

Mr. SEKAR VIJAYAKUMAR
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https://www.researchgate.net/profile/Vijayakumar_Sekar2/citations?sorting=citationCount&page=1

<https://scholar.google.com/citations?user=nSxDa8gAAAAJ&hl=en>

<https://publons.com/author/1364132/vijayakumar-sekar#profile>

Researcher ID: A-8600-2018 (Thomson Reuters)

Mobile No. : +91-9976326646

RG Score: 25.56

h- index: 13

i 10 index : 16



PROFESSIONAL OBJECTIVE

Seeking an interesting research position in life science with a goal of service to the society utilizing my extensive research background and the rich set of opportunities to excel in all endeavours.

Personal Profile:

Name	: S. VIJAYAKUMAR
Father's Name	: V. Sekar
Age	: 27 years
Date of Birth	: 5 th June 1991
Sex	: Male
Marital status	: Single
Nationality	: Indian
Passport no	: N7513930
Address (Res)	: No: 81, D.No:04, Swamynathan Chettiyar Street Muthupattinam 2 nd Street, Karaikudi-630001 Tamil Nadu, India. MobileNo. :+91 9976326646
E-mail ID	: vijaysekar05@gmail.com
Languages Known	: Tamil, English

Professional Qualification:

Degree	Institution / University	Subject	Year of passing	Class	% of Marks obtained
B.Sc.,	Alagappa Govt.Arts College Alagappa University Karaikudi, India.	Zoology	April -2011	I Class	71 %
M.Sc.,	Alagappa University Karaikudi, India.	Zoology	April -2013	I Class	83 % 1 st Rank Distinction
PG Diploma in Bioinformatics	Alagappa University Karaikudi, India.	Bioinformatics, Structural Pharmacogenomics	August- 2015	I Class	71 %
Ph.D	Alagappa University, Karaikudi, India.	Zoology	I had submitted my Ph.D Thesis	-	--

Technical Qualifications

- Diploma in Office Management (DOM: MS-DOS, Windows, MS-Office).
- Business application Software, Publication software, Photoshop, Coral draw
- Computer-cum Internet Literacy Programme

Training Programmes:

- Participated in the National Workshop on ‘**Recent Trends in Life Science**’ organized by Science mela, Ananda College of Arts and Science, Devakottai, 7th - 9th January 2011.
- Participated in the National Workshop on ‘**Live Feed Culture For Aqua-Hatcheries** ’ organized by the Unit of Reproductive Biology and Live Feed Culture, Department of Zoology, The New College (Autonomous), Chennai, 15th -19th September 2014.

- Participated in the Workshop on ‘**Advances in Nanotechnology: Fabrication, Processing and Applications**’ organized by the Centre for Nanoscience Nanotechnology, School of Physics, Bharathidasan University, Tiruchirappalli, 28th February & 1st March 2014.
- Participated in the Training programme on “**Motivation for Business Development Skills in Livestock rearing and its by product Production**” organized by the University Business Collaboration Centre, Department of Animal Health & Management, Alagappa University, Karaikudi, 7th December 2015.
- Participated in the Training programme on “**Shrimp and Finfish production skills for Aquaculture Business**” organized by the University Business Collaboration Centre, Department of Animal Health & Management, Alagappa University, Karaikudi, 15th December 2015.
- Participated in the National Symposium cum Workshop on “**Recent Trends in Structural Bioinformatics and Computer Aided Drug Design**” (SBCDD-2015) organized by the Department of Bioinformatics, Alagappa University, Karaikudi, 24th - 27th February 2015.
- Participated in the Training programme on “**Small scale business setup in Ornamental Fish forming, Apiculture, Mushroom silk production**” organized by the University Business Collaboration Centre, Department of Animal Health & Management, Alagappa University, Karaikudi, 20th January 2016.
- Participated in the Training programme on “**Live Feed Culture Production (Artemia, Phytoplanktons & Zooplanktons, Spirulina) and Sea Weed Culture and its allied industries**” organized by the University Business Collaboration Centre, Department of Animal Health & Management, Alagappa University, Karaikudi, 26th February 2016.
- Participated in the International Workshop on ‘**Molecular Physiology, Therapeutics and Experimental Medicine**’ (MPTEM-2016) organized by the Department of Animal Health and Management, Alagappa University, Karaikudi, 6th -7th September 2016.

