

## Dr. SHAN AHAMED THARIFKHAN

Assistant Professor

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### EDUCATION

2011-2018	Bharathidasan University, India	Ph.D. in Microbial Biotechnology
2008-2010	Bharathidasan University, India	MSc Marine Biotechnology
2005-2008	Annai College of Arts & Sciences, India	B.Sc Biotechnology

### EMPLOYMENT HISTORY

March 2023 to present	National College, India	Assistant Professor
March 2020 to April 2022	CoRx Pharmaceuticals Pvt Ltd	Research Associate
June 2019 to December 2019	Project Assistant	National Institute of Food Technology, Entrepreneurship and Management (NIFTEM), India
Dec 2018 to Apr 2019	Assistant Professor	Annai College of Arts & Sciences, India
Oct 2011 to Sep 2013	Lab technician	National Facility for Marine Cyanobacteria (NFMC) Bharathidasan University
Apr 2014 to Dec 2017	University research fellow	NFMC, Bharathidasan University
Dec 2017 to Sept 2018	Studentship	Bioinformatics centre, NFMC

**RESEARCH INTEREST** Microbial biodiversity and their adaptation to stress environments, nutrient and thermal stress simulations in laboratory cultivated microalgae, industrially important secondary metabolites, enzymes production from microalgae, environmental climate sustainability – production of biopolymers from cyanobacteria.

## **PUBLICATIONS**

- 2023** Sugar cane bagasse hydrolysate (SBH) as a lucrative carbon supplement to upgrade the lipid and fatty acid production in *Chlorococcum* sp. for biodiesel through an optimized binary solvent system. **Environmental Research**, p.117626. Pugazhendhi, A., Ashutosh Sharma, Tharifkhan Shan Ahamed, Kesava Priyan Ramasamy, Amal Abdullah A. Sabour, Maha Alshiekheid, T. G. L. Thuy, and Thangavel Mathimani\*.
- 2022** In-vivo detection of triacylglycerols through Nile red staining and quantification of fatty acids in hyper lipid producer *Nannochloropsis* sp. cultured under adequate nitrogen and deficient nitrogen condition”. **Fuel – Elsevier** - 15 August 2022, Vol 322: 124179. Shan Ahamed Tharifkhan, Kathirvel Brindhadevi, Ramakrishnan Krishnan, Tran Nhat Phuong, Sulaiman Ali Alharbi, Arunachalam Chinnathambi, Thangavel Mathimani\*.
- 2021** Improvement of Nutrient Bioavailability in Millets: Emphasis on the Application of Enzymes”. **Science of Food and Agriculture - Wiley** - 31 Mar 2021. Shan Ahamed Tharifkhan, Anand Babu Perumal, Arun kumar Elumalai, Jeyan Arthur Moses, Anandharamakrishnan Chinnaswamy\*  
  
Nguyen Thúy Lan Chi; Susaimanickam Anto, Shan Ahamed Tharifkhan, Smita S. Kumar, Shanmugam Sabarathinam, Melvin S.Samuel, Mathimani Thangavel, Kathirvel Brindhadevi, Arivalagan Pugazhendhi, “A review on biochar production techniques and biochar based catalyst for biofuel production from algae”. **Fuel – Elsevier** - 01 Mar 2021, Vol 287. <https://doi.org/10.1016/j.fuel.2020.119411>
- 2020** Garlapati Deviram, Thangavel Mathimani, Susaimanickam Anto, **Shan Ahamed Tharifkhan**, Devanesan Arul Ananth, and Arivalagan Pugazhendhi. "Applications of microalgal and cyanobacterial biomass on a way to safe, cleaner and a sustainable environment." **Cleaner Production – Elsevier** - 20 Apr 2020, Vol 253: 119770. <https://doi.org/10.1016/j.jclepro.2019.119770>.  
  
Upgrading of bio-oil from thermochemical conversion of various biomass–Mechanism, challenges and opportunities. **Fuel - Elsevier** – 01 Mar 2021, Vol 287: 119329. Shan Ahamed Tharifkhan, Susaimanickam Anto, Thangavel Mathimani, Kathirvel Brindhadevi, and Arivalagan Pugazhendhi\*.
- 2017** Dharmaraj Ramesh; Sami Souissi; Shan Ahamed Tharifkhan. “Effects of the potential probiotics *Bacillus aerophilus* KADR3 in inducing immunity and disease resistance in *Labeo rohita*”. **Fish and Shellfish Immunology – Elsevier** - 20 Mar 2017, Vol 70. <https://doi.org/10.1016/j.fsi.2017.09.037>.

2018

Growth and Nitrogen (N) Metabolizing Enzymes of Mesophilic and Psychrophilic Heterocystous Cyanobacteria—In Response to Temperature Regimes”. *Research & Reviews: A Journal of Life Sciences* (Volume 8, Issue 3, pages 31-43). Shan Ahamed Tharifkhan, Deviram Garlapati, Dharshana Arulraj, Mathumathy Murugesan, Uma Lakshmanan, Dharmar Prabakaran\*

A study on carbon fixing enzymes in psychrophilic and mesophilic cyanobacterium *Nostoc* sp., under temperature regimes, *International journal of basic and applied research*. Volume 8, No.9. Shan Ahamed Tharifkhan, Dharshana Arulraj, Dinesh babu Gnanasekaran, Deviram Garlapati, Uma Lakshmanan, Dharmar Prabakaran\*.

