

Dr. S. Kumaran
 Scientist C
 Centre for Drug Discovery and Development
 Col. Dr. Jeppiaar Research Park
 Sathyabama Institute of Science & Technology
 Jeppiaar Nagar, Rajiv Gandhi Salai
 Chennai
 Email: kumarun23@gmail.com, Mob: 9943215332



FIELDS OF EXPERTISE:

- Antimicrobial compounds from Marine microbes
- Production of bioactive compounds, pigments and enzymes from microorganisms.
- Nano biotechnology
- Aquaculture feed development
- Environmental waste recycling and product development

Work Experience

SI No.	Institution Place	Position	From (Date)	To (date)
1	Centre for Drug Discovery and Development, Sathyabama Institute of Science and Technology Chennai – 600 119. Tamil Nadu	Scientist-C	June 2019	Till
2	PG Research Department of Microbiology, Sri Sankara Arts & Science College (Autonomous) Kanchipuram	Assistant Professor	July 2013	May 2019

Research Fellowships

SI No.	Fellowships	Topic	Place	Date
1.	Senior Research Fellow(funded by Council for Scientific and Industrial Research (CSIR)	Feed development and immune status of fish by soluble proteins from feather and shrimp waste through microbial degradation	CAS in Marine Biology, Annamalai University, Tamil Nadu	March 2011- March 2013
2.	Junior Research Fellow(funded by Ocean Atmospheric Science & Technology-Ministry of Environmental Science (OASTC- MoES)	Survey of Immune Organs (Spleen and Head Kidney) in Marine Catfish of Parangipettai in Tamil Nadu	CAS in Marine Biology, Annamalai University, Tamil Nadu	August 2010- February 2011
3.	Junior Research Fellow (funded by Indian National Centre for Ocean Information System-Ministry of Environmental Science (INCOIS-MoES).	Ground truth studies on phytoplankton, chlorophyll, primary productivity & hydrographical parameters along the Pondicherry & Nagapattinam coast	CAS in Marine Biology, Annamalai University, Tamil Nadu	Feb 2008 – July 2010

Research Project

Funding Agency	Amount (Rs.)	Description
SERB- DST (Govt. of India) (2017)	24,50,000	Economically feasible feed development for the culturing fishes from the biodegradable by- products of shrimp and feather waste
SEED grand by Sathyabama Institute of Science & Technology (2020)	1,75,000	Economically feasible Nano enriched feed development from bio waste

Honors/ Awards

	No.	Description
A) International	1	DST sanctioned for based on the potential research team engage with Vietnam research team funded by DST (Govt. of India) and MOST(Govt. of Vietnam), 2012.
B) National	2	1. “Best Researcher Award-2015 by Sri Sankara Arts and Science College, Kanchipuram 2. First prize for best poster presentation by Alagappa University Karaikkudi . 26-28, April 2007

Patents Nos : 1 (Preliminary filling -CBRNo.22219 dated 11/07/2019)

Publication Citation : 667 and **H index** :13

SCIENTIFIC COLLABORATION

Vietnam Museum of Nature, Hanoi, Vietnam

Centre for Nano Science and Technology, Anna University , Chennai, India

Department of Biotechnology, Alagappa Univeristy, Karaikudi, Tamil Nadu

Central Institute of Brackish water Aquactulure, Chennai, Tamil Nadu

MEMBER IN COMMITTEES

- NAAC committee (Research criterion -3) (2018-2020).
- Autonomous committee member (2013 -2014).
- Four years worked as a Internal exam committee member of Sri Sankara Arts and Science College (2013-2018).
- Member in various committees of SANMICROFEST –2014, 2015, 2016, and 2017 at Sri Sankara Arts & Science College, Kanchipuram.
- Research committee member (2014 -2016).

PROGRAMMES ORGANIZED:

- Organizing a Online virtual Research Internship tour (01.08.2020 to 12.09.2020).
- Organized a webinar program on “National level Yoga for mental and Physical health “held on 19 -21, July2020 .
- Co organized a All India Inter University Yoga Men & Women Championship 2018 -19 to University of Madras, Chennai. The Championship will be conducted at Sri Sankara Arts and Science College (Autonomous), Kanchipuram, Chennai, Tamil Nadu from 4th to 8th February 2019
- Co-Organizing secretary of National Symposium on “Translational Biology” organized by Sankara Arts & Science College, Kanchipuram – 2015 and 2016.

