

SUBBIAH RAMASAMY

ASSISTANT PROFESSOR



MOLECULAR BIOLOGY

GET IN TOUCH



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RESEARCH AREAS

Today Cardiac Diseases are the leading cause of mortality even in the developing nations like India and we ourselves obliged to understand the gene regulation and signalling networks during cardiovascular diseases. Currently our group focused in the following project

- Identification of microRNAs during pathological and physiological hypertrophy.
- Role of cadmium accumulation on development of early atherosclerosis.
- Role of alpha-2 macroglobulin in ageing related aortic stiffness.
- Search for novel cardioprotective drugs from the sponge associated marine bacteria.
- Mitochondrial dynamism in the endocardial cells during infective endocarditis.

HONOURS AND RECOGNITIONS

1. MKU-Radiation Safety officer-(AERB,India)2010 to till date
2. Temple University Postdoctoral research fellowship Award-2009-2010
3. More House School of Medicine visiting research fellowship Award-2007-2008
4. SRF-2004-2007. (Fellowship by Council of Scientific and Industrial Research, India.)

RECENT PUBLICATIONS

1. Hawkins BJ, Irrinki KM, Mallilankaraman K, Lien YC, Wang Y, Bhanumathy CD, Subbiah R, et al., (2010) S-glutathionylation activates STIM1 and alters mitochondrial homeostasis. *J Cell Biol.* 9; 190(3):391-405.
2. Wang P, Liu J, Li Y, Wu S, Luo J, Yang H, Subbiah R, Chatham J, Zhelyabovska O, Yang Q. (2010). Peroxisome proliferator-activated receptor {delta} is an essential transcriptional regulator for mitochondrial protection and biogenesis in adult heart. *Circ Res.* 19;106(5):911-9.
3. Subbiah R, Chengat V, Clifton JD, Rathinavel A, Bidulescu A, et.al.,(2010). Cardiac Isoform of Alpha 2 Macroglobulin and Its Reliability as a Cardiac Marker in HIV Patients. *Heart, Lung and Circulation.*19: 93-95.
4. Davis CW, Hawkins BJ, Ramasamy S, Irrinki KM, Cameron BA, et.al., (2010). Nitration of the mitochondrial complex I subunit NDUFB8 elicits RIP1- and RIP3-mediated necrosis. *Free Radic Biol Med.* 48: 306-317.
5. Madesh M, Zong WX, Hawkins BJ, Ramasamy S, et. al., (2009). Execution of super oxide-induced cell death by the proapoptotic Bcl-2-related proteins Bid and Bak. *Mol Cell Biol.* 29(11):3099-112.
6. Pitchai Balakumar, Rajeshkumar U. Koladiya, Subbiah Ramasamy, Andiappan Rathinavel and Manjeet Singh (2008). Pharmacological Interventions to Prevent Vascular Endothelial Dysfunction: Future Directions. *J. Health Sci:* 54: 1-16.
7. Pitchai Balakumar, Amrit Pal Singh, Subrahmanya S Ganti, Pawan Krishan, Subbiah Ramasamy and Manjeet Singh (2008). Resident Cardiac Mast Cells: Are They Major Culprit in the Pathogenesis of Cardiac Hypertrophy? *Basic & Clinical Pharmacology & Toxicology.* 102(1):5-9.
8. Ramasamy S, Rathinavel A, Balakumar P, Singh M, Rathinavel A. et.al., (2007) "Functional Characterization of Cardiac Isoform of alpha 2 macroglobulin (C -2M): Identification of Non-Hypertrophic Domain. *The Cardiology.*3 (2) 20-23.
9. Ramasamy S, Omnath R, Rathinavel A, Kannan P, et.al., (2006). Cardiac isoform of alpha 2 macroglobulin (C -2M), an early diagnostic marker for cardiac manifestations in AIDS patients. *AIDS.* 20 (15): 1979-1981.
10. Annapoorani Ponnambalam, Perundururai S.Dhandapany, Andiappan Rathinavel, Subbiah Ramasamy, GS.Selvam (2006). Cardiac isoform of alpha 2 macroglobulin: a novel biomarker for myocardial infarcted diabetic patients. *Atherosclerosis.* 186(1):173-176.
11. A. Rathinavel, PS. Dhandapany, P.Annapoorani, S.Ramasamy, (2005). Cardiac Isoform of Alpha 2 Macroglobulin (C -2M), as a novel diagnostic marker for cardiac diseases. *Eur J Cardiovasc Prev Rehabil.* 12(6): 601-603.
12. M.Rajendran, S. Ramasamy, C. Rajamanickam, R. (2003). Photodynamic effects of two hydroxyanthraquinones. *Biochimica etBiophysica Acta.*(1622), 65-72.

BOOKS PUBLISHED/ CHAPTERS CONTRIBUTED

1. Aurelian Bidulescu, Doru T Alexandrescu, Subbiah Ramasamy (2010). *Cardiotoxicity* -Elsevier. NVRN291.
2. S. Ramasamy, A. Charles Manoharan and J. Rajendhran (2003). Antibacterial effect of various plant extracts on the human pathogen In: *Dimensions of Environmental Threats*/edited by Arvind Kumar. Delhi, Daya, 2003, 392 p., figs. tables, plates, \$60. ISBN 81-7035-305-X. Price \$66.