

CURRICULUM VITAE

JAGANATH BALUSAMY

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Profile

Enthusiastic researcher with an immense inquisitive mind with an avid multidisciplinary interest. With an ample interest and knowledge in pollution control and waste degradation measures accompanied alongside of plant stress biology, crop improvement using genetic engineering and LEDs.

Research interests

- Phytoremediation strategies
- Hydroponics and other alternate soil-less cultivation methods like aeroponics
- Phyto-photobiology and algal- photobiology
- Studying plant responses to different abiotic and biotic stresses

Education

- Doctor of Philosophy (**Highly commended**) in Biotechnology at Department of Biotechnology and Genetic Engineering, Bharathidasan University, Tiruchirappalli–620024, Tamil Nadu, India.
- Master of Science in Ecobiotechnology (**First Class**) during 2007-2009 from Bharathidasan University, Tiruchirappalli – 620 024, Tamil Nadu, India.
- Bachelor of Science in Biotechnology (**First Class**) during 2004-2007 from Periyar University, Salem – 636 011, Tamil Nadu, India.

Work related experience

- *Assistant Professor, Department of Crop Improvement, Thanthai Roever Institute of Agriculture & Rural Development from Mar 2022*
- *Guest lecturer in the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli from Dec 2020 - Feb 2021.*
- *RUSA Postdoctoral research fellow in the Department of Biotechnology, Alagappa University, Karaikudi from April 2019 - Oct 2020.*

- *Scientific Co-ordinator, Natura Biotech, Chennai from May 2017 - April 2019*
- *Postdoctoral research fellow in the Faculty of Environmental Engineering, The University of Kitakyushu, Kitakyushu, Japan from Dec 2015 - Mar 2017.*

Technical Skills

➤ **Analytical techniques**

Fluorescent spectrometry, Fluorescent microscopy, HPLC, GC-MS

➤ **Molecular Biology**

Restriction endonuclease analysis, Ligation strategies, Transformation of recombinant plasmids, Over-expression of cloned genes, Real-Time PCR, Plasmid curing, Southern blotting, DNA finger printing techniques [RAPD and RFLP].

➤ **Protein Biochemistry**

Isolation, purification and characterization of proteins, SDS-PAGE, Western Blotting, Protein expression studies.

➤ **Bioinformatics**

BLAST, Clustal W, Primer 3, Docking

Publications

- **Jaganath B**, Subramanyam K, Ganapathi A (**Communicated**) Cloning and expression of *Jatropha curcas* small heat shock protein (*JcsHSP*) in soybean improves salinity stress tolerance.
- **Jaganath B**, Kihara T, Ueda K, Oshita K, Kawano T (2016), Effect of green growth light on the photosynthetic performance in lettuce leaves. Conference proceedings, JCEES, 13th& 14th September 2016, Kanazawa, Japan.
- **Jaganath B**, Subramanyam K, Mayavan S, Karthik S, Elayaraja D, Udayakumar R, Manickavasagam M, Ganapathi A (2014) An efficient in planta transformation of *Jatropha curcas* (L.) and multiplication of transformed plants through in vivo grafting. *Protoplasma* 251(3):591-601.
- Mayavan S, Subramanyam K, **Jaganath B**, Sathish D, Manickavasagam M, Ganapathi A (2015) Agrobacterium-mediated in planta genetic transformation of sugarcane setts. *Plant Cell Rep* DOI 10.1007/s00299-015-1831-8

- Rajesh M, Sivanandhan G, Subramanyam K, Dev GK, **Jaganath B**, Kasthuriengam S, Manickavasagam M, Ganapathi A (2014) Establishment of somatic embryogenesis and podophyllotoxin production in liquid shake cultures of PodophyllumhexandrumRoyle. Industrial Crops and Products 60:66–74.
- Arun M, Subramanyam K, Thebora J, Sivanandhan G, Rajesh M, Dev GK, **Jaganath B**, Manickavasagam M, Girija S, Ganapathi A (2014) Transfer and Targeted Overexpression of γ -TocopherolMethyltransferase (γ -TMT) Gene Using Seed-Specific Promoter Improves Tocopherol Composition in Indian Soybean Cultivars. ApplBiochemBiotechnol 172(4):1763-76.
- Subramanyam K, Rajesh M, **Jaganath B**, Vasuki A, Thebora J, Elayaraja D, Karthik S, Manickavasagam M, Ganapathi A (2013) Assessment of factors influencing the Agrobacterium-mediated in planta seed transformation of brinjal (Solanummelongena L.). ApplBiochemBiotechnol 171:450–468.
- Mayavan S, Subramanyam K, Arun M, Rajesh M, Dev GK, Sivanandhan G, **Jaganath B**, Manickavasagam M, Selvaraj N, Ganapathi A (2013) Agrobacterium tumefaciens–mediated in planta seed transformation strategy in sugarcane. Plant Cell Rep 10:1557-1574.
- Mathiyazhagan M, Ganapathi A, **Jaganath B**, Renganayaki N, Sasirekha N (2011) Production of Biodiesel from Non-edible plant oils having high FFA content. International Journal of Chemical and Environmental Engineering, Vol. 2, No.2, Pg: 119

Conference Organised

- Organised a Two day International conference on "**Agri-Tourism: A Sunrise Sector in Agriculture**" at Thanthai Roever Institute of Agriculture and Rural Development, Perambalur on 24th & 25th March 2023.