SUBJECTS HANDLED [for both UG & PG students] Theory and practical

- General and Applied Microbiology, Medical Virology, Industrial Microbiology, Medical Microbiology, Research Methodology, Environmental Science

HONORS -RECOGNITIONS:

Associate Editor – Bhamathi Microbiology News Letter
[Quarterly News letter] (2013 to till)

ACADEMIC QUALIFICATION

Degree	Branch	School/ Institution/University	Year of Passing	Grade
Ph.D.	Marine Microbiology (2009 -2013)	CAS in Marine Biology Annamalai University	2013	Awarded
M.Phil.	Marine Microbiology	CAS in Marine Biology Annamalai University	2009	I class with distinction (1 st rank)
M.Sc.	Applied Microbiology	Sri Sankara Arts & Science College, Kanchipuram. (University of Madras)	2007	I class
B.Sc.	Microbiology	Sri Sankara Arts & Science College, Kanchipuram. (University of Madras)	2004	II class

Ph.D. Guide ship

1. Latha S. 2020. Development of feasible nano based products from bio waste

M. Phil. Guided

- Dinesh kumar G.A. 2019. Development of bacterial fertilizer for crop produciton
- Padmini .2018. Development of novel drug from marine Streptomyces against TB
- Ramya. 2018. Anticancer activity of freshwater algae
- Kotteswaran .2018. Economically cheaper aquaculture fish feed development from fishery waste.
- Malathy .D. 2017. Isolation and characterization of chitinase producing bacteria
- Priyadharshini.K. 2016. Development of chitin nanoparticles loaded with anti TB drug for enhances the drug delivery system.

Post graduate student project guided

- Vijayakanth K. 2018. Isolation and Charaterization of Chitinase producing bacteria.
- Dinesh.G.A. 2018. Isolation and characterization of keratinase Producing bacteria for poultry feed development
- Razeena 2018. Development of Antifouling Compound
- Mnajari .2017. Isolation and characterization of crude oil degrading bacteria
- Ramya .K. 2017. Development of chitosan coated Rifampicin against TB
- Suganya. G, 2016. Development of Polymeric nanoparticles against Tuberculosis
- Kokila .D. 2014. Biosynthesis of silver nanoparticles using aqueous solution of *Polianthes tuberosa* flower extract and characterization of their antibacterial and cytotoxicity activity.

B.Tech Students

- Karthika G. 2020.Development of Chitosan Nano particle loaded NAG Enriched fish feed from biowaste
- Aparna. 2020. Nano Collagen scaffold for bio fabric.
- Sruthi. 2020. Isolation and characterization of anti quorum sensing bacterial compound.

Guest lecture delivered

Delivered a invited talk entitled **Neutraceuticals let's to be your medicine**, on October, 2018, in State level workshop for NSS students organized by Sri Sankara Arts and Science College, Kanchipuram.

Delivered a invited awareness program on Dengue for Enathur village people on February 6, 2018, organized by Enathur panchayat and NSS unit of Sri Sankara Arts and Science College, Kanchipuram.

Delivered an invited lecture and handled practical sessions for the participants in the DBT – sponsored national workshop on advanced techniques in fish immunology and immunotechnology during 5th -9th September, 2013 at CAS in Marine biology, Annamalai University

PROJECT WORKS:

M.Sc. : Isolation and characterization of Biofouling bacteria and its control.

M.Phil : Isolation and characterization of pathogenic *Pseudomonas KUMS3* in Asian Seabass (*Lates calcarifer*) with fin rot.

Doctoral Research work

Biodegradation of chitin and concomitant production of chitinase and N-acetyl-D-glucosamine by *Achromobacter xylosoxidans* as enriching diet enhanced the immune status and disease resistance in sea bass (*Lates calcarifer*)

Supervisor : **Dr. B. Deivasigamani**
Assistant Professor, CAS in Marine Biology,
Faculty of Marine Sciences, Annamalai University.

