



**Dr. K. S. JAYACHANDRAN**  
Assistant Professor

### Contact

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### Academic Qualifications: M.Sc., M.Phil., Ph.D.,

Degree	Subject	Year	University
<b>B.Sc.</b>	Biochemistry	1997	University of Madras
<b>M.Sc.</b>	Biochemistry	2000	University of Madras
<b>M.Phil.</b>	Biochemistry	2005	University of Madras
<b>Ph.D.</b>	Biochemistry	2010	University of Madras

**Teaching Experience: 10 Years**

**Research Experience: 15 Years**

## Additional Responsibilities

1. Department coordinator for NAAC, BDU
2. Department coordinator for Placement Training Cell, BDU

## Areas of Research

**Drug Discovery and Molecular Cardiology**

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	--	3
	M.Phil.	1	--
Project	PG	15	3

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
15	4	--	3	1

Cumulative Impact Factor (as per JCR) :	21.5
h-index :	8
i10 index :	8
Total Citations :	371

## Funded Research Projects

### Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DBT	2013	2016	Dietary supplement of Crataegus Oxycantha extract as potential therapeutics against high fat induced inflammatory response and associated cardio vascular diseases.	40.37

2	DST	2016	2018	<p><b>“Elucidating the adverse effects of Presenilin-2 (PS2) mediated downstream signaling and Ca<sup>2+</sup> imbalance during myocardial infarction. Effective therapeutic strategy by Crataegus oxycantha (COC) extract in experimental Ischemia/Reperfusion (I/R) induced rat” under “Empowerment and Equity Opportunities for Excellence in Science-2014” . DST. 2016-2018. Rs. 11.00L</b></p>	11.00
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## Patents

Dr. K. S. Jayachandran (2019) Novel Animal Model to Precisely Imitate Human Myocardial Infarction. File Number 201941007841

## Events Participated

### Other Training Programs

1. Undergone a training course on CURRENT REGULATIONS, HANDLING, BREEDING, MAINTENANCE AND TECHNIQUES IN LABORATORY ANIMAL EXPERIMENTS in National Centre for Laboratory Animal Sciences, 2014, National Institute of Nutrition, Hyderabad.

## Overseas Exposure / Visits

1. Visited France for AD/PD 2015: International conference on Alzheimer’s and Parkinson’s Diseases to present poster.
2. Visited Malaysia for checking the possibilities for collaborative research in Department of orthopaedics, University of Malaya.

## Membership in

### Academic Bodies

1. Member – Board of studies, Department of Bioinformatics, Bharathidasan University
2. Member – Board of studies, School of Life sciences, Bharathidasan University
3. Member – Board of studies, Department of Bioinformatics, Bishop Heber College

4. Member – Board of studies, Department of Biotechnology, Dhanalakshmi srinivasan arts and science college for women
5. Member – Board of studies, Periyar University, Salem.