Training undertaken

- Undergone a 6 months project work in Jawaharlal Nehru Technological University (JNTU), Hyderabad on "**Biological hydrogen production from fruit juice wastewater by selectively enriched slaughter house sludge**".
- Attended 7 days training in Senthil Group of companies on "**Papain enzyme production and quality checking**" at Coimbatore, Tamil Nadu, India.
- Had done 1 month Project on "**Phenol degradation & neutralization**" in B.H.E.L. Tiruchchirappalli, Tamil Nadu, India.

- Attended 1 month training on “**Plant Tissue Culture techniques**” in Bharathidasan University, Tiruchchirappalli, Tamil Nadu, India.

Workshops attended

- Attended National Work Shop on “**Emerging Trends in Molecular and Recombinant DNA Technology**” (20th and 21st September, 2013) conducted by Department of Biotechnology, Sri Venkateswara College of Engineering, Irungattukottai, Tamil Nadu, India.
- Acted as a Resource person in Short Term Training course on “**Plant Genetic Engineering**” (13th to 28th March 2013) conducted by Department of Biotechnology & Genetic Engineering, Bharathidasan University, Tamil Nadu, India
- Acted as a Resource person in Short Term Training course on “**Commercial Plant Tissue Culture and Gene Transfer Techniques in Plants**” (12th to 25th March 2012) conducted by Department of Plant Science, Bharathidasan University, Tamil Nadu, India.
- Acted as a Resource person in Short Term Training course on “**Molecular Tools and Techniques in Plant and Animal Biotechnology**” (11th to 25th March 2011) conducted by Department of Biotechnology, Bharathidasan University, Tamil Nadu, India
- Attended one day National work shop on “**Patent Information**” (29th April 2009) conducted by Bharathidasan University, NIT, Tiruchirappalli and TNSCST, Tamil Nadu, India.
- Attended Short term training course on “**Plant Molecular Biology**” (21st to 6th March, 2005) conducted by Plant Molecular Biology Laboratory, Department of Biotechnology, Bharathidasan University, Tamil Nadu, India.

Conferences attended

- Participated in the International Conference cum Workshop on "**Caenorhabditis elegans based OMICS for future Challenges**" organised by the Department of Biotechnology, Alagappa University, Karaikudi during 09th - 13th September, 2019.
- Participated and presented a paper in the International conference on "**Innovative and Emerging Trends in Botany (ICIETB-2019)**" organised by the Department of Botany, Alagappa University, Karaikudi on 6th & 7th November, 2019.

- Participated and presented a poster in the conference organised by the **Japanese Society of Agriculture Biological and Environmental Engineers and Scientists (JSABEES)** (13th& 14th September 2016), Kanazawa, Japan.
- Participated in National Seminar on **Trends in Biological Sciences**(1st March 2013) organized by Department of Zoology, Bishop Heber College, Tiruchirappalli, Tamil Nadu, India.
- Participated and presented a poster in National conference on **Recent Trends in Plant Biotechnology** (27thto 28th February 2013) organized by Department of Plant Sciences, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India.
- Participated and presented a paper entitled **“Genetic transformation in *Jatropha curcas*”** in the International conference on **Advances in Biotechnology and Patenting (ICABP – 2013)** (18thto 21stFebruary 2013) organized by the Department Biotechnology & Genetic Engineering, Bharathidasan University, Tamil Nadu, India.
- Participated and presented a poster entitled **“An efficient in planta transformation in *J. curcas*”** in International conference on **Biotechnology in Human Welfare** (7th to 09thFebruary 2013) organized by Kakatiya University, Warangal, Andhra Pradesh, India.
- Participated in science academics lecture workshop on **“Challenges in Environmental Restoration”** (5thto 6thMarch 2012) organized by the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India.
- Participated in **“3R Concept and its Parctice in Academia and Research”** (2ndOctober 2011) organized by MGDC, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India.
- Participated in **“International conference on Climate Change and Bioresources (ICCCB-2010)”** and presented a paper on **“Variations in biochemical marker enzymes in soybean under salinity stress”** (9thto 12thFebruary 2010) organized by Department of Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India.
- Patricipated in a National conference on **“Environment Science and Technology”** (28thto 29th November 2008) held in the Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India.

Referees:

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