NCBI submissions

- 70 Bacterial strains were isolated from different terrestrial and marine environment was characterized through 16s rDNA sequencing. The sequence of different strains were submitted to NCBI Public Data base and got accession numbers.

Skill set:

- Preparation of research and review articles
- Experimental Protocol designing & Standard Operating Procedures (SOP)
- Writing of proposal to get funding for research and conferences

Book Chapter

Subramanian Kumaran, Wilson Aruni. A, Guru Prasad Srinivasan. Short notes on Microbial Diversity. Lambert publications. 2020. ISBN. 978-620-0-53925-0.

Sekar. R, **S. Kumaran**, G. suresh. National Level Workshop on Diagnostic Microbiology, In collaboration with Himedia Laboratories User manual. September 2017. Lambert Publicaitons.

A. Selvakumar, **S. Kumaran** S.R. Pugazhvendan, G. Muthu, S. Dhamodaran. 2014. Short Compendium of Microbiology (Q & A for Nursing). ISBN : 978-[81-92](#) . Main Springer Publishers.

S. Kumaran, B. Deivasigamani, K.M. Alagappan, M. Vajith, S. Balamurugan and M. Sakthivel. Immune response of cat fish *arius arius* against bacterial pathogens advances in fish research, Pages 163–176 Edited by : U.C. Goswami, Copyright © 2012, Narendra Publishing House.

S. Kumaran, B. Deivasigamani and V. Uttara, . Application of Chitinase – review" (ISBN 978-3-8484-4920-0) Lambert Publication. 2012.

Research Publication - International and National

1. Tentu Nageswara Rao, A.P.B. Balaji, Mani Panagal, Botsa Parvatamma, Bharathi Selvaraj, Saravanan Panneerselvam, Wilson Aruni, Kumaran Subramanian, Pugazhvendan Sampath Renuga, Sivakumar Pandian. Nanoremediation of dimethomorph in water samples using magnesium aluminate nanoparticles. *Environmental Technology & Innovation* 20 (2020) 101176. **(Impact Factor:3.3)**
2. Kumaran. S, S. Bharathi, Uttra. V, Rajasekar T, Gopi .V, Prasannabalaji. N, Pugazhvendan. S.R, Wilson Auni, Deivasigamani. B. Bioactive metabolites produced from *Streptomyces enissocaesilis* SSASC10 against fish pathogens. *Biocatalysis and Agricultural Biotechnology*. 2020, 101802.
3. Prasanna Balaji Niangua, Anahas Perianaika Matharasi Antonyraj, Kumaran Subramanian, Sowparthani Kaliyaperumal, Suresh Gopal, Pugazhvendan Sampath Renuka, Wilson Aruni. In vitro screening of antimicrobial, antioxidant, cytotoxic activities, and characterization of bioactive substances from freshwater cyanobacteria *Oscillatoria* sp. SSCM01 and *Phormidium* sp. SSCM02. *Biocatalysis and Agricultural Biotechnology*. (2020) 29:101772.
4. Kumaran Subramanian, Balamurugan Sadaiappan, Wilson Aruni, Alagappan Kumarappan, Rajasekar Thirunavukarasu, Guru Prasad Srinivasan, Selvaraj Bharathi, Prasannabalaji Nainangu, Pugazhvendan Sampath Renuga, Anandajothi Elamaran, Deivasigamani Balaraman & Mahendran Subramanian. Bioconversion of chitin and concomitant production of chitinase and N-acetylglucosamine by novel *Achromobacter xylosoxidans* isolated from shrimp waste disposal area. *Nature Scientific Reports*, (2020) 10:11898, doi.org/10.1038/s41598-020-68772-y. **(Impact Factor:4.1)**
5. Zhenjiang Li, Vishnu Priya Veeraraghavan, Krishna Mohan Surapaneni, Srinivasa Rao Bolla, Sulaiman Alharbi, Hariprasath Lakshmanan, Kumaran Subramanian, Aruni Wilson, Aref Ali Mohammed Aladresi, Omar H. M. Shair. Apoptotic induction and antimetastatic activity of eugenol encapsulated chitosan nanopolymer on rat glioma C6 cells via alleviating the MMP signaling pathway. *Journal of photo chemistry and Photobiology B: Biology*. 2020. Volume 203-111773. **(Impact Factor : 4.3).**
6. Jinmei Yang, Qiang Wang, Chunxiao Wang, Ruiyi Yang, Mukhtar Ahmed, Subramanian Kumaran, Periyannan Velu & Bo Li. *Pseudomonas aeruginosa* synthesized silver nanoparticles inhibit cell proliferation and induce ROS mediated apoptosis in thyroid cancer cell line (TPC1). *Artificial Cells, Nanomedicine, And Biotechnology*. 2019, vol. 48, no. 1, 800–809. **(Impact Factor: 3.3)**
7. T. Rajasekar, K. Karthika, G. Muralitharan² & A. Maryshamya¹ & S. Sabarika² & S. Anbarasu¹ & K. Revathy¹ & N. Prasannabalaji³ & S. Kumaran⁴ Green synthesis of gold nanoparticles using extracellular metabolites of fish gut microbes and their antimicrobial properties. *Brazilian Journal of Microbiology* (2020) 51:957–967. **(Impact Factor: 2.8)**
8. Subramanian Kumaran, Anahas Perianaika Matharasi Antonyraj, Prasannabalaji Nainangu, Pugazhvendan Sampath Renuka, RajaSekar Thirunavukarasu¹ , Sadaiappan Balamurugan, Bharathi Selvaraj, Suresh Gopal, Guru Prasad Srinivasan, Praveen Kumar Elango,

