

CURRICULUM VITAE

Name : Dr.M.Balasubramanian, M.Phil., Ph.D.,SET.,
Date of Birth : 17thMay 1984
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E.mail : mbsbala7311@gmail.com
Area of Specialization : Microbiology, Enterobacterial infections, Molecular Biology,
 Bioprospectionof Foliose Lichens, Biomolecular dynamic simulation.
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EDUCATIONAL QUALIFICATIONS

S. No	Degree/Branch	Class	Percentage	University/Board/Institute	Year of Passing
1	State eligibility test (SET)	Qualified	-	Mother Teresa Women's University, Kodaikanal	2016
2	Doctor of Philosophy - Biotechnology. Specialization: Animal Biotechnology	Highly commended	-	Bharathiar University, Coimbatore	2015
3	Master of Philosophy (M. Phil) – Biotechnology	First-class	68	Periyar University, Salem	2008
4	Master of Science (M.Sc) – Biotechnology	First-class	69	Sri Ramachandra Univesity, Chennai	2006
5	Bachelor of Science (B.Sc) – Microbiology	First-class	75	Periyar University, Salem	2004
6	Higher Secondary Certificate (H.S.C)	First-class	68	State Board of Higher Education, Tamilnadu	2001
7	Secondary School Leaving Certificate (S.S.L.C)	First-class	75	State Board of Secondary Education, Tamilnadu	1999

ACADEMIC EXPERIENCE IN TEACHING BIOTECHNOLOGY

Designation/ Position	Institution/Industry	Course handled	Service		Total service	
			From	To	Years	Months
Lecturer	Vivekanandha College for Women, Tiruchengode	UG & PG	11/06/2007	10/04/2008	-	10
Assistant Professor	SSM College of Arts and Science, Komarapalayam	UG	15/06/2009	31/05/2010	-	11.5
Assistant Professor	Kongu Arts and Science College, Erode	UG	11/06/2010	31/03/2015	04	09

Assistant Professor	Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode	UG & PG	14/07/2015	06/03/2020	04	08
Senior Subject matter expert	SPI global services private limited (Pondicherry)	VARAF Content ful, Topic pages, and Learn QC	20/10/2020	08/12/2021	01	02
Assistant Professor	Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode	UG & PG	07/03/2022	04/11/2022		10 months 26 days
Associate Professor	Vivekanandha Arts and Science College, Veerachipalayam, Sankagiri West	UG & PG	08/11/2022	28/03/2024	01	4 months 22 days

Total experience (Teaching) - 13 Years 06 months
Total experience (Industrial) - 01 Year 02 months
Cumulative experience - 14 Years 08 months

ACADEMIC RESPONSIBILITIES:

- 1) Acted BOS (Board of studies) member in the Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode.
- 2) Department in-charge of NAAC criteria I (Curriculum Development & Flexibility) (2016-2019)
- 3) Department in-charge of NAAC criteria III (Research & Development) (2022-2023)
- 4) Acted as DQAC (Department NAAC Co-Ordinator)
- 5) Certificate course CO-Ordinator
- 6) SWAYAM/NPTEL/MOOC Course Co-ordinator

ACADEMIC IDENTITY:

1. Scopus ID - 57429253700
2. ORCID ID - 0009-0001-7279-8975
3. Google Scholar ID - fPke4psAAAAJ
4. Web of Science Researcher ID - JFA-4469-2023
5. Vidwan/IRINS ID - 507627
6. Vidwan Profile URL - <https://vidwan.inflibnet.ac.in/profile/507627/NTA3NjI3>

RESEARCH DETAILS:

Degree : Doctor of Philosophy
Date of Registration : 01/07/2011, (12424/B2/2011 dt. 05/07/2011)
University : Bharathiar University (State), Tamilnadu
Date of thesis submission : 09/10/2014
Duration : 3 years
Title of thesis : *Invitro, Insilico, and Invivo* studies on biomedical applications of foliose lichens *Stictaweigelia*, *Dermatocarpon vellereum*, & *Heterodermiaboryi* against clinical debilities
Supervisor details : Dr.P.Nirmala (Late), Associate Professor, Department of Biotechnology, Nehru Arts and Science College (Autonomous), Coimbatore

