

CURRICULUM VITAE

Dr. K.Anbarasi

Flat No.12, KRN Apartments
No. 9, Kalakshetra Road
Thiruvanmiyur
Chennai- 600 040.
Tamilnadu, India.

Email: anbarasi77@gmail.com
anbarasi77@rediffmail.com
Mobile no: +919840770755

OBJECTIVE

To undertake a dedicated research in the field of cell and molecular biology.

EDUCATIONAL QUALIFICATIONS

2000- 2005 Ph.D., in Biochemistry, University of Madras
1999- 2000 M.Phil., in Biochemistry, University of Madras with 80.44%
1997- 1999 M.Sc., in Biochemistry, University of Madras with 70%
1994- 1997 B.Sc., in Biochemistry, University of Madras with 83.5%

RESEARCH EXPERIENCE

Current Research Experience

Recipient of **Senior Research Fellowship** from Council of Scientific and Industrial Research (CSIR), New Delhi, India.

Ph.D

Title: Neuroprotective role bacoside A on rats exposed to cigarette smoke

Summary

The protective effect of bacoside A, an active principle isolated from the plant *Bacopa monniera* against cigarette smoking induced toxicity has been investigated in rat brain by various biochemical and molecular approaches. The experiments were designed on electroencephalography, marker enzymes, membrane bound enzymes, antioxidant status, structural and functional alterations in the sub cellular organelles (mitochondria, microsomes and lysosomes), morphological changes by light and electron microscopy, macromolecular damages (lipid peroxidation, protein oxidation and DNA damage),

neuronal apoptosis, neurotransmitters and expression of nicotinic acetylcholine receptors. Based on the above investigations, the plausible mechanism of smoking-induced toxicity and the protection offered by bacoside A has been demonstrated.

Supervisor: **Dr.C.S.Shyamala Devi**
Professor and Head (Retd.,)
Department of Biochemistry
University of Madras
Guindy Campus
Chennai – 600 025, India

Project Fellow (Rumi Herbals Pvt. Ltd, Chennai, India)

Title: Biochemical studies on the protective effect of vilva- a polyherbal formulation in rats exposed to cigarette smoke

M.Phil

Title: Biochemical studies on the effect of fish oil in passive cigarette smoke induced rats – an atherogenic profile

M.Sc

Title: Phagocytosis in plants

FIELD OF INTEREST

Cell and Molecular biology, Biochemistry, Biotechnology, Toxicology and Applied Pharmacology

EXPERTISE

Molecular Biology

Isolation of genomic DNA, plasmid DNA and RNA, PCR, RT-PCR, RFLP, SSCP, Cloning, Southern transfer.

Protein Biochemistry

SDS-PAGE, Tricine-SDS-PAGE, Western blot, Over expression and purification of recombinant proteins, ELISA.

Cell Biology

Bacterial culture – growth and maintenance, transformation, Histological studies, Immunohistochemistry.

Biochemical assays

Isolation of subcellular organelles. Assay of various enzymes (Marker enzymes, Antioxidant enzymes, membrane bound ATPases, and mitochondrial, microsomal and lysosomal enzymes) in serum and tissues. Estimation of lipid peroxides, glutathione, vitamins, ATP, cytochromes. Oxidative phosphorylation studies.

Animal model

Handling of various kinds of animals such as rats, mice, guinea pigs, rabbits.

INSTRUMENTATION

Proficiency in handling Spectrophotometer, various types of centrifuges, Gel electrophoresis (Horizontal and vertical), Gel documentation system, Chromatography (column and thin layer and paper), Thermo cycler (PCR), Laminar flow chamber, UVtransilluminator, Autoclave units, Light and fluorescence microscope.

PUBLICATIONS

1. **K. Anbarasi**, G.Vani, K.Balakrishna, C.S.Shyamala Devi. Effect of bacoside A on membrane bound ATPases in the brain of rats exposed to cigarette smoke. J BIOCHEM MOL TOXICOL 2005, 19(1): 59-65.
2. **K. Anbarasi**, G. Vani, K. Balakrishna, C.S. Shyamala Devi. Creatine kinase isoenzymes upon chronic exposure to cigarette smoke: Protective effect of bacoside A. VASCUL PHARMACOL 2005: 42(2): 57-61.
3. **K. Anbarasi**, G. Vani, C.S. Shyamala Devi. Protective effect of bacoside A on cigarette smoking induced brain mitochondrial dysfunction in rats. J ENVIRON PHARMACOL TOXICOL ONCOL 2005, 24(3): 225-234.
4. **K. Anbarasi**, K.E. Sabitha, C.S. Shyamala Devi. Lactate dehydrogenase isoenzymes upon chronic exposure to cigarette smoke: Protective effect of bacoside A. ENVIRON TOXICOL PHARMACOL 2005, 20(2): 345-350.
5. **K. Anbarasi**, G. Vani, K. Balakrishna, C.S. Shyamala Devi. Effect of bacoside A on brain antioxidant status in cigarette smoke exposed rats. LIFE SCI. 2006, 78(12):1378-1384.
6. **K.Anbarasi**, G.Kathirvel, G.Vani, G.Jayaraman, C.S.Shyamala Devi. Cigarette smoking induces Hsp70 expression and apoptosis in rat brain: Modulation by bacoside A. NEUROSCIENCE 2006; 138(4): 1127-1135.

