



Dr.M.MUTHUSELVAM
ASSISTANT PROFESSOR

Contact

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

Teaching Experience: 18 Years (Bharathidasan University-7 Years, 10 months)

Research Experience: 18 Years

Additional Responsibilities

1. Course Coordinator for M.Sc. Microbiology and M.Sc. Biotechnology, Bharathidasan University P.G. Extension Centre, Perambalur.
2. Coordinator for Biotechnology Placement Cell.

Areas of Research

Microbial Biotechnology

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	02	04
	M.Phil.	50	02
Project	PG	100	10
	UG / Others	30	05

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
9	-	15	12	-

Cumulative Impact Factor (as per JCR) :	29
h-index :	08
i10 index :	06
Total Citations :	595

Funded Research Projects

Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	UGC	2012	2015	Green synthesis of Iron Nanoparticles to remediate chromium polluted water and soil samples	13.32

Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DST-SERB	2016	2019	Genome guided and PKS and NRPS investigation in the potential endophytic <i>Streptomyces</i> isolated from medicinal plants for natural drug discovery	21.05

Distinctive Achievements / Awards

1. **Young Scientist Award** Received from DST-SERB, 2016, New Delhi

Events Participated

Conferences / Seminars / Workshops:

- **National Workshop on Swayam:** A MOOC portal programme. Bharathidasan University. 03.05.2018.
- **National Seminar on Futuristic Scope in Biotechnological Advancement and Allied Instrumentation.** Amity University, Chhattisgarh. 28.07.2016 - 29.07.2016.
- **Two days Workshop on “Computer-Aided Drug and Biologics Discovery”.** University Informatics Center, Bharathidasan University, Tiruchirappalli. Tiruchirappalli. 16.11.2015-17.11.2015.
- **“Quality Research Report Writing”** organized by Curriculum Development Cell of Bharathidasan University, Tiruchirappalli- 620 024 on 28th February-2014.
- **Workshop in Resource Center Workshop in Biological Sciences,** conducted by UGC-networking Resource Centre, Division of Biological Science, Bangalore-560 012 on May-7th to 30-2013
- **“Workshop on uses of Biotechnological Tools for Bioresources Conservation and Utilization for Sustainable Development”** (6th – 19th February 2008). Sponsored by Department of Biotechnology, Govt. of India, New Delhi.
- **“Staff Development Programme on Molecules of Living Things”** (19th June – 3rd July, 2006). Organized by Department of Biotechnology, Periyar Maniammai College of

Technology for Woman, Vallam, Thanjavur. Sponsored by All India Council for Technical Education (AICTE).

- **“Workshop on Molecular and Immunological Techniques”** (8th – 10th July, 2005). Organized by Life Tech Research Center, Vadapalani, Chennai.
- **“Workshop on Recent Trends in Biological Science”** (23rd September 2004). Conducted by Department of Microbiology, Biochemistry, Biotechnology, and Bioinformatics, Marudupandiyar College, Thanjavur.
- **“International Conference on Spiritual Wisdom for a Value-Based Society”** (6th & 7th November, 2004). Organized by The Centre for Yoga Studies, Annamalai University, Annamalai nagar. Education Wing of Rajyoga Education and Research Foundation and Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalaya Mount Abu, Rajasthan.
- **“Training Programme on Bio-Fertilizer”** (19th – 21st September 1998). Conducted by K.S.Rangasamy College of Arts & Science, Tiruchengode.

