# Dr. K. PREMKUMAR, Ph.D., D.Sc., MNASc., FIABMS, FNABS.

## Professor of Biomedical Science

## Contact

Address : Department of Biomedical Science
Bharathidasan University
Tiruchirappalli – 620 024
Tamil Nadu, INDIA

Contact Phone (Office) : +91 431 2407072 (Ext: 432)

Contact Phone (Mobile) : +91 8056589893

Contact e-mail(s) : prems@bdu.ac.in
premslab@gmail.com


## Academic Qualifications

| Degree | Subject/Specialization | Year | Institution / University |
|---|---|---|---|
| **D.Sc.** | ***Biomedical Science*** | 2024 | **Alagappa University**, Karaikudi |
| **Ph.D.** | ***Genetics*** | 2002 | Department of Genetics, Dr. ALM PG Institute of Basic Medical Sciences **University of Madras,** Chennai |
| **M.Sc.** | ***Bio-Medical Genetics*** | 1996 | Department of Genetics, Dr. ALM PG Institute of Basic Medical Sciences, **University of Madras,** Chennai |
| **B.Sc.** | ***Zoology*** | 1994 | RKM Vivekananda College, Mylapore **University of Madras,** Chennai |

## Research Interest

My lab focuses on understanding the mechanisms underlying **Genomic Instability, Cancer Biology, Genomics,** and **Nanotechnology,** particularly in **delineating the Cellular and Genetic basis of Diseases and Developing Nanomaterials for enhanced Diagnosis and Therapy**

## Teaching Experience: 20 Years

| Position | Institution | Duration |
|---|---|---|
| **Professor** | Department of Biomedical Science, Bharathidasan University (**BDU**), Tiruchirappalli, Tamil Nadu, | Mar. 2019 – Till Date |
| **Professor & Head** | Department of Biomedical Science, **BDU**, Trichy | Jul.2019 – Feb. 2024 |
| **Associate Professor** | Department of Biomedical Science, **BDU**, Trichy | Mar.2016 – Feb. 2019 |
| **Assistant Professor** | Department of Biomedical Science, **BDU**, Trichy | July.2006 – Feb. 2016 |

## Research Experience: 29 Years

| Position | Institution | Duration |
|---|---|---|
| **Professor** | Department of Biomedical Science, Bharathidasan University (BDU), Tiruchirappalli, Tamil Nadu, | 2019 – Till Date |
| **UGC RAMAN PDF** | Michigan Centre for Translational Pathology, University of Michigan, Ann Arbor, MI. USA | 2016 - 2017 |
| **Associate Professor** | Department of Biomedical Science, BDU, | 2016 - 2019 |
| **Assistant Professor** | Department of Biomedical Science, BDU, | 2006 - 2016 |
| **Research Associate** | Centre for Pharmacogenetics, University of Pittsburgh, Pittsburgh, PA, USA | 2005 - 2006 |
| **Post-Doctoral Researcher** | Department of Radiation Oncology, UCDMC, University of California, Davis. USA | 2004 - 2005 |
| **Post-Doctoral Researcher** | Department of Internal Medicine, UCDMC USA University of California, Davis. USA | 2002 - 2004 |
| **UGC- Senior Research Fellow** | Department of Genetics, Dr. ALM PG Institute of Basic Medical Sciences | 2000 - 2002 |
| **UGC- Junior Research Fellow** | Department of Genetics, Dr. ALM PG Institute of Basic Medical Sciences | 1997 - 2000 |