- Participated in the National Symposium cum Workshop on “**Recent Trends in Structural Bioinformatics and Computer Aided Drug Design**” (SBCDD-2017) organized by the Department of Bioinformatics, Alagappa University, Karaikudi, 14th - 17th February 2017. and presented a paper on “**Synthesis and Characterization of *Capsicum Annum* fruit extract (Capsaicin) coated silver nanoparticle (Ca- Agnps) and their toxicity assessment on *Ceriodaphnia cornuta* through *invivo* and *insilico* approaches**”.
- Participated in the Training programme on “**Business Resource of Solid Waste Management through Vermi composting**” organized by the University Business Collaboration Centre, Department of Animal Health & Management, Alagappa University, Karaikudi, 14th & 15th March 2017.
- Participated in the Training programme on “**Achieving publication index scores**” organized by the University Business Collaboration Centre, Department of Library and Information Science, Alagappa University, Karaikudi, 10th January 2018.
- Participated in the National Workshop on “**Commercialization Prospects of Microbial Formulates**” organized by the organized by the University Business Collaboration Centre, Department of Microbiology, Alagappa University, Karaikudi, 22 - 25 January 2018.
- Participated in the Training programme on “**Business Opportunities in Aquaculture and Vermiculture Technology**” organized by the University Business Collaboration Centre, Department of Animal Health & Management, Alagappa University, Karaikudi, 02nd to 08th March 2018.
- Participated in the National Workshop on ‘**Indigenous Cow Management and their Value Added Products**’ (ICMVAP-2K18) organized by the Department of Animal Health & Management, Alagappa University, Karaikudi, 18th - 19th December 2018.

Research Papers Presented/Participated in Symposia/Seminar:

International level

- Participated in the International Seminar on “**Recent Trends in Aquatic Animal Biotechnology**” (RTAAB’ 2013) organized by the Department of Animal Health & Management, Alagappa University, Karaikudi, 21-22nd October 2013 and presented a paper on “**Recent Technologies in Aquatic Animal Health Management**”.
- Participated in the World Congress on “**Microscopy: Instrumentation, Techniques and Applications in Life Sciences and Material Sciences**” (WCM 2015) organized by the International Unit on Macromolecular Science and Engineering (IUMSE), Mahatma Gandhi University, Kerala, 9-11th October 2015 and presented a paper on “**Synthesis, Characterization, Antibiofilm and Ecotoxicological Evaluation of Biopolymer based Silver nanoparticles**”.
- Participated in the International Conference on “**Recent Advances in Modern Medicine: molecular signalling scenarios in tissues and diseases**”(RAMM 2016) organized by Research & Development Wing Sree Balaji Medical College and Hospital Bharath University (BIHER) , Chennai 3rd & 4th September 2016 and presented a paper on “**Synthesis and Characterization of Chitosan stabilized silver nanoparticles and its control of Nosocomial Human Pathogen Biofilms and Wound Healing Efficacy**”.
- Participated in the “**International Conference on Recent Trends in Biosciences**” (ICRTB 2016) organized by School of Biological Sciences Alagappa university, Karaikudi, 7-9th April 2016 and presented a paper on “**Synthesis of *Nigella Sativa* oil coated gold nanoparticles and their antibacterial, antibiofilm and cytotoxic effects on MCF – 7 Cell lines**”.
- Participated in the International Conference on “**Asian Fisheries and Aquaculture Conference and Exposition 2016 and 11th Asian Fisheries and Aquaculture Forum**” (11th AFAF) organized by Asian Fisheries Society (AFS), Network of Aquaculture Centers in the Asia –Pacific (NACA), and the Department of Fisheries, Thailand. Bangkok 3-7th August 2016 and presented a paper on “**Biosynthesis of**

Ag/ZnO nanocomposite using chitosan from shell waste of mud crab, *Scylla serrata* and its antibiofilm screening”.

- Participated in the International Conference on “**Recent Trends in Microbiology**” (RTM-2016) organized Department of Microbiology, Alagappa University, Karaikudi, 20-21st December 2016 and presented a paper on “**Control of methicillin resistant *Staphylococcus aureus* biofilm and mosquito vectors using *Plectranthus amboinicus* leaf extract mediated synthesis of Silver nanoparticles**”
- Participated in the International Conference on “**Aquatic Animal Health and Parasitic Diseases**” (ICAAP-2017) organized by Centre of Advanced study in Marine Biology Faculty of Marine Sciences, Annamalai University, Parangipettai, 6th- 7th March 2017 and presented a paper on “**Immunostimulatory effects of dietary ZnO nanoparticle on freshwater tilapia *Oreochromis mossambicus* challenged with *Aeromonas hydrophila***”.
- Participated in the International Conference on “**10th Symposium on Diseases in Asian Aquaculture (DAA10)**” organized by Diseases in Asian Aquaculture (DAA), 28 August – 1 September 2017 The ANVAYA Beach Resort, Kuta, Bali, Indonesia. and presented a paper on “**EFFECT OF β -GBP-ZNO NPS ON IMMUNE RESPONSE OF TILAPIA**”.
- Participated in the International Conference on “**International Conference on Nanoscience and Nanotechnology (ICONN 2017)**” organized by SRM University, Chennai, India. 9–11 August 2017. and presented a paper on “**Textile Dye removal and antibacterial activity of Hydroxyapatite / Graphene oxide composite**”.
- Participated in the International Conference on “**International Conference on Potential impact of Pesticides on Environment and Human Health (ICPIPEHH-2017)**” organized by Department of Chemistry, School of Engineering, and Dayananda sager University, Bangalore 560068, Karnataka, India. 2 – 4 November 2017. and presented a paper on “**Ecotoxicity of chemically synthesized ZnO NPs on the freshwater microcrustacean *Ceriodaphnia cornuta***.”
- Participated in the **International Conference on Advanced Materials Chemistry at the interfaces of Energy Environment and Medicine** (AMCI 2019). organized by Department of Chemistry Manonmaniam Sundaranar University, Thirunelveli,

