

Prof. Dr.Thangavel Muthusamy, Ph.D.

Professor of Biochemistry
Research and Development Wing
Sree Balaji Medical College and Hospital (SBMCH)
Bharath Institute of Higher Education and Research (BIHER)
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Qualifications:

Ph.D. Medical Biochemistry, P.G. Institute of Basic Medical Sciences University of Madras,
Taramani, Chennai, India

M.Sc. Biochemistry, Bharathidasan University, Trichy, India

B.Sc. Chemistry, University of Madras, Chennai, India

Research Interests:

Cellular and Molecular Biochemistry, Molecular Neuroscience, Cell biology, Protein trafficking,
Cell signaling, Autophagy, GPCR, Proteomics and Biotechnology

Academic Work Experience:

2021-Present: Professor (Medical Biochemistry), Cellular and Molecular Biochemistry,
Research and Development Wing, Sree Balaji Medical College and Hospital, BIHER, Chennai,
India

2019-2021: Vice Principal, Faculty of Allied Health Sciences, Meenakshi Academy of Higher
Education and Research, Chennai, India

2014- 2019: Associate Professor, Faculty of Allied Health Sciences, College of Medicine,
Chettinad Health University and Research Institute, Kelambakkam, Chennai, India

2013-2014: Senior Research Scientist, Department of Toxicology and Cancer Biology, School
of Medicine, University of Kentucky, Lexington, Kentucky, USA

2011-2013: Senior Research Scientist, Department of Psychiatry and Behavioral Sciences,
School of Medicine, University of Louisville and VA Medical center, Kentucky, USA

2010-2011: Associate Professor, Department of Biotechnology, School of
Bioengineering, SRM University, Kattankulathur, Chennai, India

2009-2010: Post-Doctoral Research Scholar, Department of Cellular and Molecular
Biochemistry, School of Medicine, The Ohio State University Medical Center, Columbus Ohio,
USA

2005-2009: Post-Doctoral Fellow, Department of Pharmacology, School of Medicine,
University of Tennessee Health Science Center, Memphis, Tennessee, USA

2003-2005: Post-Doctoral Fellow, Department of Biochemistry, Microbiology and Immunology,
School of Medicine, University of Tennessee Health Science Center, Memphis, Tennessee, USA

2003-2003: Research Associate, Department of Biochemistry and Molecular biology, School of Medicine, Medical University of South Carolina, Charleston, South Carolina, USA

Award and Honors

- **Young Scientist Award** at the International Conference on Natural Antioxidant and Free radicals in human health and radiation biology (NFHR) in Mumbai, INDIA
- **Travel award:** International Conference on Natural Antioxidant and Free radicals in human health and radiation biology (NFHR) in Mumbai, INDIA
- University Research Fellowship Award, University of Madras
- Outstanding graduate student from department of Medical Biochemistry, University of Madras

- **Young Scientist Award** at the 34th International Congress of Physiological Sciences, Christ Church, **New Zealand**. August -2001
- **Young Investigator Award** at the 34th International congress of physiological Sciences, Christ church, **New Zealand**. August- 2001

Extramural projects ongoing/ completed

1. Co-Principle Investigator: Caveolar Dependent Trafficking of Membrane Transporters” Grant –In-Aid American Heart Association, Southeast Affiliate Chapter 7/1/03 - 6/30/05
2. Co-Principle Investigator: 2005 to 2009: National Institutes of Health (NIH) grant to pursue basic research on the organization of pathways inside smooth muscle cells that control muscle contraction.
3. Co-Principle Investigator: 2011 to 2014: VA Merit Review Major Grant program for research related to mood stabilizing medications and the brain inositol signaling system.
4. Principle Investigator: 2021: Neuronal Cytoskeleton as a Target For Drug Therapy in Bipolar Disorders. Merch Research Grants, Darmstadt, Germany (4, 50,000 EUR/Year for up to three years) submitted.

Patents published and Submissions:

1. Published (E-2/103/2017-CHE) TITLE OF THE INVENTION: Method and process for accessing efficacy of anti-cancer agent.
2. A Novel Method To Track Efficiency Of Lithium Treatment For Bi-Polar Disorder-202241005184 (U/S11A) : 11/02/2022 (Published)
3. Diagnostic Method For Detection Of Parkinson’s Disease No.202241005184 A (Published)
4. A Novel Method To Track Efficiency Of Valproic Acid Treatment For Bi-Polar Disorder-202241051738 (U/S11A) : 11/07/2022 (Published)
5. A Novel Method To Track Efficiency Of Levodopa- Treatment For Parkinson Disease 202341055671 (published)
6. A Novel Method To Track Efficiency Of Memantine Treatment For Alzheimer's Disease TEMP/E-1/93315/2023- CHE (published)

7. A Novel Method To Track Efficiency Of Lamotrigine Treatment For Bi-Polar Disorder (No.202341055668 A) (published)
8. A Novel Method To Track Efficiency Of Nuclear Factor Kappa-B Ligand On IgA Antibodies In Breast Cancer (filed)

