



DR. M. KARTHIKEYAN
ASSISTANT PROFESSOR

Contact

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Academic Qualifications: M.A./M.Sc./M.Phil./Ph.D./

- **Ph. D.** in (Biomedical Genetics) from Department of Genetics, Dr. ALMPGIBMS, University of Madras, Taramani Campus, Chennai, Tamil Nadu, India (Sep1999 - Oct 2006). **Title** : ANGIOTENSINOGEN (AGT) gene polymorphisms in South Indian Hypertensives. Mentor : Prof. G. JAYARAMAN, Coordinator (Molecular Biology Programme) & Former Director IBMS, Department of Genetics, Dr. ALM PGIBMS, University of Madras, Chennai – 600 113, Tamil Nadu, India.
- **M.Sc.**, (Biomedical Genetics) from Department of Genetics, Dr. ALMPGIBMS, University of Madras, Taramani Campus, Chennai, Tamil Nadu, India (May1999)
- **B.Sc.**, (Zoology) from Jamal Mohamed College, Bharathidasan University, Tiruchirappalli, Tamilnadu (April 1996).
- PG Diploma in Computer Applications (**PGDCA**) From Bishop Heber College, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India (April 1999).

Teaching Experience: 9 Years

- ✓ **Assistant Professor (18.08.2008 – till date)**
Dept of Bioinformatics, Alagappa University, Karaikudi -630003, Tamilnadu, India.
Key responsibility:
Teaching: M.Sc, M.Phil, PG. Diploma in Structural Pharmacogenomics (PGDSP)

Deputy-coordinator, PG. Diploma in Structural Pharmacogenomics (PGDSP) – A UGC Innovative programme, Research supervisor: PhD, MPhil, PGDSP & MSc students. Principle Investigator: 2 Major projects (UGC, CSIR) & 1 Minor Project (AURF) Completed and ICMR -Ongoing. Member, Curriculum design and Question paper setting for M.Sc, M.Phil, Ph.D (Bioinformatics)

✓ **Lecturer (July 05 –February 07)**

Department of Biotechnology, Vels College of Science, Pallavaram, Chennai- 600117, Tamilnadu, India.

Key Responsibilities: Teaching at PG and UG level and Research

Research Experience: 16 Years

✓ **Scientist in- charge (March 08 – August 08)**

Nichi-In center for regenerative Medicine, Vadapalani, Chennai-600026, Tamil Nadu, India

Key Responsibilities: Co ordination of Research and Scientific activities.

✓ **Post doctoral Research Associate and Instructor (March 07 – August 07)**

College of Pharmacy, Nova South-eastern University, Florida, USA-33328

Key Responsibilities: Various Research activities like, Train the graduate students, writing the grants, manuscripts, *in vitro* validation of cancer drugs and Maintain the various cancer cell lines, etc.

✓ **DRDO/DIPAS Senior research fellow (July 2003- July 2005)**

Department of Genetics, University of Madras, Taramani, Chennai-600113, Tamilnadu, India

Key Responsibilities: Cloning and expression of Heat Shock Proteins

✓ **Lady TATA Memorial Trust - Junior Research fellow (July 2001- July 2003)**

Department of Genetics, University of Madras, Taramani, Chennai-600113, Tamilnadu, India

Key Responsibilities: Screening of AGT Gene polymorphisms in Tamil Nadu Hypertensive patients.

Additional Responsibilities

1. **Deputy-coordinator**, PG. Diploma in Structural Pharmacogenomics (PGDSP) – A UGC Innovative programme.
2. **Member (Basic Medical Scientist – Internal)**, Institute Ethics Committee (Human Studies).
3. **Assistant Director in Centre for International Relations** of Alagappa University, Karaikudi, India.