Tamilnadu, India. 30&31st January 2019 and presented a paper on **“Nanotheronostics applications Chitosan-silver biomaterial and control of wound infection causing pathogenic bacteria”**.

National level

- Participated in the **“State Level Seminar on Technology of Organic Farming for Rural Development ”** organized by Department of Botany, Alagappa Govt Arts College, Karaikudi, 25th &26th September 2008.
- Participated in the National Seminar on **“Application of Genomics and Bioinformatics in Animal Heath and Management”** (NSGB 09), organized by the School of Animal Health and Management, Alagappa University, Karaikudi, March 25th &26th , 2009.
- Participated in the National seminar on **“Role of Microbes in Health, Agriculture and Industry”**, organized by the Department of Biotechnology, Alagappa University, Karaikudi, 26th &27th March, 2012.
- Participated in the National Conference on **“Innovations, Implementations and Controversies of Animal Biotechnology (NCIICAB – 2014)”** organized by the Department of Animal Science, Bharathidasan University, Tiruchirappalli, 20th & 21st March 2014 and presented a paper on **“Antibacterial and Mosquito larvicidal activities of *Plectranthus amboinicus* leaf extract based synthesis of ZnO nanoparticles.**
- Participated and presented a paper on **“Phytochemical screening, antibiofilm and anticancer activity of aqueous extract of *musa paradisiaca* fruit peel”** in the National Seminar on **“Recent Trends in Nanotechnology and Aquaculture Technologies”** (RTNAT-2016), organized by the Department of Fishery Science and Aquaculture, Sri Venkateshwara University, Tirupati, Andrapradesh, India, 18th &19th August 2016.
- Participated and presented a paper on **“Protective effects of the probiotic *Bacillus licheniformis* Dahb1 against *Vibrio parahaemolyticus* Dahv2**

infection in the Asian catfish, *Pangasius hypophthalmus* by enhancing the growth and antioxidant responses”, in the National Symposium on “**Current Advances in Immunology Research**”, organized by the Centre for Advanced studies in Marine Biology, Annamalai University, Chidambaram, TamilNadu, India, 7-8th August 2015.

- Participated in the National Conference on “**Exploring Commercialization of Biosensors in India,**” organized by the Department of Bioelectronics and Biosensors, Alagappa University, Karaikudi, 14th March, 2017 .
- Participated in the National Conference on “**Trends in Microbiology (NCTM- 2017)**” organized by the Department of Microbiology , Alagappa University, Karaikudi, 27th September, 2017 .

RESEARCH EXPERIENCE

M.Sc., PG Diploma Bioinformatics

🚩 Project title: SYNTHESIS AND CHARACTERIZATION OF GARLIC EXTRACTS (ALLICIN) COATED SILVER NANOPARTICLES (GE-AGNPS) AND ITS TOXICITY EFFECT ON *CERIODAPHNIA CORNUTA* THROUGH IN VIVO AND IN SILICO APPROACHES

Time: Since March 2015-August 2015

Research Supervisors: Dr. Sanjeev Kumar Singh and Dr. Vaseeharan B

Techniques involved: Molecular Docking, Molecular Simulations and Dynamics

M.Sc., Zoology

🚩Project title: CHARACTERIZATION OF *PLECTRANTHUS AMBOINICUS* LEAF EXTRACT BASED SYNTHESIZED ZnO NANOPARTICLES AND ITS ANTIMICROBIAL, ANTIBIOFILM AND MOSQUITO LARVICIDAL ACTIVITY

Time: Since Nov 2012 – April 2013

Research Supervisors: Prof. Vaseeharan. B

Techniques involved: Nanoparticle synthesis, Bio film, CLSM, Name of University : Alagappa University, Karaikudi – 630 003.