MEMBERSHIP IN PROFESSIONAL BODIES:

1. Indian Lichenological Society, Lucknow - Life Member
2. International association of Engineers, London, UK - Life Member
3. Teaching and Education Research Association (TERA) - Life Member
4. ENVIS-BHNS, Bombay - Life Member
5. Indian Microbiology Society (IMS) - Life Member

NPTEL COURSES COMPLETED:

S.No	Name of the course	Year of completion	Merit category
1	Functional genomics	April 2019	Successfully completed
2	Biological inorganic chemistry	October 2022	Elite

DETAILS OF RESEARCH GUIDANCE:

No. of Ph.D.Scholars guiding: 2; No.of M.Phil Scholars guided: 3

TECHNICAL SKILLSET:

Molecular techniques

- qRT-PCR and SDS-PAGE
- Western blotting
- Maintenance of cancer cell lines (Breast - MCF-7, Cervical-HeLa, and Bone-MG-63 cancer cells)
- Cytotoxicity assays (MTT, Comet and propidium iodide assays)
- Gene expression studies (Conjugation and transformation studies in recombinant *E.coli* strains) using special expression vector systems such as TEM and SHV vectors from *Klebsiella pneumoniae*.

Laboratory Care of animals

- Maintenance and handling of laboratory rodants such as Albino mice, Wistar rats and Sprague Dawley rats
- Histochemical staining of internal organ sections of laboratory animals (Microtomy)
- Scoring and evaluation of histopathological changes in thin slice tissue sections

PATENT/S PUBLISHED

- | | | |
|-----------------------------------|---|---|
| 1. Details of the patent | - | Remote sensing & sensor for treatment of crops based on Nanofertilizer. |
| International / National | - | International |
| Year | - | 2024 |
| Application / Grant Number | - | 6337486 |

BOOKS PUBLISHED

1. Book published “**A Textbook of Nanobiotechnology - Concepts, Techniques and its Applications**”, by S.Anandhi, **M.Balasubramanian**, S.G.Prabhakaran, and K.Senthilkumar, published by **AN Publications**, Tamilnadu. (March - 2023).
2. Book published “**A Text Book of Plant Biochemical Therapeutics and Research Methodology for Biologists**” by Dr.K.Gopi, and **Dr.M.Balasubramanian**, published by Royal Book Publishers, Salem, Tamilnadu. (February – 2024).
3. Book published “**A Text Book of Fundamentals of Biochemistry and Cell Biology**” by Dr.K.Gopi, and **Dr.M.Balasubramanian**, published by Royal Book Publishers, Salem, Tamilnadu. (February – 2024).

BOOK CHAPTERS PUBLISHED

1. A chapter “**Biosensorsanditsapplications**” by Kavitha K, Baskar M, **Balasubramanian M**, and Duraipandian M, on the book “**Innovativetrendsinbiologicalscience**”, published by **BlueRose Publishers**, New Delhi. (February - 2023).
2. A chapter “In Vitro Assessment of Free Radicals and Trace Metal Species in Salivary Secretions: A rapid Detection Method for the Prognosis of Oral Precancerous Cancerous Conditions”, in the book “**Cutting Edge Research in Biology**”, published by **B P International**, Calcutta. (April - 2023).
3. A chapter “Studies on Genetic Diversity and Polymorphism of *Acacia constricta* and *Acacia farnesiana*”, in the book “**Research Advances in Microbiology and Biotechnology**” (Vol – 8), published by **B P International**, Calcutta. (November - 2023).