Paper Presentations

- ❖ **“National Conference on Innovations, Implementations and Controversies of Animal Biotechnology (NCIICAB-2014)”** conducted by Department of Animal Science, Bharathidasan University, Tiruchirappalli-620 024 on 20th March and 21st March-2014
- ❖ **“Recent Trends in Plant Biotechnology”** 27-28th February-2013 organized by Department of Plant Science, Bharathidasan University, Tiruchirappalli- 620 024.
- ❖ **National seminar on “Intellectual Property Rights”** (1^{8th} March 2009). At Tamil University, Thanjavur sponsored by Anna university, Coimbatore & Controller general of patents and designs, Chennai & National institute of IP managements, Nagpur.
- ❖ **“22nd National Symposium on Recent Advances in Zoological Science: Application to Agriculture, Environment and Human Health”** (6-7th November, 2008) Organized by Department of Zoology, College of Basic Science & Humanities Punjab Agricultural University, Ludhiana and Indian Society of Life Sciences, Kanpur.
- ❖ **Paper entitled “Association of VAM Fungi with Rhizobium”** Presented in National conference on Recent Trends in Biosciences (NCRTB – 07) on 8th & 9th February, 2007 at Annai College of Arts & Science, Kumbakonam.

- ❖ **“State level Seminar on Plant Biotechnology”** (14th October 2005). Conducted by the Department of Botany and Microbiology, At A.V.V.M. Sri Pushpam College (Autonomous), Poondi.
- ❖ **“VIII National Symposium on Soil Biology in Human Welfare”** (5th – 7th October, 2005). Conducted by Post Graduate & Research Department of Microbiology, Ponnaiyah Ramajayam Group of Institutions, Thanjavur.
- ❖ **“Seminar on Herbs in Treatment”** (24th July, 2004). Conducted by Post Graduate & Research Department of Biotechnology, Ponnaiyah Ramajayam College, Thanjavur.
- ❖ **“State level Conference on Sustainable Trends in Bio Sciences”** (24th September, 2004). Conducted by Department of Microbiology, Biochemistry, Biotechnology and Bioinformatics, Marudhupandiyar College, Thanjavur.
- ❖ **“Seminar on Microbial Technology in Biofertilizers”** (8th March, 2002). Conducted by the Post-Graduate, Department of Microbiology, School of Life Science, Ponnaiyah Ramajayam College, Thanjavur.

Others

- **UGC Sponsored Refresher Course.** UGC Academic Staff College, Bharathidasan University, Tiruchirappalli-23. 18.07.2014 - 07.08.2014.
- **Workshop in Resource Center Workshop in Biological Sciences**, conducted by UGC-networking Resource Centre, Division of Biological Science, Bangalore-560 012 on May-7th to 30-2013
- **Refresher Course in Life Sciences. Academic Staff College Bharthidasan University.** Refresher course in life science.29.06.2013-19.07.2013.
- **Refresher Courses / Training Programme. UGC-Networking Centre**, Division of Biological Sciences, **Indian Institute of Science (IISc), Bangalore. May 7-30, 2013.**
- **“77th Orientation Programme”** Sponsored by UGC-Academic Staff College, Bharathidasan University, Tiruchirappalli - 620 024 on 15.11.2012-12.12.2012 (27 days).
- **“Training of college teachers of college teachers on soft – skill development (TCTSD)”** (23th-27th April 2007). Bharathidasan University Technology Park & Confederation of India industry (southern region), Trichy zone.

Academic Bodies (such as Board of Studies etc.)

- ❖ Member, *Board of Studies, Biotechnology, J.J. College of Arts and Science (Autonomous), Pudukottai-2012-2014*
- ❖ Member, *Board of Studies, Biotechnology, St.Joseph's college, (Autonomous), Trichy-2013-2015*
- ❖ Member, *Board of Studies, Biotechnology, Nehru Memorial College, (Autonomous), Puthanampatti-2013-2015*
- ❖ Member, *Board of Studies, Biotechnology, Rajah Serfoji Government College (Autonomous), Thanjavur-2014-2015.*
- ❖ Member, *Board of Studies, Biotechnology, Bishop Heber College (Autonomous), Trichy-2017-2019*
- ❖ Member, *Board of Studies, Biotechnology, Hindusthan College of Arts and Science (Autonomous), Coimbatore-2018-2020*

Reviewer in international journals

Industrial crops and products, Soudi Journal of Biology.

