Curriculam Vitae

Dr. R. SARAVANAN, M. Sc., M.Phil., Ph.D.,
Asst. Professor-Marine Pharmacology
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Academic Career Highlights

Name in Full – **Ramachandran Saravanan**

Present Position **Assistant Professor - Marine Pharmacology,** Faculty of Allied Health Sciences, Chettinad University, Kelambakkam - 603 103, TN, India

EDUCATION

2007-2010 **Ph.D., - Marine Biotechnology,** Annamalai University, Parangipettai, India

2000-2002 **M.Phil., - Biochemistry,** Bharathiar University, Coimbatore, India

1998-2000 **M. Sc., - Biochemistry,** Annamalai University, Chidambaram, India

PROFESSIONAL EXPERIENCE

2003-2006 **Lecturer,** Department of Biotechnology, SRM Arts and Science College, Chennai- 603 203, TN, India

2006-2009 **Senior Research Fellow,** Indian Council of Medical Research (ICMR) in Faculty of Marine Sciences, Annamalai University, Parangipettai-608 502, TN, India

2010-2011 **Senior Research Fellow,** Centre for Marine Living Resource and Ecology (CMLRE) in Faculty of Marine Sciences, Annamalai University, Parangipettai-608 502, TN, India

Extramural Fundeted Project

Title of the project: "**Antiviral activity of *O*-sulfated low molecular weight chitosan from industrial waste of cephalopods against herpes simplex virus *in vitro*". Department of Biotechnology, Govt. of India**. Duration (2017-20) .

CRUISE TRAINING

Participated in the cruise #279 of FORV SAGAR SAMPADA to undertake the "Studies on assessment of Demersal Fishery, Cephalopod Resource Assessment, Environment and Productivity along the Continental shelf of East coast of India" **from 21.08.2010 to 09.09.2010 (20 days) and covered** 2560 **Nautical miles in the voyage along the East coast of India.**

PATENT

R. Saravanan and A. Shanumgam (2016). Use of low molecular weight heparan sulfate from marine scallop *Amussium pleuronectus* (Linne) for cardiovascular diseases. **The Patent Office Journal. pp24379.** (**Application No.1603/CHE/2013 A/dated 09/04/2013**)

LIST OF PUBLICATIONS

I. Gene Sequence Deposited in GenBank:

1. http://www.ncbi.nlm.nih.gov/nuccore/KC020188
2. https://www.ncbi.nlm.nih.gov/nuccore/KY214383
3. https://www.ncbi.nlm.nih.gov/nuccore/KY214382
4. https://www.ncbi.nlm.nih.gov/nuccore/KY472311
5. https://www.ncbi.nlm.nih.gov/nuccore/KY472310
6. https://www.ncbi.nlm.nih.gov/nuccore/KY472309
7. https://www.ncbi.nlm.nih.gov/nuccore/KY472308
8. https://www.ncbi.nlm.nih.gov/nuccore/KY472307
9. https://www.ncbi.nlm.nih.gov/nuccore/KY472306
10. https://www.ncbi.nlm.nih.gov/nuccore/KY471700
11. https://www.ncbi.nlm.nih.gov/nuccore/KY486501
12. https://www.ncbi.nlm.nih.gov/nuccore/MF838726.1
13. https://www.ncbi.nlm.nih.gov/nuccore/MF838725.1
14. https://www.ncbi.nlm.nih.gov/nuccore/MF838724.1
15. https://www.ncbi.nlm.nih.gov/nuccore/MF838723.1

II. Book Editor and Book chapters:

1. Senthilkumar, R, Sengottuvelan M & **Saravanan R.** (2016). Disorders of gastrointestinal systems and clinical manisfestations, Nova biomedical, Nova publishers, **New York, USA** (ISBN: 978-1-63485-366-8), pp. 1-323.

2. **Saravanan R**. (2014). Chapter 3: Isolation of low molecular weight heparin/heparan sulfate from marine sources – 'Advances in Food and Nutrition Research", (Ed) S.K. Kim, Academic Press, **Elsevier Publications** (ISSN No.1043-4526), 72, pp.45-60.

