

Faculty Profile of Dr. M. Gnanadesigan



Dr. M. Gnanadesigan
Assistant Professor
Department of Microbial - Biotechnology

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Research Area

- Natural Product Research
- Malarial Drug Development

Education & Career

Education

Ph.D.

Subject : Oceanography Interdisciplinary Biotechnology

Institution : Alagappa University, Thondi Campus, Thondi, Ramanathapuram

Affiliated University : Alagappa University

Year of Award : 2011

M.Phil.,

Subject : Biotechnology

Institution : Bharathidasan University, Tiruchirappalli

Affiliated University : Bharathidasan University

Year of Award : 2007

M.Sc.,

Subject: Biotechnology

Institution : K.S.R. College of Arts and Science, Thiruchengode

Affiliated University : Periyar University

Year of Award : 2005

B.Sc.,

Subject: Biochemistry

Institution: K.S.R. College of Arts and Science, Thiruchengode

Affiliated University: Periyar University

Year of Award: 2003

Career**At Bharathiar University (Reverse Order)**

Assistant Professor : November 2016 to Till Date

Past Experience

Assistant Professor : August 2013 to November 2016 at Department of Microbiology, National College, Trichy

Assistant Professor : January 2012 to June 2013 at Selvamm Arts and Science College, Namakkal,

Guest Lecturer : August 2010 to April 2011 at Department of Marine and Coastal Studies, MK University, Madurai.

Awards

Membership

Membership in Academic Bodies

Sl. No. : 1

Organization : Life member in The Indian Science Congress Association

Type of Membership : Life members

Period : Life time

Sl. No. : 2

Organization : Association of Microbiology of India

Type of Membership : Life members

Period : Life time

Sl. No. : 3

Organization : NABS

Type of Membership : Life members

Period : Life time

Visits

Collaborators

Others

Projects

Funded Projects(National Level)

- [Ongoing - 01](#)
- [Completed - 03](#)

1. RUSA 2.0 BCTRC

Title of the project : Bioprospecting of anticancer compounds from microbial sources approach

Funding Agency : RUSA

Amount : Rs. 7.44 lakhs.

Duration : January 2021 – December 2022.

1. DAE-BRNS

Title of the project : *****

Funding Agency : *****

Amount : Rs. *****

Duration : *****

2. UGC-MRP

Title of the project : ‘ *****’

Funding Agency : *****

Amount : Rs. *****

Duration : *****

2. RUSA - BEICH

Title of the project : Zero waste utilization and prototype development for the treatment of the textile dyes using the agro waste of Musa sps. - A Green technology approach

Funding Agency : RUSA

Amount : Rs. 7.00 lakhs.

Duration : January 2020 – June 2020.

3. TANSCHÉ

Title of the project : Prototype development for the treatment of textile reactive dyes using the agro wastes of *Musa* Sp., - A Nanotechnology approach.

Funding Agency : TANSCHÉ

Amount : Rs. 7.00 lakhs.

Duration : October 2021 – September 2024.

Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Research Guidance

- [Post-Doc](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.,](#)

ONGOING

Sl. No. : 1

Name of the candidate : Sujeeth NK

Title of the Thesis :

Year : 2021

Sl. No. : 2

Name of the candidate : Brindha matharasi

Title of the Thesis :

Year : 2023

Sl. No. : 3

Name of the candidate : Harithaa S

Title of the Thesis :

Year : 2023

AWARDED

Sl. No. : 1

Name of the candidate : Roshini R G

Title of the Dissertation : Standardization of ZnO/AgNc biopolymer beads for the Treatment of the textile dyes using the Noxious aquatic weed

Year : 2018

Sl. No. : 2

Name of the candidate : Mithra

Title of the Dissertation : photocatalytic dye degradation of biogenic synthesized silver nanoparticles using pseudo stem of musa x paradisiaca l

Year : 2018

Sl. No. : 3

Name of the candidate : Karkulali

Title of the Dissertation : Photocatalytic dye degradation of biogenic synthesized silver nanoparticles using croton bonplandianum.