## Distinctive Achievements / Awards

- Nominated **Member** of the **National Academy of Sciences** (NASI) (2019)
- Nominated **Fellow** of the **National Academy of Biological Sciences** (NABS) (2018)
- Nominated **Fellow** of the **Indian Association of Biomedical Scientists** (IABMS) (2018)
- **Executive Council** member of **Indian Society of Human Genetics** (ISHG) (2023 - Present)
- **Executive Council Indian Association of Biomedical Scientists** (IABMS) (2018 - 2023)
- **Prof. Sundaram Subramaniam Memorial Oration Award** – IABMS (2024)
- **ICMR Prize** for Biomedical Research by the **Indian Council for Medical Research** (2017)
- **UGC Raman Fellowship** for Post-Doctoral Research in USA (2016)
- **INSA-Visiting Scientist** Fellowship by Indian National Science Academy (2014)
- **DST Young Scientist** Award. (2009)
- **Best Poster Award – EMSI Conference –** Jawaharlal Nehru University New Delhi **(2001)**
- **CSIR UGC-Junior and Senior Research Fellow-** University of Madras (1997-2001)

## Academic and Additional Responsibility

| Administrative Bodies | | | | |
|---|---|---|---|---|
| **S.No** | **Position** | **University - Additional Responsibilities** | **Period** | |
| | | | **From** | **To** |
| 1 | **Director** | Naan Mudhalvan Operational Cell - Bharathidasan University | 2022 | 2024 |
| 2 | **Nodal Officer** | Student's Grievance Cell – Bharathidasan University | 2022 | 2023 |
| 3 | **Member** | SC/ST Standing Committee – BDU | 2022 | 2023 |
| 4 | **Director** | Students Affairs - Bharathidasan University | 2021 | 2023 |
| 5 | **Senate Member** | Bharathidasan University | 2019 | 2024 |
| **Academic Responsibilities** | | | | |
| 6 | **University Representative** | Biotechnology-Board of Studies, Jamal Mohamed College, Trichy | 2025 | 2028 |
| 7 | **University Representative** | Academic Council of Edayathangudy GS Pillay Arts & Science College, Nagapattinam | 2025 | 2026 |
| 8 | **University Representative** | Governing Body of ADM College for Women (Autonomous) Nagapattinam | 2024 | 2026 |
| 9 | **University Representative** | Academic Council – Rajah Serfoji Govt College, Thanjavur | 2022 | 2024 |
| 10 | **University Representative** | Srinivasan College of Arts & Science | 2022 | 2024 |
| 11 | **EC Member** | Institute of Entrepreneurship and Career Development – Bharathidasan University | 2022 | 2024 |
| 12 | **University Representative** | Jamal Mohammed College, Trichy | 2022 | 2023 |
| 13 | **Member** | University UGC-CARE Verification Committee. | 2022 | 2023 |
| 14 | **University Representative** | Biochemistry - Holy Cross College | 2019 | 2023 |

## Research Supervision / Guidance

| **Program of Study** | | **Completed** | **Ongoing** |
|---|---|---|---|
| **Research** | Post Doctoral | **3** | **-** |
| | Ph.D. | **11** | |
| | M.Phil. | **-** | **-** |
| **Project** | PG | **38** | **-** |
| | UG / Others | **7** | **-** |

## Funded Research Projects

| S. No | Agency | Period | | Project Title | Budget (Rs. In lakhs) |
|---|---|---|---|---|---|
| | | From | To | | |
| 1 | RUSA MHRD | 2021 | 2024 | Effects of Anthocyanidins in Circumventing Hypoxia-Induced Epithelial – Mesenchymal Transition Chemotherapeutic Potential of Sesamol Encapsulated Chitosan Nanoparticles Against Cancer | 15.36 |
| 2 | DST-SERB | 2019 | 2022 | An Integrated Genomic Approach to Delineate Molecular Links Underlying Hypoxia Mediated Epithelial-Mesenchymal Transition in Cancer Metastasis | 40.68 |
| 3 | ICMR | 2014 | 2017 | Investigation on the molecular links between survival and longitivity: Tipping the Balance Between Stress and Stability | 21.95 |
| 4 | DST | 2013 | 2017 | Interplay between defective DNA damage signaling and hypoxic microenvironment: Towards the concept of chemoresistance and genomic instability | 44.26 |
| 5 | DBT | 2010 | 2013 | Investigation on the Mechanism, Efficacy and Genotoxic Risk of Gold Nanoparticles: Application in Photothermal Mediated Anticancer Therapy | 87.89 |
| 6 | UGC | 2010 | 2013 | Role of COX-2 in genomic instability: Possible implications on the early stages of carcinogenesis. | 7.79 |
| 7 | DST | 2009 | 2012 | Investigations on the Mechanism and Regulation of Site-Specific DNA Cleavage in MLL BCR: Possible Contribution to Oncogenic Translocations. | 19.93 |

