



**Dr. Deepa C N**  
Associate Professor  
Department of Biochemistry  
Ethiraj College for Women

**Qualification:**

**M.Sc. (Biochemistry), M.Sc. (Bioinformatics), M.Phil., Ph.D., CSIR - NET.,**

**Years Of Experience:**

**UG : 19 Years PG : 17 Years**

**Area of Specialization:**

**Clinical Biochemistry, Food Biochemistry & Bioinformatics**

**Email : [deepa\\_cn@ethirajcollege.edu.in](mailto:deepa_cn@ethirajcollege.edu.in)**

## Research Grants Received:

- **UGC Minor Research Project (2014-2016) – (MRP – 5217/14) - Rs. 4,60,000/. – “Effect Of Naringenin on Ethanol and Cerulein Induced Inflammation in Pancreas – A Biochemical Study Using Rat Pancreatitis Model”**

## Research Papers Published:

1. Deepa CN, Geetha A **“Modulating effect of naringenin on the expression of various domains of ASC in pancreas – a study in male albino rats administered ethanol and cerulein”** International Journal of Pharmacy Practice and Pharmaceutical Sciences, Vol.2, Issue 3; 2015: 28-35
2. Deepa CN, Geetha A, Fatima Cynthia Antony **“Modulating effect of naringenin, a natural flavonone of citrus fruits on the activity of caspase-1 and proinflammatory cytokines - A biochemical study in rats administered ethanol and cerulein”** Asian Journal of Pharmaceutical and Clinical Research, Vol 7, Issue 5, 2014
3. Fatima Cynthia Antony, Arumugam Geetha, Deepa C Narayanan. **“Effect of Galangin on Ethanol and Cerulein induced inflammatory changes in Pancreas: A Biochemical study in rat model”** International Journal of Pharmacy and Pharmaceutical Sciences, Vol 5, Issue 3, 2013.
4. G Vani, C.N.Deepa, C.S.Shyamala Devi. **“Oxidative and non-oxidative activation of murine peritoneal macrophages by Histone H1”** Indian Journal of Experimental Biology, Vol.42, Mar 2004.

## Research Papers Presented:

1. **“Insilico prediction of Acrylamide and Glycidamide toxicity and their interaction with Human Metallothionein-2”** International E-Conference on Integrated Bioinformatics & Computational Biology Organized by Department of Genetic Engineering, SRM IST, Kattankulathur on December 16th & 17th 2020. **(Best Paper Award)**
2. **“Acrylamide contamination in foods: Impact on health”** International E-Conference on New Horizons in “Biochemistry, Microbiology and Food Technology – 2020” (IECBMFT-2020) jointly Organized by Yogi Vemana University & Universiti Malaysia Kelantan held on October 12th & 13th, 2020.
3. **“Homology Modeling of Antigen 85A from Mycobacterium Leprae and a Study on its interaction with Commercial Drugs – A Bioinformatic Approach”** International conference on “Biodiversity – Strategies for Conservation and Sustainable Utilization” at Ethiraj College for Women, Chennai on 1- 2 Feb 2018
4. **“Interaction studies of Naringenin with the central signaling molecules of TLR/NLR pathway in pancreatitis”** National conference on “Nutraceuticals in Disease Management” at Vels University, Chennai on 2<sup>nd</sup> and 3<sup>rd</sup> Feb 2017. **(Best Paper Award)**

5. ***“Insilico study on the interaction of basic ingredients of lens care solutions with human tear film proteins lysozyme and lipocalin ”*** XV AZRA International Conference on “Recent Advances in Life Sciences” at Ethiraj College for Women, Chennai on 11- 13 Feb 2016
6. ***“Effect of naringenin a citrus flavonoid on pancreatic fibrosis in experimental pancreatitis in wistar albino rats”*** International seminar on “Biotechnology-challenging the challenges of the changing world”, Justice Basheer Ahmed Sayeed College for Women, Chennai on 4 & 5 Feb, 2015
7. ***“Modulating effect of naringenin on the molecular assembly of NLRP3 inflammasome in pancreas - a study in rat model of experimental pancreatitis”*** National conference on Molecular basis of human diseases, Bharathi womens college on 8 & 9 Jan, 2015
8. ***“The modulating effect of naringenin on the activity of ASC domain of NLRP3 inflammasome complex - A study in rat model of experimental pancreatitis”,*** National conference on Dietary interventions and signaling cascades in health and diseases, University of Madras on 21 & 22 Feb, 2014.
9. ***“Insilico Analysis of Hypothetical Proteins CD3618 and CD3669 from Clostridium difficile”,*** International Conference on Emerging Trends & Challenges in Science & Technology, Bhaktavatsalam Memorial College for Women, Chennai on 1& 2 Mar, 2013.
10. ***“Anti-Inflammatory Effect Of Naringenin - A Biochemical Study In Rats Subjected to Experimental Pancreatitis”,*** National Seminar on Herbal Medicines and Health, University of Madras, Chennai on 16 Feb 2013. **(Best Paper Award)**
11. ***“Insilico Characterization of Hypothetical proteins in Clostridium difficile”,*** International Seminar on Biochemistry for tomorrow’s medicine, Justice Basheer Ahmed Sayeed College for Women, Chennai on 22-23, Feb 2012.
12. ***“Cardioprotective Potential of an Amber Based Polyherbal Formulation on Isoproteronol Induced Myocardial infarction in Rats”,*** National Congress on Bioscience Research, Ethiraj College for Women, Chennai on 26-27, Aug 2011.
13. ***“Insilico Interaction Study of Adhesion Protein Bab A and Lewis B Antigen”,*** National Level Conference on Innovations in Biotechnology-2010 at SRM University, Chennai on 7-8, Oct 2010.
14. ***“Insilico Study on the interaction of Acetosyringone with Vir A – Chv E Complex”,*** International Conference on The Key Role of Life Science for Sustainable Development in the World at Hindustan College of Arts and Science, Chennai on 30-31, Aug 2010.

