Dr. M. S. Mohamed Jaabir

M.Sc. (Biochem)., UGC-CSIR-NET., M.Phil (BioTech)., Ph.D.,
Mobile : + 91 9786425226 / 7010226431
mohamedjaabir@nct.ac.in

Present Designation: **Associate Professor and Head**
Academic: PG & Research Department of Biotechnology and Microbiology

Administrative:
Co-ordinator, **DBT - MSc Biotechnology** (2020 onwards)
Co-ordinator, **STAR COLLEGE SCHEME – DBT-INDIA** (2019 onwards)
Co-ordinator, **UGC-Innovative Program** (2013-2018)
Co-ordinator, **Study In India-MHRD (2017-2019)**
Co-ordinator, **Internal Quality Assurance Cell** (2014 onwards)
Co-ordinator, **NIRF** (2015 onwards)
Biological Scientist, CPCSEA-approved Animal House, NCT.

Teaching Experience : 21 Years

Research Experience : 15 Years

Areas of Research : Nutritional Biochemistry, Cancer Biology and Stem Cell Biology.

Ph.D. guided : Ph.D. Completed – 1
Awaiting viva-voce- 2
Working for Ph.D. – 4

Funded Research Programmes / Schemes

Research Projects / Grants:

Project Approved - Study on the Anti-cancer Prospects of the Coelomic Fluid of Earthworm – SERB (file no **CRG/2018/004447)**; Requested Grant amount Rs. 34.08 Lakhs.

Principal Investigator - A molecular investigation on the onset of Attention Deficit and Hyperactive Disorder (ADHD) in the maternal micronutrient deficient offspring - UGC, NewDelhi; Grant of Rs. 15,87,000/-(2015 to 2018).

Co-Investigator - Microbial aided Vermistabilization of textile industry sludge: A low-cost sustainable technology over conventional systems with potential for decentralization in the textile valley of Tamil Nadu –DST – Waste Management Technology Program (WMT) under Level-1; Proof of Concept / Seeding Project Category. Grant

sanctioned – Rs. 10.3 Lakh (2018-2019).

Co-Investigator - Extraction of Water from Air at Zero Energy Expenditure to Mitigate Water and Energy Crisis in India: A Socio-technical perspective to develop 'ZERO EXTRACT CORPORATES – DST-Water Technology Initiative (WTI); Grant Sanctioned – 25.17 Lakh (2017- 2019).

: **Co - Investigator** – Biorestoration of textile effluent polluted soil of Tirupur region through vermistabilization and subsequent evaluation on crop plants – TNSCST sanctioned Rs. 2.69 Lakh (2013-2015).

Schemes / Grants : **DBT – PG Teaching in Biotechnology - SCHEME** to offer MSc Biotechnology programme under grant support.

DBT - STAR COLLEGE SCHEME for strengthening of Science Education and Training at Undergraduate level for FIVE departments at National College; such as Biotechnology, Botany, Chemistry, Physics and Zoology. Grant received - Rs. 105 Lakhs.

: UGC-Innovative Scheme to offer 1-year Post Graduate Diploma in Bioprocess Technology Scheme duration – 2013-2018. Grant received - Rs. 60 Lakhs + Salary Grant for 3 Staff (as per actual UGC Scale).

: UGC – Community Scheme to offer Certificate, Diploma and Advanced Diploma in Welding and Fabrication. Grant sanctioned – 35.2 Lakh (2015-2018)

Rank and Award

1. **Qualified CSIR – UGC NET** held on 28 December 2003.
National **E**ligibility **T**est (**NET)** for Lectureship conducted by **C**ouncil of **S**cientific and **I**ndustrial **R**esearch (**CSIR**) and **U**niversity **G**rants **C**ommission (**UGC**), Govt. of India favouring appointment as Lecturer on a regular basis.