## Publications

| International | | National | | Others |
|---|---|---|---|---|
| Journals | Conferences | Journals | Conferences | Books / Chapters / Monographs / |
| 85 | - | - | - | 04 |

| | | |
|---|---|---|
| Cumulative Impact Factor (as per JCR) | : | 316 |
| h-index | : | 37 |
| i10 index | : | 67 |
| Total Citations | : | 5696 |

## Sequences submitted:

Sequences submitted in GenBank: **43**

## Events Organized

| Position | Program | Duration | Institution |
|---|---|---|---|
| Organizing Secretary | Two Day National Hands-on Training on Mammalian Cell Culture Techniques for Anti-Cancer Studies" on | 28th -29th Mar 2022 | Bharathidasan University, Trichy. |
| Organizing Secretary | Prevention and Current Scenario of Novel Corona Virus | 13th March 2020 | Bharathidasan University, Trichy. |
| Organizing Secretary | Awareness on Corona Virus | 10th Feb. 2020 | Bharathidasan University, Trichy. |
| Organizing Secretary | One day National Seminar on "Recent Advances in Medical Research (RAMR 2017)" | 7th Mar, 2018 | Bharathidasan University, Trichy. |
| Organizing Secretary | One day Seminar on "Recent Advances in Medical Research (RAMR-2015)" | 7th Dec. 2015 | Bharathidasan University, Trichy. |
| Organizing Secretary | Free Dental Checkup in association with Vasan Dental Care Trichy | 23rd Aug 2013 | Bharathidasan University |
| Organizing Secretary | One day Seminar on "Recent Trends in Hospital Management (RTHM 2012)" | 6th Mar 2012 | Indian Medical Association Hall, and Bharathidasan University |
| Organizing Secretary | International Conference on Medical Genetics and Genomics (ICMG-2011)" | 12-14th Dec,2011 | Bharathidasan University, Trichy. |

## Membership in Professional Bodies

| Sl. No | Position | Professional Bodies |
|---|---|---|
| 1 | Life Member | Environmental Mutagen Society of India (EMSI) |
| 2 | Life Member | International Association for Biomedical Sciences (IABMS) |
| 3 | Life Member | Indian Society of Human Genetics (ISHG) |
| 4 | Life Member | Society for Mitochondrial Research and Medicine (SMRM) |
| 5 | Life Member | National Academy of Biological Sciences (NABS) |

