

Name and Qualification: Dr.K. Kaviarasan M.Sc., M.Phil., Ph.D.

Designation with Address of the Institution:

Associate Professor
Department of Biomedical Sciences
Faculty of Biomedical Sciences and Technology
Sri Ramachandra Institute of Higher Education and Research (D.U.)
Porur, Chennai 600116, India

Education:

Institution and Location	Degree (UG/PG/ PhD)	Year Conferred	Field of Specialization
Shanmuga Industries Arts and Science College affiliated to Madras University, Chennai	B.Sc	2001	Biochemistry
Annamalai University, Chidambaram	M.Sc	2003	Biochemistry
Annamalai University, Chidambaram	M.Phil	2005	Biochemistry
Annamalai University, Chidambaram	PhD	January 2010	Biochemistry

Teaching & Research Experience:

Institute	From	To	Designation
Vision Research Foundation, Sankara Nethralaya, Chennai	March 2010	February 2013	Post Doctoral Fellow
Vasan Institute of Ophthalmology and Research, Vasan Eye Care Hospitals	January 2014	13 th August 2014	Assistant Professor & Lab In-Charge (Chennai Region)
Sri Ramachandra Institute of Higher Education & Research	14 th August 2014	Till date	Assistant Professor (August 2014-July 2021) Associate Professor (July 2021 onwards)

Research Interests:

Diabetes and associated complications, ocular proteomics and lipidomics

Research Projects Conducted:

Project Co-Investigator

1.Project title: Neurotrophins and inflammatory markers in the progression of pre-diabetes to Type 2 Diabetes Mellitus and Diabetic Retinopathy
Collaborative project with Sankara Nethralaya. Project is funded by Novartis
Project total Cost: 22,00,000/-. Status: Completed

Project investigator

2. Project title: Imbalance of Pro and anti-inflammatory bioactive lipids, reverse cholesterol transport (HDL function) in the progression of prediabetes to type 2 diabetes mellitus, ICMR Adhoc Project

Project total cost: 33,00,000/-

Status: approved

Ph.D. Research Guidance:

1. Student name: Ms. R. Sharmila (ICMR-SRF)
Project Title: Proteomic Studies on Microvascular Cells in Diabetes Associated Complications
ICMR-SRF
Status: ongoing
2. Student name: Ms. A. Ranjitha
Project Title: Identification and validation of differentially expressed proteins as biomarkers from aged pregnancy and its detection of expression patterns in Neonatal blood.
Chancellor Fellowship
Status: ongoing

Post graduate Project Guidance: 3

Under Graduate Project Guidance: 7

Conferences/Workshops/Seminars Organized: Nil

Conference presentations (Oral and Poster):

1. III Annual Meeting of SFRR- India and International Conference on Natural Products, Free Radicals and Radio Protectors in Health (NFRH -2004) Annamalai University, Annamalainagar, Tamil Nadu between January 17 - 19, 2004 (participated)
2. International conference on “Antioxidants & Free Radicals in Health-Nutrition & Radio-protectors” and IV Annual Conference of the Society for Free Radical Research in India (SFRR), Bangalore, Karnataka between 10 - 12 January, 2005, poster presentation (Poster presentation)
3. XVII th Annual Conference of the Indian Society for Atherosclerosis Research held at Trivandrum during 21-23rd December 2004 (Oral presentation)
4. UGC-Sponsored National Conference on Natural Products in Health - 2005 held at Annamalai University, Annamalainagar, Tamil Nadu, and India. February 26 & 27. (Oral presentation)
5. UGC-Sponsored National Conference on Recent trends in Biochemistry and Biotechnology; with special reference to Natural Products in Health - 2006 held at Annamalai University, Annamalainagar, Tamil Nadu, and India. February 24-26. (participated)
6. International Conference on “Planet Earth” 94th Indian Science Congress, held on January 3-7, 2007 at Annamalai University, Tamil Nadu, India. (participated)

7. International Conference on Natural Products in Health and ISARCON-2008 held during 8-10 December, 2008 in the department of Biochemistry and Biotechnology, Annamalai University, Tamil Nadu, India. (Oral presentation)
8. CSIR-ICMR-TNSCST-Sponsored National Conference on Diabetes Mellitus and Cancer (DIA-CAN' 09) 19 & 20th December, 2009 held in the Department of Biochemistry & Biotechnology, Annamalai University, Tamil Nadu, India.
9. 79th annual meeting of the Society of Biological Chemists (India) on “Regulation of Biochemical and Cellular Processes in Diverse systems” held during 13th -15th December 2010 at the National Science Seminar Complex, Indian Institute of Science, Bangalore, India (participated).
10. 19th annual meeting of the Indian Eye Research Group held during 30th-31st July 2011 at LV Prasad Eye Institute, Hyderabad. (poster presentation)

Invited Guest Lecture

1. BIOSHAN 2014, 03.03.2014, organized by Department of Biochemistry, Shanmugam Industries Arts and Science College, Tiruvannamalai. Participated the Seminar and presented the topic “The role of lipids and its mediators in Diabetes”
2. Drug Discovery & Therapy (DDT-2016), 7-8 January, 2016 organised by Department of Biochemistry & Biotechnology, Annamalai University. Participated and presented the topic “Beneficial role of neurotropins and lipid metabolites in diabetic retinopathy”
3. Drug Discovery & Translational Medicine (National level Conference), 14-16 March, 2019 organised by Department of Biochemistry & Biotechnology, Annamalai University. Participated and presented the topic “Elevated serum oxLDL is associated with progression of type 2 Diabetes to Diabetic Retinopathy”

Academic and/or Research awards:

Best Paper Prize awarded by International Conference on Natural Products in Health and ISARCON-2008 held during 8-10 December, 2008 in the Department of Biochemistry and Biotechnology, Annamalai University paper title: “Phytochemicals of flavonoid-rich fraction upregulate PPAR- α gene expression in hyperlipidemic rats”.

