

## Profile

Name : **Dr. S. Muruges, M. Sc., Ph.D.**

Designation : Professor and Head

Department : Botany

Official address : **Prof. Dr. S. Muruges**  
Professor & Head  
Department of Botany  
Periyar University  
Periyar Palkalai Nagar  
Salem – 636 011  
Tamilnadu, India  
+91 7373009999  
+91 7373009998  
murugesshs@rediffmail.com



Area of Specialization : Botany, Environmental Science, Environmental Biotechnology, Herbal Medicine, Industrial Biotechnology, etc.

## PUBLICATIONS

Muruges, S *et al.*, (2011) Molecular Chareterization of Isoloated Bacteria and Application of RSM for Decolorization of Acid Black 1. Journal of Pure and Applied Microbiology. Vol.5(1) pp : 77-85..

Muruges, S *et al.*, (2010) Hepatoprotective Effects of Adenema hyssopifolium G.Don (Gentianaceae) in carban tetrachloride-Induced Hepatotoxocity in Rats.Tropical Journal of Pharmaceutical Research. Vol.9 no.2 April.

Muruges, S *et al.*, (2009) Optimization of Various Culture Media for tannase Production in submerged fermentation by *Aspergillus flavus*. Advances in biological research Vol. 3(1-2) pp. 34-39.

Muruges, S *et al.*, (2009) Stimulation of Monascus Pigments by Intervention of different nitrogen sources. Global J. of Biotechnology and Biochemistry Vol. 4 (1) pp: 25-28.

Muruges. S *et al.*, (2009) Effects of fungal Co-Culture for the synthesis of Tannase and Gallic acid from Grape wastes under solid state Fermentation J. of Biotechnology and Biochemistry Vol. 4 (1) pp : 29-36.

Muruges, S *et al.*, (2009) Accelerated bioconversion of Agricultural By-products by supplementation of Tannic acid in Tannase production by *Asspergillus oryzae* J. of Biotechnology and Biochemistry Vol. 4 (1) pp : 19-24.

Muruges, S *et al.*, (2009) Effect of azo reductase on the degradation of Carcinogenic azo dyes J. Advanced Biotech Vol. 8 (8).

Muruges, S *et al.*, (2009) Pharmacognostic profile and in- vitro anticancer activity of *Adenema hyssopifolium* G. Don. J. of pharmacy and bioresources. Vol.6 (1).

Muruges, S *et al.*, (2009) Anti inflammatory activity of alcohol extract of *Adenema hyssopifolium* G. don in acute and chronic experimental models in albino rats. J. of Applied Biosciences. Vol.. 19. Pp;1049-1053.

Muruges, S *et al.*, (2009) Evaluation of antipyretic activity of ethyl acetate extract of entire plant of *adenema hyssopifolium* G. Don in a rat model. Asian Journal of tropical medicine. pp 523-526.

Paranthaman, R. Vidyalakshmi, R. Muruges, S. and Singaravadivel, K. (2008). Optimisation of Fermentation Conditions for Production of Tannase Enzyme by *Aspergillus oryzae* Using Sugarcane Baggasse and Rice Straw, Global J. of Biotech. & Biochem. 3(2) 105-110

Muruges, S *et al.*, (2007) Prevalence of ESBL producing strains in tuberculosis patients. *Research J. Microbiology*. Vol. 2(5), pp: 491 – 495.

Muruges, S *et al.*, (2006), Determination of the presence of biosurfactant produced by the bacteria present in the soil samples. *Research J. Microbiology*. Vol. 1 (4) pp: 339 – 345.

Muruges, S *et al.*, (2006) Disulfide bridge and antimicrobial activity in proceedings of the forty second annual convention of chemist Feb 9-13 c11,12

Muruges, S *et al.*, (2006) Gymnemic acid production in suspension cell cultures of *Gymnema sylvestre*. *J. applied sciences*. Vol. 6(10), pp: 2263 – 2268.

Muruges, S *et al.*, (2005) Book on Environmental Crisis and Security in the New Millennium. Anmol Publications pvt. Ltd.

Muruges, S *et al.*, (2005) Mannual Book on Bioprocess Engineering Lab –II.