## Academic Training Program Organized / Participated

| Position | Program | Duration | Organizer /Institution |
|---|---|---|---|
| Coordinator | UGC Sponsored Online Faculty Induction Programme (VIII) | 29th November to 28th December 2021 | Human Resource Development Cell of Bharathidasan University, |
| Coordinator | Workshop on Physiotherapy Skills. | 03rd September 2018 | Placement & Training Cell & Centre for Entrepreneurship cum Skill Development of BDU |
| Participated | Indian Global Educational Summit (IGES), an International Event | 28th to 29th January 2026. | Govt. of Tamil Nadu and NISAU, UK at Kalaivanar Arangam, Chennai |
| Participated | Capacity Building Programme on "Proposal Preparation from Research Grants, Patents and High Impact Publications" | 17th November, 2025. | IQAC, MMTC & BECH-RUSA Bharathidasan University |
| Participated | Awareness On Breast Cancer Incidence and Diagnostics ABCID-2025) | 9th October 2025 | Dept. Biomedical Science, Bharathidasan University |
| Participated | Orientation Training Programme for Mentors from Higher Educational Institutions/Universities | 1st 10th February 2021 | National Mentoring Mission of MoE, NITTTR Chennai |
| Participated | Metabolomics Workshop | 8-11th May, 2017 | Metabolomics Research Center, Michigan Ann Arbor, USA |
| Participated | TEQIP II Faculty Development Program | 4th – 17th May, 2015 | Anna University-BIT Campus Tiruchirappalli |
| Participated | UGC Sponsored Refresher Course in Nanoscience | 19th Nov - Dec 9th , 2013 | Academic Staff College, University of Madras, |
| Participated | UGC sponsored refresher course in life science | 4th – 24th Feb, 2010 | Academic Staff College, University of Madras, |
| Participated | UGC sponsored orientation course | 2nd-29th May , 2007 | Academic Staff College, Bharathidasan University, |

## Ph.D Thesis Evaluated / Viva voce conducted

- No. of PhD Thesis Evaluated: **15**
- No. of PhD Public Viva Voce Examination Conducted: **10**

## Chairperson / Judge / Selection Committee

| Position | Event | Organizer / Institution | Date |
|---|---|---|---|
| **Member Selection Committee** | Chief Minister Research Grant (CMRG) - JRF selection | Department of Animal Health and Management, Alagappa University, Karaiku | 10th April 2026 |
| **Judge - oral presentation** | International Conference on Trends in Emerging Science & Technology (ICTEST 26) | Bhaktavatsalam Memorial College for Women, Chennai, Tamil Nadu, during | 19th & 20th Feb 2026 |
| **Chairperson Oral - Presentation** | 50th Annual Meeting of the Indian Society of Human Genetics-ISHG 2026 | Department of Haematology & Paediatrics, Postgraduate Institute of Medical Education & Research (PGIMER), Chandigarh | 5th to 7th Feb 2026. |
| **Chairperson Oral - Presentation** | 3rd International Conference cum Workshop on "Recent Trends in Structural Bioinformatics & Computer Aided Drug Design | Dept. of Bioinformatics, Alagappa University,Karaikudi, | 17th to 19th Dec 2025. |
| **Judge - Oral presentation** | | | |
| **Member Selection Committee** | Appointment of Assistant Professor in the Department of Botany | Jamal Mohamed College, Tiruchirappalli | 16th November 2023 |
| **Subject Expert Selection Committee** | Genomic Sciences, Career Advancement Scheme | Central University of Kerala, Kasaragod | 7th February 2023 |
| **Chairperson** Medical & Health Science Research | XLVI Indian Social Science Congress | Bharathidasan University Tiruchirappalli & Indian Social Science Academy, Allahaba | 27th to 31st January 2023 |
| **Chairperson** Oral Presentation | National Seminar on " Disease Progression and Treatment Strategies", | Department of Animal Science, Bharathidasan University, Tiruchirappalli | 29th & 30th March 2022 |
| **Chairperson** Oral Presentation | International Conference on Environment and Health in Changing Climate | Department of Environmental Biotechnology, Bharathidasan University | 14th to 16th September 2016. |
| **Member** Selection Committee | SERB-DST Project – Project Assistant | Department of Genomic Science, Central University of Kerala, Kasaragod | 15th March 2013 |