Areas of Research

Dr. M. Karthikeyan and his team focused on Pharmacogenomics and Computational Biology. He concentrates on hypertension, diabetes, cardiovascular diseases, renal failure, cancer, snake bite and so on. This involves study of metabolic pathways and gene-gene, protein-protein interactions by using multiple linear regression analyses for the establishment of significant associations between genetic variants and phenotypes of biomedical importance. Further his research team is conducting research on Database

creation and Computer Aided Drug Discovery (CADD) to design the various drugs/lead molecules for Hypertension, Diabetes, Cancer and Influenza viruses through 3D-QSAR, Molecular Docking, High Throughput Virtual Screening and Molecular dynamics simulation etc. In doing so, we hope to ultimately translate our research activities into clinically useful tools to help us improve clinical outcomes from drug therapy and to facilitate the development of new medications for the future.

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	05	02
	M.Phil.	05	--
Project	PG	23	--
	UG / Others	03	--

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
57	28	05	66	--

Cumulative Impact Factor (as per JCR) :	87.58
h-index	08
i10 index	07
Total Citations	291

Funded Research Projects

Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	UGC, Government of India, New Delhi.	2009	2010	Genetic polymorphisms of the Essential Hypertension associated genes in random subjects of the South Indian general population	13.31
2	AURF, Alagappa University,	2009	2009	Molecular and bioinformatics analysis of Breast cancer gene polymorphisms (BRCA1 and BRAC2) in Tamilnadu	0.64

	Karaikudi.			population	
3	CSIR, Government of India, New Delhi.	2011	2014	Investigation of binding of HA protein with sialic acid and ligand base lead identification of neuraminidase inhibitor of H1N1 2009 influenza A virus	15.98

Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	ICMR, Government of India, New Delhi.	2014	2017	Pharmacogenomics Study Of Anti Hypertensive Treatment In South Indian Population	21.15
2	DBT, Government of India, New Delhi	2016	2019	Computational identification and In vitro validation of small molecular inhibitors for tankyrase protein to inhibit the over expression of wnt/ β catenin.....Colorectal cancer.	30.48

Consultancy Projects

S. No	Agency	Period	Project Title	Budget (Rs. In lakhs)
1	University/ Institution	2012	Computer Aided Drug Design	0.30

Distinctive Achievements / Awards

1. Lady TATA Memorial Trust Junior scholarship (JRF) award 2001- 2003.
2. Defense Research & Development Organization / Defense Institute of Physiology & Allied Sciences Senior Research Fellow (SRF) 2004 -2005.
3. Qualified SLET (State Level Educational Testing) examination in the year of 1999 conducted by Bharathidasan University, Tiruchirappalli, Tamil Nadu.
4. Deputy-coordinator, PG. Diploma in Structural Pharmacogenomics (PGDSP) – A UGC Innovative programme
5. Best Paper Award in Pharmaceutical & Medicinal Synthetic Chemistry by The Indian Pharmaceutical Association's Prof. M. L. Khorana Memorial Indian Journal of Pharmaceutical Sciences
6. Received Best Poster award in National Conference On Recent Innovations In Biotechnology (18th April, 2016) Organized by Department of Biotechnology, Aarupadai

Veedu Institute Of Technology (AVIT), Kanchipuram, Tamil Nadu, India for the Poster Entitled "Identification of potential CYP24A1 inhibitors through E-Pharmacophore mapping and Molecular docking and Dynamics study".

7. **Member (Basic Medical Scientist – Internal)**, Institute Ethics Committee (Human Studies).
8. Recipient of **Outstanding Reviewer award** the year of 2016 from the **Journal Molecular BioSystems** (Royal Society of Chemistry).
9. **Received Best Poster award in** National Conference on "Recent Trends in Plant Sciences" (1-2 March, 2017) Organized by the Department of Botany, ST. Xavier's College, Palayamkottai, Tamil Nadu, India. For the Poster Entitled "Screening of Potent Agonist of VDR and Antagonist Of CYP24A1 using *In Silico* Approaches".