Books and Book Chapters: International-3 National-11

International:

1. Thangavel Muthusamy, Sathyaramya T. Curcumin In Human Cancer; Publisher-LAP LAMBERT, Republic of Moldova, Europe. ISBN-978-620-5-51359-0
2. Thangavel Muthusamy, Sathyaramya T, Deepalakshimi B. Biochemical Techniques for Analyzing Protein-Lipid Interactions. Springer Nature, ISBN-978-981-97-5436-6
3. Thangavel Muthusamy, Sathyaramya T. Haematococcus: Biochemistry, Biotechnology and Biomedical Applications (Chapter; Biochemistry of Haematococcus). Springer Nature, ISBN- 978-981-99-2901-6; P-81-95

National:

1. Thangavel Muthusamy, Sathyaramya. Caveolae in Human Disease. First Edition; June-2022; Discovery publication, ISBN: 978-93-94762-22-0; P-147.
2. Thangavel Muthusamy. Antioxidants and Cardiovascular Health. ISBN: 978-93-6122-474-4, 2024
3. Thangavel Muthusamy. Free Radicals and Oxidative Stress in Heart Disease. ISBN: 978-93-6122-828-5, 2024
4. Thangavel Muthusamy. The Role of Antioxidants in Reducing LDL Cholesterol. ISBN: 978-93-6122-198-9, 2024
5. Thangavel Muthusamy. The Role of Antioxidants in Heart Disease Prevention. ISBN: 978-93-6122-307-5, 2024
6. Thangavel Muthusamy. The Impact of Genetics on Cardiovascular Disease Prevention. ISBN: 978-93-6122-902-2
7. Thangavel Muthusamy. Smoking Cessation: A Key to Cardiovascular Disease Prevention. ISBN: 978-93-6122-371-6
8. Thangavel Muthusamy. Curcumin: A Potent Antioxidant for Heart Protection. ISBN:978-93-6122-296-2
9. Thangavel Muthusamy. Antioxidants and Preoperative Cardiac Evaluation. ISBN: 978-93-6122-372-3
10. Thangavel Muthusamy. Rural Health and Cardiovascular Disease Prevention. ISBN: 978-93-6122-357-0
11. Thangavel Muthusamy. Immunotherapies in Cardiovascular Disease. ISBN: 978-93-6122-154-5

Skills

Molecular Biology techniques - Extensive 'Hands on' molecular cloning work experience and training: DNA Cloning: pcDNA3 Mammalian expression vector cloned with AE-1 anion exchanger peptide, Topo vector cloned with Ac6-C1 domain, PtriEx-4 Vector cloned with AC6-C1 domain, PTRE-Shuttle-2 Vector cloned with Adenylyl cyclase-3&4, Plasmid expression Vector, (PDPEV), neo-EGFP that expressed with enhanced GFP. Adeno viral construct with Adenylyl cyclase isoform2, 3, 4 and PTRE-Shuttle-2 Vector. Site-Directed Mutagenesis, PCR and RT-PCR, Plasmid DNA, RNA Isolation, Transfection: stable and transient transfection, nucleofection, and transformation, "knocked down" using plasmid vectors, ShRNA, SiRNA and FISH in situ hybridization (for in vitro tRNA localization).

Biochemical techniques: Hands on work experience in SDS-PAGE, Western blotting, ELISA, image acquirement under fluorescent microscope and confocal microscope immuno-precipitation, immuno-diffusion, immuno-blotting, and extensively trained in immuno-cytochemistry, Immunohistochemistry staining, HPLC, Protein trafficking, natural and recombinant protein purifications, Antibody purification, 2-D-GEL electrophoresis, Mass spectrometry, lipid raft assay, cyclic AMP assay, assays of collagen synthesis, nuclear fraction isolation, β -galactosidase staining, biochemical estimations of enzymes, nucleic acids, proteins, lipids, neurotransmitters and cancer marker enzymes. Biochemical techniques like spectrophotometer, fluorimetry, Fluorescence, and column chromatography, ultra and gradient centrifugation. Cell biology techniques like Confocal and Immuno fluorescence microscope.

Cell Biology techniques: Research studies including cell isolation, animal (Isolation of Air-way smooth muscle cell, BSMC cell, cardiac fibroblast cells and Lung fibroblast cells) and human cell culture techniques MDCK-cells, Breast cancer cell line (MDA, SK-231, MCF-7), HFF cell, human adult pulmonary fibroblast cell-LL47, LL29, Caco-2 cells, HEK-293 cells. Cos-7 monkey kidney fibroblast cells, cardiac fibroblast cells and intracellular recordings in young/adult animals and organo-typic slice cultures.

Experience in maintaining and characterizing animal models (transgenic and knockout models including mice) for research such as cancer induction, behavioral tests in transgenic mice, diabetes and cardio vascular models. Perform tissue culture, genotyping and surgery in knockout mice; perform laparotomy and other sterile surgeries to prepare animal models. Knockout mouse colony supervision and genotyping. Sterile techniques; protocol design and implementation; knowledge of histological techniques; data interpretation; writing skills for abstracts, posters, and publications; attention to detail; excellent communication skills

Teaching, lab training and Research.