## Resource persons in various capacities : 53

| Sl.No | Name of the Programme | Institution / Organizer | Date |
|---|---|---|---|
| 1 | Continuous Medical Education (CME) – VINGENE-2026 | Department of Anatomy, Vinayaka Mission's Medical College, Karaikal | 21.02.26 |
| 2 | International Conference on Trends in Emerging Science & Technology | Bhaktavatsalam Memorial College for Women, Chennai | 19 – 20th. .02.26 |
| 3 | 3rd International Conference cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design | Department of Bioinformatics, Alagappa University, Karaikud | 17 - 19th 12 2025 |
| 4 | One-day Awareness Programme on "Unlocking the Effective Writing of Research Papers and Proposals | IQACl, Research and Development Cell and School of Life Sciences, Arignar Anna College of Arts & Science, Krishnagiri | 20.09.25 |
| 5 | National conference on "Modern Perspectives in Biological Sciences (NCMPS) -2025 | School of Life Sciences, Arignar Anna College of Arts & Science, Krishnagiri | 19.09.25 |
| 6 | International conference on "Pioneering Innovations in Life Sciences (PILS-2024) | Department of Biotechnology, PSGR Krishnammal College for Women | 22.03.24 |
| 7 | Preconference Workshop on Methods of Preparing Research Proposal and Writing Research Articles | 44th Annual Conference of Indian Association of Biomedical Scientists (IABMS) & National Conference on Post Covid 19 Pandemic Era-Clinical & Translational Res. | 08.01.24 |
| 8 | 45th Annual Conference of IABMS | A.J. Institute of Medical Sciences & Research Centre, Manglore | 08.11.24 |
| 9 | Refresher Course in Life Sciences | UGC-MMTTC Bharathiar University Coimbatore | 28.09.24 |
| 10 | Special Lecture | Dept of Biotechnology, Rajagiri Dawood Batcha College of Arts & Science, Papanasam | 27.09.24 |
| 11 | Inauguration of Bio- Glimpse Talk Series. | Srinivasan College of Arts and Science, Perambalur, Trichy | 28.08.24 |
| 12 | Two-Day International Conference on biorevolution- Pioneering Innovations in Life Science | PSGR Krishnammal College for Women, Coimbatore. | 22.03.24 |
| 13 | 48th Annual Meeting and International Conference of the (ISHG 2024). | FRIGE Institute of Human Genetics, Ahmedabad & Indian Society of Human Genetics | 23.01.24 |
| 14 | 45th Annual Conference of IABMS on 'Post COVID 19 Pandemic Era – Clinical and Translational Research | Indian Assoication for Biomedical Scientist and Department of Microbiology M.R. Government Arts College, Mannargudi | 08.01.24 |
| 15 | National conference on "Advances in Artificial Organ Development and Novel Strategies in Drug Discovery | Department of Biochemistry St. Joseph's College, Tiruchirappalli | 20-21. 09.23 |
| 16 | PG & Research Microbiology & BAF "V" Association | Dhanalakshmi Srinivasan College of Arts and Science college for women, Perambalur | 15.09.23 |