FELLOWSHIPS, RANKS AND AWARDS

- 2003- 2006 Senior Research Fellowship from Council of Scientific and Industrial Research (CSIR), New Delhi, India
- 2001- 2002 Project Fellow from Rumi Herbals Pvt Ltd, Chennai. India.
- 2000- 2003 Sambuvarayar Endowment Merit Scholarship from University of Madras, India.
- 1997- 1999 5th rank in Masters degree, University of Madras, India.
- 1994- 1997 7th rank in Bachelors degree, University of Madras, India.

CONFERENCES/SEMINARS ATTENDED

- **K. Anbarasi**, C.S. Shyamala Devi. Symposium on Brain Genomics, University of Hyderabad, India. Dec 9-11, 2002. Neuroprotective effect of bacoside A on rats exposed to cigarette smoke.
- **K. Anbarasi**, C.S. Shyamala Devi. Neurobiology Symposium, 2003 –Networks and Behavior, NCBS, Bangalore, India. Jan 3-6, 2003. Protective effect of bacoside A on neurotransmitters in rats exposed to cigarette smoke.
- **K. Anbarasi**, T. Thirugnansambandam, E. Maeswaran, C.S. Shyamala Devi. International Conference on the Role of Indian Systems of Medicine and Homeopathy in the 21st century, Chennai, India. Feb 1-2, 2003. Protective effect of vilva – a poly herbal formulation in rats exposed to cigarette smoke.
- **K. Anbarasi**, K. Balakrishna , C.S. Shyamala Devi. International Conference on the Role of Free Radical and Antioxidants in Health and Diseases. CSM Medical University, Lucknow, Chennai. Feb 10-12, 2003. Antioxidant effect of bacoside A in the brain of rats exposed to cigarette smoke.
- **K. Anbarasi**, C.S. Shyamala Devi. International Symposium on Neurochemistry and Drug Addiction, University of Madras, Chennai, India. 4th May, 2004.
- **K. Anbarasi**, G. Vani, K. Balakrishna, C.S. Shyamala Devi. International Neuroscience Conference, Hyderabad, India. May 6-8, 2004. Creatine kinase isoenzymes upon chronic exposure to cigarette smoke: Protective effect of Bacoside A.
- **K. Anbarasi**, K. Balakrishna, C.S. Shyamala Devi. XXV Annual Conference of Indian Association of Biomedical Scientists and International Symposium on Efficacious Drugs, University of Madras, Chennai, India. Oct 7-10, 2004. Protective effect of Bacoside A on lipids upon exposure to cigarette smoke.

WORKSHOPS ATTENDED

- Workshop on Modern Techniques in Neurochemistry, University of Hyderabad, Hyderabad, India. 18-27, Dec 2003. (Hands on experience on isolation of neuronal cells from rat brain, Northern hybridization, Autoradiography, Western blotting, Histology)
- International Workshop in Cell Biology 2004, Institute of Bioinformatics and Applied Biotechnology, Bangalore, India. Jan 29 to Feb 05, 2004. (Hands on experience on 2D gel electrophoresis, confocal microscopy, Golgi staining, MALDI-TOF)
- 6th IBRO (International Brain Research Organization) School of Neuroscience, National Centre for Biological Sciences, Bangalore, India. 8-20, Aug 2005. (Hands on experience on Drosophila neurogenetics [Dissection, mutant preparation, Ab staining, image analysis on confocal microscopy], in vitro and in vivo electrophysiology in rats, drosophila, xenopus oocytes)
- Theoretical and Practical course on Eukaryotic Gene Expression System, International Centre for Genetic Engineering and Biotechnology, New Delhi, India. 5-16, Dec 2005. (Hands on experience on adenovirus-mediated gene expression in cultured mammalian cells)

MEMBERSHIP IN SOCIETY

Society for Neuroscience (SFN)

International Brain Research Organisation (IBRO)

Society for Neurochemistry, India (SNCI)

Indian Association of Biomedical Scientists (IABMS)

COMPUTER KNOWLEDGE

Diploma in Computer Applications (DCA)

PERSONAL DETAILS

Sex	:	Female
Date of Birth	:	13.02.1977
Marital status	:	Unmarried
Nationality	:	Indian
Passport number	:	B 0984156

REFERENCES

Dr.C.S.Shyamala Devi

Research Supervisor
Professor and Head (Retd.,)
Department of Biochemistry
University of Madras
Guindy Campus
Chennai- 600 025.
Email: cssdevi@yahoo.com
Ph: 91-44-22200573 (Off)
Ph: 91-44-24412575 (Res)

Dr.S.Niranjali Devaraj

Professor and Head
Department of Biochemistry
University of Madras
Guindy Campus
Chennai- 600 025.
Email: niranjali@yahoo.com
Ph: 91-44-22200573 (Off)
Ph: 91-44-24419596 (Res)

Dr.G.Jayaraman

Reader
Department of Genetics
University of Madras
Taramani
Chennai- 600 113.
Email: gjay52@rediffmail.com
Ph: 91-44-24925317 (Off)
Ph: 91-44-24480428 (Res)