Research project proposal planning and writing.

Computer Skills: Windows, Word, Power Point, Excel, Image j, Adobe Photoshop 8.9, Prism, Endnote 7.0, Origin, Images, Clampex, QUB, Mini analysis and STAT programs

Research Guidance

S. No	Degree Completed	Completed	On going
1	Ph. D	1	1
2	M. Sc	2	-
3	B. Sc	10	-
4	M.B.B.S	1	10

Publication details

Research paper	:	38
Book	:	13
Book chapters	:	02
H-index	:	11

	Articles information (Selected Publications)	Impact factor	Citation
S.No	Research papers:		
1	Thangavel. M, Seelan, R., Lakshmanan, J., Vadnal RE, Stagner, JI, Parthasarathy LK, Casanova MF, El-Mallakh RS, Parthasarathy RN. Proteomic analysis of rat prefrontal cortex after chronic valproate treatment. J Neurosci Res. 2014; 92: 927-36.	4.23	10
2	Lizha M, Balaji S, Kanagaraj P, Thangavel M, Ilangovan R, Anandhan B, Surajit P, Shoba N, Satish R. Chitosan-Based Nano-Formulation Enhanced the Anticancer Efficacy of Hesperetin. International Journal of Biological Macromolecules. 2018 107:1988–1998.	7.7	83
3.	Charlton C, Ravishankar RM, Sasikala C, Ashok Kumar B, Thangavel Muthusamy, Chitraabaanu P, Deepa S, Sunil K, Lokhotiya K, Gothandam Kodiveri M, Siddhartha B, Rama Jayaraj. Bibliometric and Density Visualisation Mapping Analysis of Domestic Violence in Australia Research Output 1984-2019. International Journal Of Environmental Research And Public Health. 2022, 19(8), 4837; https://doi.org/10.3390/ijerph19084837	4.61	5
4.	Ravishankar Ram, Thangavel M and Rama Jayaraj. A Clinical Investigation on the Theragnostic Effect of microRNA Biomarkers for Survival Outcome in Cervical Cancer: A PRISMA-P Compliant Protocol for Systematic Review and Comprehensive Meta-Analysis. Genes (MDPI), 2022, 13 (3), 463.	2.8	4
5	Thangavel. M, Xiao L, Kaminsky BJ and Ostrom R. The C1 and C2 domains target human type 6 adenylyl cyclase to lipid rafts and caveolae. Cell Signal, (2009) 21(2):301-308.	4.743	35
6	Lakshmanan, J., Seelan, R., Thangavel, M., Janckila, A., Casanova, MF, Parthasarathy, L.K., and Parthasarathy, R.N., Proteomic analysis of rat prefrontal cortex after lithium treatment. Journal of Proteomics and Bioinformatics, (2012): 5:140-146	10.4	18
7	Parthasarathy, R.N., Lakshmanan, J., Thangavel, M., Seelan, R., Stagner, J.I., Janckila, A.J., Vandal, R.E., Casanova, M.F., and Parthasarathy, L.K., Rat brain myo-inositol 3-phosphate synthase is a phospho-protein, Molecular and Cellular Biochemistry, (2013): 2013, 378:83-9.	3.5	16
8	Le-Nguyen Huynh, Thangavel M, Timothy Chen, Ryan Cottrell and Mette Praetorius- Ibba. Linking tRNA localization with activation of nutritional stress responses. Cell cycle, (2010) 3112-3118.	5.2	50
9	Liu X, Li F, Sun SQ, Thangavel M, Kaminsky J, Balazs L, Ostrom RS. Fibroblast specific expression of AC6 enhances β -adrenergic and prostacyclin signaling and blunts bleomycin-induced pulmonary fibrosis. Am J Physiol Lung Cell Mol Physiol, (2010) 298:L819-L829.	4.47	21
10		6.7	15