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|---|---|---|---|
| 17 | Refresher Course in Life Sciences (ID) for Teachers | The Human Resource Development Centre of Bharathiar University | 14.07.23 |
| 18 | International Seminar on "Recent Advances in Translational Medicine | School of Life Sciences, The Marudupandiyar College of Arts and Science, Thanjavur | 26.11 21 |
| 19 | International Conference on Stem Cells in Regenerative Medicine | Department of Zoology, Holy Cross College, Tiruchirappalli | 06.03.20 |
| 20 | Refresher Course in Life Sciences | UGC-HRDC, Pondicherry University | 30.01.20 |
| 21 | 40th Annual Conference of IABMS | Chettinad Academy of Research and Education, Chennai | 31.10.19 |
| 22 | Refresher Course in Life Sciences | UGC-HRDC, Pondicherry University | 10.12.18 |
| 23 | Science Academies' Lecture Workshop on "Human Genomics and Genetic Diseases" | INSA & Saiva Bhanu Kshatriya College, Aruppukottai | 06.10.18 |
| 24 | 39th Annual Conference of Indian Association of Biomedical Scientists (IABMS) | Department of Studies & Research in Biochemistry, Manglore University, Kodagu | 15-17 .11.18. |
| 25 | International Conference on Nanomaterials and their Applications | Dr. Umayal Ramanathan College for Women, Karaikudi | 12.09.18 |
| 26 | One day National Conference on Recent Trends in Remote Sensing Epidemiology and Nanotherapeutics in Disease Management | Sri G.V.G.Visalakshi College for Women, Udumalapet | 22.02.18 |
| 27 | National Symposium on Advances in Cancer Research | Karpagam Academy of Higher Education and Research, Coimbatore | 14.02.18 |
| 28 | Refresher Course in Nanosciences (ID) | UGC HRDC, Bharathidasan University, Trichy. | 02.01.18 |
| 29 | Plenary Lecture on 38th Annual Conference of Indian Association of Biomedical Scientists | IABMS, Saveetha Medical College, Chennai | 24.11.17 |
| 30 | Five day National level training program on Thesis Writing: From Copper Strip to Gold Bar | Department of English, Bharathidasan University, Trichy | 31.10.17 |
| 31 | State-level seminar on 'Bioresource Technology for Bioenergy and Bioproducts' | Dept. of Microbiology, Biotechnology and Biochemistry, J.J. College of Arts and Science, Pudukottai | 09.03.16 |
| 32 | Invited Lecture at Holy Cross College | Department of Botany, Holy Cross College, Trichy | 05.02.16 |
| 33 | Biotechnology applications for today's world | Department of Zoology & microbiology, Thiagarajar College, Madurai. | 11.09.15 |
| 34 | Three-day workshop on Research methodology | The Research Cell and Medical Education unit, Chennai Medical College Hospital and Research Centre, Trichy | 01.09.15 |
| 35 | Refresher Course for Life Sciences (ID) | UGC Academic Staff College, Pondicherry University | 09.03.15 |
| 36 | Recent Trends in Life Science (RTLS-2015) | P.G and Research Department of Biotechnology, Jamal Mohamed College, | 25.02.15 |

| | | | |
|---|---|---|---|
| 37 | The short-term course on biomedical science Applications of RNAi Techn. | The Department of Biotechnology, Anna University- BIT campus, Tiruchirappalli | 28.01.15 |
| 38 | One day symposium on "Human Cytogenetics & Genetic Toxicology" | School of Life Sciences, Manipal University, Manipal | 10.12.14 |
| 39 | UGC Academic Staff College | Bharathidasan University | 22.07.14 |
| 40 | Advances in nanotechnology ; fabrication, processing & applications | Centre for nanoscience & nanotechnology, School of physics, Bharathidasan university, | 28.03.14 |
| 41 | One day Student symposium on Cutting edges in Biotech | Avinashilingam University, Coimbatore | 26.02.14 |
| 42 | Medicinal Plant Research Prospects and Challenges | Srimad Andavan Arts and Science College | 13.02.14 |
| 43 | Special Lecture | Periyar EVR College, Trichy | 08.01.14 |
| 44 | DST INSPIRE summer camp | Cauvery College for Women | 02.08.13 |
| 45 | Invited Lecture | Central University of Kerala | 20.11.12 |
| 46 | National Conference Current Scenario and Emerging Trends in Hepatocellular Disease | Pondicherry University | 05.10.12 |
| 47 | Applications of Nanomaterials | Lady Doak College, Madurai | 12.09.12 |
| 48 | Implementation of 2K11 | Pavendar Bharathidasan College of Engineering and Technology | 28.03.12 |
| 49 | National conference on aquatic biotoxin 2011 | Marine biology, Annamalai University, Parangipettai | 14.11.11 |
| 50 | National workshop on Drug discovery and development | Department of Marine Biotechnology, Bharathidasan University, Tiruchirappalli | 03.11.11 |
| 51 | Perspectives in Nanoscience and Nanobiotechnology | Karunya University | 10.11.10 |
| 52 | Role of Genomics and Bioinformatics in Animal Health and Management: Seminar | Alagappa University | 26.03.09 |
| 53 | Biotechnology – A Future Perspective | SRM University | 12.03.08 |