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 13

1. International Colloquium on "Emerging Biotechnologies in Agriculture, Animal Health and productivity - [ICEB'09]" during February, 22nd – 27th, 2009 (Member).
2. National Seminar on "Recent Trends in Molecular Modelling and Drug Design" - [NaSMold'09] during March, 18th -19th, 2009 (Member).
3. National Workshop on Molecular Modelling and Structural Bioinformatics in association with Schrodinger, USA . During January, 27th – 29th, 2010 (Member).
4. 3rd National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2010] with Schrodinger during December 20th- 22nd, 2010 (Member).
5. 4th National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2012] with Schrodinger during February 20th- 23rd, 2012 (Organizing Secretary).
6. 5th National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2013] with Schrodinger. During February 19th- 22nd, 2013 (Member).
7. Hands on Training in Sequence analysis and Molecular modeling at Dept. of Botany, The Standard Fireworks Rajaratnam College for Women, Sivakasi – 626 123 on 15th July, 2013 (Resource Person).
8. 6th National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2014] with Schrodinger during February 18th- 21st, 2014 (Member).
9. 7th National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2015] with Schrodinger during February 24th- 27th, 2015 (Member).

10. Hands on Training in Essential Bioinformatics tools and Database Development at Dept. of Biotechnology, St. Joseph's College (Autonomous), Tiruchirappalli-02 on 13th July, 2015 (Resource Person).
11. 8th National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2016] with Schrodinger during February 16th- 19th, 2016 (Organizing Secretary).
12. International Conference on Recent Trends in Biosciences (7th – 9th April, 2016) Organized by Department of Biosciences, Alagappa University, Karaikudi, Tamil Nadu, India. (Organizing Secretary).
13. 9th National Symposium cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design" [SBCADD'2017] with Schrodinger during February 14th- 17th, 2017 (Member).

Events Participated

Conferences / Seminars / Workshops: 12

1. DAE Symposium on "**Recent Advances in genetic Epidemiology and Population monitoring**" organized by Dept. of Genetics, Dr. ALMPGIBMS, University of Madras, Tamil Nadu, India (23rd – 26th, March, 1998).
2. International Symposium on "**Cataract- Molecular Epidemiological Aspects**" organized by Dept. of Genetics, Dr. ALMPGIBMS, University of Madras, Tamil Nadu, India (31st Jan- 1st Feb 2000).
3. Symposium on "**Recent Advances in Molecular Genetics**" organized by Dept. of Genetics, Dr. ALMPGIBMS, University of Madras, Tamil Nadu, India (19th March, 2003).
4. Symposium on "**Genetics: Today and Tomorrow**" organized by Dept. of Genetics, Dr. ALMPGIBMS, and University of Madras, Tamil Nadu, India (15th May, 2004).
5. Seminar on "**Good laboratory practice in life sciences Research**" organized by Dept. of Pharmacology and Environment Toxicology, University of Madras, Tamil Nadu, India (6-7th January 2004).
6. Indo-Australian Conference in "**Biotechnology in Medicine**" organized by Indian Institute of Sciences, Australian govt., KMC Manipal and CMC Vellore, Tamil Nadu, India (Feb 9-11th, 2004).
7. Indo-UK workshop on "**Ethics in medical research**" organized by university of Madras and SCIEH, Glasgow, UK (11th Oct 2004).
8. Indo-UK workshop on "**Designing of Doctoral Research for Ph.D scholars**" organized by dept. of Microbiology, Dr. ALMPGIBMS, University of Madras, Taramani, Chennai, Tamil Nadu, India (23rd March 2005).

9. 2nd National conference on “**Multifunctional Nanomaterials and Nanocomposites**” organized by Department of Nanoscience and Technology, Bharathiar University, Coimbatore , Tamil Nadu, India. (Mar 24th – 25th, 2011)
10. “**Workshop on innovative and creative approaches for sustainable development of India**” Organized by Industry and Consultancy Cell, Alagappa University, Karaikudi-630 003 (30th April, 2013).
11. “**International Seminar on “Recent Trends in Aquatic Animal Biotechnology (RTAAB’ 2013)”** Organized by Department of Animal Health & Management, Alagappa University, Karaikudi-630 004 (Oct 21-22, 2013).
12. “**Workshop on Metrohm Autolab Electrochemical Instruments for Biosensors, Energy and Corrosion Applications**” Organized by Bioelectronics and Biosensors, Alagappa University, Karaikudi-630 003 (16th February, 2015).
13. One day conference on “**Exploring Commercialization of Biosensors in India**” Organized by Bioelectronics and Biosensors, Alagappa University, Karaikudi-630 003 (14th March, 2017).
14. International Conference on “**Frontier Areas in Chemical Technologies (FACTs)**” organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-630 003 (July 6-8, 2017).