	Dorsey FC, Thangavel Muthusamy. , Whitt MA and Cox JV. A novel role for a YXX ϕ motif in directing the caveolin-dependent sorting of membrane-spanning proteins. Journal of Cell Science , (2007) 120:2544-2554 .		
11	Confeng XU., Li L., Thangavel M. , Bin Z., Rennolds O and Xin A. CD82 endocytosis links tetraspanin-enriched microdomain to lipid rafts and regulates cell migration. FASEB Journal , (2009) FJ 08-123414 .	7.2	73
12	Xiaoqiu L., Thangavel M. , Qiang S., Kaminsky BJ., Mahautmr P., Stitham., Hwa J and Ostrom R. Adenylyl cyclase type 6 over expression selectively enhances β -adrenergic and prostacyclin receptor inhibition of cardiac fibroblast function due to co-localization in lipid rafts. Naunyn-Schmiedeberg's Arch Pharmacology , (2008) 377:359-369 .	3.1	34
13	Thirunavukkarasu C., Prince vijeya sing J., Thangavel M. , Selvendiran K and Sakthisekaran D. Dietary influence of selenium on the incidence of N-nitrosodiethylamine-induced hepatoma with reference to drug and glutathione metabolizing enzymes. Cell Biochemistry and Function , (2002) 21:1-10	3.2	25
14	Thangavel Muthusamy , FC Dorsey, JV Cox. Caveolin 1 regulates the caveosome to Golgi sorting of protein and lipid cargo. Molecular biology of the cell 15 , 441A-441A	3.5	0
15	FC Dorsey, Thangavel Muthusamy , JV Cox. A novel role for a YXX ϕ sorting signal in directing the caveolar-dependent endocytosis of an AE1 anion exchanger/Fc receptor chimera. Molecular biology of the cell . 2004; 15 , 441a-441a.	3.5	0
16	Thangavel M , X Liu, RS Ostrom. Proteomic analysis detects cytoskeletal-related proteins that interact with the intracellular C1 domain of adenylyl cyclase 6. The FASEB Journal 2008, 22 (1 Supplement) , 728.1-728.1	7.1	0
17	M Thangavel , P Adris, R Ostrom. Localization and coupling of adenylyl cyclase isoforms 2, 3 and 6 with G protein-coupled receptors in mouse bronchial smooth muscle cells. The FASEB Journal . 2009;23 (1 Supplement) , 582.3-582.3	7.1	0
18	Thangavel Muthusamy and Mette Ibba. Karyopherin-mediated regulation of autophagy in breast cancer cells. Cancer Research . 2010;70 (8 Supplement) , 4852-4852.	12.7	0
19	LN Huynh, M Neil, Thangavel Muthusamy , H Luu, D Nair, MP Ibba. tRNA-mediated regulation of nutrient-responsive pathways in breast cancer cell. Cancer Research . 2011;71 (8 Supplement) , 3770-3770.	12.7	0
20	Xiaoqiu Liu, Shu Qiang Sun, Thangavel Muthusamy , Chunying Li, Anjaparavanda P Naren, Rennolds S Ostrom. C1 and C2 Domains of Human Adenylyl Cyclase 6 are Targeted to Lipid Rafts and Caveolae. The FASEB Journal . 2006; 20 (5) A1117-A1117	6.7	-
21	Thangavel Muthusamy , FC Dorsey, JV Cox. Caveolin 1 regulates the caveosome to Golgi sorting of protein and lipid cargo. Molecular biology of the cell 2004 (15) 441A-441A	3.7	-

22	Congfeng X, Yanhui H Z, Thangavel M , Richardson MM, Liu L, Zhou B, Zheng Y, Ostrom RS, Zhang XA. CD82 Endocytosis Reveals Cholesterol-Dependent Reorganization of Tetraspanin-Enriched Microdomains and Lipid Rafts. The FASEB Journal , 21 ; P- A794, 2009.	7.2	
23	Muthusamy Thangavel , Piyatilake Adris, Rennolds Ostrom. Localization and coupling of adenylyl cyclase isoforms 2, 3 and 6 with G protein-coupled receptors in mouse bronchial smooth muscle cells. The FASEB Journal , 582-582 , 2009.	7.2	
24	Thangavel Muthusamy , L. Roshini Yadav, Sathis Ramalingam, Ilangovan Ramachandran and Prabakaran Nagarajan.Synergistic Effect of 5-Fluorouracil Combined with Naringin in MDA-MB-231 Human Breast Cancer Cells. International Research Journal of Oncology . 2020 ; 3(3): 13-27 .	(Indexed Journal) IRJO.59207.	8
25	Geeva, Raghavan, V., Muthusamy Thangavel . et al. Influence of lithium treatment on pathological changes: an investigation on male Sprague–Dawley rat model. Toxicol. Environ. Health Sci . 2020 ; 13 (1) 37-4 . https://doi.org/10.1007/s13530-020-00066-2	1.6	
26	Thangavel M , Palanivel R and SakthisekaranD. The cytoprotective effect of curcumin on Adriamycin induced hepatotoxicity. Biomedicine , 2002 ; 21(4):21-27 .	Indexed journal. ISSN:0970-2067	18
27	Palanivel R., Thangavel M. , Selvendiran K and Sakthisekaran D. Insulin-like effect of ammonium paratungstate on protein metabolism in streptozocin induced experimental diabetes in rats. Biomedicine , 2001 ; 21:23-30 .	Indexed journal ISSN:0970-2067	
28	S Mumtaz Banu, R Padmavathi, M Thangavel , D Sakthisekaran. Chemotherapeutic efficacy of adriamycin against den induced oxidative stress in hepatocellular carcinoma bearing rats with reference to LPO, antioxidants and membrane stability. Biomedicine , 2002 ; 21(4) 21-27 .	Indexed journal ISSN:0970-2067	-
29	Devaprasad M, Thangavel M , Mariappan A, Abhinand.P.A. Subramaniyan K. Virtual Screening of Phytochemicals with Anti-Alzheimer Glycogen Synthase Kinase-3 Beta Activity. International Journal of Scientific Research . 2019 ; 8 (2) DOI : 10.36106/ijsr	ISSN: 2319-7064	-
30	Thangavel M , Devaprasad M, Mariappan A, Abhinand.P.A, Subramaniyan K. Ligand-Based Pharmacophore Modeling Studies of Tnf-Alpha- Converting Enzyme Inhibitors. Indian Journal of Applied Research . 2019 ; 9 (2) DOI: 10.15373/2249555X	ISSN:2249-555X	-
31	Muthusamy Thangavel , Janani Gopi, Deepalakshmi B. Protection of hydrogen peroxide and Metal induced DNA damage by flavonoids. Int. J. Exp. Res. Rev. , V2023, 32: 408-421. https://doi.org/10.52756/ijerr.2023.v32.036	ISSN:2455-4855 (Scopus)	-