Year : 2017

Research Publication

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books/Chapters](#)
- [Database](#)

Reverse Chronological Order

2023

22. Toxicity analysis and biomarker response of Quinalphos Organophosphate Insecticide (QOI) on eco-friendly exotic *Eudrilus eugeniae* earthworm (<https://link.springer.com/article/10.1007/s10661-022-10834-x>)

Nachimuthu Krishnan Sujeeth, Ramasamy Aravinth, Murugesan Thandeeswaran, Jayaraman Angayarkanni, Aruliah Rajasekar, R. Mythili & Murugesan Gnanadesigan

Environmental Monitoring and Assessment, **195**, Article number: 274 (2023)

2021

21. [A green approach for the synthesis of silver nanoparticles by *Chlorella vulgaris* and its application in photocatalytic dye degradation activity](#)

R. Rajkumar, G. Ezhumalai, & M. Gnanadesigan.

Environmental Technology & Innovation, 21, 101282, (2021).

2019-2004

20. [Photocatalytic degradation of methylene blue and safranin dyes using chitosan zinc oxide nano-beads with *Musa x paradisiaca* L. pseudo stem.](#)
S. S. Roshitha, V. Mithra, V. Saravanan, S. K. Sadasivam, & M. Gnanadesigan. Bioresource Technology Reports, 5, 339-342, (2019).
19. [Anticancer effects of silver nanoparticles encapsulated by *Gloriosa superba* \(L.\) leaf extracts in DLA tumor cells.](#)
S. Muthukrishnan, B. Vellingiri, & Gnanadesigan Murugesan, Future Journal of Pharmaceutical Sciences, 4(2), 206-214, (2018).
18. [Hepatoprotective activity of *Ceriops decandra* \(Griff.\) Ding Hou mangrove plant against CCl₄ induced liver damage.](#)
M. Gnanadesigan, S. Ravikumar, & M. Anand. Journal of Taibah University for Science, 11(3), 450-457, (2017).
17. [Dataset on antitumor properties of silver nanoparticles from *Gloriosa superba* \(L.\) seed on Dalton Lymphoma Ascites \(DLA\) tumor: Facile and biocompatible approach.](#)
M. Saradhadevi, M. Gnanadesigan, G. Kapildev, & D. Vasanth. Data in brief, 14, 524-530, (2017).
16. [Quality evaluation of egg composition and productivity of layers in EM \(Effective Microorganisms\) treatments: A field report.](#)
M. Gnanadesigan, S. Isabella, P. Saritha, L. Ramkumar, N. Manivannan & R. Ravishankar. Egyptian Journal of Basic and Applied Sciences, 1(3-4), 161-166, (2014).
15. [Isolation, identification and metal tolerance of halobacterial strains.](#)
G. P. Williams, M. Gnanadesigan, & S. Ravikumar. Indian Journal of geo marine sciences, 4, 402-408, (2013).
14. [Biosorption and bio-kinetic properties of solar saltern Halobacterial strains for managing Zn²⁺, As²⁺ and Cd²⁺ Metals.](#)
G. P. Williams, M. Gnanadesigan, & S. Ravikumar. Geomicrobiology Journal, 30(6), 497-500., (2013).
13. [Antagonistic properties of seagrass associated *Streptomyces* sp. RAUACT-1: a source for anthraquinone rich compound.](#)
S. Ravikumar, M. Gnanadesigan, A. Saravanan, N. Monisha, V. Brindha, & S.

Muthumari,

Asian Pacific journal of tropical medicine, 5(11), 887-890, (2012).

12. [Effects of saline tolerant Azospirillum species on the growth parameters of mangrove seedlings.](#)

S. Ravikumar, S. T. M. Ignatiammal, M. Gnanadesigan, & A. Kalaiarasi.
Journal of environmental biology, 33(5), 933, (2012).

11. [Antiviral, antioxidant and toxicological evaluation of mangrove plant from South East coast of India.](#)

J. M. Beula, M. Gnanadesigan, P.B. Rajkumar, S. Ravikumar, & M. Anand,
Asian Pacific journal of Tropical biomedicine, 2(1), S352-S357, (2012).

10. [In vitro antiplasmodial activity of spiro benzofuran compound from mangrove plant of Southern India.](#)

R. Sundaram, R. Ganesan, & G. Murugesan.

Asian Pacific journal of tropical medicine, 5(5), 358-361, (2012).

