India.
 2. Qualified **National Eligibility Test**, conducted by Agriculture Scientific Recruitment Board in the year 2001, India.
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Additional Qualification:

1. A certificate course on “**Care, Breeding and Management of Laboratory Animals**” from Central Animal Research Facility, at NIMHANS, Bangalore.
 2. A certificate course on “**Bioprocess Engineering**” from Proficiency Programme at Indian Institute of Science, Bangalore.
 3. A certificate course on “**NMR Spectroscopy: Principles and Applications to Biological Systems**” from Proficiency Programme at Indian Institute of Science, Bangalore.
 4. **Diploma in Computer Application**, from Diginet Systems, Wilson Garden Bangalore.
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Teaching Experience: *Overall Eighteen and half years*

1. **Two Years**: Lecturer for the Bachelor degree students, at Indira Women’s College, Tumkur, Karnataka, for the academic year 1998-2000.
 2. **Two Years**: Lecturer for Biochemistry Post graduate students at Padmashree group of Institutes, Nagarabhavi, Bangalore, for the academic year 2004-2006.
 3. **One Year**: Lecturer for Biochemistry Post graduate students at Dayananda Sagar Group of Institutions, Kumara Swamy layout, Bangalore, for the academic year 2006-2007.
 4. **Six and half Years**: Assistant Professor in Biotechnology, Department of Microbiology and Biotechnology, Jnanabharathi Campus, Bangalore University, Bangalore-560 056, from 14th June 2007 to 8th December 2013.
 5. **Three Years**: Associate Professor in Biochemistry, Department of Biochemistry, Karnatak University, Dharwad, Karnataka, India, from 8th December 2013 to 8th December 2017.
 6. **Four Year**: Professor in Biochemistry, Department of Biochemistry, Karnatak University, Dharwad, Karnataka, India, from 8th December 2017 to till date.
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Major Research Project:

1. University of Grants Commission, Govt. of India, Project entitled “**Spectral Characterization of Nitrated Amino acids and Proteins: In Relevance to Neurological Disorder**” Major Research, Rs. 12.00 Lakhs – COMPLETED as a Principal Investigator.
 2. “**In Silico Prediction of Lead Molecule for the Calcineurin**” Bangalore University Internal Research Fund (BURIF), University Orders No: DEV; D2: YRB-BUIRF: 2010-11 Dated: March 29, 2011 – COMPLETED as a Principal Investigator.
 3. “**Influence of major xanthophylls and their oxidative products on biological functions**” UGC-MRP, UGC, Govt. of India Rs. 12.3267 Lakhs 1-02-2010 to 1-07-2013 – COMPLETED as a Co-Investigator.
 4. “**The Study of NMDA receptors role in regulation of calcium binding proteins in primary cortical Neurons**” – funded by Department of Science and Technology, Govt. of India, Project. Dated: 1/4/2015 to 31/3/2017 - COMPLETED as a Principal Investigator.
 5. “**To assess the efficacy and drug-disease molecular pathway of Smritisagara rasa in Parkinson’s Disease Model of D. Melanogaster**” , RGUHS, Govt of Karnataka.Rs. 8.0 Lakhs – Currently running - 2021 to 2022
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Research Experience:

- Protein, Isolation, Purification, Characterization, Enzyme assays/Kinetics
- Developing the primary neuronal cell culture.
- The kinase assay / receptor binding studies
- Amino acid analysis of clinical samples by OPA derivitisation by HPLC
- Perfection technique for the Dissection of Rat Brain
- Solution phase Phosphopeptide synthesis by Fmoc and Boc linear/convergent strategy.
- Computational biological work such as modeling, molecular docking etc.,

Hands on experience:

Spectrophotometer, Spectrofluorimeter (**Schimidzu**), Gel doc system(**Bio Rad’s**) Ultracentrifuge (**Sorval**), Ultra Sonicator, Medium Phase Liquid Chromatography (MPLC), HPLC, Rotavapour (**Buchi**), β -scintillation counter, Phosphor imager, Native & SDS-PAGE, Western blot, Olympus Fluorescence microscope (**BX51**) & deionization Double distillation plant.

M.Sc. Dissertation:

Isolation, Purification, and Characterization of “ **α -Amylase from germinating Ragi seeds**” performed in the Department of Biochemistry, Central College under the guidance of Prof. N. H. Manjunath & Dr. V. R Devaraj, Bangalore University, Bangalore-560 001.