32	Muthusamy Thangavel , Deepalakkshmi B, Saramma Mini Jacob. Synergistic Effect of Curcumin and Adriamycin on Liver Detoxification Enzymes in Hepatocellular Carcinoma-Induced Wister Strain Albino Rats. Eur. Chem. Bull. 2023,12(12), 364-391.	ISSN:2063-5346 (Scopus)	
33	Thangavel Muthusamy , Chalini V, Deepalakkshmi B and Saramma Mini Jacob Association Of ABCG2 RS2231142- A Allele and Serum Uric Acid Levels In Parkinson's Disease. Int. J. Exp. Res. Rev. 2024 Accepted.	ISSN:2455-4855 (Scopus)	
34	Thangavel Muthusamy , Chalini V, Deepalakkshmi B. Therapeutic applications of Circular RNAs in colorectal cancer. International Journal of Experimental Research and Review. 2024 Accepted.	ISSN:2455-4855 (Scopus)	-
35	Muthusamy Thangavel , N. Prabhu, Nouf M. Alyami, Meshari Mahdi Alyami. An investigation on the role of SNAP-25 protein in the regulation of autophagy in breast cancer cells under malnourishment condition. Archives of Biochemistry and Biophysics. 2024, Under review	3.39 (Pubmed)	-
36	Muthusamy Thangavel. Lithium in the Mood Stabilizer Drug Therapy in Bipolar Disorder through cytoskeletal protein and Molecular Mechanisms. Pharmaceuticals. Under review	4.3 (Pubmed)	
37	Muthusamy Thangavel and Prabakaran Nagarajan. Inhibition and Treatment in Adhesion, Migration, Invasion, and Metastasis of Cancer Cells. Pharmaceuticals. Submitted	4.3 (Pubmed)	
38	Muthusamy Thangavel and Prabakaran Nagarajan. Biochemical, Molecular Membrane Permeability And Functional Perspectives To Assess Cytotoxicity. Biomedicines. Submitted	3.6 (Pubmed)	

Conference / Workshop / Invited Lecture/ Resource person / Seminar/: International

1. **Thangavel M.** and Mette Ibba. Karyopherin-mediated Regulation of autophagy in breast cancer cells. April17-21, 2010, Washington DC, Convention Center, Washington DC. USA: 101st American Association for Cancer Research. Poster Presented
2. **Thangavel M.** Lenguyen H, Timothy C, Ryan C and Mette Ibba. Karyopherin-mediated Regulation of autophagy in breast cancer cells. February 19, 2010, Greater Columbus Convention center, Columbus, Ohio, USA: 12th Annual Scientific Meeting Targeted cancer Therapies: Discovery to Personalized Medicine. Poster Presented
3. **Thangavel M.** Lenguyen H, Timothy C, Ryan C and Mette Ibba. Karyopherin- mediated regulation of autophagy. February 3-6, 2010, Coronado, California, USA: An ACCR Special Conference on Protein Translation and Cancer Meeting. Poster Presented
4. **Thangavel M.** Piyatilake Adris, Rennolds Ostrom. Localization and coupling of adenylyl cyclase isoforms 2, 3 and 6 with G protein-coupled receptors in mouse bronchial smooth muscle cells. 2009 Oralens, USA: EB2009-ASPET'S Meeting. Poster Presented
5. **Thangavel M.** Xiaoqiu L and Rennolds Ostrom. Proteomic analysis detects cytoskeletal-related proteins that interact with the intracellular C1 domain of adenylyl cyclase 6. 2008 *Abstract Viewer/Itinerary Planner.* anDiego, California: EB2008-ASPET'S Centennial Meeting. Poster Presented