### Resource persons in various capacities

Number of Invited / Special Lectures delivered: 11

### Others

Sequences submitted in GenBank: **08**

### Recent Publications

1. Divya Dasagrndhi, Arul Salomee Kamalabai R, Anusuyadevi Muthuswamy, Angela Marie Lennox , Tamilselvan Jayavelu, Vasudharani Devanathan, **Jayachandran Kesavan Swaminathan**. Ischemia/reperfusion injury in male guinea pigs: An efficient model to investigate myocardial damage in cardiovascular complications. *Biomedicine & Pharmacotherapy* 20, February 2018
2. Sathya, M., Gobinath, T., Salomy, A., Nisha, M., Kandasamy, M., Essa, M. M., **Jayachandran, K. S.**, Anusuyadevi, M. Biophysical interaction of resveratrol with sirtuin pathway: Significance in Alzheimer's disease. *Frontiers In Bioscience, Landmark*, 23, 1380-1390, March 1, 2018
3. Divya, D., Arul Salomee, K. R., Anusuyadevi, M., **Jayachandran, K. S.**. "HMGB1: A Therapeutic Target for Myocardial Infarction." *Cardiovasc Ther* 7, no. 5 (2017): 555724.
4. Periyasamy, S., Sathya, M., Karthick, C., Kandasamy, M., Shanmugaapriya, S., Tamilselvan, J., **Jayachandran, K. S.**, Anusuyadevi, M. Association studies of specific Cholesterol related genes (APOE, LPL, and CETP) with Lipid profile and memory function: A correlative study among Rural and Tribal Population of Dharmapuri District, India. *J Alzheimers Dis.* 2017 (doi: 10.3233/JAD-170272).
5. Sathya, M., Moorthi, P., Premkumar, P., Kandasamy, M., **Jayachandran, K. S.**, Anusuyadevi, M. Resveratrol intervenes cholesterol and isoprenoids mediated amyloidogenic processing of A $\beta$ PP in Familial Alzheimer's disease. *Journal of Alzheimer's Disease Preprint* (2016): 1-22.
6. Karthick, C., Periyasamy, S., **Jayachandran, K. S.**, Anusuyadevi, M. Intrahippocampal Administration of Ibotenic Acid Induced Cholinergic Dysfunction via NR2A/NR2B Expression: Implications of Resveratrol against Alzheimer Disease Pathophysiology. *Front Mol Neurosci* 2016, 9:28.
7. Moorthi, P., Premkumar, P., Priyanka, R., **Jayachandran, K. S.**, Anusuyadevi, M. Pathological changes in hippocampal neuronal circuits underlie age-associated neurodegeneration and memory loss: Positive clue toward SAD. *Neuroscience.* 2015 Jun 1;301:90-105.

8. DNA Barcoding of *Crataegus oxycantha* collected from Western Himalayas. Divya D, Suresh U, Anusuyadevi M, **Jayachandran KS**. (Submitted to NCBI for sequence submission)
9. BACE1 in Alzheimer's disease. Sathya M, Premkumar P, Karthick C, Moorthi P, **Jayachandran KS**, Anusuyadevi M. *Clin Chim Acta*. 2012; 24;414:171-8
10. Homology modeling, molecular docking and electrostatic potential analysis of MurF ligase from *Klebsiella pneumonia*. Sivaramakrishnan V, Thiyagarajan C, Kalaivanan S, Selvakumar R, Anusuyadevi M, Jayachandran KS. *Bioinformation*. 2012;8(10):466-73
11. Tiruchenduran M, Naveen AV, **Jayachandran KS**, Niranjali S. Devaraj. Protective effect of grape seed proanthocyanidin (GSD) against cholesterol-cholic acid diet induced hypercholesterolemia in rats. *Cardiovascular pathology*. 2011, 20(6):361-8
12. **Jayachandran K Swaminathan**, Mahmood Khan, Karuppaiyah Selvendiran, Niranjali Devaraj, Periannan Kuppusamy. *Crataegus oxycantha* extract reduces apoptotic incidence in an experimental myocardial ischemi/reperfusion model by regulation Akt and HIF-1 signaling pathways. *Journal of Pharmacology and Experimental Therapeutics*. *J Cardiovasc Pharmacol*. 2010 Nov;56(5):526-31
13. **Jayachandran K Swaminathan**, Mahmood Khan, Iyappu K Mohan, Karuppaiyah Selvendiran, Niranjali Devaraj, Brian K Rivera, Periannan Kuppusamy. Cardioprotective properties of *Crataegus oxycantha* extract against ischemia-reperfusion injury. *Phytomedicine* 2010; 17(10):744-52.
14. Elango C, **Jayachandaran KS**, Niranjali Devaraj S. Hawthorn extract reduces infarct volume and improves neurological score by reducing oxidative stress in rat brain following middle cerebral artery occlusion. *Int J Dev Neurosci*. 2009 Dec;27(8):799-803. Epub 2009 Aug 25