

SRI SANKARA ARTS & SCIENCE COLLEGE

ENATHUR, KANCHIPURAM

STAFF PROFILE

DEPARTMENT OF BIOCHEMISTRY

1.	Name of the Staff	Dr.K.Porkodi
2.	Designation	Assistant Professor
3.	Date of Joining	09.06.2003
4.	Mobile Number	9444162352
5.	E-Mail ID	kporkodebio@gmail.com
6.	Nationality	Indian
7.	Academic Qualification	M.Sc., M.Phil.,Ph.D
8.	Field of Specialization	Biochemistry
9.	Ph.D Thesis Title	PROPITIOUS ROLE OF GYMNEMIC ACID IN COMBATING SKELETAL MUSCLE DERANGEMENTS IN TYPE 2 DIABETIC RATS: AN INSIGHT INTO MITOCHONDRIAL BIOGENESIS
	Awarding University, Year of Award.	University of Madras, 2023

10. Work Experience (in chronological order):

S.No.	Name of the Institution	Designation	Period
1.	Indo-American College, Cheyyar	Lecturer	2002-2003
2.	Sri Sankara Arts and Science College, Enathur	Assistant Professor	2003-till date

11. Other Academic and Administrative Responsibilities:

S.No.	Name of the Institution/Committee	Position	Period
1.	Attendance committee	Member	2012-2018
2.	Grievance redressal Committee	Convenor	2015-till date
3.	Attendance committee	Convenor	2018-2019
4.	Rasayana bio forum	Co-ordinator	2019-2021 2024- till date
5.	Attendance committee	Member	2020-2021 2024-till date

12. Publications:

S.No.	Title	Journal	Pages
1.	A Comparative Study on Phytochemical and Biochemical Analyses between <i>Cicer arietinum</i> Brown And White Seeds	International Journal Of Pharmaceutical Research And Bio-Science (Impact Factor-4.278)	40-63, Aug 2014
2.	Gymnemic acid, a potent antidiabetic agent protects skeletal muscle from hyperglycemia mediated oxidative stress and apoptotic events in High fat and High fructose diet fed adult rats	International Journal Of Research In Pharmaceutical Sciences	1526-1538, 2020 Scopus
3.	Role of Nrf2 dysfunction in the pathogenesis of diabetic nephropathy: Therapeutic prospect of epigallocatechin-3-gallate	Free Radic Biol Med (Impact factor: 6.17)	227-238, 2020
4.	Additive inhibitory effect of the peels of Citrus limon and Citrus sinensis against amylase and glucosidase activity	International Journal Of Research In Pharmaceutical Sciences	6876-6880

5.	Understanding the role of homoeopathic preparation of Berberis vulgaris in mitigation of sodium oxalate- induced hyperoxaluria: An experimental approach	Indian J Res Homoeopathy	251-9, 2020
6	GC-MS Identification of Anti-inflammatory and Anticancer Metabolites in Edible Milky White Mushroom (<i>Calocybe indica</i>) against Human Breast Cancer (MCF-7) Cells	Res J Pharm and Tech	4300-4306, 2021
7	Assessment of the antidiabetic potential of Gymnemic acid as α -amylase and α -Glucosidase inhibitor using invitro and insilico tools	Research Journal of Pharmacy and Technology	4755-9, 2021
8	GC-MS and HPLC analysis of antiglycogenolytic and glycogenic compounds in kaempferol 3-O-gentiobioside containing <i>Senna alata</i> L leaves in experimental rats	Translational Metabolic Syndrome Research	10-17,2021
9	Gymnemic acid protects murine pancreatic β -cells by moderating hyperglycemic stress-induced inflammation and apoptosis in type 1 diabetic rats.	J Biochem Mol Toxicol, (Impact Factor – 3.6)	PMID: 35343011. 2022
10	Molecular Docking, Dynamics Simulations, ADMET, and DFT Calculations: Combined In Silico Approach to Screen Natural Inhibitors of 3CL and PL Proteases of SARS-CoV-2	Cellular Microbiology (Impact Factor - 3.4)	1-19, 2024