2. **University First Rank (Gold Medal)** in M.Sc. Biochemistry
awarded for securing highest percentage (**77.9 %**) in the examinations conducted to qualify M.Sc. Biochemistry Degree, during the period June 1996 – April 1998 among the other students registered for same under Bharathidasan University, Tiruchirappalli -24

3. Srinivasarangan scholarship
awarded for securing **FIRST** rank among the wards of the staff of Madras Research Centre of **Central Marine Fisheries Research Institute (CMFRI*)***, in the XII Public Examination held in March 1992 conducted by **Central Board of Secondary Education (CBSE).**

INTERNATIONAL FELLOWSHIPS RECEIVED FOR ATTENDING CONFERENCE IN INDIA AND ABROAD/ COUNTRIES VISITED

1. Bangkok, Thailand (2010)
   Recipient of IBRO (International Brain Research Organization-Asia-Pacific Regional Committee) fellowship for attending the IBRO-APRC Associate School of Neuroscience held in Bangkok in Jan 27-31, 2010 and presented research paper titled" Does Maternal Dietary Micronutrient Deficiency Modulate Free Radicals - Scavenging Enzyme levels and Per se alters the offspring Behaviour?" in the 14th TNS Conference, held during February, 1-2, 2010 at Bangkok, Thailand.
2. Kolkata, India (2009)
   Recipient of IBRO (International Brain Research Organization Asia-Pacific Regional Committee) fellowship for attending the School of Neuroscience in Kolkata, India held between 29th December and 8th January, 2009, organized by the Indian Institute of Chemical Biology, Kolkata to undergo training in Frontier areas of Brain Research and also to present my Research activities.
3. Nizwa and Muscat, Oman
   Meet with Vice-Chancellor and other delegates of Nizwa University, Nizwa, Sultanane of Oman; June 2007, to propose collaborative academic exchange programmes.

Google Scholar Index (Screen Shot given below):

(https://scholar.google.co.in/citations?hl=en&user=gejTEC8AAAAJ)

Jaabir Mohamed

FOLLOWING

Associate Professor and Head, Department of Biotechnology and Microbiology , National College
Verified email at nct.ac.in - Homepage
Cancer Biology Stem Cell Culture and Cell …

Cited by

	All	Since 2015
Citations	146	125
h-index	6	6
i10-index	3	2

Google Scholar Citations: 146
h-index : 6

Details of publications

Pathaw L, Khamrang T, Selvakumaran B, Murali M, Arul Prakash P, **Mohamed Jaabir MS**, Velusamy M, (2020). Synthesis, structure, characterization and biological evaluation of 3-substituted 1-pyridin-2-ylimidazo [1,5-a] pyridinebased copper(I)–phosphine complexes for anticancer drug screening. Appl Organomet Chem. 2020; e6025. https://doi.org/10.1002/aoc.6025. (Impact Factor: 3.581)

Mohamed Asik R., Gowdhami B., **Mohamed Jaabir M.S.**, Archunan G., Suganthya N., (2019). Anticancer potential of zinc oxide nanoparticles against cervical carcinoma cells synthesized via biogenic route using aqueous extract of Gracilaria edulis, Materials Science & Engineering C 103, 109840. (Impact Factor: 5.88)

Mohd Haseeb, M.S. Khan, Abu baker, Mohamed Imran M, **Mohamed Jaabir M.S.** (2020). Cytotoxic and Antibacterial Activity Evaluation of MDR Bacteria mediated Synthesized Silver nanoparticles. Biosc. Biotech.Res.Comm. 13(1), 139-145.

Mohd Haseeb, Mohd Sajid Khan, Abu baker, Imran Khan, Iram Wahid, **M.S. Mohamed Jaabir** (2019). Anticancer and Antibacterial Potential of MDR *S.aureus* Mediated Synthesized Silver

Nanoparticles, Biosci. Biotech. Res. Comm. 12(1): 26-35.