3. Gowtham Kumar S, Karthik R, Manigandan V, Sheeba R & **Saravanan R.** (2015). Chapter 4: Hepatoprotective effect of phloroglucinol from south Indian marine macroalgae against liver disorders, "Hepatoxicity; symptombs, managements and health implications". (Eds) S. Rajagopal and S. Murugan, Nova Publications, **New York. USA** (ISBN: 798-1-63482-650-1), pp. 51-78.

4. Manigandan V, Karthik R & **Saravanan R.** (2016). Chapter 3: Anti-inflammatory effect of polymer from cephalopod against experimenaly induced intestinal bowel disease in Zebrafish model, "Disorders of gastrointestinal sysmems and clinical manisfestations".

(Eds) Senthilkumar R, Senguttuvelan M and **Saravanan R**. Nova Publications, **New York. USA**. (ISBN: 978-1-63485-366-8), pp.24-45.

5. **Saravanan R**, Karthik R & Shanmugam A. (2016). Chapter 9: Partial sequencing, structural characterization and anticoagulant activity of heparan sulfate and sulfated chitosan from selected Indian marine mollusks, "Marine Glycobiology" (Ed) Se-Kwon Kim, **CRC Press**, (ISBN: 978-1-4987-0962-3), pp. 129–143.

6. **Saravanan R** & Karthik R. (2016). Chapter 13: Isolation of proteoglycans from marine sponges and its biomedical applications, "Marine Sponges: Chemicobiological and Biomedical Applications'. (Eds.) P. Ramjee and E. Hermann, **Springer Publications** (ISBN: 978-81-322-2792-2) pp.287-304

7. Karthik R & **Saravanan R.** (2016). Chapter 14: Study of Marine Mollusks – A Glycomic Approach, "Marine Omics". (Ed) Se-Kwon Kim, **CRC Press**, (ISBN: 9781482258202) pp.267-280.

8. Alexander V, **Saravanan R** & Shiek F. Ahamed SSJ. (2016). Chapter 22: Marine Informatics: A New Area of Research in Biology, "Marine Omics". (Ed) Se-Kwon Kim, **CRC Press**, (ISBN: 9781482258202) pp.419-440.

9. Manigandan V, Karthik R, Barathkumar TR, Lekshmisree SL, Rubanya P, Subburaj J & Saravanan R. Chapter 10. Ameliorative role of marine seaweed bioactives against Parkinson's Disease, "Food and Parkinson's Disease" (Eds) Essa M, Manivasagam T, Justin Thenmozhi A & Khan M.A.S. Nova Publications, **New York. USA** (ISBN: 978-1-63485-754-3) (In press)

III. Peer Reviewed Journals: (Total Impact factor: 28.87)

1. Karthik R, Manigandan V & **Saravanan R** (2017). Toxicity, teratogenicity and antibacterial activity of posterior salivary gland (PSG) toxin from the cuttlefish *Sepia pharaonis*, Ehrenberg (1831). ***J. Chromato.B,*** 1064:28-35. **(IF-2.61)**

2. Karthik R, Manigandan V, Ebenezar KK, R, Vijayashree R & **Saravanan R** (2017). *In vitro* and *in vivo* anticancer activity of posterior salivary gland toxin from the cuttlefish *Sepia pharaonis,* Ehrenberg (1831). ***Chem.Biol.Inter.,*** 272:10-20. **(IF-2.61)**

3. Karthik R, Manigandan V, Sheeba R, **Saravanan R** & Rajesh RP (2016). Structural characterization and comparative biomedical properties of phloroglucinol from Indian brown seaweeds. ***J Appl. Phycol.,*** 28: 3561-3573. **(IF-2.65)**

4. Karthik R, Manigandan V, **Saravanan R**, Rajesh RP & Baby C. (2016). Structural characterization and *in vitro* biomedical activities of sulfated chitosan from *Sepia pharaonis*. ***Int J Biol Macromole.,*** 84: 319-328. **(IF-3.1)**

5. Manigandan V, Karthik R & Saravanan R. (2015). Marine carbohydrate based therapeutics for Alzheimer disease – Mini review. ***J Neurol and Neuroscie.,*** (special issue): 1-6.

