

**Name** : Dr. J. Devakumar

**Designation** : Assistant Professor

**Department** : Microbiology

**Qualification** : M.Sc., M.Phil., PGDBI, Ph.D.

**Experience** : Teaching: 3.9 Years Research: 10 Years

**Area of Specialization(s)** : **Medical Microbiology and Natural Product Drug Discovery**

**Email (Official ID)** : devakumar.j@drngpasc.ac.in



### Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph.D.	Microbiology	Bharathiar University	2018
M.Phil.	Microbiology	Bharathidasan University	2012
M.Sc.	Microbiology	Bharathidasan University	2010
B.Sc.	Microbiology	Thiruvalluvar University	2008

### Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
PGDBI	Bioinformatics	Bharathidasan University	2009
Certificate Course	Lead Auditor Course on Environment Management Systems, Green Campus Audit, Eco Audit, Hygiene Audit and Energy Audit	Nature Science Foundation, Coimbatore	2021

### Book Chapter

1. Nivedha and **J. Devakumar**. 2020. Monoclonal Antibodies. Compendium of "Research insights of life Science Students" 2(1): 177-178. JPS Scientific Publication India. (ISBN - 978-81-947154-5-0).
2. **Devakumar Joseph** and Sudha Sivasubramanian. 2021. General Properties and Pharmacological benefits of *Syzygium jambos*. Advances in Pharmaceutical Sciences, 1(1): 77-83. JPS Scientific Publication India. (ISBN: 978-81-951323-7-9)".
3. B.Sindhuja, J.Rengaramanujam and **J. Devakumar**. 2021. Therapeutic Applications of *Achillea millefolium*. Therapeutic Applications of Potential Herbs, 1(1): 144-149. JPS Scientific Publication India. (ISBN: 978-81-951323-2-4).
4. B.Sindhuja, J.Rengaramanujam and **J. Devakumar**. 2021. Pharmacological Benefits of *Eleutherococcus senticosus*. Advances in Pharmaceutical Sciences 1(1): 58-66. JPS Scientific Publication India. (ISBN: 978-81-951323-7-9)".

## Research Publications (Indexed)

### *National & International*

- ❖ Ramachandran AM, Senthil Prabhu S, **Devakumar J**, Rengaramanujam J, Karthik Sundaram S, Mahenthiran R, Varsha TK. Hydrogel Formulation from *Calotropis gigantea* plant extract against foot ulcer causing bacteria in diabetes. *Asian J Pharm Clin Res*, 14(11):1-4 (2021).
- ❖ Jananirajam S, **Devakumar J**, Kiruthika R, Vaishali S and Pavithra K. Development of fungal consortium to degrade the Polyethylene polymer and Polystyrene. *International Journal of Progressive Research in Science and Engineering*, 2(7):38-46 (2021)
- ❖ Pavithra K, **Devakumar J**, Vaishali S, Jananirajam S, and Kiruthika R. Evaluate efficiency of *Euphorbia triucalli* L. against ear infection causing pathogens. *International Journal of Creative Research Thoughts*, 9(5): 722-728 (2021).
- ❖ Vaishali S, **Devakumar J**, Pavithra K, Jananirajam S, and Kiruthika R. Comparative study of Banana peel and black tea extracts against Periodontitis causing *Staphylococcus aureus*. *International Journal of Creative Research Thoughts*, 9(5): 714-721 (2021).
- ❖ **Devakumar Joseph**, Sindhuja Baskaran, Maduri Nagarajan, Sudha Sivasubramnian. Synthesis and characterization of silver nanoparticle from *Couroupita guianensis* leaf extract and its effect on clinical pathogens. *Asian J Pharm Clin Res*, 13, (10): 117-121 (2020).
- ❖ Mynumathi Maragatham, **Devakumar Joseph**. Larvicidal evaluation of aged and fresh leaf extract of *Solanum lycopersicum esculentum*. *International Journal of Mosquito Research*, 6(6):57-60 (2019).
- ❖ Sindhuja B, Rengaramanujam J, Sudha S S, **Devakumar J**. In vitro antibacterial and cytotoxicity evaluation of Aloe vera associated Endophytic fungi. *International Journal of Pharmacy and Biological Sciences*. 9 (3): 750-757 (2019).
- ❖ Kavitha V, Manonmani G, **Devakumar J**. Antimicrobial efficacy of fresh and dried banana peel extracts: An in vitro study. *Drug Invention Today*. 11 (5):1237 -1240 ( 2019).
- ❖ Mynumathi Murugesan, Kiruthika Balasubramani, **Devakumar Joseph**. Phytochemical, Antioxidant and Antimicrobial analysis of *Solanum lycopersicum esculentum* leaf extract. *International Journal of Pharmacy and Biological Sciences*. 8 (4): 1147-1152 (2018).
- ❖ Keerthana V, **Devakumar J**, Sudha S.S. Qualitative analysis of phytochemicals, antibacterial activity, and mycelial growth inhibition of three different plants. *Drug Invention Today*. 10 (S1):2713-2018 (2018).
- ❖ Rangasamy Dhanabalan, Subbu Balachandar, **Joseph Devakumar**. In vitro antifungal activity of *Pterocarpus marsupium* used among tribal communities of Western Ghats, Coimbatore, Tamil Nadu. *Journal of Pharmacy Research*, 12 (5) : 697-701 (2018).
- ❖ Rangasamy Dhanabalan, Subbu Balachandar, **Joseph Devakumar**, Babyraj Sreeraj, Jayasanker Nambiar Chandni. In vivo antiplasmodial activity of medicinal plants used in pyrexia among ethnic

