



**Dr. P. KUMAR**  
**Assistant Professor**

### Contact

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### Academic Qualifications: M.Sc., Ph.D.

### Teaching Experience: 1.9 Years

### Research Experience: 5 Years

### Additional Responsibilities

1. Member - Journal Club, DAHM, Alagappa University, KKD.
2. Member - Library Committee, DAHM, Alagappa University, KKD.
3. Member –Alumni & Parent teacher committee, DAHM, Alagappa University, KKD.
4. Member – Departmental purchase committee, DAHM, Alagappa University, KKD.
5. Member – Counselling & Career guidance, DAHM, Alagappa University, KKD.
6. Department co-ordinator – Village Placement Programme (2016-2017).
7. University Representative –DDE examination (May, 2016 & December, 2016)
8. SSP & DDE-Personal Contact Programme- Zoology

## Areas of Research

Food chemistry and Molecular Cancer Biology

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	-	-
	M.Phil.	4	1
Project	PG	2	1
	UG / Others	-	-

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
20	3	-	11	-

Cumulative Impact Factor (as per JCR) : 23.682  
h-index : 8  
i10 index : 8  
Total Citations : 288

## Funded Research Projects

### Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	UGC	2017	2019	Role of Aaptamine-Conjugated Gold Nanorods in Mitochondrial Dysfunction of Human Breast Cancer Cell Lines	10
2	DST-SERB	2017	2020	Molecular insights of platinum conjugated doxorubicin theranostic system targeting apoptosis-mediated genomic instability in breast cancer cell line(s)	26.7
3	DST-SERB	2018	2020	Development of surface-charge impregnated plasmonic gold nanoprobe for enhanced photodynamic therapy and mitochondrial dysfunction in human breast cancer cell line(s)	Approved

### Patents -

### Distinctive Achievements / Awards

1. Early Career Research Award by Science and Engineering Research Board, New Delhi, Dec-2016
2. Start-up grant for the newly appointed faculty by University Grants Commission, New Delhi, Aug-2016.
3. Cover Page article - Inorganic Frontiers and Chemistry, 2014 - DOI: 10.1039/C4QI00018H.
4. Awarded Junior Research & Senior Research Fellowship by DST-NRDMS (2010 - 2014).

### Events organized in leading roles

#### Number of Seminars / Conferences / Workshops / Events organized: 1

1. As a convenor, organized "World Animal Day Celebration" by the Department of Animal Health and Management, Alagappa University, Karaikudi on 5<sup>th</sup> October, 2016.

## Events Participated

### Conferences / Seminars / Workshops: 17

1. National conference on Trends in Microbiology (NCTM-2017) organized by the Department of Microbiology, Alagappa University, Karaikudi – 630 003 during 27<sup>th</sup> September, 2017.
2. National Seminar on “Nanomaterials for Specialized Applications” (NMSA-2017) organized by the Department of Nanoscience and Technology, Alagappa University, Karaikudi – 630 003 during 9<sup>th</sup> & 10<sup>th</sup> February, 2017.
3. International Conference on “Recent Trends in Microbiology” (RTM-2016) organized by the Department of Microbiology, Alagappa University, Karaikudi – 630 003 during 20<sup>th</sup> – 21<sup>th</sup> December, 2016.
4. Completed the International workshop on “Molecular Physiology, Therapeutics and Experimental Medicine” organized by the Department of Animal Health and Management, Alagappa University, Karaikudi between 6<sup>th</sup> & 7<sup>th</sup> September, 2016.
5. National Seminar on “Recent Trends in Nanotechnology and Aquaculture Technologies” (RTNAT – 2016) organized by Department of Fishery Science and Aquaculture, Sri Venkateswara University, Tirupati, India during 18 – 19<sup>th</sup> August, 2016.
6. International Conference on “Recent Trends in Bioscience” (ICRTB-2016) organized by Biosciences Department, Alagappa University, Karaikudi – 630 004 during 07<sup>th</sup> – 09<sup>th</sup> April, 2016.
7. State level seminar on “Exploring Marine Resources” organized by Department of Oceanography and Coastal Area Studies, School of Marine Sciences, Alagappa University, Thondi – 623 409 on 19<sup>th</sup> February, 2016.
8. Successfully completed the National Workshop on “Techniques in Animal Cell Culture & In vitro Toxicology” organized by the Mahatma Gandhi – Doerenkamp Centre, Bharathidasan University, Tiruchirappalli on 18<sup>th</sup> – 27<sup>th</sup> December, 2013.
9. State level seminar on “Trends in Protein Engineering” organized by Department of Zoology, Periyar University, Salem – 636 011 on 21<sup>st</sup> November, 2013.
10. National “Brain storming Conference on Dengue Scenario in India: Disease burden, surveillance and control” organized by Centre for Research in Medical Entomology, Indian Council for Medical Research, Madurai, India during 25 – 26<sup>th</sup> July, 2013.

11. International conference on “Advances in Biotechnology and Patenting” (ICABP-2013) organized by School of Biotechnology & Chemistry, Bharathidasan University, Tiruchirappalli, India during 18 – 21<sup>st</sup> February, 2013.
12. 12<sup>th</sup> Indian Science Communication Congress (ISCC-2012) – Risk Communication & Development” organized by Indian National Science Academy, New Delhi, India during 17 – 21<sup>st</sup> December, 2012.
13. National seminar of the 2<sup>nd</sup> Indian Biodiversity Congress organized by Centre for Ecological Sciences, Indian Institute of Science, Bengaluru, India during 9 – 11<sup>th</sup> December, 2012.
14. National conference on “Conservation and Management of Wetland Ecosystems” organized by the School of Environmental Sciences, Mahatma Gandhi University, Kottayam, India during 6 – 8<sup>th</sup> November, 2012.
15. 35<sup>th</sup> Annual conference of Ethological Society of India (ACESI-2011) & Symposium on Chemical Signals in Animal Welfare (CSAW-2011) organized by the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, India during 15 & 16<sup>th</sup> December, 2011.
16. Successfully completed the Post Seminar Workshop on “Spatial Techniques for Environmental Sustainability” organized by the Department of Environmental Management, Bharathidasan University, Tiruchirappalli, India on 17<sup>th</sup> & 18<sup>th</sup> February, 2011.
17. State level seminar on “Bioinformatics” organized by the Department of Biochemistry and Microbiology, V.V. Vanniaperumal College for Women, Virudhunagar, India during 8<sup>th</sup> February, 2007.
18. National conference on “Environmental Pollution Management and Sustainable Development” organized by the Department of Biology, Gandhigram Rural University, Gandhigram, India during 14 & 15<sup>th</sup> December, 2006.
19. National Symposium on “Challenges of human life in the new century: Role of biotechnologists” organized by the Department of Biotechnology, Sri Kaliswari College, Sivakasi, India during 16 & 17<sup>th</sup> September, 2005.

### **Other Training Programs**

1. Successfully completed the A one-week short term training programme on “Research Publication and Anti-Plagiarism” organized by the Department of English and Foreign Languages & Centre for Technical and Academic Writing, Alagappa University during 9<sup>th</sup> – 15<sup>th</sup> October, 2017.
2. Successfully completed the “Two days training programme on “Business Resource of Solid Waste Management through Vermicomposting” organized by the Department of Animal Health and Management, Alagappa University, Karaikudi – 630 003 during 14<sup>th</sup> & 15<sup>th</sup> February, 2017.

3. Successfully completed the Short-term Training Programme on “Training and Scope of SCUBA Diving” organized by the Department of Oceanography and Coastal Area Studies, Alagappa University, Karaikudi – 630 003 during 15<sup>th</sup> & 16<sup>th</sup> February, 2017.
4. Successfully completed the Faculty Development (Enrichment Program) ~Accreditation Quality Enhancement~ organized by the Internal Quality Assurance Cell, Alagappa University, Karaikudi – 630 004 during 6<sup>th</sup> – 12<sup>th</sup> January, 2017.
5. Successfully completed a Two Day Orientation Programme to the Newly Recruited Faculty Members under “**Academic and Technical Writing Centre**” organized by the Department of English and Foreign Languages, Alagappa University, Karaikudi during 29<sup>th</sup> & 30<sup>th</sup> March, 2016.
6. Successfully completed the training programme on “Live fee culture Production (Artemia, Phytoplankton’s & Zooplanktons, Spirulina) and Seaweed culture and its allied Industries” organized by the Department of Animal Health and Management, Alagappa University, Karaikudi on 26<sup>th</sup> February, 2016.
7. Successfully completed the training programme on “Remote Sensing and GIS for Environmental Studies” organized by the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli on 23<sup>rd</sup> – 25<sup>th</sup> March, 2015.
8. Successfully completed a training programme on “Reduction of CO<sub>2</sub> and Other Air Pollutants through Phytoremediation” organized by the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli on 29<sup>th</sup> – 30<sup>th</sup> December, 2011.
9. Successfully completed “User Interfaces training program on Arc GIS 10 – Environment and Health GIS” sponsored by ESRI, India at Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli on 11<sup>th</sup> to 15<sup>th</sup> July, 2011.
10. Successfully underwent Summer Internship Program (6 month) entitled “Identification and Molecular Characterization of 182 kDa cardiac protein from marine sponge (*Spongia officinalis*)” under the guidance of Prof. C. Rajamanickam, OSHO Biotech Research Institute, Madurai.
11. Successfully completed ten day special camping programming on the theme “Youth for Cleanliness” during 13<sup>th</sup> to 22<sup>nd</sup> January, 2005 organized by the National Service Scheme, Madurai Kamaraj University, Madurai, India.
12. Successfully completed one month “On Job Training Program” in the field of “Food Microbiology” during May 2006, at Indian Foods, Madurai, India.

13. Successfully completed one month “On Job Training Program” in the field of “Agricultural Microbiology - Production of Bio-fertilizers and Bio-pesticides” during April 2006, at K.S.R Bio-Fertilizers, Madurai, India.
14. Successfully completed one month “On Job Training Program” in the diagnostic Centre in the field of “Microbiology, Clinical Pathology, Histopathology and Biochemistry” during May 2005, at Bose Clinical Laboratory and X-rays, Madurai, India

### **Overseas Exposure / Visits: -**

### **Membership in**

#### **Professional Bodies**

1. Life Member: International Association for Ecology.
2. Life Member: Indian Climate Research Network.
3. Life Member: International Seaweed Association.
4. Life Member: International Sustainable Development Research Society.

#### **Editorial Board: -**

#### **Advisory Board: -**

#### **Academic Bodies (such as Board of Studies etc.): -**

#### **Others: -**

### **Resource persons in various capacities**

Number of Invited / Special Lectures delivered: -

### **Others**

1. Articles published in Newspapers / Magazines : -
2. Products developed : -
3. No. of PhD Thesis evaluated : -
4. No. of PhD Public Viva Voce Examination conducted : -
5. Sequences submitted in GenBank:2
  - Accession. No's. – FJ89014 & FJ97609.

### **Recent Publications**

1. **P. Kumar** and J. Joe Antony, (2016), "Metal nanoparticles from marine seaweeds – A Review" *Nanotechnology Reviews* – Vol. 5(6), pp. 589-600. (IF-1.438).
2. S. Veeralakshmi, S. Nehru, G. Sabapathi, S. Arunachalam, P. Venuvanalingam, **P. Kumar**, C. Anusha and V. Ravikumar, (2015), "Single and double chain surfactant-cobalt complexes: The impact of hydrophobicity on the interaction with calf thymus DNA, and their biological activities" *RSC advances* – Vol. 5, pp. 31746-31758. (IF-3.108).
3. **P. Kumar**, S. Senthamilselvi, M. Govindaraju, R. Sankar, (2014), "Unraveling the caspase mediated mechanism for phloroglucinol-encapsulated starch biopolymer against breast cancer cell line (MDA-MD-231)" *RSC advances* - Vol. 4, pp. 46157-46163. (IF-3.108).
4. **P. Kumar**, S. Senthamilselvi, M. Govindaraju, (2014), "Phloroglucinol encapsulated starch biopolymer: Preparation, antioxidant and cytotoxic effect on HepG2 liver cancer cell lines". *RSC advances*, Vol. 4, pp. 26787-26795. (IF-3.108)
5. S. Veeralakshmi, S. Nehru, S. Arunachalam, **P. Kumar**, M. Govindaraju, (2014), "Effect of the Single and Double Chain Surfactant-Cobalt (III) Complexes on their Hydrophobicity, Micelle Formation, Interaction with Serum Albumins and Antibacterial activities". *Inorganic Chemistry Frontiers*, Vol. 1, pp. 393-404. (IF-4.036).
6. **P. Kumar**, S. Senthamilselvi, M. Govindaraju, (2013), "Seaweed-mediated biosynthesis of silver nanoparticles using *Gracilaria corticata* for its antifungal activity against *Candida* spp." *Applied nanoscience*, Vol. 3(6), pp. 495-500. (IF-3.325).
7. S. Senthamilselvi, **P. Kumar**, A. Lakshmi Prabha, M. Govindaraju, (2013), "Green simplistic biosynthesis of anti-bacterial silver nanoparticles using *Annona squamosa* leaf extract" *Nano Biomedicine and Engineering*, Vol. 5(2), pp. 102-106.
8. **P. Kumar**, M. Govindaraju, S. Senthamilselvi, K. Premkumar, (2013), "Photocatalytic degradation of methyl orange dye using silver (Ag) nanoparticles synthesized from *Ulva lactuca*" *Colloids and Surfaces B: Biointerfaces*, Vol. 103, pp. 658-661. (IF-3.887).
9. **P. Kumar**, S. Senthamilselvi, M. Govindaraju, (2013), "GC-MS Profiling and Antibacterial activity of *Sargassum tenerrimum*" *Journal of Pharmacy Research*, Vol. 6(1), pp. 88-92.
10. **P. Kumar**, S. Senthamilselvi, M. Govindaraju, (2012), "In vitro anti-biofilm and anti-bacterial activity of *Juncella juncea* for its biomedical application" *Asian Pacific Journal of Tropical Biomedicine*, Vol. 2(12), pp. 930-935.
11. **P. Kumar**, S. Senthamilselvi, A. Lakshmi Prabha, M. Selvaraj, L. Macklin Rani, P. Suganthi, B. Sarojini Devi, M. Govindaraju, (2012), "Anti-bacterial activity and In-vitro cytotoxicity assay against brine shrimp using silver nanoparticles synthesized from *Sargassum ilicifolium*" *Digest Journal of Nanobiomaterials and Biostructures*, Vol. 7(4), pp. 1447-1455. (IF-0.836).
12. **P. Kumar**, S. Senthamilselvi, A. Lakshmi Prabha, K. Premkumar, V.R. Muthukumaran, P. Visvanathan, R.S. Ganeshkumar and M. Govindaraju, (2012), "Efficacy of Biosynthesized



silver nanoparticles from *Acanthophora spicifera* to encumber biofilm formation”, *Digest Journal of Nanomaterials and Biostructures*, Vol. **7(2)**, pp. 511-522. (IF-0.836).

13. **P. Kumar**, S. Senthamilselvi, A. Lakshmi Prabha, K. Prem Kumar, R.S. Ganeshkumar and M. Govindaraju, (2012), “Synthesis of silver nanoparticles from *Sargassum tenerrimum* and screening phytochemicals for its antibacterial activity, *Nano Biomedicine and Engineering*, Vol. **4(1)**, pp. 12 – 16.