CURRENT

PROJECT Ph.D

“Biosynthesized metallic/metal oxide nanoparticles - Potential applications and ecotoxicity assessment”

Time: Since December 2013- 2018 I had submitted my Ph.D Thesis

Research Supervisor: Dr. Vaseeharan B

Name of University: Alagappa University, Karaikudi – 630 003.

LABORATORY SKILLS

- Nanotechnology** : Synthesis of Versatile nanoparticles (green, chemical and Microbial synthesis methods, Metallic, non-metallic Polymeric and Drug loaded nanoparticles, Physicochemical Characterization analysis of nanoparticles (UV, XRD, FTIR, SEM, HR-TEM, AFM, PL SPECTRA, TGA, Zeta Potential, XPS,EDAX).
- Biochemistry** : Protein and DNA estimation, Paper Chromatography, TLC, Column Chromatography, MALDI-TOF, Poly Acrylamide Gel Electrophoresis, (SDS), Estimation analysis.
- Biotechnology** : Isolation of DNA from blood, animal tissue and microbial source, Plasmid isolation ,mRNA, Synthesis of cDNA, RT -PCR, PCR- RFLP, RAPD, Agarose Gel Electrophoresis, synthesis of nano particles.
- Microbiology** : Aseptic procedures of Streaking, Spread plating, Staining, MIC, Disc & Well diffusion, Biofilms, Probiotic Strains, Green fluorescent protein tagged bacteria cultures and maintenance, **Microscopic analysis-** Confocal Laser Scanning Microscopy, Nikon microscope, Spectrophotometric analysis, ELISA
- Aquaculture** : Freshwater and Marine Fish live feed culture and maintenance, Species identification (Zooplanktons-Daphnia sp., Ceriodaphnia sp., Rotifer sp., Moina Sp., copepods sp., paramecium sp., and Artemia Sp., freshwater

& Marine water fish sp., and Crustacean sp. (Shrimp and Crab) cultures & maintenance and its using isolation of Biomaterials, Biopolymers, Immunological, Toxicological, and host pathogen interaction studies.

Vector control : Mosquito cultures and maintenance, Species identification, control of mosquito vectors using nanobiomaterials and bioactive compounds.

Bioinformatics : Molecular Docking, Molecular Simulations and Dynamics BLAST, FASTA, EXPASY Tools, Phylogenetic tree construction, Analysis of DNA Sequences using Vector NTI software usage and other bioinformatics tools.

PUBLICATIONS

International – **32**, Citations-**459** Total Publications – **32** (**32**- Peer reviewed Journal)

Submission of Sequences in NCBI Genbank, KT763080.1

List of Research Papers Published in Journals: (Total Impact Factor **73.719**)

International Journals

1. **Vijayakumar Sekar**, Balasubramanian Malaikozhundan, Narayanan Gobi, Baskaralingam Vaseeharan, Chavali Murthy: Protective effects of chitosan against the hazardous effects of zinc oxide nanoparticle in freshwater crustaceans *Ceriodaphnia cornuta* and *Moina micrura*. *Limnologica - Ecology and Management of Inland Waters* 10/2016; 61. DOI:10.1016/j.limno.2016.09.007(**Impact factor 1.814**).
2. **Sekar Vijayakumar**, Baskaralingam Vaseeharan , Balasubramanian Malaikozhundan, Malaikkarasu Shobiya: *Laurus nobilis* leaf extract mediated green synthesis of ZnO nanoparticles: Characterization and biomedical applications. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie* 10/2016; 84. DOI:10.1016/j.biopha.2016.10.038 (**Impact factor 3.457**).
3. Narayanan Gobi, Chinnu Ramya, Baskaralingam Vaseeharan, Balasubramanian Malaikozhundan, **Sekar Vijayakumar**, Kadarkarai Murugan, Giovanni Benelli: *Oreochromis mossambicus* diet supplementation with *Psidium guajava* leaf extracts enhance growth, immune, antioxidant response and resistance to *Aeromonas*