Invited Lectures:

1. **“Literature Search Using Pubmed and Medminer, Sequence Retrieval from Nucliec Acid and Protein Databases**, National Level Internship programme on "Tools and Techniques in Applied Bioinformatics" workshop held in P. G. Department of Botany and Biocuration, Bengaluru, The New college (Autonomus), Chennai-14. Jul 19, 2021.
2. **“ DRUG DISCOVERY- Probable approaches to combat Covid19”** as a key note speaker in the International Webinar on "Drug Repurposing in Combating SARS-CoV-2 organized by the Department of Zoology, St. Joseph's College (Autonomous), Bengaluru, 7th August 2020.
3. **“Corona! Corona! Corona? What it is? ”** in Amity Institute of Neuropsychology & Neurosciences (AINN), Amity University UP, Noida, India, 24th April 2020.
4. **“Teaching Science is an Art”** organized by Human Resource Developments Center, Karnatak University, Dharwad, Karnataka, India. Date 25th, Feb, 2020.
5. **“Why Bioinformatics is the Brain for Biological Research?”** in K S W U, Bijapur-586109, Date: 5/03/2014
6. **“IMMUNOLOGY- In brief”**, Academic Staff College, Bangalore University, Bangalore. Date:04/4/2014
7. **“A Fluorescent Molecule to detect peroxynitrite: implications in Neurological Disorders”**, in the departments of Neurochemistry and Neuropathology, NIMHANS. Workshop organized Third annual meeting and “Hands-on workshop in Neurochemistry and Electron Microscopy”. 14-20th July 2014, NIMHANS, Bangalore on 20th July 2014.
8. **“Scope and Importance of Biotechnology”**, EMMRC, Mysore University, Date: 05/11/2014
9. **“Biotechnogy in Sericulture”**, EMMRC, Mysore University, Date: 22/09/2014
10. **“Molecular biotechnology in Sericulture”**, EMMRC, Mysore University, Date: 22/09/2014
11. **“Recombinant DNA and Gene Cloning”**, EMMRC, Mysore University, Date: 23/09/2014
12. **“Animal Cell Culture and Tissue Culture”**, EMMRC, Mysore University, Date:23/09/2014
13. **“Molecular mechanism of silkworm protein production”**, EMMRC, Mysore University, Date:05/11/2014
14. **“Gene Regulation”**, EMMRC, Mysore University, Date: 06/11/2014

15. **“PCR with an emphasis on Primer Designing, RFLP & RAPD”** Refreshers course in life science, organized by Academic staff college, UGC, Govt. of India, Bangalore University, Bangalore, Karnataka, India. Date 25th, Feb, 2012.
 16. **“An Introduction to Bioinformatics and Biological Databases”** Faculty improvement programme, Organized by the UGC, Govt. of India department of Life sciences, Bangalore University, Bangalore, Karnataka, India.
 17. **“PCR with an emphasis on RAPD”** Two days workshop on spectroscopy, HPLC, GC, PCR. Organized by Dayananda Sagar Group of Institutions, Bangalore, Karnataka, India
 18. **“The Role of Protein Kinases and Phosphatases in Human Health and Diseases”** Faculty improvement programme, SSFGC, Tumkur, Karnataka, India
 19. **“The Art and Science of Protein Purification”**, Department of Chemistry and Physics, Sri Siddaganga Institute of Technology, Tumkur.
 20. **“Protein Phosphorylation and its Role in Human Health and Disorders”** Faculty improvement programme, Jain Group of Institutions, VV Puram, Bangalore, Karnataka, India.
 21. **“Protein translation and Its Regulation in Prokaryotic Organisms”** to Government Junior College, Tumkur, Organized by Tumkur Science Center, Tumkur, Karnataka, India.
 22. **“Awareness programme on Malnutrition”** to Government Primary School, Sira, Tumkur District, Organized by Tumkur Science Center, Tumkur, Karnataka, India.
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Workshops / Orientation Programmes / Symposia are attended:

1. UGC sponsored **“Refresher course”** from 8-28th December 2011. Academic Staff college, University of Mysore, Mysore.
2. CME on **“Recent update on Diabetes Diagnosis and Management”** August 7, 2011, Bangalore International Exhibition services, Bangalore, India.
3. Indo European symposium on **“Alternative Approaches to Animal Testing”**, December 8, 2010, JSS University, JSS College of Pharmacy, Ooty, Tamilnadu, India
4. Indo-French Symposium, **“Recent Trends in Brain Tumor Treatment and Research”** organized by department of Human Genetics, National Institute of Mental Health and Neurosciences, Bangalore-560029 on 15th June 2010.
5. UGC sponsored **Orientation Programme** from 3-31st August 2009. Academic Staff college, Central college campus, Bangalore University, Bangalore.
6. Workshop on **“Biostatistics and Computer Applications”**, organized by Department of Statistics, 30th March to 1st April 2009, Jnanabharathi Campus, Bangalore University, Bangalore, India.

7. Workshop on “**Access to E-resources for Teaching and Research**” conducted by INFLIBNET, Bangalore University Library, 28-29th April 2008, Jnanabharathi campus, Bangalore University Bangalore, India.
 8. Orientation Course on “**The Use of SPSS statistical software**” 27-28th September 2007, SPSS South Asia Pvt. Ltd and Department of Statistics, Bangalore University.
 9. Workshop on “**Science and Technology in Karnataka- Past, Present and Future**” 23rd August 2007, Karnataka and Technology Academy and Department of Science and Technology, Karnataka Government Bangalore, India.
 10. Symposium on “**Brain Genomics**” and Workshop on Modern Techniques in **Neurochemistry**, 11-21st December 2002, Symposium and Workshop on Brain Genomics, Hyderabad, India.
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A. PUBLISHED IN PUBMED INDEXED JOURNALS:

1. Ghosh, S., Sinha, J. K., Khan, T., **Devaraju, K. S.**, Singh, P., Vaibhav, K., & Gaur, P. (2021). Pharmacological and Therapeutic Approaches in the Treatment of Epilepsy. *Biomedicines*, 9(5), 470. (PMID: 3392306, PMCID: PMC8146518, DOI: 10.3390/biomedicines9050470). **Impact Factor- 4.717.**
2. Aravind, P., Bulbule, S. R., Hemalatha, N., Babu, R. L., & **Devaraju, K. S.** (2021). Elevation of gene expression of calcineurin, calmodulin and calsynenin in oxidative stress induced PC12 cells. *Genes & Diseases*, 8(1), 87-93.(PMID: 33569517 PMCID: PMC7859428 DOI: 10.1016/j.gendis.2019.09.001) **Impact Factor-7.103.**
3. Babu, R. L., Kumar, M. N., Patil, R. H., Kumar, K. K., **Devaraju, K. S.**, Ramesh, G. T., & Sharma, S. C. (2019). Forskolin and Phorbol 12-myristate 13-acetate modulates the expression pattern of AP-1 factors and cell cycle regulators in estrogen-responsive MCF-7 cells. *Genes & diseases*, 6(2), 159-166.(PMID: 31194000 PMCID: PMC6545452 DOI: 10.1016/j.gendis.2018.12.001), **Impact Factor-7.103.**
4. Kruthika-Vinod, T. P., Muntaj, S., **Devaraju, K. S.**, Kamate, M., & Vedamurthy, A. B. (2017). Genetic screening of selected disease-causing mutations in glutaryl-CoA dehydrogenase gene among Indian patients with glutaric aciduria type I. *Journal of pediatric genetics*, 6(03), 142-148. (PMID: 28794906 PMCID: PMC5548524 DOI: 10.1055/s-0037-1599202). **Impact Factor-1.089.**

5. Shaik, M., **Shivanna, D. K.**, Kamate, M., Ab, V., & TP, K. V. (2016). Single Lysis-Salting Out Method of Genomic DNA Extraction From Dried Blood Spots. *Journal of clinical laboratory analysis*, 30(6), 1009-1012.(PMID: 27074880 PMCID: PMC6806700 DOI: 10.1002/jcla.21972), **Impact factor:2.352.**
6. Anushree, G., Aravind, P., Vinod, D., Hemalatha, N., Girisha, S. T., & **Devaraju, K. S.** (2020). Peroxynitrite-induced conformational changes in DNA that lead to cell death: UV, CD spectral, molecular dynamics simulation and FACS analysis. *Nucleosides, Nucleotides & Nucleic Acids*, 40(1), 1-15. (PMID: 32933357 DOI: 10.1080/15257770.2020.1809673), **Impact Factor- 1.167.**
7. Harish B M, Saraswathi R, Vinod D and **Devaraju K S**, Discovery of a latent calcineurin inhibitory peptide from its auto inhibitory domain by docking, dynamic simulation and invitro methods, Publishers: Journal of Bimolecular Structure and Dynamics, 06 Aug 2015, ISSN : 1538-0254, (PMID: 26111023 DOI: 10.1080/07391102.2015.1064829) , **Impact Factor- 2.919.**
8. **K S Devaraju**, B S Mohan Kumar, SV Sureshababu, A Gopi, R Saraswathi and BM Harish, A novel assay method for calcium calmodulin dependent phosphatase from bovine brain extract, *Indian Journal of Experimental Biology*, Vol.52, Feb 2014,168-174, (PMID: 24597150), **Impact Factor- 0.818.**
9. Ambikapathi, G., Kempahanumakkagari, S. K., Lamani, B. R., **Shivanna, D. K.**, Maregowda, H. B., Gupta, A., & Malingappa, P. (2013). Bioimaging of peroxynitrite in MCF-7 cells by a new fluorescent probe rhodamine B phenyl hydrazide. *Journal of fluorescence*, 23(4), 705-712, PMID: 23479207 DOI: 10.1007/s10895-013-1205-y, **Impact Factor- 2.217.**
10. Babu R L, Naveen Kumar M, Patil RH, **Devaraju K S**, Ramesh GT, Sharma SC. Effect of estrogen and tamoxifen on the expression pattern of AP-1 factors in MCF-7 cells: role of c-Jun, c-Fos, and Fra-1 in cell cycle regulation. *Mol Cell Biochem*. 2013 Aug; 380 (1-2):143-51, (PMID: 23625206, DOI: 10.1007/s11010-013-1667-x), **Impact Factor- 2.884.**
11. Kumar, H. R., Ananda, S., **Devaraju, K. S.**, Prakash, B. M., Kumar, S. S., Babu, S. S & Puttaraju, H. P. (2009). A sensitive assay for ornithine amino transferase in rat brain mitochondria by ninhydrin method. *Indian Journal of Clinical Biochemistry*, 24(3), 275-279, (PMID: 23105849, PMCID: PMC3453300, DOI: 10.1007/s12291-009-0052-8), **Impact Factor- 1. 388.**