Balasubramanian Balakrishnan and Wilson Aruni. A. A Review On Pathogenesis, Prevention And Control Of Novel Corona Virus Of Covid-19. *Oriental Journal of Chemistry*. 2020. Volume 36, Number 4. **(Impact Factor: 0.16)**.

9. Gopal Suresh, Dhanasegaran Kokila, Thirunavukarasu Chitrikha Suresh, Subramanian Kumaran, Palanivel Velmurugan, Kaliyappan Amballandi Vedhanayakisri, Subpiramaniam Sivakumar, Arumugam Veera Ravi. Mycosynthesis of anticancer drug taxol by *Aspergillus oryzae*, an endophyte of *Tarenna asiatica*, characterization, and its activity against a human lung cancer cell line. *Biocatalysis and Agricultural Biotechnology*, 2020. Volume 24, March 2020, 101525.
10. S Bharathi, S Kumaran, G Suresh, M Ramesh, V Thangamani, SR Pughazhventhan. Extracellular synthesis of nanoselenium from fresh water bacteria *Bacillus* sp., and its validation of antibacterial and cytotoxic potential. *Biocatalysis and Agricultural Biotechnology*, 2020. Volume 27, August 2020, 101655
11. Rajeswari M.V, Annamalai N, Kumaran S, Wilson Aruni, Balasubramanian T. Effect of Probiotic Strain *Bacillus firmus* CAS 7 As Feed Supplement for Growth, Survival and Colour Enhancement of Smoke Angelfish *Apolectichthys xanthurus*. *Biosc.Biotech.Res.Comm.* 2020;13(1).
12. Kumaran. S, Aruni W, Karthika. M, Anandajothi. E, Balaji. N. P, Pugazhvendan S. R, Rajeswari. V, Bharathi. S, Rajasekar. T, Guru Prasad. S. G. Trends in Aquaculture Feed Development with Chitosan Nano Particles– A Review. *Biosc.Biotech.Res.Comm.* 2020;13(1).
13. Santhiyaa RV, Wilson Aruni A, Suresh G, Prasanna Balaji N, Barathi S, Pugazhvendan SR, Rajasekar T, Karthikeyan DR and Kumaran S. Applications of Feather keratin hydrolyzate in divergent field. *Biosc.Biotech.Res.Comm Vol 12 (4) 00-00 2019*.
14. Kaliannan Durairaj, Palaninaicker Senthilkumar, Palanivel Velmurugan, Kavitha Dhamodaran³, Krishna Kadirvelu, **Subramanian Kumaran**. Sol-gel mediated synthesis of silica nanoparticle from *Bambusa vulgaris* leaves and its environmental applications: kinetics and isotherms studies. *Journal of Sol-Gel Science*, (2019), and Technology. <https://doi.org/10.1007/s10971-019-04922-7>. **(Impact factor - 1.76)**.
15. Balamurugan Sadaiappan, Chinnamani Prasannakumar, **Kumaran Subramanian Mahendran Subramanian**. Metagenomic data of vertical distribution and abundance of bacterial diversity in the hypersaline sediments of Mad Boon-mangrove ecosystem, Bay of Bengal. *Data in Brief*, (2019), 22:716–721. **(Impact factor – 0.33)**
16. Bharathi .S, T. Ezhilarasi, **S.Kumaran**, G.Suresh, M.S.Nalina. Phytosynthesis of silver nanoparticles using *Hygrophila auriculata* leaf extract and assessment of their antibacterial and antioxidant properties. Sundari. *Journal of Applied Pharmaceutical Science*. ISSN-0975-7058, 2018. 10(6), 112-118.
17. G. Suresh, P. Raghu, U. Prakash, T. Chitrikha Suresh, **S. Kumaran**, S. Bharathi, K. Selvendiran and T. V. Poonguzhali. Screening of the Antibiotic Resistant Environmental Bacteria Isolated from Selected Niches in and Around Kanchipuram Town, India.. *Int.J.Curr.Microbiol.App.Sci*, (2018), 7(6): 3665-3674.
18. **Kumaran Subramanian**, Deivasigamani Balaraman, Dhayanithi Nagarajan Balachandran, Rajasekar Thirunavukarasu, Suresh Gopal, Pugazhvendan Sampath Renuka, Alagappan

Kumarappan. Immune response of shrimp (*Penaeus monodon*) against *V. furnissii* pathogen. *Journal of Coastal Life Medicine*, 2014, 2(4): 281-286.

19. Rajasekar Thirunavukkarasu, Priyadharshini Pandiyan, **Kumaran Subaramaniyan**, Deivasigamani Balaraman, Sakthivel Manikkam, Balamurugan Sadaiyappan, George Edward Gnana Jothi. Screening of marine seaweeds for bioactive compound against fish pathogenic bacteria and active fraction analysed by gas chromatography mass spectrometry.. *Journal of Coastal Life Medicine*. 2014; 2(5): 367-375.
20. Guru Prasad Srinivasan, Asnar Sikkantar, Anandajothi Elamaran, Caroline R Delma, **Kumaran Subramaniyan**, Somasundaram Thirugnanasambandan Somasundaram. Biodegradation of carcinogenic textile azo dyes using bacterial isolates of mangrove sediment. *Journal of Coastal Life Medicine*, 2014, 2(2): 154-162.
21. S.R. Pugazhvendan, M. Soundararajan, N. Kannan, **S. Kumaran** and K.M. Alagappa. Ultra Structural Studies of Liver Damage by Lead in Fresh Water Fish *Cyprinus Carpio*.. *American-Eurasian J. Agric. & Environ. Sci.*, 2013, 13 (10): 1407-1411.
22. Bharathi Selvaraj, **Kumaran Subramanian**, Suresh Gopal and Pugazhvendan Sampath Renuga. Nanotechnology as a novel tool for aquaculture industry: A review.. *World Journal of Pharmaceutical Sciences*, 2014, 2(9): 1089-1096.
23. Priyadarshini Pandiyana, Deivasigamani Balaraman, Rajasekar Thirunavukkarasu, Edward Gnana Jothi Georgea, **Kumaran Subaramaniyan**, Sakthivel Manikkama, Balamurugan Sadayappana. **Probiotics in aquaculture**.. *Drug invention today*, 2013, 5; 55-59.
24. Rajasekar Thirunavukkarasu, Priyadharshini Pandiyan, Deivasigamani Balaraman **Kumaran Subaramaniyan**, George Edward Gnana Jothi, Sakthivel Manikkam, Balamurugan Sadaiyappan. Isolation of bioactive compound from marine seaweeds against fish pathogenic bacteria *Vibrio alginolyticus* (VA09) and characterisation by FTIR.. *Journal of Coastal Life Medicine*, 2013, 1(1): 6-13.
25. **Subramanian Kumaran**, Balaraman Deivasigamani, Uttara Vairagkar, Sadaiappan Balamurugan and Manikkam Sakthivel. Evaluation of Chitinase producing and antimicrobial properties of *Streptomyces* isolated from shrimp shell disposable area. *Asian Pacific Journal of Tropical Disease*, 2012, 1-4.
26. M. Gopi, **S. Kumaran**, T. Ajith Kumar, B. Deivasigamani, K.M. Alagappa, S. Guru Prasad. Antibacterial potential of sponge endosymbiont marine *Enterobacter* sp at Kavaratti Island, Lakshadweep archipelago. *Asian Pacific Journal of Tropical Medicine*, 2012, 142-146. (Impact Factor: 1.77)
27. M. Sakthivel, B. Deivasigamani, **S. Kumaran**, S. Balamurugan and T. Rajasekar. Seasonal variation in immune organs and immune response of catfish *Arius maculatus* in Parangipettai coastal area.. *Journal of Chemical and Pharmaceutical Research*, 2012, 4(7):3342-3348.
28. S. Balamurugan, b. Deivasigamani, **S. Kumaran**, M. Sakthivel, G. Edward and M. Ashiq ur rahman. Length-weight relationship, age and growth of wild catfish *arius arius* (hamilton, 1822) in parangipettai east coast of Tamil nadu. *Thalassas*, 2013, 29(1) 17-23.
29. N Prasannabalaji, G Muralitharan, R.N. Sivanandan, **S Kumaran** and S.R. Pugazhvendan. Antibacterial activities of some Indian traditional plant extracts. *Asian Pacific Journal of Tropical Disease*, 2012, 1-5.

30. M. Sakthivel, B. Deivasigamani*, K.M. Alagappan, **S. Kumaran**, S. Balamurugan and T. Rajasekar. Seasonal changes in selected immune response of *Mystus gulio* and *Mystus vittatus*. 2013. *Journal of Environmental Biology*, 2013, Vol. 34, 37-42. (**Impact factor: 0.72**).
31. Thirunavukkarasu Rajasekar, Balaraman Deivasigamani, **Subaramanian Kumaran**, Manikam Sakthivel, Sadayappan Balamurugan, Edward Gnana Jothi and Pondiyam Priyadharshini. Antibacterial Activity of Cultivated Marine Seaweeds against Fish pathogenic bacteria *Vibrio harveyi*. 2012, *Asian Pac J Trop Biomed*, 1-5. (**Impact factor: 1.52**)
32. T. Rajasekar, S. Balaji, **S. Kumaran**, B. Deivasigamani, S. R. Pugzhavendhan. Isolation and characterization of Marine fungal metabolites against clinical pathogens. *Asian Pacific Journal of Tropical Disease*, 2012, S387-S392. (**Impact factor:0.6**)
33. S. Balamurugan, B. Deivasigamani, **S. Kumaran**, M. Sakthivel, T. Rajsekar,P. Priyadharshini. Melanomacrophage centers aggregation in *P. lineatus* spleen as bioindicator of environmental change. *Asian Pacific Journal of Tropical Disease*. 2012, 1-4. (**Impact factor:0.6**)
34. B. Deivasigamani, **S. Kumaran**, M. Sakthivel, S. Balamurugan, G. Edward Gnana Jothi, P. Priyadarshini. Non specific immune parameters and resistance to *Aeromonas Hydrophilainfection* in the asian dwarf cat fish (*mystus vittatus*, bloch 1974).. *Theriogenology insights* 2011, 1(2): 70-83.
35. S. Balamurugan B. Deivasigamani, **S. Kumaran**, M. Sakthivel. Seasonal changes effect on Innate immunity and histology of wild catfish *Arius arius* (Hamilton, 1822) in Parangipettai, south East coast of Tamil Nadu, India *Theriogenology insights*, 2012, 2(3): 197-207.
36. **Kumaran, S.**, Radakrishnan, M. and Balagurunathan, R. Bioactive compound from marine actinomycetes againts biofouling bacteria. *Advanced Biotechnology*, 2011, 10, 22-26.
37. **S. Kumaran**, B. Deivasigamani, K.M. Alagappan, M. Sakthivel and D.R. Karthikeyan. Antibiotic resistant *E.coli* strains from seafood and its susceptibility to seaweed extracts. *Asian Pacific Journal of Tropical Medicine*, 2010. 412-420. (**Impact factor:1.77**)
38. **S. Kumaran**, B. Deivasigamani, K. M. Alagappan, M. Sakthivel and S. Guru Prasad.Isolation and characterization of *Pseudomonas* sp. KUMS3 from Asian sea bass (*Lates calcarifer*) with fin rot. *World Journal of Microbiology and Biotechnology*, 2010, 26:359–363. (**Impact factor: 2.6**)
39. Alagappan K.M, B. Deivasigamani, S.T. Somoasundaram and **S. Kumaran**. Occurrence of *Vibrio parahaemolyticus* and its specific phages from shrimp ponds in East coast of India. *Current Microbiology*, 2010, 61:235–240. (**Impact factor: 1.5**).
40. **S. Kumaran**, B. Deivasigamani and K.M. Alagappan. Extraction of glycoprotein molecule (N-acetyl glucosamine) from chitin by chitinase producing marine bacteria. *International journal of Biological science and technology*, 2010, 2 (2):11-25.
41. S.R. Pugazhvendan, **S. Kumaran**, K.M. Alagappan and S. Guru Prasad.Inhibition of fish pathogens by antagonistic marine actinomycetes. *European Journal of applied Sciences*, 2010, 2 (2) 41-43.

