

Area of Research Expertise

- Phytotherapy research in the field of Glycobiology, Nephrotoxicity and cancer

Projects conducted

1. Principal Investigator - *In-vitro* Screening of ethanolic leaf extract of *Croton bonplandianus* for anti-obesity activity - GATE Project research grant, Sri Ramachandra University

PhD students

1. M.K.Kalaivani- Protective Effect of Phyto-constituents of *Boerhaavia diffusa* against Calcineurin inhibitors Induced Nephrotoxicity in Renal Cell Line.
2. Cordelia John- Antiadipogenic and antiobesity effects of two flavonoids and two phenolic acids in experimentally induced obese mice.
3. Bhavana Jonalaggada - Anticancer activity of Bacoside Enriched Extract (BEE) against prostate cancer cell lines

Awards & Recognition's

1. University Rank – IV Rank, University of Madras, 1992
2. SLET, UGC, 1997
3. Best Paper Award, Ethiraj College for Women, 2011
4. Best Poster Award, SRM University, 2012
5. Best Poster Award, Pondicherry University, 2013
6. Resource person, National Workshop on “Analytical Techniques in the Standardization of Siddha Drugs-ATS-2010 conducted at Sri Ramachandra University, Chennai, on 10th to 12th June 2010.
7. Chairperson for Debate, “Is Stem Cell Research Ethical or Unethical in National Congress on Bioscience Research, Ethiraj College for Women, Chennai, on 26th & 27th August 2011.
8. Member of Academic Audit Committee, Meenakshi College for Women, 2012
9. Member of Academic Audit Committee, Vellore institute of Technology, 2012
10. Principal Investigator, *In-vitro* Screening of Ethanolic leaf extract of *Croton bonplandianus* for anti-obesity activity - GATE Project research grant, Sri Ramachandra University 2012
11. Chairperson for Oral Presentation, Traditional Medicine: Untapped Treasure in Modern Drug Discovery in the National Conference held on the 30th & 31st January at Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Chennai. 2013

12. Course co-ordinator Value Based Add-on course – In-vitro Bioassays for Preclinical Screening of Natural Products, 2012 & 2014
13. Member of Board of Studies DG Vaishnav College ,Chennai, 2015 & 2016
14. Organizing Secretary National Conference on “ Phytochemicals As Biotherapeutics – unraveling the mystery of Natural Products held on February 17th& 18th 2016 at Sri Ramachandra University, 2016

Membership in Committees

- Assistant Sean of Students (Paramedical)
- Member – Educational Unit Health Science Colleges (EUHSC)

Publications

1. Bhavna J, Kalaivani MK, Sumathy.A*, Cytotoxic and Pro-apoptotic activities of leaf extract of *Croton bonplandianus* Baill against Lung Cancer Cell line A549” Indian Journal of Experimental Biology, 2016, 54, 379-385
2. Kalaivani MK, Sumathy.A*, Soundararajan, Hannah Rachel Vasanthi In vitro nephroprotective role of ethanolic root extract of *Boerhaavia diffusa* against cisplatin induced nephrotoxicity International Journal of Phytomedicine, 2016, 7, 388-395
3. S. Vijayalatha, Prema Gurumurthy, A.Sumathy and T N. Gayatri Structural characterization and antimicrobial activity of compounds isolated from acetone extract of piper longum fruits, The Ecoscan, 2016, 10(1&2), 25-28
4. G.Keerthana, M.K. Kalaivani, A.Sumathy*. In-Vitro Alpha Amylase inhibitory and Anti-oxidant activities of Ethanolic leaf extract of *Croton bonplandianum*, Asian Journal of Pharmacy and Clinical Research, 2013, 6 (4), 32-36
5. Sumathy Arockiasamy*, Vinu.Ramachandran, Kalaivani.M.Kuppuswamy Antiproliferative activity of methanolic fruit extract of *Pedaliium murex* Linn against Lung Cancer Cell Line A549, Journal of Pharmacy Research, 2012, 5 (5) 2861-2866
6. Prema Gurumoorthy, S.Vijayalatha, A.Sumathy, M.Asokan, M.Naseema Hepato protective effect of aqueous extract of piper longum and piperine when administered with antitubercular drugs The Bioscan, 2012,7 (4), 661-663
7. Kalaivani.M.kuppuswamy, Bhavanajonnalagadda and Sumathy Arockiasamy, GC-MS analysis of chloroform extract of *Croton bonplandianum*, International Journal of Pharma and Bio Sciences, 2013, 4(4),613 - 617