12. Ravikumar, H., **Devaraju, K S.**, & Shetty, K. T. (2008). Effect of P^H on spectral characteristics of P-5C-Ninhydrin derivative: Application in the assay of ornithine amino transferase activity from tissue lysate. *Indian Journal of Clinical Biochemistry*, 23(2), 117, (PMID: 23105736 PMCID: PMC3453081 DOI: 10.1007/s12291-008-0028-0), **Impact Factor- 1. 388.**

B. PUBLISHED IN SCI INDEXED JOURNALS:

13. Shaik, M., Alladi, A., Vedamurthy, A. B., **Devaraju, K. S.**, Kamate, M., & Kruthika-Vinod, T. P. (2021). Large-scale Extraction of DNA by Using Salting-out Principle for Dried Blood Spots to Screen Multiple Mutations in GCDH Gene. *Iranian Journal of Science and Technology, Transactions A: Science*, 1-8. **Impact Factor-1.194, (Springer Publishers).**
14. Bulbule S R, Aravind P, Hemalatha N, **Devaraju K S.** Modeling, Synthesis and Characterization of Phospho-Penta-Peptide derived from PKA RII Sub Unit: A Candidate Substrate for CaN Assay, *International Journal of Peptide Research and Therapeutics*, 2018:1-8. **Impact Factor - 1.931, (Springer Publishers).**
15. Babu R.L, Vijayalakshmi.E, Naveen Kumar M, Rajeshwari. H. Patil, **Devaraju. K.S** and S. Chidananda Sharma, 2013. "Biosorption of Chromium (VI) and Lead (Pb II): Role of Spirulina platensis in the treatment of industrial effluent". *Bioremediation Journal*, 17: 4, 231-239, **Impact Factor-1.909, (Taylor & Francis Online).**
16. Harish B M, **Devaraju K S ***, Gopi A, Saraswathi R, Anushree and S Chidananda Sharma "In silico binding affinity study of calcineurin inhibitors to CaN and its close associates" *Indian Journal of Biotechnology*, Vol 12, April 2013, pp 213-217. **Impact Factor- 0.414, (CSIR-NISCAIR).**
17. K Sureshkumar, Malingappa Pandurangappa, A Gopi and **K S Devaraju** "2, 7-Dichlorofluorescein hydrazide as a new fluorescent probe for mercury quantification: Application to industrial effluents and polluted water samples" *Spectroscopy: An International Journal*, Volume 2013 (2013), Article ID 276981, 8 pages. **Impact Factor- 0.852, (Hindawi Publishers).**
18. Roopashree, V. Gayathri, A. Gopi & **K S Devaraju** (2012): Syntheses, characterizations, and antimicrobial activities of binuclear ruthenium(III) complexes containing 2-substituted benzimidazole derivatives, *Journal of Coordination Chemistry*, 65:22, 4023-4040. **Impact Factor- 1.41, (Taylor & Francis Online).**
19. **Kuramkote Shivanna Devaraju**, Basanagoud S Patil, Subramanyam J Tantry, S V Suresh Babu, Taranath Shetty K, Vommina V Suresh Babu, Synthesis of a Modified peptide fragment analog Val-Tyr (P)-Val-Ala-Ala-OH of cAMP Protein Kinase regulatory Subunit Type II Employing Fmoc-Chemistry. *Indian Journal of*

Chemistry, Vol.45B, July 2006, 1747-52. **Impact Factor- 0.592**, (CSIR-NISCAIR).

C. PUBLISHED IN PEER REVIEWD JOURNALS: WITHOUT IMPACT FACTOR:

20. Manjunath Sunagar, Aravind P, Supreet Goankar, **Devaraju K S**, Shrinivas D Joshi, Sheshagiri R Dixit, Harish B M , Imtiyaz Ahamed M. Khazi, In Silico binding affinity studies of N-9 substituted 6-(4-(4-propoxyphenyl) piperazin-1-yl) 9H-purine derivatives-Target for P70-S6K1 and PI3K- δ -Kinases, Ben-Suef University Journal of Basic and Applied Sciences , 2017, (**Springer Publishers**).
21. Anushree, Gopi A, Girisha ST, **Devaraju K S**, Comparative study of UV- Vis spectra and restriction digestion gel patterns of DNA and nitrated DNA, European Journal of Biotechnology and Bioscience, Volume 4; Issue 1; January 2016; Page No. 63-69, (**Bioscience Journals**).
22. Harish Bodagur Maregowda, Saraswathi Ramanna, **Devaraju Kuramakote Shivanna**, Molecular Docking Study of Auto Inhibitory Domain Fragments to Calcineurin A, International Journal of Scientific and Engineering Research, Vol 5, Issue 1, Jan 2014,2095-2100, (**IJSER Open Access**).
23. Gopi A, **Devaraju K S**, Harish B M, Anushree and S Chidananda Sharma “Elevated temperature and its impact on Nitration of tyrosine”- Proceedings of National Conference on Climate Change and Its Impact on Natural Resources – 2010 **LAMBERT Academic Publishers** (2012).
24. Gopi A, Anushree and **Devaraju K S**, Spectrophotometric Estimation of Nitro Tyrosine by Azo-Coupling Reaction, International Journal of Pharma and BioScines, Jan, 2014 Vol. 5, Issue 1:269-277, (**IJPRB Open access**).
25. Shivaji B Bole^{1*}, Nargund L.V.G¹, Sachindara L.N¹, **Devaraju K.S²**, Shruthi S.D³, Synthesis, in vivo and insilico Anti Inflammatory studies of Substituted Fluoropyrazole, Research Journal of Pharmaceiutical, Biological and Chemical Sciences, July-Sept 2011, Vol 2, Issue 3, 119-127, (**RJPBCS open access**).
26. Shivaji B Bole, Nargund LVG, Rama Nargund, **Devaraju K S** and Vedamurthy A. B. , Synthesis of substituted fluoro pyroszoles and Anti-Bacterial and Anti-Oxidant Activity, International Journal of Pharmaceutical Research and Development, Vol 3, (6), August 2011, 161-166, (**IJPRD open access**).
27. Shivaji. B. Bole, Rama Nagagund, Lakshmi Venkatesh. G Nargund, **Devaraju K. S.** Vedamurthy. A. B and Shruth S D, Synthesis and biological evaluation of novel pyrazole derivatives as urease inhibitors, Der Pharma Chemica, 2011, 3(5):73-80.