13. Awards / Distinction :

S.No.	Name of the Award	Venue	Period
1.	Best Presentor Award	NATCON-2018” conducted by Mohamed Satak college of arts and science, Sholinganallur	January 2018
2.	Best Publications award	Sri Sankara Arts and Science College, Enathur	April 2021

14. Membership in Professional Bodies:

S.No.	Name of the Membership	Venue	Period
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15. Seminars Conferences organized

S.No.	Program Attended	Place	Organized/ Participated	Period
1.	District level Science Exhibition	Sri Sankara Arts & Science College, Enathur	Organised	21 st Jan 2009
2.	District level Science Exhibition –“ Elixir – 2010”	Sri Sankara Arts & Science College, Enathur	Organised	14 th Oct 2010
3.	National seminar on “Frontiers in Lifesciences”	Sri Sankara Arts & Science College, Enathur	Organised	11 th Jan 2012
4.	Tamil Nadu State Council for Science and Technology sponsored programme on “Application of Science and Technology in Rural Areas (ASTRA)”	Sri Sankara Arts & Science College, Enathur	Organised	20 th – 25 th Feb 2012
5.	District level Science Exhibition – “Elixir – 2012”	Sri Sankara Arts & Science College, Enathur	Organised	10 th – 11 th Oct 2012
6.	District level Science Exhibition – “Elixir – 2013”	Sri Sankara Arts & Science College, Enathur	Organised	9 th – 10 th Oct 2013
7.	Seminar on “Emerging facts in Diabetes Mellitus”	Sri Sankara Arts & Science College, Enathur	Organised	29 th Jan, 2015.
8.	National seminar on “Biomarkers in clinical Research”	Sri Sankara Arts & Science College, Enathur	Organised	8 th Mar, 2017
9.	District level Science Exhibition –“Elixir – 2018”	Sri Sankara Arts & Science College, Enathur	Organised	6 th and 7 th Feb, 2018
10.	National Seminar on “Recent strategies in Regenerative Therapy”	Sri Sankara Arts and Science college,	Organised	8 th Mar, 2018
11.	National workshop on “Fundamentals of Medical Coding”	Sri Sankara Arts and Science college	Organised	8 th Mar, 2019
12.	International Symposium on “Structural Bioinformatics in Biomedical Research”	Sri Sankara Arts and Science College	Organised	8 th January, 2024

16. Seminars Conferences organized /Participation:

S.No.	Program Attended	Place	Organized/ Participated	Period
1.	One Day National Conference On “Recent Advances and Current Trends In Bioscience”	Asan Memorial College of Arts and Science, Chennai	participated	8th Feb, 2013
2.	National seminar on "Lifestyle diseases-causes and prevention"	D.G.Vaishnav college, Arumbakkam, Chennai	participated	22 nd Jan, 2014
3.	National Seminar on “Emerging trends in Lifescience- BIOTRENDS “15	Soka Ikeda College for women	participated	27 th Jan, 2015
4.	One day International seminar on “Emerging paradigm in cancer therapy”	Indo American college, Cheyyar	participated	17 th Aug, 2016.
5.	One day faculty development programme “Inspire-Change the learning path”	University of madras & Madras management association	participated	19 th Aug, 2016
6.	State level symposium on “Biopharmaceuticals”	Adhiparasakthi college of arts and science, Vellore	Participated	31 st Jan, 2017
7.	International conference on Biochemistry and Molecular Biology “Genetic code is Divine writing”	Saveetha Dental College, Chennai	participated	10 th June, 2017.
8.	International symposium on “Health care system in Cancer biology”	Adhiparasakthi college of Arts and Science, Vellore.	participated	20 th Sep, 2017
9.	National conference on “Towards Achieving Excellence in Higher Education” organized by Internal Quality Assurance Cell.	Sri Sankara Arts and Science College, Enathur	participated	15 th Dec, 2017
10.	International seminar on “Outcome based education”	IQAC, Sri Sankara Arts and Science College, Enathur	participated	3 rd and 4 th January, 2019
11.	National conference on “Unravelling Biometabolites With Bioactivity”	Bishop Heber College, Thiruchirapalli	participated	25 th Feb, 2019