communities of Western Ghats, Coimbatore, Tamil Nadu. *Journal of Pharmacy Research*, 12 (4) : 541-553 (2018).

- ❖ **Devakumar. J**, Sudha S.S. In vivo antiplasmodial evaluation of *Syzygium jambos* L.Alston by four day suppressive test. *Drug Invention Today*, 9(2): 19-23 (2017).
- ❖ Keerthana veeramani, **Devakumar Joseph** and Sudha sivasubramaniam. Inhibition of fungal mycelial growth and spore germination by *Couroupita guianensis* leaf extracts and its preliminary phytochemical analysis. *Indian Journal of Applied Microbiology*, 20(1): 21-30 (2017).
- ❖ **Devakumar. J**, Sudha S.S. *In vitro* Phytochemical, Antioxidant and Cytotoxic evaluation of *Syzygium jambos* L. (Alston). *Journal of Pharmacy Research*,11(3): 235-238 (2017).
- ❖ **Devakumar.J**, Keerthana.V, Sudha.S.S. Identification of bioactive compounds by GC-MS analysis of *Syzygium jambos* (L) collected from Western Ghats region Coimbatore, Tamil Nadu. *Asian J Pharm Clin Res*, 10(1):, 364-369 (2017).
- ❖ **Devakumar.J**, Sudha.S.S, Keerthana.V, Anitha.S and Ezhilarasi.R. A study on quantification of phytoconstituents and *in vitro* antifungal activity of *S.cumini* and *S.jambos* leaf extracts .*WJPPS*, 5(1): 1514-1526 (2015).
- ❖ Rangasamy Dhanabalan, Muthusamy Palaniswamy and **Joseph Devakumar**. *In vitro* antifungal activity of four folklore medicinal plants used among tribal community of Western Ghats, Coimbatore, Tamil Nadu. *Journal of pharmacy research*, 8(3); 416-419 (2014).
- ❖ Rangasamy Dhanabalan, Muthusamy Palaniswamy and **Joseph Devakumar**. A Study of Total Phenolic Content of *Tylophora indica* senescent leaf extracts and it's Correlation with *in vitro* DPPH scavenging activity. *Journal of pharmacy research*, 8(4); 448-451 (2014).
- ❖ Rangasamy Dhanabalan, Muthusamy Palaniswamy and **Joseph Devakumar**. Total polyphenol and flavonoid content of *Syzygium jambos* (L) Alston leaf extracts ant its *in vitro* DPPH radical scavenging activity. *Journal of pharmacy research*, 8(4); 493-496 (2014).
- ❖ Rangasamy Dhanabalan, Muthusamy Palaniswamy and **Joseph Devakumar**. *In vivo* antiplasmodial activity of four folklore medicinal plants used among tribal communities of western Ghats, Coimbatore, Tamil Nadu. *Journal of pharmacy research*, 8 (6); 751 – 759 (2014).
- ❖ Rangasamy Dhanabalan, Muthusamy Palaniswamy and **Joseph Devakumar**. *In vitro* cytotoxicity and anticancer activity of four folklore medicinal plants used among tribal communities of Western Ghats, Coimbatore, Tamil Nadu. *Drug Invention Today*, 6(2), 88-95 (2014).
- ❖ **Devakumar Joseph**, Madhanraj Pickirisamy. A study of Phytochemical, antioxidant and antibacterial activity of methanolic leaf extract of *Achyranthes aspera*. *South Asian Journal of Biological Sciences* 5(4): 1-5 (2015).
- ❖ **Devakumar.J** and Sudha.S.S. *In vitro* evaluation of phytochemical, antioxidant and antibacterial activity of *Argemone mexicana* leaf extract. *SIRJ-MBT*, Volume 1 Issue 4,;7-14 (2014).
- ❖ Thirumangai, S.S.Sudha, R.Karthic, **J.Devakumar**. In vitro evaluation of silver nanoparticle synthesized from actinomycetes isolated from Noyal river basin. *SIRJ-MBT*, Vol.2(6);7-15 (2015).

## Consultancy

Nature of Consultancy	Client	Amount	Completion Status
Fundamental Training in Microbiology	III B.Sc., Zoology, P.S.G.R.Krishnammal College for Women.	Rs.18,500/-	<i>Completed</i>
Antibacterial assay	CDF, DR.N.G.P.ASC	Rs. 1,200	<i>Completed</i>
Antibacterial assay	Dept. of Zoology, PSGR Krishnammal College for Women	Rs. 1,250	<i>Completed</i>
Antibacterial assay	Dept. of Zoology, Govt. Arts College, Coimbatore	Rs. 4,000	<i>Completed</i>
Antibacterial assay	Dept. of Chemistry, Dr. NGP IT, Coimbatore	Rs. 2,000	<i>Completed</i>
Antibacterial assay	Mr. Prabhu Hindustan Engineering College	Rs. 1,500	<i>Completed</i>
Enumeration of microbes from soil sample	Dept. of Zoology, GVG College, Udumalapet	Rs. 6,000	<i>Completed</i>

## Presentations in Conference

- ❖ Presented a paper in **DBT and SERB** sponsored **National conference of 16<sup>th</sup> IAAM- Human Microbiome in Personal Medicine- Bridging Humans and Microbes for Future Sustainability** on the topic of “**In silico evaluation of Ajmaline from *Syzygium jambos* as inhibitor of Plasmodium falciparum Lactate Dehydrogenase Enzyme**” at JSS Academy of Higher Education and Research, Mysuru. (27<sup>th</sup> & 28<sup>th</sup> Sep. 2018).
- ❖ Presented a paper in **SERB, DRDO, INSA and TNSCST** sponsored **10<sup>th</sup> NABS National conference on Recent Trends in Life Sciences: Research, Practices and Application for Sustainable Developmen** on the topic of “*In silico* evaluation of antimalarial agent from *Syzygium jambos* as inhibitors of Plasmodium falciparum Lactate Dehydrogenase (PfLDH) Enzyme” at Bharathiar University, Coimbatore. (07<sup>th</sup> & 08<sup>th</sup> Sep. 2017).
- ❖ Presented a paper in **DBT and ICMR** sponsored **National conference of 14<sup>th</sup> IAAM- Transitional and Translational Scenarios in Biological Science** on the topic of “*In vivo* early malarial parasite suppression activity of *Syzygium jambos* from Western Ghats region, Coimbatore” at Dr.N.G.P.Arts and Science College, Coimbatore. (09<sup>th</sup> & 10<sup>th</sup> Sep. 2016).