Best Paper Presentation

1. *“Assay of a Molecule Involved in Learning and Memory”*, National Conference on Recent Discoveries in Protein Science, organized by Tumkur University, Tumkur, in association with Karnataka State Higher Education Council, Bangalore, 31st January 2013.
2. *“Expression study of Parkinson’s Disease genes by real time PCR in Nitrosative stress induced PC12 cell line”*, Anushree, Aravind P, Girisha Shringala Thimappa and Devaraju Kuramkote Shivanna, Frontiers in Ecobiological Sciences and its Applications (FESA-2017), School of LifeSciences, Periyar University, Salem, Tamil Nadu.

Research paper presented in National/ International Conferences

1. Kuramkote Shivanna Devaraju, Harish Bodagur Maregowda, Saraswathi Ramanna, Sarojni R Bulbule, P Aravind, Chaitra B and Vinod Devaraji, Calcineurin: Assay, Substrates and Inhibitors, Society for Neurochemistry, India (SNCI-2019), J S S Academy, Mysore, 14-16th March 2019.
2. Dr. Devaraju K S, Nivedita Shireshi and Dr. Raghavendra Nayak Serum Calcineurin and antioxidant enzyme profile in drug naïve schizophrenia patients, “16th annual meeting of Society of Free Radical Research in India (SFRR-2018) and International Conference on *“Translational Research in Free Radicals and micronutrient Antioxidants and Functional Foods”* between 18-20th February, 2018 organised by Department of Laboratory Medicine, in All India Institute of Medical Sciences, New Delhi.
3. Anushree, Aravind.P, **Devaraju Kuramkote Shivanna**, Expression Study of Parkinson’s Disease Genes by Real time PCR in Nitrosative Stress induced PC12 Cell line in 2nd National Conference on “Frontiers in Ecobiological sciences and its Applications” in March 2017.
4. **Devaraju. K. S**, Aravind.P, Anushree, A RBPH molecule for Bioimaging of Peroxynitrite in PC 12 cells. RNA Biology Symposium 2016 in Singapore.
5. **Devaraju. K.S**, Aravind.P, Niveditha Shireshi, Effect of Antipsychotic Drugs’ on Protein Phosphatase Activity in Cortex and Hippocampus of Goat Brain Extract, ACBICON 2016 in Mangalore.
6. **Devaraju K S**, Sumashree G, Akshata F K, Mohiyuddin Khazi, Vidyashree P L Manikantha, Dayananda Sajjan and Nivedita Shireshi, UV-Visible Spectral Analysis of Nitrated Amino acids: In Relevance to Nitration Detection in Diseased Conditions, ENZYME RESEARCH IN AGRICULTURE FOOD AND INDUSTRIAL BIOTECHNOLOGY-2015, in the Department of Biotechnology, Bangalore University, Bangalore between 12th and 13th of March 2015.
7. Dayananda B Sajjan, **Kuramote Shivanna Devaraju**, Bahubali Navalur, Mamatha R Nyamathi, Deepashri B Kamat, Manisha R Mirjankar, Renu Devi P