ACADEMIC EXCELLENCE

University research studentship from **Annamalai University**
Senior Research Fellowship from **Indian Council for Medical Research, India**
Post-Doctoral Fellowship from **Department of Biotechnology, DBT, India**

Publications (Journals):

1. **Kaviarasan K**, Arjunan M, Pugalendi KV. Lipid profile, oxidant-antioxidant status and glycoprotein components in hyperlipidemic patients with/without diabetes. *Clinica Chimica Acta* 2005; 362: 49-56.
2. Raja B, **Kaviarasan K**, Arjunan M, Pugalendi KV. Melothria Maderaspatana for treating hypertension: Effects on Biomarkers. *Alternative Medicine & Complementary Therapies* 2005; 11(5): 264-268.
3. Raja B, **Kaviarasan K**, Arjunan M, Pugalendi KV. Effect of Melothria maderaspatana (Linn.) leaf tea on blood pressure, lipid profile, fibrinogen, bilirubin and albumin levels in hypertensive patients. *Journal of Alternative and Complementary Medicine* 2007; 13(3):349-354.
4. **Kaviarasan K**, Kalaiarasai P, Pugalendi KV. Antioxidant efficacy of flavonoid-rich fraction from *Spermocoe hispida* seed on high-fat-diet fed rats. *Journal of Applied Biomedicine* 2008; 6: 165-176.

5. **Kaviarasan K**, Pugalendi KV. Influence of flavonoid-rich fraction from *Spermacoce hispida* seed on PPAR-alpha gene expression, antioxidant redox status, protein metabolism and marker enzymes in high-fat-diet fed STZ-diabetic rats. *J. Basic Clin. Physiol. Pharmacol.* 2009; 20: 141-158.
6. Kalaiarasi P, **Kaviarasan K**, Pugalendi KV. Hypolipidemic effect of 18 β -glycyrrhetic acid, aglycone of glycyrrhizin, on streptozotocin-induced diabetic rats. *European Journal of Pharmacology.* 2009; 606: 269-273.
7. Umashankar V, Sathya Baarathi R, **Kaviarasan K**, Jithu M, Undurti N Das, Angayarkanni N. Molecular docking studies infer potential binding of lipoxin A4 and eicosapentaenoic acid to brain-derived neurotrophic factor. *Lipids Health Dis.* 2012 Sep 4;11(1):109.
8. **Kaviarasan K**, Jithu Mohanlal M, Mohammad Arif Mulla, Tarun Sharma, Das UN, Angayarkanni N. Low blood and vitreal BDNF, LXA4 and altered Th1/Th2 cytokine balance as potential risk factors for Diabetic Retinopathy. *Metabolism* 2015: 64(9); 958-66
9. **Kaviarasan K**, Jithu Mohanlal M, Barathi S, Mohammad Arif Mulla, Kannadasan Anand Babu, Parveen Sen, Das UN, Angayarkanni N. Elevated Serum OxLDL Is Associated With Progression of Type 2 Diabetes Mellitus to Diabetic Retinopathy. *Exp Eye Res* 2019 ;186:107668
10. Daleena D, Nandini P, Angayarkanni K, **Kaviarasan K**, Thanikachalam S, Das UN, Dhanashree Ratra. Interchangeability of retinal perfusion indices in different-sized angiocubes: An optical coherence tomography angiography study in diabetic retinopathy *Indian J Ophthalmol.* 2020; 68(3): 484–489.
11. Dhanashree Ratra, Rajesh Nagarajan, Daleena Dalan, Nandini Prakash, **Kaviarasan Kuppam**, Sadagopan Thanikachalam, Undurti Das, Angayarkanni Narayansamy. Early structural and functional neurovascular changes in the retina in the prediabetic stage. *Eye (Lond).* 2020 May 28. doi:10.1038/s41433-020-0984-z.
12. Sharmila Rajendran, Shanmuganathan Seetharaman, Arun Dharmarajan, **Kuppam Kaviarasan**. Microvascular cells: A special focus on heterogeneity of pericytes in Diabetes associated complications. *International Journal of Biochemistry & Cell Biology.* 2021;134:105971
13. Ratra D, Dalan D, Prakash N, **Kaviarasan K**, Thanikachalam S, Das UN, Angayarkanni N. Quantitative analysis of retinal microvascular changes in prediabetic and diabetic patients. *Indian Journal of ophthalmology* 69 (11), 3226-3234

University Industry Linked Consultancy (UILIC) and Biomedical Sciences In Time Training(BITT)

S. No.	UILIC/BITT – Title of the research	Affiliation of the student
1.	Dr. S. Manickam-Effect of Naringin in RIN-5 cells with and without treatment of Streptozotocin	Chettinad Hospitals & Research Institute
2.	Ms. GITANJALI SAI RACHAKONDA-Localization and expression of SFRP4 in Diabetic Retina	Manipal Academy of Higher Education & Research

Membership in Professional Bodies:

1. Society of Biological Chemists of India
2. Indian Society of Atherosclerosis Research (ISAR)- India
3. Indian Eye Research Group

REVIEWER IN PEER REVIEWED JOURNALS

1. BMC Endocrine disorders
2. Pharmacognosy research
3. Lipids in Health and Disease
4. Journal of Advanced Pharmaceutical Technology & Research

Membership in University Committees:

- CBCS student Advisor (BMS)
- Member in Safety and Utilisation committee
- Member in College level Curriculum committee
- Member in Faculty Research Promotion Committee

Any other relevant Content: Nil