- hydrophila*. Fish & Shellfish Immunology 10/2016; 58. DOI:10.1016/j.fsi.2016.09.062 (**Impact factor 3.185**).
4. Rajagopalan Thaya, Balasubramanian Malaikozhundan, **Sekar Vijayakumar**, Jeyachandran Sivakamavalli, Raja Jeyasekar, Sathappan Shanthi, Baskaralingam Vaseeharan, Palaniappan Ramasamy, Avinash Sonawane: Chitosan coated Ag/ZnO nanocomposite and their antibiofilm, antifungal and cytotoxic effects on murinemacrophages. MicrobialPathogenesis09/2016;100.,DOI:10.1016/j.micpath.2016.09.010 (Impact factor 2.332).
 5. Balasubramanian Malaikozhundan, Baskaralingam Vaseeharan, **Sekar Vijayakumar**, Raja Sudhakaran, Narayanan Gobi, Ganesan Shanthini: Antibacterial and Antibiofilm Assessment of *Momordica charantia* Fruit Extract Coated Silver Nanoparticle. Biocatalysis and Agricultural Biotechnology 09/2016;8. DOI:10.1016/j.bcab.2016.09.007 (**Impact factor 0.887**).
 6. **Vijayakumar Sekar**, Malaikozhundan Balasubramanian, Palaniappan Ramasamy, Vaseeharan Baskaralingam: Assessment of biopolymer stabilized silver nanoparticle for their ecotoxicity on *Ceriodaphnia cornuta* and antibiofilm activity. Journal of Environmental Chemical Engineering 03/2016; 4(2). DOI:10.1016/j.jece.2016.03.036 (**Impact factor 1.385**).
 7. Narayanan Gobi, Balasubramanian Malaikozhundan, **Vijayakumar Sekar**, Sathappan Shanthi, Baskaralingam Vaseeharan, Jayakumar Rengarajan, Abdul Khudus Nazar: GFP tagged *Vibrio parahaemolyticus* Dahv2 infection and the protective effects of the probiotic *Bacillus licheniformis* Dahb1 on the growth, immune and antioxidant responses in *Pangasius hypophthalmus*. Fish & Shellfish Immunology 03/2016; 52. DOI:10.1016/j.fsi.2016.03.006 (**Impact factor 3.185**).
 8. Sathappan Shanthi, Barbanas David Jayaseelan, Palaniyandi Velusamy, **Sekar Vijayakumar**, Cheng Ta Chih, Baskaralingam Vaseeharan: Biosynthesis of silver nanoparticles using a probiotic *Bacillus licheniformis* Dahb1 and their antibiofilm activity and toxicity effects in *Ceriodaphnia cornuta*. Microbial Pathogenesis 01/2016; 93. DOI:10.1016/j.micpath.2016.01.014 (**Impact factor 2.332**).

9. Sivalingam Manju, Balasubramanian Malaikozhundan, **Sekar Vijayakumar**, Sathappan Shanthi, Ameeramja Jaishabanu, Perumal Ekambaram, Baskaralingam Vaseeharan: Antibacterial, antibiofilm and cytotoxic effects of *Nigella sativa* essential oil coated gold nanoparticles. *Microbial Pathogenesis* 12/2015; 91. DOI:10.1016/j.micpath.2015.11.021 (**Impact factor 2.332**).
10. **S Vijayakumar**, G Vinoj, B Malaikozhundan, S Shanthi, B Vaseeharan: *Plectranthus amboinicus* leaf extract mediated synthesis of zinc oxide nanoparticles and its control of methicillin resistant *Staphylococcus aureus* biofilm and blood sucking mosquito larvae. *Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy* 09/2014; 137C. DOI:10.1016/j.saa.2014.08.064 (**Impact factor 2.880**).
11. **S. Vijayakumar**, B. Vaseeharan, B. Malaikozhundan, N. Gopi, P. Ekambaram, R. Pachaiappan, P. Velusamy, K. Murugan, G. Benelli, R. Suresh kumar, M. Suriyanarayanamoorthy: Therapeutic effects of gold nanoparticles synthesized using *Musa paradisiaca* peel extract against multiple antibiotic resistant *Enterococcus faecalis* biofilms and human lung cancer cells (A549). *Microbial Pathogenesis* 12/2016; DOI:10.1016/j.micpath.2016.11.029 (**Impact factor 2.332**).
12. Ramachandran Ishwarya, Baskaralingam Vaseeharan, Sathappan Shanthi, Subramani Ramesh, Pitchaimani Manogari, Kannan Dhanalakshmi, **Sekar Vijayakumar**, Giovanni Benelli: Green Synthesized Silver Nanoparticles: Toxicity Against *Poecilia reticulata* Fishes and *Ceriodaphnia cornuta* Crustaceans. *Journal of Cluster Science* 11/2016; DOI:10.1007/s10876-016-1126-4(**Impact factor 1.715**).
13. Balasubramanian Malaikozhundan, Baskaralingam Vaseeharan, **Sekar Vijayakumar**, Karuppiah Pandiselvi, Rajamohamed Kalanjiam, Kadarkarai Murugan, Giovanni Benelli: Biological therapeutics of *Pongamia pinnata* coated zinc oxide nanoparticles against clinically important pathogenic bacteria, fungi and MCF-7 breast cancer cells. *Microbial Pathogenesis* 01/2017; DOI:10.1016/j.micpath.2017.01.029 (**Impact factor 2.332**).
14. **Sekar Vijayakumar**, Balasubramanian Malaikozhundan, Sathappan Shanthi, Baskaralingam Vaseeharan, Nooruddin Thajuddin: Control of biofilm forming