RESEARCH PROJECTS HANDLED

1. Assessment of virulence factors of *Staphylococcus aureus* in diabetic foot ulcers
2. Standardization of parameters for the production of extracellular protease from *Staphylococcus species* and its characterization
3. A review of the pharmaceutical potential of the Genus *Heliotropium* (Boraginaceae)
4. Antimycobacterial activity of foliose lichens on plant and animal pathogens
5. Chemopreventive effect of *Pedalium murex* (Linn) concerning its antioxidant and antihelminthic properties.
6. Correlation analysis of phytochemicals and antioxidant activities of *Heliotropium indicum* leaves extracts
7. Effect of alpha-tocopherol on salivary reactive oxygen species and trace elements on oral submucous fibrosis

8. Effect of growth parameters and optimization for biofuel production by *Sargassumnatans* isolated from coastal regions of Rameshwaram district, Tamil Nadu
9. Evaluation of antioxidant and antimicrobial activities of *Parmotrema perlatum* and *Parmotrema inctorum*.
10. Evaluation of anti-oxidant properties of foliose lichens
11. Evaluation of pharmacological properties of *Galotropis gigantea* (A pilot *invitro* and *invivo* study).
12. Genetic diversity and polymorphism of *Acacia constricta* and *Acacia farnesiana*
13. Green synthesis and characterization of silver nanoparticles using *Heliotropium indicum* L. leaves extract and antimicrobial activity
14. *In Vitro*, *in Silico* and *in Vivo* Studies on Biomedical applications of Foliose Lichens *Sticta Weigeli*, *Dermatocarpon Vellereum*, and *Heterodermiaboryi* against Clinical Debilities
15. Optimization of biofuel production by the effect of growth parameter by *Sargassumnatans* isolated from Rameshwaram district, Tamil Nadu
16. Partial characterization of phytase from poultry droppings microflora.
17. Pharmacological evaluation of parmalioid lichen *Flavoparmeliacaperrata* (L.) Hale with special reference to analgesic and anti-inflammatory properties in animal models.
18. Qualitative and quantitative analysis of secondary metabolites, antimicrobial and anticancer properties of *Azadirachta indica*
19. Qualitative phytochemical analysis and antioxidant studies of marine algae *Sargassumnatans* from Rameshwaram, Tamil Nadu
20. Salivary analysis of reactive oxygen species in oral submucous fibrosis and oral squamous cell carcinoma patients
21. Study on phytochemical screening and antibacterial activity of *Nyctanthus arbor tristis*
22. The therapeutic influence of *Parmotrema inctorum* extracts on scopolamine-induced brain tissue damage in Albino Wistar rats.

RESEARCH PUBLICATIONS

1. **Balasubramanian M**, Chitra S. Salivary analysis of reactive oxygen species in Oral Submucous Fibrosis and Oral Squamous Cell Carcinoma patients. *Int.J.Biosci.* 2012; **2** (2): 36 - 44 (IF - **1.8**)
2. Chitra S, **Balasubramanian M**, Jayram Hazra. Effect of α - tocopherol on salivary reactive oxygen species and trace elements in oral submucous fibrosis. *Ann.Clin.Biochem.* 2012; **49** (3): 262 – 265 (IF - 2.09) (INDEXED IN SCIE, SCOPUS, WEB OF SCIENCE)
3. **Balasubramanian M**. Genetic diversity and polymorphism of *Acacia constricta* and *Acacia farnesiana*. *Int.J.Med.Res.* 2012; **1** (5): 267– 277.
4. **Balasubramanian M**. Study on phytochemical screening and antibacterial activity of *Nyctanthes arbor tristis*. *J.Chem.Pharm.Res.* 2012; **4** (3): 1686 – 1695.
5. **Balasubramanian M**, Nirmala P. Antimycobacterial activity of foliose lichens on plant and animal pathogens. *Int.J.Pharm.Sci.Res.* 2014; **5** (11): 1000 - 1006. (IF- 0.533)(INDEXED IN WEB OF SCIENCE)
6. **Balasubramanian M**, Nirmala P. Evaluation of antioxidant properties of foliose lichens. *J.Chem.Pharm.Res.* 2014; **6** (9): 177 - 184
7. Krishnaveni B, **Balasubramanian M**, Gopinath, LR. Pharmacological evaluation of Parmelioid lichen *Flavoparmelia Caperata* (L) Hale with special reference to analgesic and anti-inflammatory properties. *IOSR J.Pharm.* 2018; **8** (10): 22 - 29