Alkesh Hada, Veda Krishnan, **M. S. Mohamed Jaabir**, Archana Kumari, Monica Jolly, Shelly Praveen, Archana Sachdev (2018). Improved ***Agrobacterium tumefaciens*** **-** mediated transformation of soybean [***Glycine max*** (L.) Merr.] following optimization of culture conditions and mechanical techniques. In Vitro Cellular & Developmental Biology – Plant. 54(6), pp 672– 688. (Impact Factor: 1.814)

V. Renuga, C. Neela Mohan, **M.S. Mohamed Jaabir**, Pitchan Arul Prakash, and M. Navaneethan (2018). Synthesis and Surface Passivation of CuInS2/MnS/ZnS Core-Multishell Nanocrystals, their Optical, Structural and Morphological Characterization, and their Bioimaging Applications. Industrial and Engineering Chemistry Research. *Ind. Eng. Chem. Res.*, 2018, *57* (46), pp 15703–15721. (Impact Factor: 3.71)

Sundararaj Sankaramanivel, Muhammad Yasar Molgakar, Pitchan Arul Prakash, **M.S. Mohamed Jaabir**, Subramanian Gurunathan (2017). Stem Cells and Metallothionein - A Review, Int J Cur Res Rev, Vol 9(13), 54-61.

Mansoor Hussain, Vinoth Madhavan, **Mohamed Jaabir** M.S., (2017). Hypoxia Induces Mitochondrial Swelling and Invasive Potential of Cultured Cells. Biomedical & Pharmacology Journal Vol. 10(1), 367-372.

P. Jaikumar, T. Balakrishnan, **M. S. Mohamed Jaabir**, S. Sakthivel (2017). Investigations on the growth, Structural, Optical, Mechanical and Cytotoxicity Properties of a Semiorganic Single Crystal: Cytosinium Nitrate, Int J Cur Res Rev. 9(4), 8-14.

Mohamed Jaabir M.S., Ramu S., Shabeer N., Shantkriti S. and Senthil Kumar S. (2014). Preliminary evaluation of the larvicidal efficacy of coelomic fluid of Eudrilus euginiae on Anopheles mosquito, International Journal of Pharmaceutical Science Invention, Vol. 3(8) 20-27.

S.Senthil Kumar, T. Muruganandham and **M.S. Mohamed Jaabir** (2014). Decolourization of Azo dyes in a two-stage process using novel isolate and advanced oxidation with Hydrogen peroxide/HRP system. Int. J. Curr. Microbiol. App. Sci (2014) 3(1): 514-522.

Senthil Kumar S., **Mohamed Jaabir** (2013). Biological treatment of textile wastewater and its re-use in irrigation: Encouraging water efficiency and sustainable development. Journal of Water Resources and Ocean Science 2013; 2(5): 133-140.

S. Senthil Kumar, T.Muruganandham, V.Kathiravan, R. Ravikumar and **M.S. Mohamed Jaabir**. (2013). Rapid decolourization of Disperse Red F3B by Enterococcus faecalis and its Phytotoxic Evaluation. Int.J.Curr.Microbiol.App.Sci (2013) 2(10): 52-67

Kirubakaran, S.Venkataramana, **M. S. Mohamed Jaabir**. (2013). Effect of Ethrel and Glyphosate on the ripening of Sugar Cane. International Journal of ChemTech Research. Vol.5, No.4, pp 1927-1938.

Anand K.V., **Mohamed Jaabir, M.S**., Philip A. Thomas., Geraldine, P. (2012). Protective role of chrysin against oxidative stress in D-galactose induced aging in an experimental rat model" Geriatrics and Gerontology International, 12(4) 741-750.

Mohamed Jaabir M.S., Shamsheerali L., Yasar MD.M., Senthil Kumar S. (2011). Evaluation of the cell-free coelomic fluid of the earthworm *eudrilus euginiae* to induce apoptosis in SiHa cell line, Journal of Pharmacy Research. 4(10), 3417- 3420.

Mohamed Jaabir, M.S., Naseeruddin, S., Shabeer, N., and Senthil Kumar, S. (2011). Antimicrobial activity of the ethanolic extract of the leaves of Cissus *quadrangularis* and its phytochemical analysis by GC-MS. *Journal of Theoretical and Experimental Biology*, 7: 99-108.

Mohamed Jaabir, M.S., Rosario, J.F., Senthil Kumar, S., and Geraldine, P. (2010). Maternal micronutrient restriction alters skeletal muscle mitochondrial DNA damage per se predisposes the offspring to insulin resistance in later life. *Biosciences, Biotechnology Research Asia,* 7: 189-198.