42. Kamalakannan, K., **Kumaran, S.**, Balakrishnan, S., Thenmozhi, C., Sampathkumar, P. Occurrence of *Glaucus atlanticus* and *Glaucus marginata* (blue ocean slug) from nagapattinam coastal waters, southeast coast of India. 2010. *International Journal of Current Research*, 2010, Vol. 5, pp.071-073.
43. **S. Kumaran**, Deivasigamani. B, K.M. Alagappan and Sakthivel. M. Infection and immunization trails of Asian Seabass (*Lates calcarifer*) against fish pathogen *Vibrio anguillarum*. *J. Environ. Biology*, 2009, 31: 539-541. **(Impact factor: 0.7)**
44. S.R. Pugazhvendan, N. Jothi Narendiran, R.G. Kumaran, **S. Kumaran**, and K.M. Alagappan. Effect of malathion toxicity in the freshwater fish *Ophiocephalus punctatus* – A histochemical study. *World Journal of fish and Marine Sciences*, 2009, 1 (3): 218-224.
45. K.M Alagappan, B. Deivasigamani, **S. Kumaran** and M. Sakthivel. Histopathological Alterations in Estuarine Catfish (*Arius maculatus*; Thunberg, 1792) Due to *Aeromonas hydrophila* Infection. *World Journal of Fish and Marine Sciences*, 2009, 1 (3): 185-189.
46. B. Deivasigamani, **S. Kumaran**, and K.M. Alagappan. Phagocytic activities of splenic macrophages in Asian Sea bass (*Lates calcarifer*). *J. Sci. Trans. Environ. Technov*, 2009, 2(4): 223-225.
47. Deivasigamani. B, E. Maheswaran, K.M. Alagappan and **S. Kumaran**. Analysis of Genetic Diversity on Jackfruit using H-15 RAPD Marker *Asian J. Exp. Sci.*, 2009, 23(3) 01-06.

Workshop Participated – 25 Nos

Seminars and Conference participated – 35 Nos.

Extra activities

- Typewriting Junior level
- Computer skills – MS-Office, DTP, HTML, Origin
- Ball badminton – Secured **second prize** in division match conducted by Madras University, Held at Satyabama University (2002).

Junior level district match participated at Neyveli (2001).
Conducted by ball badminton association, Federation of India.

Three times secured second place in department matches held at Sri Sankara Arts and Science college, Kanchipuram.
- Athletic ability - Won the **II place** in 800 meter and II place in 400 meter, conducted by Sri Sankara Arts and Science College, Kanchipuram (2003).

Place: Chennai
Date: 03.09.2020

Dr. S. Kumaran