Other Training Programs

1. 67th Orientation Program at Academic Staff Colleges (ASC), Bharathidasan University, Tiruchirappalli (09.11.2010- 06.12.2010), Tamil Nadu, India.
2. Refresher Course in Life Sciences at UGC Academic Staff Colleges (ASC), Madurai Kamaraj University, Madurai (16-11-2012 to 06-12-2012), Tamil Nadu, India.

Overseas Exposure / Visits

Countries	Duration	Month & Year	Purpose of Visit
Florida, USA	6 Months	March – August 2007	Post doctoral Research
Singapore	3 Days	February 2011	Annual International Conference on Bioinformatics and Computational Biology (BICB 2011)

Membership in

Professional Bodies

1. Life Member: Indian Science Congress Association, Kolkata.
2. Life Member: Indian Society of Human Genetics.

Editorial Board

1. Journal of Orthopaedics.
2. International Journal of Pharmaceutical Sciences.
3. Genetic Disease Study.

Academic Bodies (such as Board of Studies etc.,)

1. Chairman, Evaluation Board, Department of Bioinformatics, Annamalai University, Chidambaram, Tamil Nadu 608002.
2. Question Paper Setter & Member, UG & PG Examination evaluation board, Alagappa University, Bharathidasan University, Bharathiar University, Chettinadu University, Annamalai University.

Others

Reviewer to the Journals

1. Molecular Biosystems
2. Acta Pharmacologica Sinica
3. PLOS one
4. BMC Research Notes
5. Journal of Human Hypertension
6. Journal of American Chemical Society
7. Journal of Biomolecular Structure and Dynamics
8. Physiological review
9. SAR and QSAR in environmental research
10. Indian Journal of Medical Research
11. Journal of Receptor and Signal Transduction

12. Combinatorial Chemistry and High Throughput Screening
13. Journal of Metallomics (RSC)
14. Journal of Medicinal Chemistry Research
15. Journal of Molecular Graphics and Modelling

Resource persons in various capacities

Number of Invited / Special Lectures delivered: 15

1. **Population genetics and genetics linkage** at Department of Biotechnology, Cauvery College for Women, Tiruchirappalli-620 018, Tamil Nadu, India (14th December, 2006).
2. **Applications of Stem Cells in Animal Health** in National seminar on “Application of genomics and bioinformatics in Animal Health and Management” Organised by Department of Animal health and management, Alagappa University, Karaikudi, Tamil Nadu, India (25-26 March, 2009).
3. **Bioinformatics & Drug Designing in Post Genomic Era** at Dept. of Botany, St. Joseph's College (Autonomous), Tiruchirappalli, Tamil Nadu, India (22nd February, 2011).
4. **Computational Designing and Discovery of Anti-Alzheimer's Drug** in National Conference on “Evolutionary Trends in Biochemistry and Molecular Biology - BIOTRENDZ-2012” & “1st Annual Seminar on Alzheimer's Disease - ALZINFO-2012” Organised by Department of biochemistry, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India (20th & 21st September, 2012).
5. **Computer Aided Drug Discovery And Development** at Dept. of Microbiology, Srimad Andavan Arts and Science College, Tiruchirappalli, Tamil Nadu, India (October 09, 2012).
6. **Sequence analysis and database management tools** at Dept. of Biochemistry, Dhanalakshmi Srinivasan College of Arts and Science for Women, Thuraiyur Road, Perambalur, Tamil Nadu, India (20th December, 2012).
7. **Introduction to Bioinformatics & Tools and Techniques in Bioinformatics** at Dept. of Botany, The Standard Fireworks Rajaratnam College for Women, Sivakasi – 626 123, Tamil Nadu, India (15th July, 2013).
8. **Essential bioinformatics tools for biologists** in UGC sponsored one day seminar on “Technical Innovation in Zoology” Organized by Research Department of Zoology, Seethalakshmi Ramaswami College, Tiruchirappalli - 620 002, Tamil Nadu, India (18th October, 2013).
9. **Computational Designing of dual ETA and AT1 Receptor as antihypertensive lead molecules: a Pharmacogenomics based future prospective for Hypertension treatment** in UGC – SAP sponsored National Seminar on “Molecular Genetics and Human Welfare” in memory of Prof. G. Jayaraman, Organized by Department of Genetics, University of Madras, Tamil Nadu, India (21st Feb, 2014).
10. **Essentials of Bioinformatics** in the National workshop on “Essentials of Bioinformatics” organized by Dept. of Biotechnology, Dr. Umayal Ramanathan College for Women, Karaikudi, Tamil Nadu, India (4th & 5th Aug, 2014).