Senthil Kumar, S., Soban Akram, S., Fareed Ahmed, T.S., and **Mohamed Jaabir, M.S.** (2010). Phytochemical analysis and antimicrobial activity of the ethanolic extract of Acorus calamus rhizome. *Oriental Journal of Chemistry*, 26: 223-227.

Senthil Kumar, S., Shariq afsar, T., Mohamed Yasar, M., Mansoor Hussain, A., and **Mohamed Jaabir M.S.** (2010). A Study on the Fungal antagonism by chitinolytic bacterial isolates from prawn culture farms of Ramanathapuram District, Tamil Nadu. *Journal of Pure and Applied Microbiology*, 4: 429-432.

Veeramani, A., Senthil Kumar, S., **Mohamed Jaabir, M. S.**, Sivagandhi, C., Marimuthu, R., Ravikumar, R. (2010). *Eudrilus euginiae* as a putative candidate for Textile industry effluent polluted soil bioremediation. *Current World Environment* 5: 131-136.

Mohamed Jaabir, M.S., Vigneshwaran, R., Md. Ehtisham Ul Hassan, T., Senthil Kumar, S. (2010). Study on the antimicrobial activity of ethanolic extract of the fruits of *Solanum torvum* and its phytochemical analysis by GC-MS. *Biomedical and Pharmacology Journal*, 2: 117-121.

Mohamed Jaabir, M.S., Rosario, J.F., Senthil Kumar, S., Geraldine, P. (2009). Maternal dietary micronutrient restriction during preconception, conception and post natal life predispose the offspring to insulin resistance and hypertension in adult life. *Biomedical and Pharmacology Journal*, 2: 239-248.

Mohamed Jaabir, M.S., Mansoor Hussain, A., Shariq Afsar, T., Senthil Kumar, S. (2009). Study on the apoptotic properties of methanolic extracts of *Peltophorum pterocarpum, Cassia auriculata, Cassia alata* and *Lamprachaenium microcephalum*. *Biomedical & Pharmacology Journal,* 2: 381- 385.

Senthil Kumar, S., **Mohamed Jaabir, M.S.**, Krishna Moorthy, S., Manikandan, R., Ravikumar, R. (2007). Decolorization of Textile Dyes by soil isolates from a textile industry. *JARJ* 4: 20-24.

You Tube Channel

https://www.youtube.com/channel/UClBuJNB-Bwpz8FAGRLaxRFg?view_as=subscriber

PATENT FILED (PATENT APPLICATION NUMBER IS 860/CHE/2010 A)

Indian Applicant Files Patent Application for Cold Facile Method - a Novel Method for Collecting Coelomic Fluid from Earthworm Belonging to the Phylum Annelida. T***he patent file and publication number is 860/CHE/2010 A. The international classification number is A01K.***

OTHER CITATIONS

R. Senthil Kumar & M.S. Mohamed Jaabir; College faculty evolves eco-friendly process for treating effluents – The Hindu, July 17, 2009, pp-2.

S. Senthil Kumar & M.S. Mohamed Jaabir; College researchers say bacteria helpful in treating toxic effluents – The Times of India, August 6, 2009.

S.Senthil Kumar & M.S. Mohamed Jaabir; 'saayakazhivai suthigarikkum bacteria' –Article in Tamil, Kalai Kathir,

BOOKS / CD'S PUBLISHED

Senthil Kumar S. and **Mohamed Jaabir MS.** (2009). IPR, Biosafety and Biotechnology Management, Jasen Publications, India. [ISBN No. 9788190894203]; accepted as the reference book for B.Sc., M.Sc., Biotechnology and M.Sc., Gene Technology program of affiliated Colleges of Bharathidasan University, Tiruchirappalli.

Mohamed Jaabir MS. and Senthil Kumar S. (2008). Laboratory Manual for Animal Cell Culture Techniques, Jasen Publications, India.

Senthil Kumar S. and Mohamed Jaabir MS. (2007). Biotechnology: Today and Tomorrow. An electronic media (DVD) as an eye-opener for the aspirants of Biotechnology, to realize the potential of Biotechnological Research.

BOOK CHAPTER

Senthil Kumar S, Venkatesan S, Balaji TS, Yuvraj A and Mohamed Jaabir MS. (2010). Decolorization of Reactive Blue using a novel isolate – Bacillus firmus SK 20. Current Scenario in Microbial Biotechnology, 349-355.