12.	National Symposium on “Bio-prospecting from Marine Resources for Biotechnological Applications: Opportunities and Challenges”	Centre for Drug and Discovery Development, Sathyabama Institute of Science and Technology, Chennai sponsored by DBT Government of India.	participated	24 th and 25 th July 2019
13.	National Seminar on “Recent Trends in Lifesciences”	Bhaktavatsalam Memorial College For Women, Chennai	participated	4 th and 5 th October 2019
14.	National Seminar on “Industrial academia Connect and design Exhibition”	Rathinam College of Arts and Science, Coimbatore.	participated	8 th and 9 th Jan, 2020
15.	One day International Conference on “Advances in Medical Science and Molecular Biology (AMSMB-20)”	Idhaya College for Women, Kumbakonam	participated	27 th January, 2020

16. Webinars Attended

S.No.	Program Attended	Place	Organized/ Participated	Period
1.	Webinar on "Bacterial Virulence: Perceptive and Pragmatic approach"	Indian Academy degree college, Bangalore	participated	5 th May 2020
2.	“Medicinal Plants - The Potential Therapeutic Sources for Human Diseases and Disorders”	Ethiraj college for Women, Chennai	participated	9 th May 2020
3.	National level Online Quiz on “Chemistry in everyday life”	Bharath Institute of Science and Technology	participated	14 th and 15 th May 2020
4.	National webinar on “Patenting Inventions in India”	Ethiraj college for Women, Chennai	participated	16 th May 2020
5.	Covid-19 awareness quiz	Sacred Heart college, Tirupattur	participated	16 th May 2020
6.	FDP on “Project proposals for funding agencies (UGC stride and ICSSR impress): Preparation and submission protocol”	Patrician College of Arts and science college, Chennai	participated	16 th and 17 th May 2020
7.	“Guidelines for the management of health and hygiene in COVID-19 pandemic”	SRM Arts and Science College, Kattankalathur	participated	18 th May 2020

8.	“Applications of Flow Cytometer in Healthcare Sector”	Karpaga Vinayaga college of Engineering and technology, Chenglepet Dt	participated	18 th May 2020
9.	“Next Generation Genomics For Crop Improvement To Address Hunger And Malnutrition During Covid-19”	Vels Institute of Technology, Chennai	participated	21 st May 2020
10.	FDP on “E-content Development for Higher Education”	Karpaga Vinayaga college of Engineering and technology, Chenglepet Dt	participated	23 rd May 2020
11.	Online quiz on “Understanding the Biochemistry of COvid-19”	D>G.Vaishnav College, Arumbakkam	participated	May 2020
12.	International Webinar on “NEXT GENERATION SEQUENCING METHODOLOGIES & APPLICATIONS”	Bhaktavatsalam Memorial college for women, Chennai	participated	25 th May 2020
13.	“Electron Microscopy: An Essential Tool For Nanomaterials Characterization”	Hindustan Arts and Science College, Coimbatore	participated	29 th May 2020
14.	Faculty Enrichment Program on "Transcending From Fixed To Growth Mindset In Turbulent Times”,	Sri Sankara Arts and Science College, Enathur	participated	4 th July 2020
15	Faculty development program on “Thesis writing”	Loyala Institute of Business Administration, Chennai	participated	21 st April, 2021
16	“Intellectual Property Rights and Innovations : Patents and Designs”	D.G.Vaishnav College, Chennai.	participated	26 th April, 2021
17	Faculty Development Programme on “Promoting Research and Innovation in HEI - Teacher’s Role”	SriKanyaka Parameswari Arts and science college for women, Chennai.	participated	27 th and 28 th April 2021
18	“Drug Discovery and Development: Current Technologies and Career Opportunities”	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai	participated	6 th October 2021

19	TIBR classes on Molecular docking using autodock	Institute of Biological research, Rajkot	participated	March 8 th and 9 th 2023
20	International online faculty development programme on “Teaching, Learning, assessing in 2030”	SRM institute of science and technology, Ramapuram campus, Chennai.	participated	June 6 th -23 rd 2023
	“Abiotic Stress Management for Climate Resilience”	SRM College of Agricultural Sciences, Chengalpet.	participated	11 th October 2023