- ❖ Presented paper on the topic of “GC-MS analysis of phytoconstituents present in aqueous leaf extract of *Syzygium jambos*” in **DBT Sponsored National Seminar** on Production and application of microbial products in diverse sectors(PAMPDS-2016) at Selvama arts and Science College, Namakkal (6<sup>th</sup>& 7<sup>th</sup>April 2016).
- ❖ Presented paper on the topic of “Extraction and Isolation of Alkaloid from *S.jambos* and its antipyretic activity in *in vivo* mice model” in **MARINA 2015** at Dr.N.G.P.Arts and Science College, Coimbatore, India (28<sup>th</sup> &29<sup>th</sup> Dec 2015).
- ❖ Presented a paper in the **National conference of 13<sup>th</sup> IAAM Sustainability, Challenges and Advances in Biological Sciences** on the topic of “Extraction and Isolation of Alkaloid from *S.jambos* and its antifungal activity” at Muthayammal College of Arts and Science, Rasipuram,Namakkal. (18<sup>th</sup> & 19<sup>th</sup> Dec 2015).
- ❖ Presented paper on the topic of “*In vitro* antibacterial activity of alkaloid isolated from *S.jambos*” in **National conference on Role of Biopharmaceuticals in Achieving Health by 2020** held at Dr.N.G.P.Arts and Science College, Coimbatore, India (10<sup>th</sup> &11<sup>th</sup> July 2015).

#### Participation in Conference

- ❖ Participated in international conference on **Indian Rural Public Health and Non-Communicable Disease** organized by KMCH Research Foundation on 6<sup>th</sup> April 2019.
- ❖ Participated in national level conference on “Drug Discovery from Medicinal and Aromatic Plants” (DDMAP-2017)” at Karpagam University, Coimbatore (2<sup>nd</sup> & 3<sup>rd</sup> Feb. 2017).
- ❖ Presented poster presentation about “r- DNA TECHNOLOGY” at Meenaakshi Ramasamy College of arts & science, Thathanur.

#### Participation in Seminars

- ❖ Participated in national level seminar on “FUTURE PROSPECTS IN BIOLOGICAL RESEARCH” at St. Joseph College of arts &science, Cuddalore.
- ❖ Participated in national level seminar on “THE CHALLENGES AND PERSPECTIVE IN BIOTECHNOLGY” at C.N. Govt. Arts College, Erode.

#### Participation in Workshop

- ❖ Attended one week summer course cum workshop hands on training on “Natural Product Chemistry: Isolation, Synthesis and Application” conducted by MACS- Agharkar Research Institute, Pune (May 27-31, 2019).

- ❖ Attended DST-DAAD sponsored three days International Workshop on “Health Risk Assessment of Nanoparticles” organized by faculty of Basic and applied Science and Bioscience, Dr. N.G.P. Arts and Science College, Coimbatore. (5-7 December 2018).
- ❖ Attended DBT and British Council sponsored workshop on “**STEM Teacher Training Workshop on Research-Based Pedagogical Tool (Level 1)**” organized by COESME -IISER Pune with Sheffield Hallam University, UK. (28<sup>th</sup> Sep. to 1<sup>st</sup> Oct. 2018).
- ❖ Attended one day workshop on “**Analysis of Spectral data**” organized by Centre for Research, Dr.N.G.P.Arts and Science College, Coimbatore (30.01.2017).
- ❖ Attended two day **National workshop** on “**Phyto-Pharmacognostical Evaluation**” organized by Department of Biotechnology, School of Biotechnology and Health Sciences, Karunya University India ( 8<sup>th</sup> and 9<sup>th</sup> March.2016).
- ❖ Attended three day **National workshop** on “**Advanced Microbiological Diagnostic Methods**” conducted by Selvam College of Arts and Science College, Namakkal, India ( 7<sup>th</sup> to 9<sup>th</sup> Feb.2015).
- ❖ Attended three day **International workshop** on “**Computational techniques for wetlab data Analysis IWCWA-2015**” conducted by National College of Arts and Science College, Trichy, India ( 22<sup>nd</sup> to 24<sup>th</sup> Feb.2015).
- ❖ Attended in one day workshop on “PRINCIPLE AND PRACTICE OF ADVANCED EPR SPECTROSCOPY” at CECRI, Karaikudi.