## Extension Activities :

- 2017 Radio-Oration "Achamilla Aathisaya Maruthuvam" Live, All India Radio Trichy (26.10.17)
- 2014 TV-Interview on "Cancer & Nanomedicine" Program"AarachiArangil" Doordharshan Pothigai
- 2012 Radio-Oration "Environmental Awareness" All India Radio, One week- 30min/day

## Publications : 77

1. Balan, Shanmugasundaram Senthil, Pandian Jeganathan, Vedagiri Hemamalini, and **Kumpati Premkumar**. Purification and structural characterization of Metschnifactin, a novel lipopeptide surfactant from marine yeast, Metschnikowia reukaufii SBKS 3, and its potential in enhanced oil recovery. Biocatalysis and Agricultural Biotechnology (2026): 104019. (impact factor: 3.8)
2. Saraswathy SD, Mirunalini A, Karthikeyan K, **Premkumar K**. BH3 Mimetic Peptides: An Effective Strategy to Complement Anticancer Therapy. Current Protein and Peptide Science. 2023 Dec 1;24(10):853-64.doi: 10.2174/1389203724666230822100131. (impact factor: 2.0)
3. Muthumanickam S, Ramachandran B, Boomi P, Jeyakanthan J, Prabu HG, Jegatheswaran S, **Premkumar K**. Combination of bendamustine-azacitidine against Syk target of breast cancer: an in silico study. J Biomol Struct Dyn. 2023 Apr 26:1-13. doi:10.1080/07391102.2023.2203259. (Impact Factor: 2.4)
4. Shri Preethi M, **Premkumar K**, Asha Devi S. Molecular docking study on vitamin D supplements to understand their interaction with VDR-RXRα heterodimer and VDRE of TAGAP gene. J Biomol Struct Dyn. 2022 Aug 24:1-10. doi:10.1080/07391102.2022.2114939. (Impact Factor: 2.4)
5. Vanajothi R, Srikanth N, Vijayakumar R, Palanisamy M, Bhavaniramya S, **Premkumar K**. HPV- mediated Cervical Cancer: A Systematic Review on Immunological Basis, Molecular Biology, and Immune Evasion Mechanisms. Curr Drug Targets. 2022;23(8):782-801. doi:10.2174/1389450123666211221160632. (Impact Factor: 2.937)
6. Vanajothi R, Vedagiri H, Al-Ansari MM, Al-Humaid LA, **Kumpati P**. Pharmacophore based virtual screening, molecular docking and molecular dynamic simulation studies for finding ROS1 kinase inhibitors as potential drug molecules. J Biomol Struct Dyn. 2022 May;40 (8): 3385- 3399. doi: 10.1080/07391102.2020.1847195. (Impact Factor: 2.4)
7. Siva G, Venkatesh S, Prem Kumar G, Muthukumar M, Senthil Kumar T, **Premkumar K**, Jayabalan N. Rapid bio-reduction of Trivalent aurum using in vitro Babchi leaf powder and its cytotoxicity against breast cancer MCF-7 cell lines. Applied Nanoscience. 2021 Jul 8:1-9. doi:10.1007/s13204-021-01958-6. (Impact Factor: 3.869)
8. Murugesan M, **Premkumar K**. Integrative miRNA-mRNA functional analysis identifies miR-182 as a potential prognostic biomarker in breast cancer. Mol Omics. 2021 Aug 9;17(4):533-543. doi: 10.1039/d0mo00160k. (Impact Factor: 4.212)
9. Selvam SI, Joicesky SM, Dashli AA, Vinothini A, **Premkumar K**. Assessment of anti bacterial, anti inflammation and wound healing activity in Wistar albino rats using green silver nanoparticles synthesized from Tagetes erecta leaves. Journal of Applied and Natural Science. 2021 Mar 14;13(1):343-51. doi: 10.31018/jans.v13i1.2519. (Impact Factor: 0.26)
10. Murugesan M, **Premkumar K**. Systemic Multi-Omics Analysis Reveals Amplified P4HA1 Gene Associated With Prognostic and Hypoxic Regulation in Breast Cancer. Front Genet. 2021 Feb 22; 12: 632626. doi: 10.3389/fgene.2021.632626. (Impact Factor: 4.772)
11. Sivakumar K, Parinamachivayam G, Krishnan MM, Ragavendran V, Stalin T, **Premkumar K**, Chakravarty S, Bharathi A. Reinforcement of 'imine-hydroxyl chelation pocket'by encapsulating into the β-CD cavity for the sterically protective detection of Al3+. Journal of Molecular Liquids. 2021 Feb 1;323:114949. doi: 10.1016/j.molliq.2020.114949. (Impact Factor: 6.633).