6. Karthik R, **Saravanan R**, Ebenezar KK & Sivamalai T. (2014). Isolation, purification, and characterization of avian antimicrobial glycopeptide from the posterior salivary gland of *Sepia pharaonis*. ***Appl Biochem Biotechnol.,*** 175(3): 1507-1518. **(IF-1.73)**

7. Subhapradha N, **Saravanan R**, Ramasamy P, Shanmugam V, Srinivasan A & Shanmugam A. (2014). Hepatoprotective effect of β-Chitosan from gladius of *Sepioteuthis lessoniana* against carbon tetrachloride-induced oxidative stress in Wistar rats. ***Appl Biochem Biotechnol.,*** 172: 9-20. **(IF-1.73)**

8. Vidhyanandhini R, **Saravanan R,** Vairamani S & Shanmugam A. (2014). The anticoagulant activity and structural characterization of fractionated and purified glycosaminoglycans from venerid clam *Meretrix casta* (Chemnitz). ***J Liquid Chrom Relat Tech.,*** 37: 917-929. **(IF-0.63)**

9. Sudharsan S, Seedevi P, **Saravanan R,** Vairamani S, Vasanthkumar S, Srinivasan A & Shanmugam A. (2013). Isolation, characterization and molecular weight determination of collagen from marine sponge *Spirastrella inconstans* (Dendy). ***Afri J Biotechnol.,*** 12(5): 504-511. **(IF-0.57)**

10. **Saravanan R,** Ramasamy P, Sudharsan S, Vairamani S & Shanmugam A. (2013). Protective effect of glycosaminoglycans from *meretrix meretrix* (gmelin) against isoproterenol - induced myocardial infarction in male wistar rats. ***Amer J Adv Drug Del.,*** 1: 56-65. **(IF-0.64)**

11. **Saravanan R,** Ebenezar KK, Rajasekaran S & Thamaraiselvan R. (2013). Isolation, characterization and anticoagulant activity of sulfated polysaccharides from brown algae *Sargasam wightii* Greville. ***J Biol Sci.,*** 13(4): 283-287.

12. Subhapradha N, Suman S, Ramasamy P, **Saravanan R**, Shanmugam V, Srinivasan A & Shanmugam A. (2013). Anticoagulant and antioxidant activity of sulfated chitosan from the shell of donacid clam *Donax scortum* (Linnaeus, 1758). ***Int J Nutri Pharmacol Neur Dis.,*** 3(1): 39-45.

13. **Saravanan R,** Shanmugam A & Rajkumar D. (2012). Preventive effect of glycosaminoglycans from *Amussium pleuronectus* (Linne) on biomolecules, lactate

dehydrogenase-isoenzyme and electrocardiographic patterns in isoproterenol-induced myocardial infarction in Wistar rats. ***Indian J Pharmacol.,*** 44(5): 602-606. **(IF-0.69)**

14. Shanmugam A, Subhapradha N, Suman S, Ramasamy P, **Saravanan R**, Shanmugam V & Srinivasan A. (2012). Characterization of biopolymer chitosan from the shell of donacid clam *Donax scortum* (Linnaeus, 1758) and its antioxidant activity. ***Int J Pharmacy Pharmaceut Sci.,*** 4(2): 460-465.

15. Revathi M, **Saravanan R** & Shanmugam A. (2012). Extraction of chitin from the cuttlebone of *Sepiella inermis* Orbigny, 1848 and production, purification and characterization of chitinase from *Vibrio* sp. using head waste of shirmp *Metapenaeus dobsonii* (Miers, 1878). ***Advan Biosci Biotechnol.,*** 3:392-397.

16. Saravanan R & Shanmugam A, (2011). Is isolation and characterization of heparan sulfate from marine scallop *Amussium pleuronectus* (Linne) an alternative source of heparin?!! ***Carbohyd Poly.,*** 86 (2), 1082-1084. **(IF-4.07)**

17. Saravanan R, Arulraj S & Shanmugam A. (2011). Identification of two mud crab species (genus *Scylla*) using restriction fragment length polymorphism. ***Cur Sci.,*** 101(6): 739-740. **(IF-0.92)**

18. Ramasamy P, Barwin Vino A, **Saravanan R**, Subhapradha N, Shanmugam V & Shanmugam A. (2011). Screening of antimicrobial potential of polysaccharide from cuttlebone and methanolic extract from body tissue of Sepia prashadi Winkworth, 1936. ***Asian Paci J Trop Biomed.,*** S243-S247. **(IF-1.17)**

19. Shanmugam A, Ramasamy P, Mukesh Kumar Bharti, **Saravanan R,** Subhapradha N, Vairamani S, & Jayalakshmi K. (2011). Isolation and characterization of collagen from the skin of *Sepia pharaonis* (Ehrenberg, 1831). ***Int J Cur Res.,*** 3(6), 107-111.

