

ACADEMIC CV

Dr. P. T. SUDHARSAN

Present Position **Senior Research Fellow**, Department of Medical Biochemistry,
Dr. ALM PG Institute of Basic Medical Sciences
University of Madras, Taramani Campus,
Chennai - 600 113, INDIA.

EDUCATION

- 2002 – 2006** **Ph.D.**, Medical Biochemistry, University of Madras, India -
Thesis: Evaluation of the role of pentacyclic triterpenes against
cyclophosphamide induced cardiotoxicity
- 1999 – 2001** **M.Pharm.**, Pharmaceutical Analysis. The Tamilnadu M.G.R.
Medical University, Chennai, India. I Class.
Thesis: New Spectrophotometric method for the Determination of
Frusemide as bulk Drug and in dosage forms either or Combined
with other diuretics
- 1995 – 1999** **B.Pharm** - The Tamilnadu M.G.R. Medical University, Chennai. I
Class
Thesis: Designing a transdermal dosage form using Sumatriptane
succinate and its evaluation.

RESEARCH EXPERIENCE

- 1995-1999** **B.Pharm., Candidate, C.L.Baid Metha college of Pharmacy,
Chennai, India.**
Research focus
- Isolation techniques of active principles from herbal drugs.
 - Biochemical analysis of Enzymes, Nucleic acids, Proteins and Lipids. Drugs formulation, drug analysis, synthesis of chemical drugs.

1999-2001 **M.Pharm., Candidate, Pharmaceutical analysis, C.L.Baid
Metha college of Pharmacy, Chennai, India.**

Research focus

- Biochemical techniques like Spectrophotometer, HPLC, GLC, Fluorimetry, Thin layer and Column Chromatography, Ultra and Gradient Centrifugation
- Bioassay, food analysis. Quality assurance, GLP.

2002 – Present **Ph.D. Candidate, Medical Biochemistry**
Dr. ALM PGIBMS, University of Madras, India

Research Focus:

- Working experience with FTIR for confirming isolated active principles from *Crataeva nurvala*.
- Immunodiffusion, Electrophoresis, ELISA and Western blotting
- Handling Radioisotopes (^{14}C and ^3H) and β - Liquid Scintillation counters
- Fluorescence studies for determination of membrane potential transferase in H9c2 cellline and DNA fragmentation.
- Experience in handling H9c2 cardiomyoblasts culture for apoptosis studies and RT-PCR technique for the iNOS expression.
- Handling the experimental animals.

RESEARCH FUNDING

2003 – 2004 **Project Associate** awarded by UGC Herbal Programme
'University with Potential for Excellence', Government of India.

2004 – Present **Senior Research Fellowship (SRF)** awarded by Indian Council of
Medical Research (ICMR), Government of India.

RESEARCH INTERESTS

Immunochemistry, Cancer Biochemistry, Molecular Biology, Clinical Studies, Oxidative stress, Antioxidants, Free Radical Biology, Drug Therapy and Discovery, Bio-informatics.

CURRENT RESEARCH ACTIVITIES

Currently involved in the apoptosis studies using cyclophosphamide and lupeol and lipoic acid, an *in vitro* study employing H9c2 cardiac cell lines.

RESEARCH PRESENTATIONS AND ABSTRACTS

Mythili Y, **Sudharsan PT**, Selvakumar E, Varalakshmi P. Protective effect of DL- α -lipoic acid on cyclophosphamide induced oxidative cardiac injury. *Chem Biol Interact* 2004; 151: 13-19

Sudharsan PT, Mythili Y, Selvakumar E, Varalakshmi P. Cardioprotective effect of pentacyclic triterpene, lupeol and its ester on cyclophosphamide induced oxidative stress. *Human Exp Toxicol* 2005; 24:313-318

Sudharsan PT, Subhash LN, Dutt KR. New spectrophotometric method for the estimation of Frusemide as bulk drug and in dosage forms either alone or combined with other diuretics. *Indian Drugs* 2005; 42: 113-115

Sudharsan PT, Mythili Y, Sudhahar V, Varalakshmi P. Role of lupeol and its ester on cyclophosphamide induced hyperlipidaemic cardiomyopathy in rats. *J Pharm Pharmacol* 2005; 57: 1437-1444

Mythili Y, **Sudharsan PT**, Varalakshmi P. Cytoprotective role of DL- α -lipoic acid in cyclophosphamide induced myocardial toxicity. *Mol Cell Biochem* 2005; 276: 39-44.