Muruges, S *et al.*, (2003) Biosolubilization of lignite by marine soil microbes. *Indian J. Environmental Protection*, Vol..23 (10) pp: 1081-1092

Muruges, S *et al.*, (2003) Screening of *Annona squamosa* (Custard apple) seed extract for its antibacterial activity. *Indian j. Appl. Microbiol.* Vol. 3(1), pp: 13-15.

Muruges, S *et al.*, (2003) Bio preservation using Bacteriocin (NISIN) produced from *lactococcus lactis* Subsp *Lactis* . *Indian journal of Applied Microbiology* Vol. 3 (1)pp : 23-26

Muruges, S *et al.*, (2003) Production and partial characterization of alkaline protease from *Aspergillus* sp. *Indian j. of appl. Microbiol.* Vol. 3(1), pp: 17 - 22.

Muruges, S *et al.*, (2003) studies on aerometric analysis of indoor plant tissue culture: Laboratory environment. *Biochem. Cell. Arch.* Vol. 3(1&2), pp : 39 - 48.

Muruges, S *et al.*, (2002) Studies on the VAM fungi improves growth of some medicinal plants *Ad. Plant Sci.* Vol. 15 (1) pp : 43-46

Muruges, S *et al.*, (2002) Studies on *invitro* regeneration and Somatic embryogenesis in Brahmi (*Bcopa Monnieri*) J. Ecotoxical Environ. monit. Vol. 12 (2) pp : 133-137.

Muruges, S *et al.*, (2002) Hydro Carbon bio-degradation and oil spill bio-remediation in UGC national seminar on Recent advances in Plant science and their relevance to agriculture and industry 1 6-17 March.

Muruges, S *et al.*, (2002) VA Mycorrhizal fungi in plant diversity in UGC national seminar on Recent advances in Plant science and their relevance to agriculture and industry 1 6-17 March.

Muruges, S *et al.*, (2002) Bioremediation technology to clean up Crude oil spills using *Pseudomonas* Species J. Eccotoxical Environ. monit. Vol. 12 (2) pp : 133-137.

Sampath Kumar, G., Muruges, S. Rajendran, A., Madhumathi, B. and Ganesh Kumar, A. 2000. Association of VAM fungi in Sesame and its influence on growth . In Sesame and Safflower Newsletter Edt. Ferbabdez Martinez, J. Pub. Institute of Sustainable Agriculture (IAS), CSIC Apartado 4084- Cordoba, Spain.

Murugaiyan, S (1993) Post harvest changes in enzyme activities in *MUSA* (ABB group) Monthan J. Swamy Bot. Vol..10(3) pp:83-86.

Murugaiyan, S (1992) Changes Associated with Ripening of banana in Relation to Ethylene and anthocyanin content J. Swamy Bot. Vol.9 (3 & 4) pp: 147-149.

Murugaiyan, S (1992) Changes in protein content in peel and pulp of two banana varieties GEO BIOS Vol..18-21.

Murugaiyan, S (1992) Changes in polygalacturonase activity in peel and pulp of banana varieties J.Swamy Bot. Vol.9 (3 & 4) pp: 147-149.

GC-MS profile and In Vitro Anticancer activity of chloroform extract of *Adenema hyssopifolicum* G. Don in National Seminar on New innovation in Cancer research and experimental therapeutics 5-6 January 2009.

Muruges, S Bioremediation of crude oil spill. Book on Environmental Crisis and Security in the New Millennium. *Anmol Publications Pvt. Ltd.*

Muruges, S Allelopathic effect of *Bambusa runderinacea* wild. Root extract on the growth of *Arachis hypogea* wild and *Zea mays* seedlings.

Muruges, S Conservation strategies of endangered / economically important species of Kolli Hills submitted to department of science and technology.

Muruges, S Evaluation of the effectiveness of *Adenema hyssopifolium* G. don (Gentianaceae) in carbon tetrachloride – induced hepatotoxicity in animal model.