6. **Thangavel M.**, Xiaoqui L and Rennolds Ostrom. The proximal segments of the cytosolic C1 domain of adenylyl cyclase localize to plasma membrane lipid rafts and caveolae. *2007 Abstract Viewer/Itinerary Planner*. **washington, DC**: 27th Annual meeting The experimental Biology, 2007. Online. Poster Presented
7. Xia Liu., **Thangavel M** and Rennolds Ostrom. C1 and C2 AC6 adenylyl cyclase involved lipid rafts and caveolae. *2006 Abstract Viewer/Itinerary Planner*. **San Francisco, California**: 26th annual meeting The experimental biology 2006, Online. Poster Presented
8. **Thangavel M.**, Dorsey. FC. and Cox JV. Caveolin-1 regulates the caveosome to Golgi sorting of protein. *2004 Abstract Viewer/Itinerary Planner*. **Washington, DC**: 44th Annual meeting The American Society for Cell Biology, 2004. Online. Poster presented
9. Dorsey FC. **Thangavel M.**, Cox JV. A novel role for a YXXØ sorting signal in directing the caveolar dependent endocytosis of an AE1 anion exchanger/Fc receptor chimera. *2005 Abstract Viewer/Itinerary Planner*. **Washington, DC**: 44th Annual meeting The American Society for Cell Biology, 2004. Online Publication. Poster Presented
10. **Thangavel M** and Sakthisekaran D. Antioxidant effect of curcumin along with adriamycin in N-nitrosodiethylamine (DEN)-induced DNA damage and apoptosis. *2002 Abstract Viewer/Itinerary Planner 2002 Bangalore, India*: International symposium on cancer and Cell death, 2002. Poster Presented.
11. **Thangavel M** and Sakthisekaran D. Protective effect of Curcumin along with adriamycin on N-nitrosodiethyl amine induced alterations in glycolytic enzymes in hepatocellular carcinoma. *2002 Abstract Viewer/Itinerary Planner*. Jawaharlal Nehru University, New Delhi, India: International conference on emerging trends in cancer research, 2002. Poster Presented
12. **Thangavel M** and Sakthisekaran D. Antioxidant and antitumor effect of curcumin along with adriamycin on diethylamine induced hepatocellular carcinoma in experimental animals. *2001 Abstract Viewer/Itinerary Planner*. Mumbai, India: International Conference on Natural Antioxidant and Free radicals in Human health And Radiation biology, 2001. Poster Presented
13. **Thangavel M** and Sakthisekaran D. Cytoprotective role of curcumin on adriamycin induced Neurotoxicity. *Abstract Viewer/Itinerary Planner*. 2001. **Christ Church, New Zealand**: 34th International congress of Physiological Sciences from Molecule to Malady, 2001. Poster Presented
14. Sakthisekaran D and **Thangavel M**. Protective role of curcumin against adriamycin induced alterations in brain acetylcholine esterase and glycolytic enzymes. *Abstract Viewer/Itinerary Planner 2001, Christ Church, New Zealand*: 34th International Congress of Physiological Sciences from Molecule to Malady. 2001. Poster Presented
15. **M. Thangavel** has participated in the 98th Indian Science Congress held at SRM University, Chennai
16. **M. Thangavel**, R.S. Seelan and R.N. Parthasarathy. Proteomic analysis of rat prefrontal cortex after chronic valproate treatment. Society of Neuroscience, 23rd Annual Louisville Neuroscience day, Louisville, USA. Abstract 2013, Poster Presented
17. R.N. Parthasarathy, **M. Thangavel** and R.S. Seelan. Proteomic analysis of rat prefrontal cortex after chronic valproate treatment. Society of Neuroscience, 23rd Annual Louisville Neuroscience day, Louisville, USA. Abstract 2013, Poster Presented
18. Le-Nguyen H, Maria N, **Thangavel Muthusamy**, Hiep L, Devi N, and Mette Ibbá. tRNA-mediated regulation of nutrient-responsive pathways in breast cancer cell. Proceedings: AACR 102nd Annual Meeting 2011- Apr 2-6, 2011; Orlando, FL, USA. Poster Presented
19. **M. Thangavel**, R.S. Seelan and R.N. Parthasarathy. Proteomic analysis of rat prefrontal cortex after chronic valproate treatment. Society of Neuroscience, San Diego, California, USA. Abstract 2013, Poster Presented