- and Shivyogeppa B Hinchigeri, Phosphatase and Protease Activity Dynamics in BmNPV Infected *Bombyx Mori*, ENZYME RESEARCH IN AGRICULTURE FOOD AND INDUSTRIAL BIOTECHNOLOGY-2015, in the Department of Biotechnology, Bangalore University, Bangalore between 12th and 13th of March 2015.
8. **K S Devaraju**, Harish B M, Saraswathi and Vinod Devaraji, Discovery of a Lead Candidate for the Calcineurin by Docking, Dynamic Simulation and an *in vitro* Approach, International Conference on Bioactive Chemicals for Reproduction and Human Health” and 33rd Annual meeting of the Society for Reproductive Biology and Comparative Endocrinology, organized by Departments of Life Sciences, Davanagere University, Shivagangotri Campus, Davanagere, between 26th and 28th, Feb 2015.
 9. **Devaraju K S**, Gopi A, Suresh Kumar, Pandurangappa and Anushree, A *Fluorescent Molecule to Detect Peroxynitrite: Implications in Neurological Disorders*, has been accepted for the oral presentation in the “Mito Symposia-2014” and also I am attending “Hands-on workshop in Neurochemistry and Electron Microscopy” which will be held between 14th and 19th, July 2014, organised by Departments of Neurochemistry and Neuropathology, NIMHANS, Bangalore, India.
 10. **Devaraju K S** and Mr. Gopi A, LCMS Quantification of Referral Nitrated Proteins, International Conference on “*Nanobio, Biometric Materials and its Applications*” organised by ICNBM-2014 in Coimbatore, Tamilnadu, India between 27th and 28th, February 2014.
 11. **Devaraju K S**, Gopi A, Lakshminarayana R and Girisha S T, "Bioimaging of Peroxynitrate by RBPH" Annual conference of India Academy of Neuroscience (IAN) and International Symposium Translational Neuroscience, Oct 27-30, 2012. In the department of Biotechnology, Gurunanak Dev University, Panjab, India.
 12. Anushree, Gopi A, Mohan Gowda C M, Roopashree B, Harish B M and **Devaraju K S**, “**Antimicrobial activity of Ruthenium Complexes**” National conference on Perspectives on health Benefits of Therapeutic Molecules, Centre for Bioscience and Innovation and Centre for Bio-Information, 6th January 2012, Tumkur University, Tumkur, Karnataka, India.
 13. Gopi A, Anushree, Harish B M and **Devaraju K S**, “**Spectral study on the stability of Peroxynitrite at Different P^H**” National conference on Perspectives on health Benefits of Therapeutic Molecules, Centre for Bioscience and Innovation and Centre for Bio-Information, Tumkur University, 6th January 2012, Tumkur, Karnataka, India.
 14. Harish B M, and **Devaraju K S**, Anushree, Gopi A, “**Docking studies of Autoinhibitory domain peptide analog for Calcineurin and its binding affinity by Hex**” National conference on Perspectives on health Benefits of Therapeutic Molecules, Centre for Bioscience and Innovation and Centre for Bio-Information, Tumkur University, 6th January 2012, Tumkur, Karnataka, India.
 15. Anushree, Harish B M, **Devaraju K S**, Gopi A, S C Sharma “**Insilico Binding Affinity Study of Calcineurin inhibitors to CaN and its Close Associates**”.

- Recent Trends In Genomics And Proteomics, 27-28th May 2011, Bangalore University Bangalore, India.
16. Gopi A, Devaraju K S, Harish B M and S Chidananda Sharma **“Spectrophotometric Estimation of Nitro Tyrosine by Azo Coupling Reaction”** Recent Trends In Genomics And Proteomics, 27-28th May 2011, Bangalore Univeristy Bangalore, India.
 17. Shivaji B Bole, Nargund L.V.G, Devaraju K.S, Vedamurthy A.B, Shruthi N, Vivekanandareddy, **“Synthesis, in Vivo and in Silico Anti Inflammatory Studies of Substitute Fluoro Pyrazole”** Recent Trends In Genomics And Proteomics, 27-28th May 2011, Bangalore Univeristy Bangalore, India.
 18. Shivaji B Bole, Nargund L.V.G, Devaraju K.S, Vedamurthy A.B, Ashwini.M.Siniramadas **“Synthesis of substituted Fluoro pyrazoles for anti bacterial and antioxidant activity”** Recent Trends In Genomics And Proteomics, 27-28th May 2011, Bangalore Univeristy Bangalore, India.
 19. **Devaraju K S**, Gopi A, Harish B M, Kureeckal Ramesh, and Suresh Babu S V **“ In Silico and Pharmacokinetics of para-Nitrophenylphosphate Substrate for Calcineurin”**. International Conference on Bioinformatics, Computational Biology, Genomics and Chemoinformatics (BCBGC-10), Orlando, Florida, USA ,12th July - 14th July, 2010
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 21. **Devaraju K S**, Suresh Babu S V, Gopi A, Harisha B M, **“Fluorescence detection method for the assay of calcium activated neutral proteases”** International conference on Recent trends in Therapeutic Advancements of Free Radical Science and 10th Annual Meeting of the society of Free Radical Research (SFRR-2011), January 9th-11th, 2011,Chennai, India.
 22. Gopi A, **Devaraju KS**, Harish BM **“ Elevated Temperature and its Impact on Nitration of Tyrosine”**, National Conference on ‘Climate Change and its Impact on Natural Resources’ at the Central college campus, 18th-20th October, 2010, Department of Environmental Science, Bangalore University, Bangalore, India
 23. **Devaraju K S**, Mohan B M, Saraswathi R, Harisha B M, Gopi A, Suresh Babu S V, **“A comparative assay of para-nitrophenylphosphatase and Phosphotyrosine phosphatase in Bovien brain extract”**, Regulation and Biochemical and Cellular Processes in diverse systems, 13th-15th December 2010, 9th Annual Meeting of Society of Biological Chemistry, IISC, Bangalore, India.
 24. Saraswathi R, **Devaraju K S**, Gopi A, Harisha B M **“UV spectral and Fluoroscence characteristics of Modified Analog of cAMP Protein Kinase Regulatory Subunit Type II”** Regulation and Biochemical and Cellular Processes in diverse systems, 13th-15th December 2010, 9th Annual Meeting of Society of Biological Chemistry, IISC, Bangalore, India.
 25. **Kuramkote Shivanna Devaraju**, Gopi A, Mohan Kumar B S and Sathisha K **“Nitration of Few aminoacids, their Crystallization and Mass spectral Analysis”** 11th-13th January 2010, International conference on advances in free