## PATENT APPLIED

- ❖ A process for isolation, extraction and purification of Mangiferin from *Canscora Heteroclita (L) Gilg.* 2011.
- ❖ Screening of Biocontrol agents against Phomopsis Theae, A Causal agent of Phomopsis Canker Disease in Tea - No. 1067/CHE/2008
- ❖ Standardization of isolation techniques for Cephaleuros Parasiticus Karst, A Pathogenic Alga in Tea -No.1066/CHE/2008
- ❖ Antifungal activity of neem seed kernel powdered oil without Azadirachtin No.1026/CHE/2007.
- ❖ Acclimatization of Marine bacteria exhibiting enhanced biodegradation potential of Crude oil -No.1025/CHE/2007.
- ❖ Bioremediation of Crude oil and oily sludge contaminated soil using a bacterial consortium immobilized on to a steam sterilized bagasse. - No.1027/CHE/2007.

## **NATIONAL PRESENTATION & PARTICIPATION**

Muruges, S (2005) participated in the Workshop on Microbial Techniques Organized by Microbiology division, SASTRA University.

Muruges, S (2004) participated in the National Conference on Recent trends in Microbial Biotechnology in SASTRA University.

Muruges, S (2002) participated in the SEMINAR ON MICROBIAL TECHNOLOGY IN BIOFERTILIZERS organized by Ponnaiyah Ramajayam College, Thanjavur.

Muruges, S (2002) participated in the UGC NATIONAL SEMINAR ON RECENT ADVANCES IN PLANT SCIENCE AND THEIR RELEVANCE TO AGRICULTURE AND INDUSTRY organized by department of botany Annamalai university.

Muruges, S (2002) presented paper in the national symposium on current trends in computer applications organized by Ponnaiyah Ramajayam College, Thanjavur.

Muruges, S (2001) participated in the workshop on PLANT TISSUE CULTURE & GENE TRANSFER organized by department of biotechnology, Bharathidasan University, Tiruchirapalli.

Muruges, S (2001) participated in the national symposium on plant biotechnology and molecular biology and 24<sup>th</sup> annual meeting of the plant tissue culture association (India) New Delhi.



Muruges, S (2001) participated in THE SEMINAR ION ECOFRIENDLY PRODUCTS FOR CROP PRODUCTION organized by Ponnaiyah Ramajayam College, Thanjavur.

Muruges, S (2001) participated and presented research work in the scientific session of bioinformatics and patenting awareness in the national symposium on plant biotechnology and molecular biology and 24<sup>th</sup> annual meeting of the plant tissue culture association (India) New Delhi.

Muruges, S (2000) participated in the 2<sup>nd</sup> Biotechnology India 2000 conference in National Science Centre Pragati Maidan, New Delhi.

Muruges, S (2000) participated in the workshop on “BIOLUMINESCENT LABELING OF DNA” organized by school of biotechnology Dr. G.R. Damodran College of Science. Civil Aerdrome Post, Avinashi Road, Coimbatore – 641 014.

Murugaiyan, S (1994) participated in the “TRAINING-CUM-DEMONSTRATION PROGRAMME ON MEDICINAL AND AROMATIC PLANTS” organized by Central institute of medicinal and aromatic plants.

## **ORGANISED**

Muruges, S (2008) Analgesic and antipyretic activities of ethanolic extract of *Gmelina asiatica* linn root bark extract in experimental animals in National Conference on Emerging Trends in Herbotechnology Organized by Sourashtra College.

Muruges, S (2008) Pharmacognostical standardization, anti inflammatory and gastric motility of roots of *Hedyotis indica* lamk, Rubiaceae in National

Conference on Emerging Trends in Herbotechnology Organized By  
Sourashtra College.

Muruges, S (2008) organised nandhanum college association

Muruges, S (2002) organised SEMINAR ON PHARMACEUTICAL  
FORMULATION TECHNOLOGY by Ponnaiyah Ramajayam College,  
Thanjavur.

Muruges, S (2002) organised national seminar on pharmacognosy  
conducted by dept. of Siddha Medicine Tamil University. Thanjavur.

Muruges, S (2002) organized in National Symposium on Current Trends in  
Computer Application-Ponnaiyah Ramajayam College-Thanjavur.

Muruges. S, Seminar on Transgenic Technology.

## **PROFESSIONAL**

## **INNOVATIONS**

Screening of Biocontrol agents against Phomopsis Theae, A Causal agent of  
Phomopsis Cannker Disease In Tea - No. 1067/CHE/2008

Standardization of isolation techniques for Cephaleuros Parasiticus Karst, A  
Pathogenic Alga in Tea -No.1066/CHE/2008

Antifungal activity of neem seed kernel powdered oil without Azadirachtin -  
No.1026/CHE/2007

Acclimatization of Marine bacteria exhibiting enhanced biodegradation  
potential of Crude oil -No.1025/CHE/2007

Bioremediation of Crude oil and oily sludge contaminated soil using a  
bacterial consortium immobilized on to a steam sterilized bagasse. -  
No.1027/CHE/2007.