Resource persons in various capacities

Number of Invited Lectures delivered: 05

Others

1. No. of PhD Thesis evaluated : 02
2. No. of PhD Public Viva Voce Examination conducted : 01
3. Sequences submitted in GenBank : KJ598805 - KJ598809: KF918273-KF918277: KF918267-KF918270

Recent Publications

1. Deepika Thandayuthapani, Nivetha Chinnappa, Arjunan Annavi, Sivalingam Periyasamy and **Muthuselvam Manickam** Purification and characterisation of bactericidal compound from *Actinobacterium dagang* 5.. The Pharma Innovation Journal 2017; 6(10): 264-268
2. Deepika Thandayuthapani, Nivetha Chinnappa, Arjunan Annavi, **Muthuselvam Manickam**. International Extracellular Synthesis of Bactericidal Silver Nanoparticles

- Using Actinobacterium dagang 5. Journal for Research in Applied Science & Engineering Technology (IJRASET).5(X) 2017.
3. Priya gouri.G, Asha.R, **Muthuselvam.M**, Anandhi.K. Isolation and Identification of Wound Pathogens and Analysis Antibiotic Sensitivity Using Antibiotics and Soaps. 2015.4:7 (2015).International journal of scientific research.
 4. Sivalingam .P, Arjunan A' Deepika T' Nivetha C' **Muthuselvam. M**. Endophytic *Streptomyces* sps. BDUSMP R07 from *Solanum trilobatum* (Thuthuvalai) for the biosynthesis of bactericidal silver nanoparticles against multi resistant *Enterococcus* sps. Online International Interdisciplinary Research Journal, {Bi-Monthly}, ISSN2249-9598, Volume-IV, Issue-IV, July-Aug 2014.
 5. Arunkumar. S, Chandrasekaran. R, **Muthuselvam. M**. Endosulfan tolerate / degrading bacteria isolated from cotton field soil International Journal of Advanced Research (2014), Volume 2, Issue 1, 244-250. International journal of advanced research.
 - 6.Ganeshan Sivanandhan, Gnanajothi Kapil Dev, Murugaraj Jeyaraj, Manoharan Rajesh, Annavi Arjunan, **Manickam Muthuselvam**, Markandan Manickavasagam, Natesan Selvaraj, Andy Ganapathi .Increased production of withanolide A, withanone, and withaferinA in hairy root cultures of *Withania somnifera* (L.) Dunal elicited with methyl jasmonate and salicylic acid. Plant Cell Tiss Organ Cult. Received: 13 July 2012 / Accepted: 25 January 2013.(IF:2.004)
 7. Prabakar K, Sivalingam P, Mohamed Rabeek SI, **Muthuselvam M**, Devarajan N, Arjunan A, Karthick R, Suresh MM, Wembonyama JP. (2012). Evaluation of antibacterial efficacy of Phyto fabricated Silver nanoparticles using *Mukia scabrella* (Musumusukkai) against Drug resistance Nasocomial gram negative bacterial pathogens. *Colloids Surf B Biointerfaces*. Dec 20;104C:282-288. doi: 10.1016/j.colsurfb.2012.11.041. (IF:3.997)
 8. Sivanandhan G, Rajesh M, Arun M, Jeyaraj M, Kapil Dev G, Arjunan A, Manickavasagam M, **Muthuselvam M**, Selvaraj N, Ganapathi A (2012d) Effect of culture conditions, cytokinins, methyl jasmonate and salicylic acid on the biomass accumulation and production of withanolides in multiple shoot culture of *Withania somnifera* (L.) Dunal using liquid culture. *Acta Physiol Plant*. doi: 10.1007/s11738-012-1112-x (IF: 1.438)
 9. Sivanandhan G, Kapil Dev G, Jeyaraj M, Rajesh M, Arjunan A, Manickavasagam M, **Muthuselvam M**, Selvaraj N, Ganapathi A (2012d) Increased production of