Sequences of bacterial 16S rRNA gene submitted at NCBI

S. No.	Accession No.	Nucleotide	Source
1.	FJ966212	16s rRNA partial	*Bacillus sp. SK03*
2.	FJ974057	16s rRNA partial	*Bacillus firmus SK20*
3.	FJ974058	16s rRNA partial	*Paenibacillus lautus SK21*
4.	FJ974059	16s rRNA partial	*Pseudomonas stutzeri JMC 01*
5.	GQ120620	16s rRNA partial	*Bacillus subtilis JMC02*
6.	HM451426	16s rRNA partial	*Comamonas species strain JMC-UBL-27*
7.	HM451427	16s rRNA partial	*Enterococcus fecalis strain JMC-UBL-31*
8.	HM451428	16s rRNA partial	*Enterococcus Fecalis strain JMC-UBL-02*
9.	HM451429	16s rRNA partial	*Bacillus flexus strain JMC-UBL-24*
10.	HM451430	16s rRNA partial	*Acinetobacter species strain JMC-UBL 15*
11.	HM451431	16s rRNA partial	Bacillus species *strain JMC-UBL 15*

12.	HM451432	16s rRNA partial	Acinetobacter species strain *JMC-UBL 17*
13.	HM451433	16s rRNA partial	Comamonas species strain *JMC-UBL 19*
14.	HM451434	16s rRNA partial	Bacillus species strain *JMC-UBL 10*
15.	HM451435	16s rRNA partial	Paenibacillus species strain *JMC-UBL 34*
16.	HM451436	16s rRNA partial	Bacillus endophyticus strain *JMC-UBL 13*
17.	HM451437	16s rRNA partial	Bacillus anthracis strain *JMC-UBL 06*
18.	HM451438	16s rRNA partial	Pseudomonas species strain *JMC-UBL 26*
19.	HM451439	16s rRNA partial	Bacillus thuringiensis strain *JMC-UBL 03*
20.	HM451440	16s rRNA partial	Bacillus cereus strain *JMC-UBL 09*
21.	HM451441	16s rRNA partial	Bacillus pumilus strain *JMC-UBL 20*
22.	HM451442	16s rRNA partial	Lysinibacillus species strain *JMC-UBL 45*
23.	HM451443	16s rRNA partial	Bacillus megaterium strain *JMC-UBL 23*
24.	HM451444	16s rRNA partial	Pseudomonas species strain *JMC-UBL 01*
25.	HM451445	16s rRNA partial	Azoarcus species strain *JMC-UBL 43*
26.	KF032717	16s rRNA partial	*Lysinibacillus sphaericus* strain *SK13*
27.	KF032718	16s rRNA partial	*Aeromonas hydrophila* strain *SK16*

Consultant, IQAC / NAAC Accreditation/DST-FIST/NIRF

NAAC Accreditation / DST-FIST application / NIRF. Resource person for career orientation programmes and practical training in the areas of Bioprocess Technology and Animal Cell Culture Techniques.

Consultant for the Hospitals in establishing Stem Cell Culture laboratory; provide technological support in the initialization of the experimental procedures involved in stem cell isolation, enrichment and characterization.

Production of Bio-fertilizers (VAM, *Azospirillum, Pseudomonas sps*. etc).

Resource Person (recent)

Resource person for Workshops / Conference / Seminars and lecture series in the areas of Enzymology, Animal Cell Culture Techniques and Flow Cytometry, Fermentor Operations and Immunology.

Have chaired a number of Conferences and seminars in and around Tiruchirapalli District; Resource person for organizing Hands on Training Workshops in Bioreactor and Animal Cell Culture Techniques.

Workshops Convened

No. of Workshops convened and acted as resource person on Animal Cell Culture Techniques – 21

No. of Workshops convened and acted as resource person on Fermentor Operations – 36

Resource Person & Workshop Trainer in Animal Cell Culture Techniques and Fermentor Operations

Consultant in Cell Culture Facility Establishment, In-vitro Toxicity Studies and Stem Cell Culture Techniques