## NEWS PAPER ARTICLE

Murugesh,S (2009) Presented a paper on “Bioremediation of hydrocarbons in marine and soil environment. *By Express Buzz Service*. February 4.

Murugaiyan, S (1999) Ethylene degreens citrus fruit. *The Hindu*. March 24.

Murugaiyan, S (1994) GA protects Citrus from flies, *THE HINDU*, Agri page October 12.

Murugaiyan, S (1992) Dating extend shelf life of banana. *The Hindu*. March 4.

## RADIO TALKS

(15 ins-Tamil) - AIR, Tiruchirapalli.

- |   |   |      |
|---|---|------|
| i. Recent trends in plant Biotechnology | - | 2007 |
| ii. Thagaval Neram                      | - | 2007 |
| iii. Iyarkai Poochi Kolligal            | - | 2006 |
| iv. Vembum athan payangalum             | - | 2005 |

## EXPERIENCE

Academic and Administration	-	16 Years
Research and Development (Pharma and Agro Industries)	-	06 Years
<b>TOTAL EXPERIENCE</b>	-	<b>22 Years</b>

## QUALIFICATIONS

- ❖ Ph.D., (**Post Harvest Technology – Banana**) from Annamalai University, Tamil Nadu in **1989**.
- ❖ M.Sc., (**Botany**) from University of Madras in **1983**
- ❖ B.Sc., (**Botany**) from University of Madras in **1981**

## RESEARCH ACTIVITIES

Ph. D. Guidance : **15 Numbers**  
(Full Time & Part Time) in Sastra University

### **Full Time:**

#### **Degree Awarded – 2011**

- ❖ Molecular Cloning and Characterization of the Gene Coding for Azoreductase from *Pseudomonas aeruginosa* Isolated from soil.

- **Mr. K.Suresh Kumar**

#### **Degree Awarded – 2009**

- ❖ Biomolecular & Chemical Screening for the Discovery of Biologically Active secondary metabolite from streptomycetes spp.

- **Mr. R. Jayapradha**

#### **Degree Awarded – 2008**

- ❖ Acclimatization of Marine Bacteria exhibiting enhanced Bio degradation potential of crude oil and oily sludge and their field evaluation.

- **Mr.N. Magesh**

- ❖ Bioremediation of crude oil & oily sludge contaminated soil: microbiological methods for feasibility assessment and field evaluation.

- **Mr.V.Mohanasrinivasan**

## **Degree Awarded – 2007**

- ❖ Identifying the Bio-active Metabolites from the marine bacteria in the coastal waters of east coast of Tamil Nadu, India.

- **Ms.S.Vijayalashmi**

- ❖ Gymnemic acid production in suspension cell culture of *Gymnema sylvestre*.

- **Ms.C.Subathradevi**

**M.Phil Guided : 20 Numbers**  
(Degree awarded by Bharathidasan University)

**10 Numbers Periyar University.**

**LIFE MEMBERS : AMI and ISTE 10 Numbers PRIST University.**

**Members : Academic Council, SASTRA University from 2002-2007**

## **Question Paper Setter for**

- ❖ Annamalai University
- ❖ Satyabhama University
- ❖ Bharathiyar University
- ❖ SASTRA University
- ❖ Bharathidasan University
- ❖ SRM University
- ❖ PRIST University

## **Expertise**

Obtained 1 crore from ministry of Agri. Government of India, from 2002 – 2005 for Agri. Training Programme as ( SASTRA University)

- ❖ All regular Ph.D Scholer's obtained fellowship from funding agencies
- ❖ Expertise in submitting research project to funding agency like
  - ❖ UGC
  - ❖ DBT
  - ❖ DST
  - ❖ DRDO
  - ❖ Ministry of Environment
  - ❖ Ministry of Agriculture

## **Wide experience and expertise**

- ❖ Academic
  - ❖ Administrative
  - ❖ Industrial
  - ❖ Research and development
- .....