9. [Population dynamics of free living, nitrogen fixing bacteria Azospirillum in Manakkudi mangrove ecosystem, India.](#)

S. Ravikumar, M. Gnanadesigan, S. T. M. Ignatiammal, & S. Sumaya.
Journal of environmental biology, 33(3), 597, (2012).

8. [Biosorption and bio-kinetic studies of halobacterial strains against Ni²⁺, Al³⁺ and Hg²⁺ metal ions.](#)

G. P. Williams, M. Gnanadesigan, & S. Ravikumar.

Bioresource technology, 107, 526-529, (2012).

7. [Antibacterial potential of benzoate and phenylethanoid derivatives isolated from Acanthus ilicifolius L. leaf extracts.](#)

S. Ravikumar, M. Raja, & M. Gnanadesigan.

Natural product research, 26(23), 2270-2273, (2012).

6. [Hepatoprotective and antioxidant properties of rhizophora mucronata mangrove plant in CCl₄ intoxicated rats.](#)

S. Ravikumar, & M. Gnanadesigan.

Journal of Experimental & Clinical Medicine, 4(1), 66-72, (2012).

5. [Antibacterial potential of biosynthesised silver nanoparticles using Avicennia marina mangrove plant.](#)

M. Gnanadesigan, M. Anand, S. Ravikumar, M. Maruthupandy, M. S. Ali, V. Vijayakumar, & A. K. Kumaraguru.

Applied Nanoscience, 2(2), 143-147, (2012).

4. [In vitro antiplasmodial activity of methanolic extracts from seaweeds of South West Coast of India.](#)

S. Ravikumar, G. Ramanathan, M. Gnanadesigan, A. Ramu, & V. Vijayakumar.

Asian Pacific journal of tropical medicine, 4(11), 862-865, (2011).

3. [Biosynthesis of silver nanoparticles by using mangrove plant extract and their potential mosquito larvicidal property.](#)

M. Gnanadesigan, M. Anand, S. Ravikumar, M. Maruthupandy, V. Vijayakumar, S. Selvam, M. Dhineshkumar & A. K. Kumaraguru.

Asian Pacific journal of tropical medicine, 4(10), 799-803, (2011).

2. [Hepatoprotective and antioxidant properties of marine halophyte Lumnitzera racemosa bark extract in CCL\(4\) induced hepatotoxicity.](#)

M. Gnanadesigan, S. Ravikumar, & S. J. Inbaneson.

Asian Pacific journal of tropical medicine, 4(6), 462-465, (2011).

1. [Hepatoprotective and antioxidant activity of a mangrove plant Lumnitzera racemosa.](#)

S. Ravikumar, & M. Gnanadesigan.

Asian Pacific journal of tropical biomedicine, 1(5), 348-352, (2011).

BOOK CHAPTERS

1. [Polymeric particles as a delivery agent for malarial vaccines.](#)

G. G. Nageswari, M. Gnanadesigan & R. Kiruthika.

Applications of nanobiotechnology for neglected tropical diseases

Academic Press, 47-67 (2021).

978-0-12-821100-7

2. [Nano drugs for curing malaria: The plausibility.](#)

M. Gnanadesigan, V. Nandagopalan, G. Kapildev & M. Gundappa.

Applications of Targeted Nano Drugs and Delivery Systems

Elsevier Imprint, 451-467, (2019).

978-0-12-821100-7

Sl. No. : 1

Name of the Authors : Sujeeth NK, Gnanadesigan M, Kapildev G & ANgayarkanni J

XRD/Protein/Gene/Any other : Sequence Read Archives (SRA)

Database : Genbank

ID/Ref no : Accession: PRJNA909927 ID: 909927

Year : 2022

Sl. No. : 2

Name of the Authors : Nandagopal,V., Kamaleswari,k. and Gnanadesigan,M.

XRD/Protein/Gene/Any other : NUCLEOTIDE

Database : Genbank

ID/Ref no : 1398255746

Year : 2018

Sl. No. : 3

Name of the Authors : Nandagopal,V., Kamaleswari,k. and Gnanadesigan,M.

XRD/Protein/Gene/Any other : NUCLEOTIDE

Database : Genbank

ID/Ref no : 1398255745

Year : 2018

Sl. No. : 4

Name of the Authors : S.Ravikumar, M.Fredimoses, M. Gnanadesigan

XRD/Protein/Gene/Any other : NUCLEOTIDE

Database : Genbank

ID/Ref no : GQ478249

Year : 2009

Papers if any : 01

Alumini Reflections: