

RESEARCH INTERESTS

Primary Research Interests

Developing Immunodiagnostic probes and Immunohistochemical studies using Glycoconjugates and microRNA SNP Studies

Secondary Research Interests

Immunotechniques, Immunomodulatory studies, Molecular Diagnosis and Cancer Biochemistry.

THRUST AREAS OF RESEARCH

- ∅ **Diagnostics** : Antibodies to Cancer Markers,
Clinical Biochemistry & microRNA SNP's
- ∅ **Glycobiology** : Glycoprotein biology,
Glycolipid biology
- ∅ **Histochemistry** : Lectin histochemistry,
Immunohistochemistry
- ∅ **Immunology** : IgY Antibody Production,
NFkB expressions
- ∅ **Drug Discovery** : Peptide drugs for cancer,
Molecular imaging

RESEARCH ACHIEVEMENTS

1. Raising inexpensive Immunoglobulins in egg-yolks to highly glycosylated proteins in avian system for clinical tumor markers and have used for the Diagnosis of Human Mucin Secreting Ovarian & Stomach Cancers.
2. Specialized in developing Sandwich ELISA for TAG's isolated from Human Mammary and Colorectal Cancers and developing cost effective clinical chemistry assays.
3. Raising Antibodies in egg yolks towards bacterial cells and toxic venom proteins in avian system for the Urinary diagnosis of Enteric fever in Humans and for passive immunization in mice respectively.
4. Specialized in Immunohistochemical techniques for Cancer marker antigens like T, Tn, Sialyl Tn, Sialyl lewis^a epitopes, transcription factors- NFkB & Antibody Labeling for Tumor Marker Diagnostics
5. Specialized in FTIR spectroscopy for the diagnosis of novel proteins in terms of their glycosylation changes in different subtypes of Ovarian and Gastrointestinal Cancers.

GRANTS/AWARDED PROJECTS

“GATE- Young Faculty Research Grant” 2012-2013. Grant Value– Rs. 0.9L.
“Young Faculty Research Grant” 2014-2015. Grant Value– Rs. 1L.
“UGC-Major Research Project” 2015-2016. Grant Value- Rs.19.9L (Awaited)

PROFESSIONAL MEMBERSHIPS

- o Life Member "The Biotech Research Society"
- o Life Member “Indian Association of Biomedical Scientists”
- o Life Member “Association of Clinical Biochemists of India”
- o Life Member “Indian Immunology Society”

NOTABLE RESEARCH PUBLICATIONS/ PAPERS & POSTERS IN CONFERENCES

1. Presented an abstract / poster entitled “microRNA polymorphisms – potential prognostic and diagnostic biomarkers for Gastrointestinal Cancers” in the IABMS National Conference organized by Pondicherry University during December 2015 at Pondicherry. [Won a Prize among the best poster category]
2. Presented Paper in a colloquium conference "Colloquium on Nobel prizes - 2015: Their impact on health & Disease" Organized by the Central Research Facility, Sri Ramachandra University on 13th October. 2015
3. Krishnan TR, Velusamy P, Srinivasan A, Ganesan T, Mangaiah S, Narasimhan K, Chakrapani LN, J Thanka, Jebaraj CE et al. EGCG mediated downregulation of NF-AT and macrophage infiltration in experimental hepatic steatosis. Exp Geront 2014; 57C:96-103. doi: 10.1016/j.exger.2014.05.008.
4. Ranganathan B, Jebaraj CE. Anti cancer activity of Strychnos Potatorum in cervical cancer cell lines. Online Journal of BioSciences and Informatics. 2014; 1:85-94.
5. Participated in a training workshop on “The Roles and Responsibility of the ethics committee members” organized by the Institutional Ethics Committee of Sri Ramachandra University for the accreditation by “Forum for ethical review committees in Asia and Western Pacific (FERCAP)” on 9th October. 2013 at Sri Ramachandra University, Chennai.
6. Resource Faculty in “Updates in Research Ethics and Research Methodology 2013”. organized by CITI-India, Sri Ramachandra University and CITI, University of Miami, USA at Sri Ramachandra University, Chennai on 4th and 5th March. 2013
7. Participated in the X CMC Winter Symposium titled “Cellular and Molecular Medicine: Cancer, Stem Cells & Inflammation” organized by Indo-US Science and

Technology Forum, Christian Medical College, Vellore and EMBO during January 2012 at CMC.

8. Presented an abstract / poster entitled “Probing the antitumor activity of Onnamides using Docking study and Molecular dynamics approach” in the workshop on “Recent Advances in Proteomics” organized by NIOT (Ministry of Earth Sciences-GOI) during December 2011 at National Institute of Ocean Technology Chennai. [Won the Best Poster Award]
9. Masilamoni J G, Jesudason P E, Dhandayuthapani S, Ben S A, Jebaraj C E, Paul S F and Jayakumar R. The neuroprotective role of melatonin against amyloid peptide injected mice. Free Radical Research., 2008; 42; 661-673. doi: 10.1080/10715760802277388
10. Jesudason E P, Masilamoni J G, Jebaraj C E, Paul S F and Jayakumar R. Efficacy of DL- α lipoic acid against systemic inflammation induced mice: antioxidant defense system. Molecular and Cellular Biochemistry., 2008; 313; 113 - 123.
11. Jesudason P E, Baben B, Ben S A, Masilamoni J G, Kirubakaran R, Jebaraj C E and Jayakumar R. Anti-inflammatory effect of melatonin on A Beta vaccination in mice. Molecular and Cellular Biochemistry., 2007; 298; 69-81. doi:10.1007/s11010-006-9353-x
12. Masilamoni J G, Jesudason P E, Baben B, Jebaraj C E, Dhandayuthapani S and Jayakumar R. Molecular chaperone α -crystallin prevents detrimental effects of neuroinflammation. Biochimica et Biophysica Acta -Molecular Basis of Disease., 2006; 1762; 284-293. [Received Citations in Nature, 2007, 448, 474-481. Ousman et al.] {IF = 4.9 /2012}. doi: 10.1016/j.bbadis.2005.11.007