11. **Bioinformatics: a new window for plant drug discovery** in the SOFT SKILLTRAINING PROGRAM sponsored by TANSICHE in the Dept. of Botany, Govt. Arts College, Mellur, Tamil Nadu, India (26th Aug, 2014).
12. **Computational Models Simplifies the Animal Experiments** in the Zoology Association Valedictory and Farewell Function, organized by Dept. of Zoology, Govt. Arts College, Karaikudi, Tamil Nadu, India (07th April, 2015).
13. **Essential Bioinformatics tools and Database Development** at Dept. of Biotechnology, St. Joseph's College (Autonomous), Tiruchirappalli-02 (13th July, 2015).
14. **Small molecule Inhibitors for cancer therapy** at Dept. of Biochemistry, JJ College (Autonomous), Pudukottai, Tamil Nadu, India (07th February, 2017).
15. **Indian Herb for the Treatment Snakebite: A In Silico Insights** at National Conference on "Recent Trends in Plant Sciences" organized by Department of Botany, Palayamkottai on 1st – 2nd March, 2017.

Others

1. No. of PhD Thesis evaluated : 06
2. No. of PhD Public Viva Voce Examination conducted : 05
3. Sequences submitted in GenBank : 26
4. Database Developed : 02
5. Number Of Compounds Submitted to Pubchem: 05

Some Recent Publications

1. Gopinath K, Jayakumararaj R, **Karthikeyan M*** (2014). "DAPD: A knowledgebase for Diabetes Associated Proteins". IEEE Transactions on Computational Biology and Bioinformatics; 12 (3): 604 – 610. PMID: 26357271, DOI: 10.1109/TCBB.2014.2359442 (IF (2014): 1.438).
2. Singh KhD, Kirubakaran P, Nagamani S, **Karthikeyan M*** (2015). Binding mode analysis of anti-influenza drugs in H1N1 (2009) and H5N1 influenza A virus and designing of potential H1N1. International Journal of Computational Biology and Drug Design; 8 (1); 1-18. PMID: 25869316, DOI: 10.1504/IJCBDD.2015.068753.
3. Ajay J, Singh KhD, Anshika S, Saurabh V, Malabika D, Yogendra S, **Karthikeyan M**, Kukreti R (2015). Methylation of HTR3A promoter variant alters binding of transcription factor CTCF. RSC Advances; 5 (57): 45710-45717. DOI: 10.1039/C5RA04455C (IF (2014): 3.84).
4. Sathishkumar C, Nagamani S, **Karthikeyan M*** (2015). Zn²⁺ ion of the snake venom metalloproteinase (SVMP) plays a critical role in the ligand binding: A molecular dynamics simulation study. RSC Advances; 5; 70566-70576. DOI: 10.1039/C5RA14693C (IF (2014): 3.84).
5. Gopinath K, **Karthikeyan M*** (2015). In vitro evaluation of antioxidant and antidiabetic activities of *Syzygium densiflorum* fruits. Asian Pacific Journal of Tropical Disease; 5; 912-917. DOI:10.1016/S2222-1808(15)60956-2 (IF (2014): 1.062).