clinically important bacteria by green synthesized ZnO nanoparticles and its ecotoxicity on *Ceriodaphnia cornuta*. Microbial Pathogenesis 03/2017; DOI:10.1016/j.micpath.2017.03.019 (**Impact factor 2.332**).

15. **Sekar Vijayakumar**, Baskaralingam Vaseeharan, Balasubramanian Malaikozhundan, Narayanan Gobi, Samuthirapandian Ravichandran, Sellamuthu Karthi, Balasubramaniam Ashok kumar, Natesan Sivakumar: A novel antimicrobial therapy for the control of *Aeromonas hydrophila* infection in aquaculture using marine polysaccharide coated gold nanoparticle. Microbial Pathogenesis 06/2017; 110., DOI:10.1016/j.micpath.2017.06.029. (**Impact factor 2.332**).
16. Periyakaruppan Suganya, Baskaralingam Vaseeharan, **Sekar Vijaya Kumar**, Banumathi Balan, Marimuthu Govindarajan, Naiyf S. Alharbi, Shine Kadaikunnan, Jamal M. Khaled, Giovanni Benelli: Biopolymer zein-coated gold nanoparticles: Synthesis, antibacterial potential, toxicity and histopathological effects against the Zika virus vector *Aedes aegypti*. Journal of photochemistry and photobiology. B, Biology 06/2017; 173., DOI:10.1016/j.jphotobiol.2017.06.004. (**Impact factor 3.165**).
17. Balan Banumathi, Baskaralingam Vaseeharan, Thenmozhi Chinnasamy, **Sekar Vijayakumar**, Marimuthu Govindarajan, Naiyf S. Alharbi, Shine Kadaikunnan, Jamal M. Khaled, Giovanni Benelli: *Euphorbia rothiana*-Fabricated Ag Nanoparticles Showed High Toxicity on *Aedes aegypti* Larvae and Growth Inhibition on Microbial Pathogens: A Focus on Morphological Changes in Mosquitoes and Antibiofilm Potential against Bacteria. Journal of Cluster Science 07/2017;, DOI:10.1007/s10876-017-1263-4. (**Impact factor 1.715**)
18. Balasubramanian Malaikozhundan, **Sekar Vijayakumar**, Baskaralingam Vaseeharan, Anthonisamy Anthoni Jenifer, Ponnaiah Chitra, Narayanan Marimuthu Prabhu, Ethiraj Kannapiran: Two potential uses for silver nanoparticles coated with *Solanum nigrum* unripe fruit extract: Biofilm inhibition and photodegradation of dye effluent. Microbial Pathogenesis 09/2017;, DOI:10.1016/j.micpath.2017.08.039. (**Impact factor 2.332**)
19. Balasubramanian Malaikozhundan, Baskaralingam Vaseeharan, **Sekar Vijayakumar**, Merlin P. Thangaraj: *Bacillus thuringiensis* coated zinc oxide

nanoparticle and its biopesticidal effects on the pulse beetle, *Callosobruchus maculatus*. Journal of photochemistry and photobiology. B, Biology 08/2017; 174., DOI:10.1016/j.jphotobiol.2017.08.014. (**Impact factor 3.165**).