- radical research natural products, antioxidants and radio protectors in health and 9th annual meeting of SFRR, Hyderabad, India.
26. Harish BM, **Devaraju KS**, Gopi A, “**Binding affinity studies fo known inhibitor of calcineurin with FKBP 12 by AutoDock 3.0**” 25th Annual meeting of Society for Neurochemistry, India.
 27. **Devaraju K S**, Gopi A, Mohankumar B S, Harish B M, Suresh Babu S V “**Substrate Binding Affinity Studies for the Calcium Dependent Protein Phosphatase from bovine brain extract**” 27th Annual conference of Indian Academy of Neurosciences-2009 on recent advances in neurosciences 18th-20th Dec 2009, NIMS University, Jaipur, India.
 28. R. Lakshminarayana, **K.S. Devaraju** and V. Baskaran, “**Purification and Analysis of Carotenoids and Their Metabolites in Biological Samples**”, International Society of Biotechnology, Gangtock, (India), 28-30th December 2008.
 29. **Kuramkote Shivanna Devaraju**, Suresh Babu V and Taranath Shetty K, “**Spectral Characteristics of Calmodulin (CaM) and CaM -Trifluoperazine Complex Throw a Light on Interference in The Assay of Calmodulin Dependent Enzymes**”, International Society of Biotechnology, 28-30th December 2008. Gangtock, India,
 30. **Devaraju K S**, Suresh Babu V and Girisha S T , “**Assay of Calcium dependent Protein tyrosine phosphatase in WBCs, Platelets and Cerebrospinal Fluid**” Society of Biological Sciences (India), 18-20th December 2008, IIT Madras, Chennai, India.
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 32. **Devaraju K S**, Sushma, Suma and Chitra “**Anti-inflammatory action of Ghee Turmeric and Beetle leaves**” Project proposal presented at National Symposium on Innovation in Biotechnology Entrepreneurial Opportunities and IPR, on 23rd to 25th October 1997, Bangalore University, Bangalore.
 33. **Devaraju K S**, Ravikumar H, S V Suresh Babu and Taranath Shetty, “**Pyroline-5-Carboxylate: Synthesis, Spectral Characteristics its Ninhydrin Derivative and Assay Method**”, 27th-29th September 2006, National Conference in Chemistry, Bangalore University, Bangalore.
 34. **Devaraju K S**, Basangoud Patil., Sureshbabu, V V, Suresh Babu, SV and K Taranath Shetty, “**Synthesis of peptide substrates for protein tyrosine kinase (s) and phosphatase (s): Potential diagnostic application**”, 31st Annual Conference of ACBI, Jawaharlal Nehru Medical College, Belgaum, India 2004.
 35. Mallikarjun Badadani, SV Suresh Babu, Seetharamaiah Chittprol, **Devaraju KS** and Taranath Shetty, “**Assay Method for Hydroxyproline and Proline in Urinary Peptides**”, ACBICON, 19-22nd January 2004, Nationa Institute of Mental Health and Neuroscience, Bangalore, India.
 36. **Devaraju KS**, SV Suresh Babu, Mallikarjun Badadani, Seetharamaiah Chittprol, and Taranath Shetty, “**Methodological issues in the assay of Calcienurin Activity in Clinical Specimens**”, ACBICON, 19-22nd January 2004, National Institute of Mental Health and Neuroscience, Bangalore, India.

37. **Devaraju K S**, S V Suresh Babu and K Taranath Shetty, “**A Spectrophotometric Method for phosphotyrosine phosphatase assay and its application in monitoring calcineurin activity**”, 10th Congress of Federation of Asian and Oceanian Biochemistry and Molecular Biologists Congress Conference 7-11th December, 2003, Indian Institute of Science, Bangalore, India.
 38. Badadani M, Agarwal S S, Sureshbabu SV, Shetty P K A, **Devaraju K S** and K Taranath Shetty, “**Biochemical studies on Handigodu Disease: A syndrome of epi/metaphyseal syndrome**”, 2-3rd December 2002, Regional Meeting of ACBI, Bangalore, India.
 39. **Devaraju K S**, Shetty P.K.A., Sureshbabu, S.V., Badadani, M. and K. Taranath Shetty, “**A novel method for assaying calcineurin activity in tissue extracts and biological fluids**”, 2-3rd December 2002, Regional Meeting of ACBI, Bangalore, India.
 40. **Devaraju K S** and K. Taranath Shetty, “**Studies on protein phosphatases in nervous system**”, 11-21st December 2002, Symposium and workshop on Brain Genomics, Hyderabad, India.
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Member for the National/International Bodies:

- ❖ Society for Neurosciences, Washington D C, USA.
 - ❖ Sophisticated Instrument facility, I.I.Sc., Bangalore, India.
 - ❖ Society of Biological Chemists, I.I.Sc., Bangalore, India.
 - ❖ International Society of Biotechnology, Indore, India.
 - ❖ International Society for the Free Radical Biology, India.
 - ❖ Indian Academy of Neurosciences, India.
 - ❖ Society for Neurochemistry India (SNCI), India.
 - ❖ Association of Clinical Biochemists of India (ACBI), India
 - ❖ Indian Science Congress Association (ISCA), India.
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Executive Summary:

- ❖ **The Chairman**, P.G. Department of Biochemistry, Karnatak University, Dharwad
- ❖ **The Coordinator**, Skill Development Centre, Karnatak University, Dharwad-58003.
- ❖ **In-Charge Chairman**, Department of Biochemistry, Karnatak University, Dharwad.
- ❖ **Chairman** for the Ph.D. Examination of Mr. Gopi A, in Bangalore University, Bangalore.
- ❖ **Member of Faculty of Science**, Department of Biochemistry, Karnatak University, Dharwad-580 003.
- ❖ **Member of Board of Studies**, Department of Biochemistry, Karnatak University, Dharwad-580 003.

- ❖ **Technical Expert** for the purchase committee of DST-SERB research project carried out by Dr. Lakshminarayan, Dept. of MB and BT, Bangalore University, Bangalore.
- ❖ Member of Advisory committee for Research Grant MRU, ICMR Govt. of India. DIMHANS, Dharwad.
- ❖ **Chaired** one of the sessions in NCERAFIN-2016, national conference held between 12th and 13th March 2015 in Maharani Women's College, Bangalore.
- ❖ **PGP- Coordinator** for I and III Semester M.Sc. Biochemistry, KUD, for the year 2015-16.
- ❖ Board of Examiners for M.Sc, Biotechnology, Bangalore University, Bangalore India (Ref No.EX-I/BOE/UG/PG2009-10, Dated 3rd September 2009).
- ❖ Board of studies for B.Sc., Microbiology, Bangalore University, Bangalore, India (Ref No.SYN/S2/BOS/Micro Biology/19/2008-09, Date 8th April 2008).
- ❖ Worked as **“Chief Squad”** with the twenty squad-members for the MBA and MCA examinations-June-July, 2010 in Bangalore University, Bangalore.
- ❖ Worked as a **“Deputy Custodian”** for the M. Sc., Biotechnology, Bangalore University, Bangalore, for the year 2009-09.
- ❖ Working as a Teacher in-charge for the **“Bioinformatics Center”**, funded by DBT, India science 2008 from the academic year 2008-09.
- ❖ Worked as an **Organizing Committee Member** of the **“National Workshop on Microbial Technology”** at the department of Microbiology and Biotechnology, Jnana Bharathi Campus, Bangalore University during 16-21st of February 2009.
- ❖ Worked as **Organization Committee Member** of the National Symposium on **“Innovation in Biotechnology Entrepreneurial Opportunities and IPR”**, on 23rd to 25th October 2007, Bangalore University, Bangalore.
- ❖ Worked as National study tour **“Coordinator”** for the M.Sc., students of strength of sixty, for the academic year 2006-07 at the department of Microbiology and Biotechnology, Jnana Bharathi Campus, Bangalore University, during 2007-08.
- ❖ Worked as **“Coordinator”** for computer networking in the department of Microbiology and Biotechnology, Jnana Bharathi Campus, Bangalore University, during 2007-08.
- ❖ Worked as National study tour **“Coordinator”** for the M.Sc., students of strength of forty, for the academic year 2006-07 at Dayananda Group of Institutions, Bangalore.
- ❖ Worked as a **“Coordinator”** for the conduction of entrance exam training for the graduate students who are the aspirants of Masters Degree in Chemistry for Bangalore University, during 1998-1999.

Co-Curricular:

- ❖ Worked as a **“Chief Warden”** for the Post graduate Hostel –III in Jnana Bharathi Campus, Bangalore University, Bangalore- 560 056.
- ❖ Worked as a cultural activities **“Co-Ordinator”** for the M.Sc. Students in the department of Microbiology and Biotechnology, Bangalore University.

- ❖ Worked as a “**Co-ordinator**” for the “*Shramadhana*” and “*Students talents day celebrations*” to clean the departmental premises and search the talents in outgoing IV semester M. Sc, students respectively.
- ❖ Worked as “**Project Assistant**” in the Tumkur Science Center for the awareness programme for the students and public (in particular village people primary school students) about Solar Eclipse, Environment (Forestation & Reforestation), and Nutritional Deficiency Diseases, environmental during 1998-1999.

Declaration:

I hereby declare that the above given information is true to the best of my knowledge.



(DEVARAJU K S)

Date: 1st September 2020.

Place: DHARWAD.

Mentor for the Ph.D. Programme:

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