

## *CURRICULUM VITAE*

**Dr. Jibu Thomas**, *M. Sc., Ph. D., PDF*



### **Present Affiliation**

**Professor**, Department of Biotechnology  
School of Agriculture and Biosciences  
Karunya Institute of Technology and Sciences (Deemed to be University)  
Coimbatore – 641 114, Tamil Nadu, India

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<http://www.researcherid.com/rid/G-3337-2018>

## Educational Qualifications

**PDF (Post Doctoral Fellowship) – University Grants Commission (UGC), New Delhi Research Awardee Scheme at Karunya Institute of Technology and Sciences – 2014 - 2016**

**Ph.D.** (Doctoral degree awarded in Plant Physiology) by Bharathiar University, Coimbatore, Tamil Nadu in June 2008 for the thesis entitled “‘Bio-markers’ to elucidate the desirable traits for quality and yield in tea (*Camellia* spp.) germplasm” and HIGHLY COMMENTED by all evaluators - 2008

**Post graduation in Botany (83%) – University First rank - 2002**

Jamal Mohamed College, Tiruchirapally affiliated to Bharathidasan University, Tamil Nadu

**Graduation in Botany (75%) – Distinction - 2000**

Bishop Heber College, Tiruchirapally affiliated to Bharathidasan University, Tamil Nadu

## Technical Qualifications

- PG Diploma in Computer Applications (PGDCA)
- PG Diploma in Bioinformatics (PGDIB)

## Research Expertise

- Research Scientist August 2002 till May 2010 – UPASI Tea Research Institute

## Teaching Expertise

- Assistant Professor June 2010 to May 2017
- Associate Professor June 2017 - till date

## Externally funded projects as Principal Investigator:

Funding Agency	Title	Role	Budget outlay
National Tea Research Foundation (2016-19)	DNA barcoding of tea germplasm a novel technique to authenticate, protect property rights and to check adulterants and blends	Principal Investigator	14.53 Lakhs
Department of Biotechnology, Govt. of India (2013-16)	Gene targeting of microbial isolates to demonstrate potential plant growth promoting traits by third generation sequencing	Principal Investigator and Project Coordinator	28.80 Lakhs
Science and Engineering Research Board (SERB),	Phycoremediation a green technology initiative for effluents and there by	Young Scientist and Principal Investigator	18.80 lakhs

Department of Science and Technology, Govt. of India (2013-16)	production of high calorific biomass for biorefinery from microalgae using cost effective medium	No. <u>SERB/LS-981/2012</u>	
BESI-W2E/KU (funded by Biomass Energy System Incopr., USA) (2011-14)	Algae Biorefinery I: Factors Influencing Biomass Productivity in Microalgae	Project Coordinator	22.0 Lakhs
UGC - Research Award (2014-16)	Expression profiling of gene transcripts by semi quantitative (RT-PCR) and documenting antioxidant enzymes during drought stress in cultivated species of <i>Camellia sinensis</i>	Project Investigator	22.95 Lakhs
United Board Hongkong (2015-16)	Documenting the green treasures for accreditation	Project Investigator	US\$ 5000

### Other Roles

- ✦ **Head** of the Department of Biotechnology since 2018
- ✦ **Chairman** - Institutional Animal Ethical Committee (IAEC)
- ✦ **Member Secretary** - Institutional Human Ethical Committee (IEC)
- ✦ **Chairman** - Institutional Biosafety Committee (IBSC)
- ✦ GLP and ISO - 17025 - **Auditor**
- ✦ **Administrative Coordinator** - Department of Extension and Continuing Education
- ✦ **Club Advisor and Coordinator** - Nature Club - Environment Unit
- ✦ **Coordinator** - KEE Admissions, PG Admissions, MindKraft - University Technical Fest
- ✦ **Department Roles** - Campus Management System/mykarunya, International Student Exchange Programmes, Curriculum Design

### Prizes and Awards

- ✦ Bharathidasan University **First rank and Gold Medal** in M.Sc. - 2002
- ✦ **Young Scientist Award** from SERB- DST, Govt of India in January 2013
- ✦ UGC Research Awardee - by UGC, Govt. of India in December 2013
- ✦ **Best Research Paper Award in Biotechnologia 2019 - Committee of Biotechnology Polish Academy of Sciences and Professor Waclaw Szybalski Foundation, Poland - Cash Award PLN 5000**
- ✦ **Dr.C.S. Venkata Ram memorial prize** for best paper presentation at annual colloquium held at UPASI TRI 2004 to 2007

- ✚ **Dr.C.S. Venkata Ram memorial Award** for best original research paper well presented in PLACROSYM XVIII held at National Research Centre for Cashew (NRCC), Puttur during December 2008.
- ✚ **Best Faculty Award** – by Nehru Group of Institutions, Coimbatore in December 2015
- ✚ **Achievers Award** – Karunya Institute of Technology and Sciences in 2013, 2015,2016

### Patents Filed and Published

1. Indian patent on Aerobic Pre-fermenter (2017) Patent No. 201741006585 dt. 24.02.2017. Jibu Thomas, Suresh Kumar P and Vinolia S
2. Indian patent on A Novel Composition for controlling pathogen in maize Dr. Jibu Thomas, Mrs. Reena Josephine No. 202041014007 Dated 30.03.2020
3. Indian patent on An insect repellent composition from micro-algae and the process for the preparation thereof Dr. Jibu Thomas, Mr. Dharshan Balachandran No. 202041014485 Dated 31.03.2020
4. Indian patent on Kavid – Karunya Disinfection Chamber Dr. Jibu Thomas, Dr. S. Jacob K. Annamalai, Dr. Muthukumar Nadar, Dr. T. Jesse Joel, Mr.S. Robert No. 20241020677 Dated 15.05.2020
5. A Novel Herbal Disinfecting Composition and Dispensing Device thereof Dr. Jibu Thomas and team No. 202141014723 dated 29.03.2021

### Membership in scientific bodies

- Life Member, Indian Society of Plantation Crops
- Association of Microbiologist of India
- Association of Interdisciplinary Research in Science and Technology
- National Society for Ethanopharmacology

### NCBI Sequence Submissions: 132

### List of Publications

**International:           39**

#### ***Few Recent Publications:***

1. Reena Josephine C.M. and Jibu Thomas. (2021) Rhizosphere competent pseudomonas indoloxydans (F3-47) as a plant growth promoter and enhancer of zea mays l. under greenhouse and field trials. Current Trends in Biotechnology and Pharmacy 15(5), pp. 411-418
2. Avarave, S. and Jibu Thomas (2021) Biodiversity of South Indian tea clones with detection of plant-based adulterants in tea dust using DNA barcoding. Natural Product Research. doi: 10.1080/14786419.2021.2002325

3. Darshan Balachandran and Jibu Thomas (2021) Electrophoretic recovery of microalgae biomass of strain *Graesiella emersonii* and its cell analysis post treatment to ensure viable culture maintenance. *International Journal on Algae*. 23(3), pp. 269–280
4. Avarave, S., Jibu Thomas, Radha, V., Altaff, K. (2021) Synergistic protective effect of *Camellia sinensis* leaf buds and *Camellia sinensis* flowers against cisplatin-induced nephrotoxicity in rats and characterization of its bioactive compounds. *Natural Product Research*. doi: 10.1080/14786419.2021.1984469
5. Jacob, A., Mahanty, B., Thomas, J. (2020) Dynamic modelling of growth and flavonoid production from *Ocimum tenuiflorum* suspension culture *Bioprocess and Biosystems Engineering*, 43(11), pp. 2053–2064.
6. Sureshkumar, P., Jibu Thomas, (2020) Exploring the distinctiveness of biomass and biomolecules from limnic microalgae of unexplored waters of Noyyal River, Western Ghats, for exploitation. *Environmental Science and Pollution Research*, 27(18), pp. 23309–23322.
7. Jibu Thomas, , Joseph, D., Sureshkumar, P. (2020) Stress induced production of high-value organic compounds from freshwater microalgae. *International Journal on Algae*, 22(3), pp. 287–299.
8. Suresh Kumar, P, Jibu Thomas, (2019) Seasonal distribution and population dynamics of limnic microalgae and their association with physico-chemical parameters of river Noyyal through multivariate statistical analysis. *Scientific Reports*, 9(1), 15021.
9. Anu Jacob & Jibu Thomas 2019. Flavonoids from cell suspension culture of *Ocimum tenuiflorum* and its enhancement using response surface methodology. *Drug Invention Today* 11: 9(469-479)
10. Reena Josephine & **Jibu Thomas** 2019. 16S microbial phylogeny of multifunctional plant-growth-promoting rhizobacteria from the rhizosphere of maize (*Zea mays* L.) for agricultural soil fortification. *BioTechnologia* vol. 100 (2) C pp. 143–154 (DOI: <https://doi.org/10.5114/bta.2019.85324>)
11. Pandian Sureshkumar & **Jibu Thomas** 2019. Integrated Study on Nutrients and Heavy Metals Removal from Domestic Wastewater using Free and Immobilized *Scenedesmus rubescens* (Chlorophyta, Chlorophyceae) *International Journal on Algae*, 21(1): 83–96
12. Shilpa G.S. and Jibu Thomas 2019. Screening Growth Promoting Traits in Maize Using Native Rhizobacteria through Multiple Approaches. *Journal of Pure and Applied Microbiology* 5444 Pages: 355-360
13. Pandian Sureshkumar & **Jibu Thomas** (2019) Strategic growth of limnic green microalgae with phycoremediation potential for enhanced production of biomass and biomolecules for sustainable environment. *Environmental Science and Pollution Research* 2019 (1) January
14. Subha Mary Varghese and **Jibu Thomas** (2019) Polyphenolic constituents in mulberry leaf extract (*m.latifolia* l.cv.bc259) and its antidiabetic effect in streptozotocin induced diabetic rats. *Pak. J. Pharm. Sci.*, Vol.32, No.1, 2019, pp.069-074

**National: 12**

**Chapters in Book - 30**

### Books Compiled/Edited : Five

1. Molecular Diagnostics for Sustainable Health in Bioscience & Technology - Excel India Publishers, 2011 - ISBN: 978-93-81361-14-6
2. New Horizons in Biotechnology - Iris Publishers, 2012 ISBN: 93-80543-15-8
3. Experimental Animals Ethical Guidelines and Bioefficacy Studies for Biotechnological Applications - Iris Publishers, 2014 - ISBN: 93-80543-19-0
4. Sustainable Technologies in Healthcare and Environment - Sri Sakthi Publishers, 2015 - ISBN No. 978-81-90387-10-1
5. DNA to Phylogeny - A Pratical guide - SriSakthi Promotional Litho Process, 2018

### Research and Technical Expertise

- ✦ Algae biomass development, optimization of growth and biofuels
- ✦ Plant microbe interactions
- ✦ 16srRNA sequencing and data analysis
- ✦ Molecular biology fingerprinting techniques (AFLP, ISSR, RAPD and southern blot analysis) for genetic integrity analysis and marker development for desired trait among the population
- ✦ Bioinformatics - Multiple sequence analysis, data blasting, vector removal, motifs, primer designing, modeling, etc.,
- ✦ PCR, restriction & ligation, cloning using kits, transformation using biolistics and *Agrobacterium*, isolation of genomic & plasmid DNA, etc.,
- ✦ Germplasm characterization and documentation using morphological, physiological and biochemical tools
- ✦ Sophisticated equipment like HPLC, GC, PCR, RT-PCT, electrophoresis, Gel documentation system, LKB Scintillation counter, IRGA, Flourometer, Porometer and Canopy analyzer as per standards
- ✦ Exposed to the handling of automated gene sequencer MEGABACE (48 capillary) and AB3500 genetic Analyser
- ✦ Trained in safety handling of radioactive isotopes
- ✦ Plant tissue culture techniques (micropropagation, somatic embryogenesis, hardening of TC plants, analysis of somaclonal variants, genetic fidelity assessment of TC plants)
- ✦ Analysis and interpretation of data using various software packages (SPSS, NTSYS, Total Lab, Harward graphics & Excel) and processing scientific images using Adobe Photoshop & Imaging programmes.
- ✦ Organizing and conducting field experiments/ bioefficacy experiments and cultural operations
- ✦ Qualified to impart training in the field of biotechnology, biochemistry and physiology to the visiting Graduate/ Post graduate/Research scholars in their projects.

### Personal Details

Father's Name : Shri. T.V. Thomas  
Date of birth & Age : 03.02.1978, 44 years  
Marital status : Married  
No. of Dependants : Three  
Nationality : Indian

Religion : Christian

Languages known : English, Malayalam and Tamil

### **Declaration**

*I certify that the above given statements are true and correct to the best of my knowledge and belief.*

Coimbatore

*(Jibu Thomas)*