#### Participation in Faculty Development Programme

- FDP on “Quality Measures in Higher Education” at Dr.N.G.P. Arts and Science College, Coimbatore, Tamilnadu, from 3-Dec-18to 9-Dec-18.
- FDP on “Research Methodology and Pedagogy for Tertiary Education” at Dr.N.G.P. Arts and Science College, Coimbatore, Tamilnadu, from 15-June-21to 21-June-21.
- FDP on “Quality Initiatives in Higher education” at Dr.N.G.P. Arts and Science College, Coimbatore, Tamilnadu, 13-Apr-20 to 20-Apr-20.
- FDP on “Research Methodology and Pedagogy for Tertiary Education” at Dr.N.G.P. Arts and Science College, Coimbatore, Tamilnadu, from 15-June-21to 21-June-21.

- ATAL FDP on “Drug Engineering through Bioprospecting” at Dr.N.G.P. Arts and Science College, Coimbatore, Tamilnadu, from 12-Jul-21to 16-Jul-21.

#### Conference / Seminar / Workshop Organized

- ❖ Organized one day interdepartmental hands on training on “**Stereo and Inverted Phase contrast Microscope**” under DBT Star College Scheme on 21.12.2021 at Rathnavel Subramaniam College of Arts and Science, Sulur, Coimbatore.
- ❖ Organized one day Knowledge Exchange Programme on “**Beneficial Effects of Microbes & Applications of computer in Biology**” with **computer Science department** under DBT Star College Scheme on 29.12.2021 at Rathnavel Subramaniam College of Arts and Science, Sulur, Coimbatore.
- ❖ Workshop on “**Chromatography techniques**” under DBT Star College Scheme on 01.02.2020 to the Microbiology Students, Dr. N.G.P. Arts and Science College, Coimbatore.
- ❖ Organized workshop on “Mushroom Cultivation” to the Food and Nutrition students on 30<sup>th</sup> March 2022, RVS College of Arts and Science, Coimbatore.
- ❖ Organized workshop on “Mushroom Cultivation and Self Earning Skills” to the microbiology students and the general community people on 17<sup>th</sup>, 18<sup>th</sup> & 19<sup>th</sup> March 2022, RVS College of Arts and Science, Coimbatore.

#### Invited Speaker / Session Chair / Member Organizing Committee - Conference / Seminar / Workshop

- ❖ Resource person for the workshop on “NCCLS Based Antifungal Assay” on 21<sup>st</sup> and 22<sup>nd</sup> March 2022 to the Microbiology and biotechnology students, RVS College of Arts and Science, Coimbatore.
- ❖ Delivered a talk on the topic “Research at Undergraduates” on 26.02.2021 to the Microbiology Students, Bharathidasan College of Arts and Science, Erode.
- ❖ Resource person for the Workshop on “Microbiological Techniques” under DBT Star Scheme on 29.11.2018 to the Zoology Department Students, PSGR Krishnammal College for Women, Coimbatore.

#### Online Certificate Programs

- Digital teaching Techniques, by ICT Academy, from 10<sup>th</sup> to 15<sup>th</sup> August 2020.
- NPTEL online certificate course on Cell Culture Technologies from Feb-Apr, 2020

#### Editorial / Review Board Member/Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
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Life member in "Indian Association of Applied Microbiologist	Life-time	-
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**Awards / Honors**

<b>Awards / Honors</b>	<b>Agency / Institute</b>	<b>Year of Award</b>
Best Paper presentation	15th Indian Association of Applied Microbiologists conference	2017