Mythili Y, **Sudharsan PT**, Varalakshmi P. DL- α -Lipoic acid ameliorates cyclophosphamide induced cardiac mitochondrial injury. *Toxicol* 2005; 215: 108-114

Sudharsan PT, Mythili Y, Selvakumar E, Varalakshmi P. Lupeol and its ester ameliorate the cyclophosphamide provoked cardiac lysosomal damage studied in rat. *Mol Cell Biochem* 2006; 282:23-29.

Selvakumar E, Prahalathan C, **Sudharsan PT**, Varalakshmi P. Protective effect of lipoic acid on micronuclei induction by cyclophosphamide. *Arch Toxicol* 2006; 85:115-9

Selvakumar E, Prahalathan C, **Sudharsan PT**, Varalakshmi P. Chemoprotective effect of lipoic acid against cyclophosphamide-induced changes in the rat sperm. *Toxicol* 2006; 217: 71-78.

Sudharsan PT, Mythili Y, Selvakumar E, Varalakshmi P. Lupeol and its ester exhibit protective role against cyclophosphamide-induced cardiac mitochondrial toxicity. *J Cardiovas pharmacol* 2006; 47: 205-210.

Selvakumar E, Prahalathan C, **Sudharsan PT**, Varalakshmi P. Effect of lipoic acid on cyclophosphamide-induced testicular toxicity. *Clin Chim Acta* 2006; 367: 114 – 119.

Sudharsan PT, Mythili Y, Selvakumar E, Varalakshmi P. Lupeol and its ester inhibit alteration of myocardial permeability in cyclophosphamide administered rats. *Mol Cell Biochem*, **2006 Inpress**

Mythili Y, **Sudharsan PT**, Varalakshmi P. Insight into the role of DL- α -lipoic acid against cyclophosphamide induced alterations in calcium sensitivity of cardiac myofilaments. *Mol Cell Biochem*, **2006 Inpress**.

Sudhahar V, Kumar SA, **Sudharsan PT**, Varalakshmi P. Protective effect of lupeol and its ester on cardiac abnormalities in experimental hypercholesterolemia. *Vasc pharmacol*. **2006 Inpress**.

Mythili Y, **Sudharsan PT**, Varalakshmi P. Protective effect of DL- α -lipoic acid on cyclophosphamide induced hyperlipidemic cardiomyopathy. *Eur J Pharmacol* 2006
(under review)

WORKSHOP / SYMPOSIUM ATTENDED

1. Attended pre-conference workshop on “**Assuring Quality Research Data through accreditation**” held at St. John’s National Academy of Health Sciences, Bangalore on 9^h January 2005.
2. Attended Indo-UK Workshop on “**Designing of Doctoral research for Ph.D., scholars**” held at Dr. ALM PGIBMS, University of Madras, Chennai on 23rd March 2005

SEMINARS ATTENDED

1. **P. T. Sudharsan** and P.Varalakshmi
"In vivo and Invitro studies on free radical scavenging activity of lupeol against cyclophosphamide induced cardiotoxicity"
International conference on Role of Free radicals and Anti-Oxidants in Health & Disease & IInd Annual Conference of SFRR-India held at Lucknow on 10th-12th February. 2003.
2. **P. T. Sudharsan**, Y. Mythili, P. Varalakshmi
“Protective role of pentacyclic triterpene and its ester against cyclophosphamide induced oxidative stress in heart”
National symposium on Antioxidants and trace elements in Medicine and Dentistry held at Udaipur, Rajasthan on 17th -18th April 2004.
3. **P. T. Sudharsan**, Y. Mythili, P. Varalakshmi
“Effect of lupeol and its ester on cyclophosphamide induced lipemic-oxidative stress”
International Conference on Antioxidants & Free Radicals in Health-Nutrition & Radio-Protectors and IV Annual Conference of SFRR-India held at Bangalore on 10th - 12th January 2005.

REFERENCES

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PERSONAL DETAILS

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