20. Sudharsan S, **Saravanan R,** Shanmugam A, Vairamani S, Mohan Kumar R, Menaga S, & Ramesh N. (2011). Isolation, characterization of octadecanoic acid from the etyl acetate root extract of *Trigoellafoneum graecum L*. by using hydropnics method. ***Bioterr Biodefen.,*** 2(1): 1-4.

21. Saravanan R & Shanmugam A. (2010). Isolation and characterization of low molecular weight glycosaminoglycans from marine mollusc *Amussium pleuronectus* (Linne) using chromatrography. ***Appl Biochem Biotechnol.,*** 160, 791-799. **(IF-1.73)**

22. Saravanan R & Shanmugam A. (2010). Preventive effect of low molecular weight glycosaminoglycan from *Amussium pleuronectus* (Linne) on oxidative injury and cellular abnormalities in isoproterenol-induced cardiotoxicity in Wistar rats. ***Appl Biochem Biotechnol.,*** 162, 43-51. **(IF-1.73)**

23. **Saravanan R**, Vairamani S & Shanmugam A. (2010). Glycosaminoglycans from marine clam Meretrix meretrix (Linne.) are an anticoagulant. ***Prep Biochem Biotechnol.,*** 40, 305-315. **(IF-1.01)**

24. **Saravanan R,** Sambasivam S, Shanmugam A, Tamilvanan T, Sathishkumar D & Nazeer RA. (2009). Isolation, purification and biochemical characterization of conotoxin from *Conus figulinus* Linneaus (1758). ***Indian J Biotechnol.,*** 8, 266-271. **(IF-0.68)**

25. **Saravanan R**, Shanmugam A, Preethi Ashok, Sathishkumar D, Anand K, Amitesh Suman & Devodass FR. (2009). Studies on isolation and partial purification of lysozyme from the egg white of lovebird (*Agapornis* species). ***Afr J Biotechnol.,*** 8(1), 107-109. **(IF-0.57)**

26. **Saravanan R**, Pavanidevi V, Shanmugam A & Sathishkumar D. (2007). Isolation and partial purification of extracellular enzyme (1,3)-β-D glucanase from *Trichoderma reesei* (3929). ***Biotechnol.,*** 6(3), 440-443.

27. **Saravanan R**, Sathishkumar D & Indira A. Jayraaj. (2005). Cellulose and hemicellulose degradation of coir pith using mutant strain of *Trichoderma viride*. ***Poll Res.,*** 24 (Special Issue), 27-30.

28. **Saravanan R** & Indira A. Jayraaj (2004). Comparative studies on degradation of cellulose in coir pith using the fungus *Pleurotus sajor caju* and *Trichoderma viride.* ***Asian J Microbiol Biotechnol Environ Sci.,*** 6(4), 681-685.

RESEARCH (PhD) GUIDANCE

S.No	Scholar Name	Area of Research	Status
1.	R. Karthik	Studies on Structural Characterization, Teratogenic and Anticancer activities of Toxin isolated from the Posterior Salivary Gland of Sepia pharaonis (Ehrenberg, 1831)	Awarded (2017)
2.	M. Meera	Pharmacology actions of phytochemicals from jack fruit waste	Synopsis submitted
3.	V.Manigandan	Sulfated polysaccharides and its nuetoprotective effect	On going

CONFERENCE / SEMINAR / SYMPOSIUM

Presentations: National **– 15;** International **– 8** => Total: **23**
Workshops / Special Training: 5

SUMMARY OF RESEARCH

Papers	28	Citations	239
h-index	8	i10-index	6