6. **Karthikeyan M***, Gopinath K, Nandhini D (2015). Computational prediction of immunodominant antigenic region and potential protective epitopes for dengue vaccination. *Indian Journal of Medical Research*. (IF (2014): 1.396).
7. Sathishkumar C, Selvakumar C, **Karthikeyan M*** (2015). High affinity selective inhibitor against phospholipase A2 (PLA2): A computational study. *Journal of Receptors and Signal Transduction*; 36(2):111-8. PMID: 26422703, DOI:10.3109/10799893.2015.1056306 (IF (2014): 2.277).
8. Gopinath K, **Karthikeyan M*** (2014). Understanding the evolutionary relationship of M2 channel protein of influenza A virus and its structural variation and drug resistance. *Current Bioinformatics*. (IF (2014): 0.921).
9. Nagamani S, John Marshal J, **Karthikeyan M*** (2015). E-Pharmacophore filtering and molecular dynamics simulation studies in the discovery of potent drug-like molecules for Chronic Kidney Disease. *Journal of Biomolecular Structure and Dynamics*: 1-18. PMID: 26513595, DOI:10.1080/07391102.2015.1111168 (IF (2014): 2.919)
10. Karthikeyan M*, Gopinath K (2015). A computational study on role of 6-(hydroxymethyl)-3[3,4,5-trihydroxy-6-[(3,4,5-trihydroxyoxan-2yl)oxymethyl]oxan-2-yl]oxyoxane-2,4,5 triol in the regulation of blood glucose level. *Journal of Biomolecular Structure and Dynamics*. PMID: 26610163 DOI:10.1080/07391102.2015.1124289 (IF(2014): 2.919).
11. Gopinath K, David Raj C, Nagarajan S, Karthikeyan M* (2015). Antidiabetic, Antihyperlipidemic and Antioxidant activity of *Syzygium densiflorum* fruits in Streptozotocin and Nicotinamide induced diabetic rats, *Pharmaceutical Biology*. DOI: 10.3109/13880209.2015.1125932 (IF (2014): 1.241).
12. Nagamani S, Saravana Kumar S, Karthikeyan M* (2016). The binding mode prediction and similar ligand potency in the active site of vitamin D receptor (VDR) with QM/MM interaction, MESP and MD simulation, *Chemical Biology & Drug Design*: 272-80. PMID: 26945790, DOI:10.1111/cbdd.12754 (IF(2015): 2.802).
13. Nagamani S, Singh KD, Karthikeyan M* (2016). Combined sequence and sequence-structure based methods for analyzing FGF23, CYP24A1 and VDR genes. *Meta Gene*; 9:26-36 (Elsevier publication). PMID: 27114920, DOI: 10.1016/j.mgene.2016.03.005.
14. Selvakumar C, Karthikeyan M, Sathiskumar C* (2016). Introduction of Stereo chemical onstraints in to Beta-Amino Acid residues. *Journal of Vaccines and Immunology*:2(1):001-003. (Mini review).
15. Karthikeyan M*, Mohan S, Nagamani S, Chandrasekhar K* (2016). Identification of novel small molecules that bind to the loop 2 region of Sclerostin- an In silico computational Analysis. *Physiological Research*. PMID: 27429110 (IF (2015): 1.293).
16. Karthikeyan M*, Prasad S, Nagamani S. Role of Hydrophobic Patch in LRP6: A Promising Drug Target for Alzheimer's disease. *Indian Journal of Pharmaceutical Sciences*; 78(2):240-251. DOI: 10.4172/pharmaceutical-sciences.1000109 (IF (2015): 0.762).
17. Chinnasamy Selvakumar*, Karthikeyan Muthusamy and Sathish Kumar Chinnasamy (2016). Nanopeptides: Non - Covalent Interactions in Chemistry and Biological Functions. *Journal of Applied Pharmacy*, 8:2; 1-8. (Doi.org/10.4172/1920 4159.1000218).
18. Sathishkumar C, Nagarajan S, Sivaraman T, Selvakumar C and Karthikeyan M* (2016). Isolation and Characterization of Bioactive Compounds of *Clematis gouriana*

- Roxb. ex DC Against Snake Venom Phospholipase A2 (PLA2) Computational and In vitro Insights. *Journal of Biomolecular Structure and Dynamics*. PMID: 27355444, DOI: 10.1080/07391102.2016.1202862 (IF (2015): 2.3).
19. Vijayashree Priyadharsini, M.Karthikeyan, V.Shridevi, A. Paramasivam, G.Jayaraman, S.T.Santhiya (2016). Association of CDH13 (rs7200009) gene polymorphism with essential hypertension in south Indian population. *International Journal of Current research*. Vol. 8, Issue, 08, pp.35579-35585, ISSN: 0975-833X.
 20. Karthikeyan Muthusamy*, Sathishkumar Chinnasamy, Subbiah Nagarajan and Thirunavukkarasu Sivaraman (2016). Ikshusterol3-O-glucoside of Clematis gouriana Roxb. ex DC. Inhibit the Phospholipase A2 of Snake venom: A in silico and in vitro study. *Journal of Receptors and Signal Transduction*. (IF (2015): 1.782).
 21. Biswajit Gorai, M. Karthikeyan and T. Sivaraman (2016). Putative membrane lytic sites of P-type and S-type cardiotoxins as probed by molecular dynamic simulations. *Journal of Molecular Modeling*. (IF (2016): 1.43).
 22. Arunachalam Kalaiarasi, Chidambaram Anusha,, Renu Sankar, Subbiah Rajasekaran, Jayaraj John Marshal, Karthikeyan Muthusamy, and Vilwanathan Ravikumar (2016). Plant Isoquinoline Alkaloid Berberine Exhibits Chromatin Remodeling by Modulation of Histone Deacetylase to Induce Growth Arrest and Apoptosis in the A549 Cell Line. *Journal of Agricultural and Food Chemistry (ACS Publications)*. DOI: 10.1021/acs.jafc.6b04453 (IF: 2.8).
 23. Gurpreet K Grewal, Khuraijam D Singh, Neha Kanojia, Chitra Rawat, Samiksha Kukal, Ajay Jajodia, Anshika Singhal, Richa Misra, Selvaraman Nagamani, Karthikeyan Muthusamy, Ritushree Kukreti. Exploring the Carbamazepine Interaction with Human Pregnane X Receptor and Effect on ABCC2 Using in Vitro and in Silico Approach. *Journal of Pharmaceutical research*. PMID: 28432535, DOI: 10.1007/s11095-017-2161-z (IF: 3.002)
 24. Karthikeyan Muthusamy*, Sathishkumar Chinnasamy, Pappathi Palanisamy, Gopinath Krishnasamy. Clematis gouriana roxb. Ex dc compounds could be potent inhibitors for snake venom metalloproteinase (SVMP) a molecular docking and simulation studies. *Asian Journal of Research in Biological and Pharmaceutical Sciences*. 5(2), 2017, 50- 74.
 25. Dhamotharan Pattarayan, Ayyanar Sivanantham, Venkateshwaran Krishnaswami, Lakshmanan Loganathan, Rajaguru Palanichamy, Subramanian Natesan, Karthikeyan Muthusamy and Rajasekaran Subbiah. Tannic acid Attenuates TGF- β 1-induced Epithelial-to-mesenchymal Transition by Effectively Intervening TGF- β Signaling in Lung Epithelial Cells. *Journal of Cellular Physiology*. 2017; 1-13. (IF: 4.08), DOI: 10.1002/jcp.26127.
 26. Gopinath Krishnaswamy, Nagarajan Subbiah, Karthikeyan Muthusamy*. Isolation of natural compounds from Syzygium densiflorum fruits and exploring its chemical property, therapeutic role in diabetic management. *The Natural Products Journal*. (Accepted).