### Research Projects Guided:

1. Review on mitigation of acrylamide generation by Brassica juncea and Capsicum annum

2. Review on antiviral properties of polyphenols: EGCG and theaflavin from *Camellia sinensis*
3. A review on the genetic evolution of vancomycin resistance in *Staphylococcus aureus* and possible interventions
4. A study on the mitigation of acrylamide content in fried food by turmeric
5. A preliminary study on the efficacy of hydroponically grown *Brassica juncea* in rhizofiltration
6. Insilico Characterization of Hypothetical Proteins from *Mycobacterium leprae*
7. A study on acrylamide in a south indian savoury – karasev
8. A study on the acrylamide content in golgappa - a popular indian snack
9. A study on the levels of acrylamide in sago vathal - a south indian sundry
10. A study on the acrylamide content in traditional Indian foods.
11. A study on the levels of acrylamide in south Indian snack varieties.
12. Effect of Naringenin on Oxidative stress and Mitochondrial alterations in Experimental Pancreatitis
13. Simple and specific high performance liquid chromatography method for estimation of cycloserine in human plasma (Co-Guided)
14. Insilico characterization of hypothetical proteins CD630\_07140 and CD630\_08810 from *clostridium difficile*
15. Isolation and characterization of flavonoids from *Solanum lycopersicum*
16. Effect of Naringenin on Pancreatogenic diabetes - A Biochemical study on Wistar rats
17. Biochemical study on the effect of naringenin on pancreatitis induced diabetes in rats
18. Effect of Naringenin on the liver marker enzymes in wistar rats subjected to ethanolic diet
19. Lipid lowering effect of Naringenin on wistar rats subjected to ethanolic diet
20. Assessment of Biochemical Properties and Antimicrobial effect of *Ziziphus marutiana*
21. Insilico Characterization of Hypothetical proteins in *Clostridium difficile*
22. Insilico study on the interaction of Basic Ingredients of Lens care solutions with Human Tear Film Proteins
23. Homology Modeling of Antigen 85A from *Mycobacterium Leprae* and a Study on its interaction with Commercial Drugs
24. 3D Structure Prediction and Visualization of interaction between Vir A and ChvE Complex from *Agrobacterium tumefaciens* and Acetosyringone – A Bioinformatic approach
25. Homology modeling and Insilico interaction study of Adhesion Protein Bab A and Lewis B Antigen
26. Comparative Study on Rhamnolipid Production in minimal salt media modified by the addition of metal salts of fatty acids (Co-Guided)
27. Comparative study on the interaction of commercially available drugs with perfringolysin O, a sterol dependent cytolysin from *Clostridium perfringens* – a Bioinformatic approach. (Co-Guided)
28. Lipid profile in Type II Diabetes Mellitus – A comparative Study. (Co-Guided)
29. Effect of Pulsed magnetic field at varying durations on the Biochemical Parameters of Groundnut Seeds using solenoid coil. (Co-Guided)

### Additional Responsibilities held at Ethiraj College:

- Staff secretary (2021-22)
- Member of ECRIC (2019 - till date)
- Certificate course incharge of self-supporting stream ( 2007 - 08) & (2018 - 2021)
- Member of college Union Advisory (2016-18)
- Member of Internal Quality Assurance Cell (IQAC) core committee in Ethiraj College and prepared complete documentation for NAAC (2011 - 2013)
- Member of UGC Purchase Committee in Ethiraj College (2008 – 2011)
- Member of Logistic Committee at Ethiraj College for complete reorganization of the infrastructure (2007 - 2008)
- Discipline Committee incharge of self-supporting stream (2007- 08) at Ethiraj College