Susaimanickam Anto, M. P. Sudhakar, Shan Ahamed Tharifkhan, Melvin S. Samuel, Thangavel Mathimani, Kathirvel Brindhadevi, and Arivalagan Pugazhendhi. "Activation strategies for biochar to use as an efficient catalyst in various applications." *Fuel – Elsevier* - 01 Feb 2021, Vol 285: 119205. <https://doi.org/10.1016/j.fuel.2020.119205>.

Darshana Arulraj, Rashmi Vijayaraghavan, Deviram Garlapati, Shan Ahamed Tharifkhan, Prabakaran Dharmar, and Uma Lakshmanan. "Identification of potential marine filamentous heterocyst cyanobacterium producing higher EPS coupled with higher viscosity." *International Journal for Research in Applied Science Engineering Technology* - Apr 2018, Vol 6. <http://doi.org/10.22214/ijraset.2018.4576>.

Thangavel Mathimani ; Duraisamy Bhumathi ; Shan Ahamed Tharifkhan; Gnanasekaran Dineshbabu ; Garlapati Deviram ; Lakshmanan Uma ; Dharmar Prabakaran\*. “Semi continuous outdoor mass cultivation and efficient harvesting of marine *Chlorella vulgaris* BDUF 91771 with minimum solid co-precipitation and high floc recovery for biodiesel”. *Energy conversion and management – Elsevier* - 27 Oct 2017, Vol 149. <https://doi.org/10.1016/j.enconman.2017.06.077>.

## HONORS AND AWARDS

- Resource person in workshop on "Advanced Research Techniques on Genomics, Proteomics & Bioinformatics (ARTGPB)" - National Facility for Marine Cyanobacteria (NFMCC), Bharthidasan University, Tiruchirappalli. November 7th-21st, 2017.
- Won 3<sup>rd</sup> best oral presentation award for oral entitled “Cyanobacterial carbon fixing enzymes during thermal stress in polar and mesophilic heterocystous cyanobacterium *Nostoc* sp. International Symposium on Biodiversity, Biology and Biotechnology of Algae (ISBBBA), January 8-10, 2020.

## SELECTED CONFERENCES

- Current Trends in biology and Biotechnology - Department of Biochemistry, Bharathidasan University, Tiruchirappalli. 19-20th September 2008.
- Seminar on "Scope of modern organic farming and sustainable agriculture" – National Facility for Marine Cyanobacteria (NFMC), Bharathidasan University, Trichirappalli. 7th February 2009.
- National conference on "Recent Trends in Biosciences (NCRTB-07)" - School of Biosciences, Annai College of arts and Science. 8 - 9th February 2007.
- Conference on "Recent Advances on Molecular biology techniques" – Microbial Biotechnology Laboratory, Department of Marine Biotechnology, Bharathidasan University. 12th September 2011.
- Recent trends in University – Industry relations - School of Environmental Sciences, Department of Environmental Management, Bharathidasan university. February 16th 2012.
- Short term training on "Cyanobacterial Advanced Research Techniques (CART)" – National Facility for Marine Cyanobacteria (NFMC), Bharathidasan University. February 27th-March 9th, 2012.
- National conference on "Empowering Mankind with Microbial Technologies (AMI- EMMT)" and presented poster paper entitled “Psychrophilic cyanobacteria in polar hemispheres” - Tamil Nadu Agricultural University, Coimbatore. November 12 - 14, 2014.
- International conference on "Microalgal and Cyanobacterial Biotechnology" and presented poster entitled “influence of temperature on growth and relative fattyacid profiles of mesophilic and polar isolates”. National Facility for Marine Cyanobacteria (NFMC), Bharthidasan University, Tiruchirappalli. August 29 – 31st 2016.
- Advanced Research Techniques on Genomics, Proteomics & Bioinformatics(ARTGPB) - National Facility for Marine Cyanobacteria (NFMC), Bharthidasan University, Tiruchirappalli. November 7th-21st, 2017.
- Prof. T. V. Desikachary birth centenary International Symposium on Biodiversity, Biology and Biotechnology of Algae (ISBBA-2020), presented oral entitled “Cyanobacterial carbon fixing enzymes during thermal stress in polar and mesophilic heterocystous cyanobacterium *Nostoc* sp.
- Prof. T. V. Desikachary birth centenary International Symposium on Biodiversity, Biology and Biotechnology of Algae (ISBBA-2020), presented oral entitled “Cyanobacterial carbon fixing enzymes during thermal stress in polar and mesophilic heterocystous cyanobacterium *Nostoc* sp.

## **TECHNIQUES KNOWN**

Genomic DNA extraction from bacteria and cyanobacteria  
Molecular identification - PCR amplification, 16S rRNA gene sequencing, agarose electrophoresis  
Proteins – isolation, electrophoresis – SDS, NATIVE and 2 dimensional  
Chromatography – column, GC (Perkin Elmer) and HPLC (Agilent)  
Estimation of basic biochemical – proteins, chlorophylls, carotenoids.

## **REFERENCES**

### **Dr. Dharmar Prabakaran**

Former director  
Department of Marine Biotechnology  
National Facility for Marine Cyanobacteria  
Bharathidasan University  
Tamil Nadu, India  
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### **Dr. Jeyan Arthur Moses**

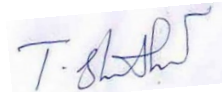
Assistant professor and In-charge  
Computational Modelling and Nanoscale Processing Unit (CMNPU)  
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### **Dr. Arivalagan Pugazhendhi**

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## **DECLARATION**

**I hereby declare that all information furnished above is true and correct to the best of my knowledge.**



**SHAN AHAMED THARIFKHAN (04/02/2024)**