8. **Balasubramanian M.** *Invitro* and *Invivo* studies on biomedical applications of foliose lichens *Stictaweigellii*, *Dermatocarponvellereum*, and *Heterodermiaboryi* against clinical debilities. *Int.Inter.disciple.Res.J.* 2018; **8** (2): 14 – 32
9. **BalasubramanianM,** Gopinath LR, Nivetha S, Archaya S &Premalatha K. Qualitative and quantitative analysis of secondary metabolites, antimicrobial and anticancer property of *Azadirachtaindica*. *J.Appl.Sci.Comp.* 2019; **6** (1): 4696 – 4710
10. Gopinathan Mini, **Balasubramanian M.** A review on the pharmaceutical potential of the Genus *Heliotropium* (*Boraginaceae*). *Euro.J.Pharm and Med.Res.* 2020; **7** (7): 462-471
11. Gopinathan Mini, **Balasubramanian M.** Green synthesis and characterization of silver nanoparticles using *Heliotropiumindicum*L. leaves extract and antimicrobial activity. *J.Adv.Sci.Res.* 2022; **13** (1): 365-373
12. Gopinathan Mini, **Balasubramanian M.** Correlation analysis of phytochemicals and antioxidant activities of *Heliotropiumindicum*leaves extracts. *Int.J.Pharm.Sci.Res.* 2021; **12** (8): 4386-4393(**INDEXED IN WEB OF SCIENCE**)
13. SubhaPriyaB, **Balasubramanian M.** Optimization of biofuel production by the effect of growth parameter by *Sargassumnatans* isolated from Rameshwaram district, Tamil Nadu. *Int.J.All.Res.Edu.Sci.Met.* 2021; **9** (12): 1975-1985
14. SubhaPriya.B, **Balasubramanian M.** Qualitative phytochemical analysis and antioxidant studies of marine algae *Sargassumnatans* from Rameshwaram, Tamil Nadu.*J.Emerg.Technol.Innov.Res.* 2021; **8** (3): 2438-2448
15. **BalasubramanianMurugesan,** Anandhi.S, Subha.B, Kavitha.R, Sowndharya.R, Subha.G. (2023) Molecular Insights of Anticancer Potential of UsnicAid Towards Cervical Cancer Target Proteins: AnInSilico Validation for Novel Anti-cancer Compound from Lichens.*Journal of Biomolecular Structure and Dynamics.* <https://doi.org/10.1080/07391102.2023.2252076>. (**INDEXED IN UGC CARE LIST, SCOPUS, WEB OF SCIENCE**)
16. Lekshmy R. Nair and **M. Balasubramanian** (2023). Correlation between phytochemicals and antioxidant activities of different leaf extracts of *Entadarheedii*. *Jour Pl Sci Res* 39 (1) 199–208. (**A UGC CARE LISTED JOURNAL**)
17. M. Duraipandian, Turibus Simon, **M. Balasubramanian,** and S. Karuthapandian. (2023). Screening and characterization of antibacterial compounds from some marine sponge species. *Scope*; 13 (2): 137-145. (**INDEXED IN SCOPUS**)