### Resource Person

- Question Paper setter, Practical Examiner and Paper Evaluator at various colleges around Tamilnadu.
- As an Expert at the International Workshop on “The Significance of Snakebites and Venoms for Life Science Education” at Stella Maris College, Chennai in collaboration with University of Reading, UK on 26th Feb 2021.
- Invited speaker on “Scope of Molecular Biology in Biotech industry’ in Hands on workshop on Mol Bio Gizmo at Kumara Rani Meena Muthiah College Of Arts and Science on 31st January 2019
- Invited speaker at Little Millennium Annual Day on 26th March 2017.
- Webinar on " Enzymes in Diagnosis " at Theivanai Ammal Women’s college, Villupuram on 8th September 2016.

### NPTEL/ SWAYAM

5. **NPTEL** course on “Introduction to Proteomics” (Sep – Nov 2020).
6. **Massive Open Online Course (MOOC)** on “Learn Moodle 3.11 Basics” by Moodle in June 2021.
7. **Massive Open Online Course (MOOC)** on “Digital Assessment and Evaluation Methodologies” (September 1- 30, 2022) from ICAR-National Academy of Agricultural Research Management.

### **Seminars / Conferences / Workshops Organised:**

1. Organizing committee member - National Symposium on "Science and Technology For Sustainable Development with Women Empowerment" in collaboration with the Indian Science Congress Association Chennai Chapter, Tamil Nadu, India held on 18.01.2023.
2. Faculty Development Program on "Recent trends in Molecular Biotechnology" Department of Biochemistry, Ethiraj College For Women, 3rd & 4th June 2020.
3. International Faculty Development Webinar on "Adapting to the Covid Era" Department of Biochemistry, Ethiraj College For Women, 12th June 2020.
4. International Webinar on "Career prospects in Lifesciences" Department of Biochemistry, Ethiraj College For Women, 24 and 25 March 2021.
5. Webinar on "Know your Immunity during the Pandemic" on 18th May 2020.
6. National Seminar on "Health 2020 – An alternative Perspective" at Ethiraj College for Women, Chennai on 7 Jan 2020.
7. Faculty Development Workshop on "Research Innovation and Creativity" at Ethiraj college for women on 14 Sep, 2019
8. Youth Conclave on "Roots and Routes" at Ethiraj College for Women, Chennai on 7 Mar 2018
9. International conference on "Biodiversity – Strategies for Conservation and Sustainable Utilization" at Ethiraj College for Women, Chennai on 1- 2 Feb 2018
10. Workshop on 'Basic Techniques in Biotechnology' at Ethiraj College for Women, Chennai on 9 – 10 Feb 2017
11. XV AZRA International Conference on "Recent Advances in Life Sciences" at Ethiraj College for Women, Chennai on 11- 13 Feb 2016
12. International Seminar on "Emerging Trends in Diagnosis and Therapy" at Ethiraj College for Women, Chennai on 2 Aug 2012
13. National Conference on "Diabetes and its implications" at Ethiraj College for Women, Chennai on 31 Jan 2012

### **Seminars / Conferences / Workshops attended:**

1. FDP on " INVITRO AND INSILICO PROTOCOLS IN METAGENOMICS" Organised by the Department of Genetic Engineering, SRM University from 28th November 2022 to 3rd December 2022.
2. International workshop on " The Significance of Snake Bites and Venom Pharmacology in Lifescience Education", Department of Biotechnology, Stella Maris College on 26th February 2021.
3. Symposium on "Reimagining Academic Research in an evolving Technological Environment" at M.O.P. Vaishnav College for Women on 28 Feb, 2020.
4. National Workshop on "Learning Management System and Open Educational Resources: A Student-Centric Approach" at Ethiraj college for women on 25 Jan, 2020
5. National Seminar on "Health 2020 – An alternative Perspective" at Ethiraj College for Women, Chennai on 7 Jan 2020.
6. State Level Workshop on " NAAC Regulations: A Holistic Approach " at Ethiraj college for women on 12<sup>th</sup> Oct, 2019

7. Faculty Development Workshop on “ Research Innovation and Creativity ” at Ethiraj college for women on 14<sup>th</sup> Sep, 2019
8. Workshop on “ Research Insights, Publication and Proposal Strategies” at Ethiraj college for women on 15<sup>th</sup> Jul, 2019
9. Workshop cum Seminar on “ Recent Advances in Biological Research Data Analysis” at Presidency College on 1<sup>st</sup> – 4<sup>th</sup> Feb, 2019
10. Workshop on “ Role of computational Methods and Data For Drug Candidate Selection” at Dr. MGR-Janaki College of Arts and Science for Women, Chennai on 1<sup>st</sup> Aug, 2018
11. Workshop for Faculty by IQAC at Ethiraj college for women on 2<sup>nd</sup> Mar, 2018
12. Workshop on “Role and Responsibilities of Teachers in Institution Development ” at Ethiraj college for women on 18<sup>th</sup> Dec, 2017
13. Workshop on “ Role and Responsibilities of Teachers in Institution Development ” at Ethiraj college for women on 18<sup>th</sup> Dec, 2017
14. Workshop on “ Performance Enhancement ” at Ethiraj college for women on 9<sup>th</sup> Mar, 2017
15. National conference on “Nutraceuticals in Disease Management” at Vels University, Chennai on 2<sup>nd</sup> and 3<sup>rd</sup> Feb 2017.
16. National symposium on “From potential for excellence to excellence in higher education” at Ethiraj College for Women, Chennai on 18 & 19 Jul 2016
17. Mind Education Seminar conducted by International Mind Education Institute at Ethiraj College for women on 12<sup>th</sup> Oct, 2015
18. International seminar on “Biotechnology - Challenging the challenges of the changing world”, Justice Basheer Ahmed Sayeed College for Women, Chennai on 4 & 5 Feb, 2015
19. National conference on “Molecular basis of human diseases”, Bharathi women’s college on 8 & 9 Jan, 2015
20. Symposium on “Project proposals and guidelines for sciences” at Ethiraj college for women on 12 Aug 2014
21. National conference on “Dietary interventions and signaling cascades in health and diseases”, University of Madras on 21 & 22 Feb, 2014.
22. A State level Workshop on “Emerging vistas in Indian system of medicine” at Ethiraj College for Women on 27-28 Jan, 2014
23. A State level Workshop on “Innovative Research Methodology” at Ethiraj College for Women on 3 Oct 2013
24. International Conference on “Emerging Trends & Challenges in Science & Technology” at Bhaktavatsalam Memorial College for Women, Chennai on 1-2 Mar, 2013
25. National Seminar on “Herbal Medicines and Health” at University of Madras, on 16 Feb, 2013
26. National Seminar & Workshop on “Bioinformatics and 3D Structure Determination of Bio-Molecules” at Ethiraj College for Women, Chennai on 27-28 Feb 2012
27. International Seminar on “Biochemistry for tomorrow’s medicine” at Justice Basheer Ahmed Sayeed College for Women, Chennai on 22-23 Feb 2012
28. International Seminar on “Prevention and Control of Non-communicable diseases” at Madras Diabetic Research Foundation on 10-12, Feb 2012.
29. National Seminar on “Values and Ethics in the 21<sup>st</sup> Century” at Ethiraj College for Women, Chennai on 23, Jan 2012
30. National Congress on Bioscience Research, Ethiraj College for Women, Chennai on 26-27, Aug 2011

31. "Young Adult Counseling" by Career and Counseling Cell at Ethiraj College for Women, Chennai on 15 Apr 2011
32. National Level Conference on "Innovations in Biotechnology-2010" at SRM University, Chennai on 7-8, Oct 2010
33. International Conference on "The Key Role of Life Science for Sustainable Development in the World" at Hindustan College of Arts and Science, Chennai on 30-31, Aug 2010
34. Seminar and Demo "Life Science and Instruments Show" at Labmate (Asia) Pvt. Ltd. Chennai, 23 Jan 2009
35. National Seminar on "Interdisciplinary Approach towards Non-Invasive Research" at Dr.MGR-Janaki College of Arts and Science for Women, Chennai on 30-31 Aug & 1 Sep 2007.
36. National Convention on "Contemporary issues in Higher Education" at Ethiraj College for Women, Chennai on 8-9 Feb 2007
37. National Conference on "e-governance" at Ethiraj College for Women, Chennai on 3-4, Feb 2006
38. State Level workshop on "Environmental Sensitization and Disaster Management" at Ethiraj College for Women, Chennai on 21 Jan 2006
39. Workshop on "Pedagogy of Teaching Environmental Studies" at UGC-Academic Staff College, University of Madras, Chennai on 19-23, Jul 2004
40. Training on "Vermicomposting" by Urban Horticulture Development Centre, TNAU Chennai on 21 Jan 2004
41. Workshop on "Introduction to Molecular Graphics and Visualization" by Centre for Biotechnology, Anna University on 11-14, Dec 2003
42. Course on "Engineering and Biological Aspects of Biotechnology" by Centre for Faculty Development, Anna University on 24-28, Nov 2003
43. International Conference on "Wound Management", Woundcon 2003 by CLRI, Chennai on 22-23, Feb 2003.
44. Workshop on "PCR and Electroporation Techniques" by Micro Devices Metrohm Limited on 26 Sep 2002.
45. National Seminar on "Biotechnological and Immunological Strategies for Research" by University of Madras on 15-16, Mar 2001.

Date:

**Deepa C N**