20. **Sekar Vijayakumar**, Baskaralingam Vaseeharan, Balasubramanian Malaikozhundan, Mani Divya, Muthukumar Abhinaya, Narayanan Gobi, Attanu Bhattacharyya, Nachimuthu Balashanmugam, Dhan Surmistha, Kadarkarai Murugan, Giovanni Benelli: Ecotoxicity of *Musa paradisiaca* leaf extract-coated ZnO nanoparticles to the freshwater microcrustacean *Ceriodaphnia cornuta*. Limnologica - Ecology and Management of Inland Waters 10/2017;, DOI:10.1016/j.limno.2017.09.004. (**Impact factor 1.814**).
21. Balasubramanian Malaikozhundan, Baskaralingam Vaseeharan, Mohamed Ali Rajamohamed Kalanjiam, **Sekar Vijayakumar**, Raja Jeyasekar and Jiann-Chu Chen: Effect of Dietary Supplementation of ZnO Nanoparticles Based Diets on the Asian Catfish, *Pangasius hypophthalmus*. *J. Fish. Soc. Taiwan*, 2016, 43(3): 205-214.
22. Dhatchayani Surendran, Vaseeharan Baskaralingam, **Vijayakumar Sekar**, Sarala Natarajan, Sankaranarayanan Krishnasamy: Synthesis and Characterization of Hydroxyapatite/Graphene Oxide for Biomedical Applications. One Day International Seminar on Materials Science & Technology (ISMST 2017) 4th August, Department of Physics, Mother Teresa Women's University, Kodaikanal, Tamilnadu, India; 09/2017(**Conference Proceeding**)
23. Mani Divya, Baskaralingam Vaseeharan, Muthukumar Abinanya, **Sekar Vijayakumar**, Marimuthu Govindarajan, Naiyf S. Alharbi, Shine Kadaikunnan, Jamal M. Khaled, Giovanni Benelli: Biopolymer gelatin-coated zinc oxide nanoparticles showed high antibacterial, antibiofilm and anti-angiogenic activity. Journal of photochemistry and photobiology. B, Biology 11/2017; 178., DOI:10.1016/j.jphotobiol.2017.11.008 (**Impact factor 3.165**).
24. Vairavan Girija, Balasubramanian Malaikozhundan, Baskaralingam Vaseeharan, **Sekar Vijayakumar**, Narayanan Gopi, Marian Del Valle Herrera, Jiann-Chu Chen, Perumal Santhanam: In vitro antagonistic activity and the protective effect of probiotic *Bacillus licheniformis* *Dahb1* in zebrafish challenged with GFP tagged

- Vibrio parahaemolyticus* Dahv2. Microbial Pathogenesis 12/2017; 114., DOI:10.1016/j.micpath.2017.11.058(**Impact factor 2.332**).
25. Narayanan Gobi, Baskaralingam Vaseeharan, Jiann-Chu Chen, Ravichandran Rekha, **Sekar Vijayakumar**, Mahalingam Anjugam, Arokiadhas Iswarya: Dietary supplementation of probiotic *Bacillus licheniformis* Dahb1 improves growth performance, mucus and serum immune parameters, antioxidant enzyme activity as well as resistance against *Aeromonas hydrophila* in tilapia *Oreochromis mossambicus*. Fish & Shellfish Immunology 01/2018; 74., DOI:10.1016/j.fsi.2017.12.066 (**Impact factor 3.185**).
 26. Ponnuchamy Kumar, Mani Kannan, Prasanna Vimalanathan Arun, Baskaralingam Vaseeharan, **Sekar Vijaykumar**: Proteomics analysis of crude squid ink isolated from *Sepia esculenta* for their antimicrobial, antibiofilm and cytotoxic properties. Microbial Pathogenesis 01/2018; 116., DOI:10.1016/j.micpath.2018.01.039 (**Impact factor 2.332**).
 27. Narayanan Gobi, Baskaralingam Vaseeharan, Ravichandran Rekha, **Sekar Vijayakumar**, Caterina Faggio: Bioaccumulation, cytotoxicity and oxidative stress of the acute exposure selenium in *Oreochromis mossambicus*. Ecotoxicology and Environmental Safety 07/2018; 162:147-159., DOI:10.1016/j.ecoenv.2018.06.070. (**Impact factor 3.974**).
 28. Muthukumar Abinaya, Baskaralingam Vaseeharan, Mani Divya, **Sekar Vijayakumar**, Marimuthu Govindarajan, Naiyf S. Alharbi, Jamal M. Khaled, Mohammed N. Al-anbr, Giovanni Benelli: Structural characterization of *Bacillus licheniformis* Dahb1 exopolysaccharide—antimicrobial potential and larvicidal activity on malaria and Zika virus mosquito vectors. Environmental Science and Pollution Research 04/2018; 25(5)., DOI:10.1007/s11356-018-2002-6 (**Impact factor 2.800**).
 29. **Sekar Vijayakumar**, Baskaralingam Vaseeharan: Antibiofilm, anti cancer and ecotoxicity properties of collagen based ZnO nanoparticles. Advanced Powder Technology 06/2018, DOI:10.1016/j.appt.2018.06.013. (**Impact factor 2.943**).
 30. Ponnuchamy Kumar, Rathinam Yuvakumar, **Sekar Vijayakumar**, Baskaralingam Vaseeharan: Cytotoxicity of phloroglucinol engineered silver (Ag) nanoparticles

against MCF-7 breast cancer cell lines. Materials Chemistry and Physics. DOI:10.1016/j.matchemphys.2018.08.074. (**Impact factor 2.210**)