ACHIEVEMENTS/AWARDS RECEIVED/TRAINING UNDERGONE

1. Recipient of **EIGHT RANK** in **B.Sc Microbiology** Degree course in Periyar University Examinations held on March 2004
2. Short term course completed on “**Biotechnology and Biomedical Engineering**” conducted by the Department of Applied Science, National Institute of Technical Teachers Training and Research (NITTTR-Under the Governing Body of Ministry of Human Resource Development, Government of India), Chandigarh from 17/11/08 to 21/11/08
3. Recipient of **CERTIFICATE OF EXCELLENCE** for contribution in Education, awarded by Lions Club of Erode Metro, Tamilnadu, India, during 2011 - 2012
4. Recipient of **CERTIFICATE OF EXCELLENCE AWARD, “SHIKSHA RATTAN PURASKAR”** for contribution in Education, awarded by India International Friendship Society (IIFS), Delhi, during 2011 – 2012

5. **ThreedaysLectureWorkshop**, Sponsored by **IndianScienceAcademies**, Bengaluru, on “**Floristic Diversity and Its conservation**”, Organized by the Department of Botany, Vivekanandha College of Arts and Sciences for Women (Autonomous). (From 05/01/2017 to 07/01/2017)
6. **Refresher Course**, Sponsored by **Indian Science Academies**, Bengaluru, on “**Innovations in genetics and plant breeding with special reference to biotic and abiotic stress**” (From 06/11/2017 to 18/11/2017)
7. **Summer Research Fellowship**, Sponsored by **Indian Science Academies**, Bengaluru, (Two months), in the Department of Environmental Sciences, Jawaharlal Nehru University, New Delhi (From 10/04/2018 to 10/06/2018)
8. **Workshop**, Sponsored by the Department Of Biotechnology, Ministry of Science & Technology (Govt. of India) on “**The Use of Foldscope**” on 27th July 2018
9. Paper presented in 2nd International Conference on Recent Multidisciplinary Research (**ICRMR 2018**), organized by **Foundation of Innovative Research** at Asian Institute of Technology Conference Center, PathumThani, **Thailand** on 23rd & 24th November 2018
10. **ThreedaysWorkshop** on, “**Biological Diversity Act, 2002**”, Sponsored by the **BiodiversityAuthorityofIndia**, (From 29/10/2019 to 31/10/2019).
11. Participated in **Four Days State Level Hands-on Workshop on Mastering Molecular Dynamics, Docking, ADMET, and Netwrk Pharmacology (MODDANP)** from 09/10/2023 to 12/10/2023 organized by Plant Biology and Plant Biotechnology department, School of Sciences, Guru Nanak College (Autonomous), Velachery, Chennai.
12. Recipient of “**BEST TEACHER AWARD**” awarded by Vivekanandha Educational Institutions, Tiruchengode and Sankagiri, for the academic year 2022-2023.
13. Recipient of “**CERTIFICATE OF ACHIEVEMENT, YOUNG RESEARCHER AWARD**”, awarded by Scientific International Publishing House, Ministry of MSME, India, on 27th November 2023.
14. **Refresher Course**, Sponsored by **Indian Science Academies**, Bengaluru, on “**Modern Trends in Evolution and biodiversity**”organized by the Department of Botany, Periyar University, Tamilnadu(From 02/04/2024 to 17/04/2024).

REFERENCES

1. **Dr. P. Ponnuragan**, Associate Professor, Department of Botany, BharathiarUnviersity (State University), Coimbatore, Tamilnadua State, India
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2. **Dr. S. Chitra**, Assistant Director (S-4), Department of Biochemistry, Captain Srinivasa Murthy Central Ayurveda Research Institute, CCRAS, M/o AYUSH, Govt. of India, Anna Hospital Campus, Arumbakkam, Chennai - 600 106, Tamil Nadu, India. E.mail:chires2006@gmail.com; Mobile: +91-94442 22950
3. **Dalip K. Upreti, Emeritus**
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National Botanical Research Institute (NBRI), CSIR-National Botanical Research Institute, Lucknow 226 001, Uttar Pradesh, India
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4. **Dr.PonmuruganKaruppiah**

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Yours Sincerely



Dr. M.BALASUBRAMANIAN