20. **M. Thangavel** and Ibba. M. Karyopherin-mediated regulation of autophagy in fibroblast and breast cancer cells. 2nd International conference on frontiers in biological sciences (InCoFIBS-2015) India. Oral Presentation
21. Geeva, **Thangavel M**, Murugesan R and Shoba narayan. Studies on Li₂Co₃-loaded chitosan nanoparticles: With potential application for enhanced drug efficacy. International conference on frontiers in Nanoscience & Nanotechnology, Sastra University, Thanjavur, India. Feb 27-28, 2017, Paper presented.
22. Sakthisearan D, **Thangavel M**, Selvendiran K and Thirunavukkarasu C. Anticancer effect of selenium against N-nitrosodiethylamine induced alterations in drug metabolizing enzymes studied in albino rats. *Abstract viewer/Itinerary Planner* 2000, Grand Rapids, Michigan, USA: 7th ICMAA, International conferences on Mechanisms of Anti mutagenesis and anti carcinogenesis. Poster Presented.
23. **Thangavel M** and Sakthisekaran D. Rehabilitating role of curcumin along with adriamycin on N-nitrosodiethylamine-induced alterations in carbohydrate metabolizing enzymes in experimental hepatocellular carcinoma. *Abstract viewer/Itinerary Planner* 2002 National University of Singapore: 2nd International Conference on natural products, 2002, Paper presented.
24. **Thangavel M**, Magesh V and Sakthisekaran D. Rehabilitating role of curcumin against N-nitrosodiethylamine induced experimental hepatocellular carcinoma with reference on glutathione metabolism. XXXV Annual conference of Indian Pharmacological society, Defence Research and Development Establishment, Min of defence, Govt of India, Gwalor, India. 26th-29 Nov 2002. P148. Poster presented.
25. Sakthisekaran D., Mumtaz banu S and **Thangavel M**. Chemotherapeutic efficacy of adriamycin against N-nitrosodiethylamine induced experimental hepato cellular carcinoma. 2002 *Abstract Viewer/Itinerary Planner*, JIPMER, Pondicherry, India: XXIII Annual Conference of Indian Association of Biomedical Scientists. 2002. Presented.
26. Mumtaz Banu., **Thangavel M** and Sakthisekaran D. Effect of Adriamycin in the treatment of experimental hepato cellular carcinoma with reference to liver ATPase. 2002. *Abstract Viewer/Itinerary Planner* 2002. JIPMER, Pondicherry, India: XXIII Annual Conference of Indian Association of Biomedical Scientists. 2002. Poster Presented
27. **Thangavel M.**, Prince Vijeya Singh J and Sakthisekaran D. The Antioxidant and cyto protective effect of curcumin against adriamycin induced experimental hepatotoxicity. *Abstract Viewer/Itinerary Planner* 2000. Hyderabad, India: Biennial National Conference Indian Society of Oncology, 2000, Paper Presented
28. Sakthisekaran D., **Thangavel M.**, Selvendiran K and Thirunavukkarasu C. Anticancer effect of selenium against N-nitrosodiethylamine induced alterations in drug metabolizing enzymes studied in albino rats. *Abstract Viewer/Itinerary Planner* 2000, Grand Rapids, Michigan, USA: 7th ICMAA, International conference on Mechanisms of Anti-mutagenesis and anti-carcinogenesis. Paper presented.
29. **Thangavel M** and Sakthisekaran D. Rehabilitating role of curcumin along with adriamycin on N-nitrosodiethylamine-induced in carbohydrate metabolizing enzymes in experimental hepatic cellular carcinoma. *Abstract Viewer/Itinerary Planner* 2002. National University of Singapore, Singapore: 2nd International Conference on Natural products. Paper Presented.
30. **Thangavel M** and Sakthisekaran D. Attenuation effect of Curcumin on adriamycin induced acute neurotoxicity in albino rats. *Abstract Viewer/Itinerary Planner* 1999, Annamali University, Annamalai nagar, India: XXI Annual conference, Indian Association of Biomedical Scientists, Abstract 1999. Paper Presented.
31. **Thangavel M** and Sakthisekaran D. Invitro studies on the selective cytotoxic effect of crocetin and quercetin. 1999. University of Madras, Chennai, India. 2000, Paper Presented.
32. **Thangavel M.**, Magesh V and Sakthisekaran D. Rehabilitating role of curcumin against n-

nitrosodiethylamine induced experimental hepatocellular carcinoma with reference to glutathione metabolism. XXXV Annual conference of Indian Pharmacological Society, Defence Research and Development Establishment Min. of Defence, Govt of India, Gwalor, India. 26th -29th November, 2002. P148. **Paper Presented.**

33. G.P. Dubey, **Thangavel M**, Aruna Agrawal, Vasanth, S. K1. Ilango, R.G. Singh. Pro-inflammatory and pro-thrombotic adipokines involved in Metabolic Syndrome-benefits of an Ayurvedic formulation National Institute of Ayurveda conference (NIACON, 2011)

National Seminar

34. **M. Thangavel** has Participated in the National Seminar on “Noval Neuroactive molecules’ in Helminth parasites” organized by the Department of Biotechnology, University of Madras, Guindy Campus, Chennai 600 025, On 10th April, 2001
35. **M. Thangavel** attended a Seminar Trends in molecular Biology and Biotechnology held at the Department of Zoology, University of Madras, Guindy Campus, Chennai-25 sponsored by British Deputy High Commission, South India, Chennai on 20th August, 1999
36. **M. Thangavel, Faculty of Allied Health Sciences**, actively participated as delegate at the Chettinad Institutional Fertility colloquium, held on September, 2014, at chettinad Hospital and Research Institute, Kelambakkam, Tamilnadu, India.
37. **M. Thangavel, Faculty of Allied Health Sciences**, participated as delegate in the seminar on “Examination And Evaluation reforms In Health Sciences” conducted on 23rd March 2015, by the Internal Quality Assurance Cell.
38. **M.Thangavel**, Faculty of Allied Health Sciences, participation as Delegate in the CME CHETPSYCON 2016 organised by Department of Psychiatry at Chettinad Hospital & Research Institute on 28th Sep, 2016.

Workshop

39. M. Thangavel, Associate Professor, Dept of Biotechnology participated in the one day work shop on Biological Nuclear Transmutations: Historical Perspective and Applications held in SRM University, in Association with Indian Institute of Metals Kalpakkam Chapter IGCAR during 15th February 2011.Chennai.
40. **M. Thangavel, Associate Professor**, Dept of Biotechnology Speaker, Department of Biochemistry, VRR Institute of Basic Medical Sciences, DBT-Sponsored short term training course on “Molecular Techniques in diagnosis of Infectious diseases, Autoimmune & Genetic disorders” from Nov 17 to 30, 2014. Chennai, India.
41. **M. Thangavel, Associate Professor**, Dept of Allied Health Sciences, Chettinad Academy of Research and Education, Chettinad University, Kelambakkam, 603103. Workshop on in vivo Small Animal Optical Imaging at Central Research Lab, 14th March 2016.
42. **M. Thangavel, Associate Professor**, Dept of Allied Health Sciences, for successful completion of 3T-IBHSc Training Course In Bioethics Training For Health Professionals of Health Science Universities (Accredited by the UNESCO Chair In Bioethics, Haifa) 28th-30th April, 2016.
43. **M. Thangavel, Associate Professor**, Dept of Allied Health Sciences, Chettinad Academy of Research and Education, Chettinad University, Kelambakkam, 603103. Two days workshops on cellular & Molecular Diagnostics 10th –11th February, 2017.
44. **M. Thangavel, Associate Professor**, Dept of Allied Health Sciences, Chettinad Academy of Research and Education, Chettinad University, Kelambakkam, 603103. Organiser the national conference on Nanotechnology in Medicine sponsored by Science and Engineering Research Borad (SERB),

Department of Science & Technology-(DST) Govt of India conducted by FAHS at Chettinad Hospital & Research Institute on 8th- 9th Sep, 2017

45. Sangamithra. N Divya. A and **Thangavel Muthusamy**. Nanotechnology-based drug delivery systems for treatment of oral cancer. 2nd International Conference on Novel Approaches in Cancer Research and Therapy [NACRAT 2K17] June 27-28, 2017. Organized by: Saveetha Dental College & Hospitals, Saveetha University, Chennai, India.

Invited Speaker

46. **Invited Speaker : Thangavel Muthusamy**, Title: Neuroprotective effect of Oxidative Damage by Boerhaavia Diffusa L. Against Neurotoxic Agents In Rat Brain Homogenate Pharmaceuticals 2024- Recent Advances in Pharmaceutical Sciences Towards a Healthy life, 27-29 November, 2024, **Barcelona, Spain**.
47. **Invited Speaker: Thangavel Muthusamy**, Title: “Snap-25 Mediated Autophagy in Human Breast Cells on Nutrition Starvation”. 46th International Conference on Biomedical and Cancer Research, Nov29-30, 2023, Durban, **South Africa**.
48. **Invited Speaker: M.Thangavel**, Dept. of Allied Health Sciences, MAHER, tRNA MEDIATED REGULATION AUTOPHAGY IN HUMAN BREAST CANCER CELLS, International workshop cum conference on smart materials and their applications in recent technologies (SMART2020) held on March, 2020 at department of chemistry, Periyar University, salem-63601,Tamilnadu & Royal society of chemistry.
49. **Invited Speaker:** Anti cancer and antioxidant effect of Naringin along with 5-Fluorouracil In MDA-MB-231 Human Breast Cancer Cells. Indian Science Congress, Jalandhar City, Punjab, Jan 2019, India
50. **Invited Speaker:** International Conference on “Trends in Biochemical and Biomedical Research: Advances and Challenges” Department of Biochemistry, Institute of Science, Banaras Hindu University Varanasi-221005, INDIA, February 13-15, 2018
51. **Invited Speaker:** Title on “Linking tRNA Localization with activation of nutritional stress responses in autophagy”. Department of Medical Biochemistry, University of Madras, Chennai, India, March 28th, 2018.
52. **Invited Speaker:** Linking of tRNA localization with activation of nutritional stress responses at the center for advanced studies in Botany, Gundy Campus, University of Madras. Dated: 24.01.2014 at the Seminar hall. TN, India.
53. **Invited Speaker:** Department of General Surgery, Sri Ramachandra University, Porur, and Chennai, India. Title: G-Protein coupled receptors functions and Mechanism on lipid raft protein caveolin-1 in cardio vascular diseases”: Oct- 2010.
54. **Invited Speaker:** Title-Karyophorin-mediated Regulation of Autophagy in breast cancer cells. Biomedical Research tower. Sep, 2009, The Ohio State University Medical Center, **Columbus, Ohio, USA**.
55. **Invited Speaker:** 2nd International Conference on Frontiers in Biological Sciences (InCoFIBS-2015) 22nd to 24th January, **2015**, National Institute of Technology, Rourkela, Odisha, India.
56. **Invited Speaker:** 9th National level Technical Symposium, BIOZONE-2017, Department of Biotechnology, Dr.M.G.R. University and Research Institute, Chennai, 2017.