17. Participated as Resource Person:

S.No.	Program	Venue	Period
1.	Special Lecture delivered on the topic “Unave Marundu” for NSS Volunteers	Sri Sankara Arts and Science College, Enathur	26 th Jan, 2020

18. Workshop & Training Programmes:

S.No.	Programe	Venue	Period
1.	“Workshop on PCR”	Sri Muthukumaran Medical college, Hospital and Research Institute.	26 th and 27 th August 2016.
2.	Faculty Development Workshop on “New methodology in teaching “organized by Internal Quality Assurance Cell in association with Golden Success Academy.	Sri Sankara arts and Science College, Enathur	5 th Oct, 2016
3.	Faculty Development Workshop on “Digital Learning Resources” organized by the Internal Quality Assurance Cell.	Sri Sankara Arts and Science College, Enathur	2 nd Feb, 2018
4.	National Workshop on “Emerging Techniques in Molecular Pathology”	Dr.ALMPGIBMS, University of Madras.	14 th -16 th March 2019
5.	Workshop on “The art of writing winnable project proposals”	Sri Sankara Arts and Science College and Center for Intellectual property Rights, Anna University, Chennai	12 th June 2019
6.	One day workshop on “The art of preparing Manuscripts, Thesis and Project Proposals”	Institute of Distance Education, University of Madras, Chennai	28 th Jan, 2020

19. Projects Completed:

S.No.	Name of the Projects	Period	Grant Received/Status
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20. Papers Presented

- ✓ Paper on "Identification of Serum fibrinopeptide marker in gastric carcinoma using Mass spectrophotometer" in National Symposium on "Recent trends in Molecular Diagnosis and Nanotherapeutics" organized by Adhiparasakthi College of Arts and Science, kalavai between 15th and 16th oct, 2008.
- ✓ Paper on "A comparative study on Phytochemical analysis, Antioxidant status, antimicrobial activity between *coriandrum sativum* leaves and seeds in National symposium titled "PTPM-2012" organized by Department of Biochemistry, Periyar University, Salem between 13th and 14th Feb 2012.
- ✓ Paper on "Enzymic and Non enzymic antioxidants status in Type-2 DM" in Elixir – 2012 Science Exhibition organized by Sri Sankara Arts and Science College, Enathur between 10th & 11th Oct 2012.
- ✓ Paper on "Dietary intake of pterostilbene, a constituent of blueberries, inhibits the b-catenin/p65 downstream signaling pathway and colon carcinogenesis in rats" in two days national conference on "Dietary interventions and signalling cascades in Health and diseases" organised by Department of Biochemistry, Taramani campus, University of Madras, Chennai between 21st and 22nd feb, 2014
- ✓ Paper on "Gymnemic acid rejuvenates expression of mitochondrial biogenic proteins in skeletal muscle of Type 2 diabetic rats" was presented in „International Conference on Diabetes and Phytotherapy“ conducted by Department of Biochemistry and Biotechnology between 18-20 Aug, 2017 in Annamalai University.
- ✓ Presented Paper on "Effect of Gymnemic acid on skeletal muscle derangements in Type 2 diabetic rats" in "National Conference on Interdisciplinary Research and Innovations in Biosciences NATCON-2018" conducted by PG & Research Department of Biochemistry held during 24th-25th January 2018, Mohamed Satak college of arts and science, Sholinganallur.
- ✓ Paper presented on "Gymnemic Acid - Bioactive Compound In Gymnema Sylvestre" in National Symposium on "Bio-prospecting from Marine Resources for Biotechnological Applications: Opportunities and Challenges" held on 24th and 25th July, 2019 organised by Centre for Drug

Discovery and Development, Sathyabama Institute of Science and Technology, Chennai sponsored by Department of Biotechnology (DBT) Government of India.

- ✓ A paper on " GC-MS analysis *and invitro* α -amylase inhibitory activity of *Boerhaavia diffusa* leaves and roots" was presented at the National Conference on Revolutionary Applications of Nutraceuticals and Functional Foods as Next-Generation Metabolites Organized by the Department of Biochemistry and Crop Physiology SRM College of Agricultural Sciences, Maduranthagam, Tamil Nadu, India during 7th and 8th September 2023.