31. Ravichandran Rekha, Baskaralingam Vaseeharan, **Sekar Vijayakumar**, Muthukumar Abinaya, Marimuthu Govindarajan, Naiyf S. Alharbi, Shine Kadaikunnan, Jamal M. Khaled, Mohammed N. Al-anbr: Crustin-capped selenium nanowires against microbial pathogens and Japanese encephalitis mosquito vectors insights on their toxicity and internalization. Journal of Trace Elements in Medicine and Biology 10/2018;, DOI:10.1016/j.jtemb.2018.10.017(**Impact factor 3.755**).
32. V. Kalaiselvi, R. Mathammal, **S. Vijayakumar**, B. Vaseeharan: Microwave assisted green synthesis of Hydroxyapatite nanorods using *Moringa oleifera* flower extract and its antimicrobial applications. 08/2018; 6(2). DOI:10.1016/j.ijvsm.2018.08.003.

Awards&GrantsReceived:

- **University First Rank Holder** in M.Sc., Zoology.
- Department of Science and Technology (DST) awarded the “**Innovation in Science Pursuit for Inspired Research (INSPIRE)**” INSPIRE Fellowship (Ref. No: IF140145), New Delhi, India.
 - **Outstanding reviewer award from various Elsevier journals.**

CountriesVisited

1. Place : Bangkok-Thailand
Purpose of Visit : International Conference
Duration : From August 3rd -7th 2016.
2. Place : Indonesia
Purpose of Visit : International Conference
Duration : From August 28th to September 1st 2017.

EVALUATION ACTIVITIES AS JOURNAL REFEREE

- Journal of Environmental chemical engineering-Elsevier (Impact factor- 1.385)
- Particuology- Elsevier (Impact factor- 2.785)
- Industrial crops and Products- Elsevier (Impact factor- 3.849)

- Food Research International-Elsevier (Impact factor- 3.520)
- Ecohydrology and Hydrobiology- Elsevier(Impact factor- 1.592)
- Chemico-biological interactions –Elsevier (Impact factor- 3.296)
- Journal of Molecular Liquids - Elsevier (Impact factor-4.513)
- Environmental Research - Elsevier (Impact factor- 4.732)
- ActaTropica - Elsevier (Impact factor-2.509)
- Analytical Methods- RSC (Impact factor-2.073)
- Ecotoxicology- Springer (Impact factor-1.987)
- Journal of Nanomedicine & Nanotechnology-Omics publishing (Impact factor-5.573)
- Journal of Shipping and Ocean Engineering (David Publishing company)
- Toxicology Letters- Elsevier (Impact factor-3.166)
- Veterinary Parasitology- Elsevier (Impact factor-2.422)
- Waste Management - Elsevier (Impact factor-4.723)
- Journal of Controlled Release- Elsevier (Impact factor-7.877)
- Biocatalysis and Agricultural Biotechnology – Elsevier
- BMC Pharmacology and toxicology (Impact factor-1.865)
- Ecotoxicology and Environmental safety- Elsevier (Impact factor-3.974)

Membership in Professional Bodies

- ❖ Indian Science Congress Association-Life member
- ❖ The Association of Microbiologists of India(AMI)
- ❖ Indian Biophysical Society-Life member

Editorial Board

- ❖ Editorial Board Member-“Frontiers in Environmental Microbiology”(FEM-Science Publishing group)
- ❖ Editorial Board Member- “Journal of Biomaterials and Nanobiotechnology”(Scientific Research Publishing, USA)
- ❖ Editorial Board Member- “Journal of Nuclear Technology in Applied Science”(JNTAS-official journal setup by ESRSA, Egypt-Publishing)
- ❖ Associate Editor- Current Scientific Research in Biomedical Sciences (CSRBS)(Chembio publishers,USA)
- ❖ Editorial Board Member-EC Microbiology (E-Cronicon open access)
- ❖ Editorial Board Member- Annals of Pharmaceutical Nanotechnology and Nanomedicine (APNTNM) (ONOMY Science publisher-USA)

Extracurricular

- Spear headed National & International seminars with College and University team.

- Won prizes in sports and cultural – Cricket, Dance, Mimicry. Served as a volunteer in the blood stem cells donor recruitment drive organized by “**DATRI BLOOD STEM CELLS DONORS REGISTRY**” Taramani, Chennai-600 113.held on 01.03.2017.

REFERENCES

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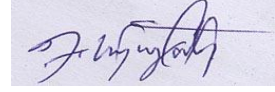
- 5. Dr. Alex Ford**
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DECLARATION

I hereby declare that the information furnished by me in this profile are true and correct to the best of my knowledge. _

Place: Karaikudi

Date: 17.03.19



S.VIJAYAKUMAR