- withanolide A, withaferin A and withanone in hairy root culture of *Withania somnifera* (L.) Dunal. *Plant Cell Tiss Organ Cult.*(IF:2.004)
10. M.Mathiyazhagan , S.Senthilnathan, A.Arjunan, **M.Muthuselvam**, and A.Ganapathi. Assessment of fuel properties of biodiesel fuel from waste oil (2012). *Int J Pharm Bio Sci*; 3(4): (B) 281 – 287. (IF: 0.4)
 11. Rajasekaran, R., **Muthuselvam. M.**, Arunachalam, C., S. Arunkumar and Senthilkumar, S. 2010. Application of AFM in scientific research. *Journal of Advanced Biotech.*, **9**(9): 37-43.
 12. Rajasekaran, R., Senthil kumar, S. and **Muthuselvam, M.** 2010. *In vitro* plant tissue culture. *Journal of Advanced Biotech.*, **9**(10): 43-47.
 13. Ramya, S., Rajasekaran, R., **Muthuselvam, M.** and Senthil Kumar, S. 2010. Studies on Phytochemical screening and antimicrobial activity of *Solanum trilobatum* Linn. *Journal of Herbal Science and Technology.*
 14. Arunkumar, **S.**, **Muthuselvam, M.** and Rajasekaran, R. 2010. Analysis of Phytochemical constituents and Antimicrobial activity of some Southern India medicinal plants. *Journal of Pharmacy Research.* **3**(8): 1841-1843.
 15. Arunkumar Sathasivam, **M. Muthuselvam** and Rajasekaran Rajendran. 2010. Antimicrobial Activities of Cow Urine Distillate against Some Clinical Pathogens. *Global Journal of Pharmacology.*, **4**(1): 41-44. (IF: 0.98)
 16. Jasmine Rose Selina, J., **Rajasekaran, R.**, Muthuselvam, M. and Arunkumar, S. 2010. Biodegradation of Phenol in pharmaceutical industrial effluents using *Bacillus subtilis* and *Alcaligenes eutrophus*. *Journal of Advanced Biotech.*, **9**(8): 33-35.
 17. **Muthuselvam. M** and S. Arunkumar., 2009. Biological Degradation of Herbicide (Atrazine) using *Pseudomonas aeruginosa* and *Trichoderma viride*. *Journal of pure and applied microbiology.*, **3** (2): 661-666.
 18. **Muthuselvam. M** and S. Arunkumar., 2009. Biosorption of heavy metals by using free and immobilized cells of *Pseudomonas aeruginosa* and *Klebsiella pneumonia*. *Environmental Science: An Indian Journal.* **6**:1-8.
 19. **Muthuselvam, M.**, T. Sheeba and R. Rajasekaran., 2009. Analysis of Microbial Pigment Productivity in *Pseudomonas aeruginosa* and *Bacillus subtilis*. *Advanced Biotech.*, 10-14.

20. Rajasekaran. R., V. Mahesh. **M. Muthuselvam** and T. Selvaraj., 2009. Screening and Selection of Efficient AM fungus for *Sorghum bicolor* L. and *Sorghum vulgare* Pers. *Advanced biotech.*, 10-14.
21. Arunkumar, S., Prabakaran, P., **Muthuselvam, M** and Rajasekaran, R. 2009. Production and optimization of cellulose by *Bacillus subtilis* coir waste and sawdust. *Journal of Advanced Biotech.*, 8 (2): 30-34.
22. Arunkumar. S., V.Sivakumar., **M. Muthuselvam** and N.V. Baskar., 2008. Productivity and optimization of poly β -Hydroxy Butyrate (PHB) by *Alcaligenes eutrophus*, *Pseudomonas Putida* and *Rhizobium meliloti*. *Asian Journal of Environmental Science.*, **3**: 146-151.(IF:0.930)
23. Arunkumar. S., V. Sivakumar, **M. Muthuselvam** and N.V. Baskar., 2008. Production and partial purification of Cellulose by *Bacillus subtilis* Fumigatus fermented in coir waste and sawdust. *Asian Journal of Environmental Science.* **3**: 123-127.
24. Rajasekaran, R., Chandrasekaran, R. and **M. Muthuselvam.** 2008. Microbial biotechnology Rapid Advances in an area of Massive impact. *Advanced BioTech.*, **8(6)**: 19-25.