12. Sampath M, Pichaimani A, **Kumpati** P, Sengottuvelan B. The remarkable role of emulsifier and chitosan, dextran and PEG as capping agents in the enhanced delivery of curcumin by nanoparticles in breast cancer cells. Int J Biol Macromol. 2020 Nov 1;162:748-761. doi: 10.1016/j.ijbiomac.2020.06.188. (Impact Factor: 8.025)
13. Mehnath S, Arjama M, Rajan M, **Premkumar K**, Karthikeyan K, Jeyaraj M. Mineralization of bioactive marine sponge and electrophoretic deposition on Ti-6Al-4V implant for osteointegration. Surface and Coatings Technology. 2020 Jun 25; 392: 125727. doi:10.1016/j.surfcoat.2020.125727. (Impact Factor: 4.865).
14. Bhavaniramya S, Vanajothi R, Vishnupriya S, **Premkumar K**, Al-Aboody MS, Vijayakumar R, Baskaran D. Enzyme Immobilization on Nanomaterials for Biosensor and Biocatalyst in Food and Biomedical Industry. Curr Pharm Des. 2019;25(24):2661-2676. doi:10.2174/1381612825666190712181403. (Impact Factor: 3.31)
15. Vanajothi R, Hemamalini V, Jeyakanthan J, **Premkumar K**. Ligand-based pharmacophore mapping and virtual screening for identification of potential discoidin domain receptor 1 inhibitors. J Biomol Struct Dyn. 2020. Jun;38(9):2800-2808. doi:10.1080/07391102.2019.1640132. (Impact Factor: 5.235)
16. Boomi P, Poorani GP, Selvam S, Palanisamy S, Jegatheeswaran S, Anand K, Balakumar C, **Premkumar K**, Prabu HG. Green biosynthesis of gold nanoparticles using Croton sparsiflorus leaves extract and evaluation of UV protection, antibacterial and anticancer applications. Applied Organometallic Chemistry. 2020 May;34(5):e5574. https://doi.org/10.1002/aoc.5574. (Impact Factor: 4.072)
17. Jayapriya M, **Premkumar K**, Arulmozhi M, Karthikeyan K. One-step biological synthesis of cauliflower-like Ag/MgO nanocomposite with antibacterial, anticancer, and catalytic activity towards anthropogenic pollutants. Res Chem Intermed. 2020 Mar; 46:1771-88. doi: 10.1007/s11164-019-04062-1. (Impact Factor : 3.134)
18. Govindaraj P, Rani B, Sundaravadivel P, Vanniarajan A, Indumathi KP, Khan NA, Dhandapany PS, Rani DS, Tamang R, Bahl A, Narasimhan C, Rakshak D, Rathinavel A, **Premkumar K**, Khullar M, Thangaraj K. Mitochondrial genome variations in idiopathic dilated cardiomyopathy. Mitochondrion. 2019 Sep;48:51-59. doi:10.1016 /j.mito. 2019.03.003. (Impact Factor : 4.534)
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