21. Posters Presented

- ✓ Poster on " stem cell treatment for cardiovascular diseases" in National Conference on "Diabetes and its Implications" organized by Department of Biochemistry, Ethiraj College for Women, Chennai on 31st January 2012
- ✓ Poster on " Umbilical cord stem cell therapy " in National Conference on "Diabetes and its Implications" organized by Department of Biochemistry, Ethiraj College for Women, Chennai on 31st January 2012.
- ✓ Poster on "A comparative study on Phytochemical analysis, Antioxidant status, antimicrobial activity between *coriandrum sativum* leaves and seeds in inElixir – 2012 Science Exhibition was organized by Sri Sankara Arts and Science College, Enathur between 10th & 11th Oct 2012.
- ✓ Poster on "Gout-causes and treatment" in One Day National Conference On "Recent Advances and Current Trends In Bioscience" organized by Department of Biochemistry, Asan Memorial College of Arts and Science, Chennai – 600 100 on 8th February, 2013
- ✓ Poster on "Acute Phase Reactants" was presented in National Seminar on Biomarkers in Clinical Research by Department of Biochemistry, Sri Sankara Arts and Science College of Arts and Science, Kanchipuram, 08th March, 2017
- ✓ Poster on " Biomarkers in Duchenne muscular dystrophy" was presented in National Seminar on Biomarkers in Clinical Research by Department of Biochemistry, Sri Sankara Arts and Science College of Arts and Science, Kanchipuram, 08th March, 2017.
- ✓ Poster on " Biomarkers in Endometrial Carcinoma" was presented in National Seminar on Biomarkers in Clinical Research by Department of Biochemistry, Sri Sankara Arts and Science College of Arts and Science, Kanchipuram, 08th March, 2017.
- ✓ Poster on " Biomarkers in Tuberculosis" was presented in National Seminar on Biomarkers in Clinical Research by Department of Biochemistry, Sri Sankara Arts and Science College of Arts and Science, Kanchipuram, 08th March, 2017.
- ✓ Poster presented on "Phytochemical analysis, Mineral composition on Cinnamon venom bark" in National conference on "Unravelling metabolites with bioactivity" organized by Department Of Biotechnology and Bioinformatics on 25th Feb, 2019 in Bishop Heber College, Tiruchirapalli.

22. Patent Filed And Published

- Patent on "**Revolutionizing Cancer Treatment: A Novel Approach Using Biosynthesized Nanoparticles**", Published in the Patent Office Journal No. 51/2023 Pg-91782 Dated 22/12/2023.
- Patent on "**Antidiabetic Potential of Kaempferol 3-O-gentiobioside, a naturally available Flavonoid glycoside**", published in The Patent Office Journal No.41/2022; pg-65708 dated 14/10/2022.

23.Design

- Proposed Design, "**Simplified High-Performance Thin Layer Chromatography (HPTLC) Apparatus**" has been Accepted under the Medical and Laboratory Equipment Class and Granted by the **Intellectual Property Office of the UK Government**. (Design number-6302097) Grant date - 16th August 2023.

24. Book Chapter Published

- The book Chapter Titled “**The Green Revolution 2.0 - Genomic Advances in Crop Improvement**” was published by Golden Leaf Publishers, Uttar Pradesh, India with the book titled "Modern Concepts in Agriculture (Volume-3)" With ISBN No: 978-81-19906-51-2 (2023).
- The book Chapter Titled “**Metabolic Pathways: Navigating the Cellular Energetic Landscape**” was published by Elite Publishing House, New Delhi, India with a book titled "Farm to Table: The Science Behind Agriculture and Allied Sector" With ISBN No: ISBN: 978-93-58994-87-2 (2024).
- The book Chapter Titled “**Protein Structure and Enzyme Kinetics**” was published by Elite Publishing House, New Delhi, India with a book titled "New Dimension of Agriculture and Allied Science, Volume-4” with ISBN No: 978-93-5899-151-2 (2024).