## Dr. P. CHELLAPANDI

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## ABOUT INDUSTRIAL SYSTEMS BIOLOGY LAB

Industrial systems biology is an interdisciplinary field that integrates biological science with engineering principles and data-driven approaches to optimize and manipulate biological systems for industrial applications. High-throughput data and computational models are used to simulate and predict cellular and metabolic behaviors, improve product yields, and reduce costs. Modifying the metabolic pathways of microorganisms to produce biofuels and pharmaceuticals more efficiently. Designing and constructing new microbial cell factories or devices to perform useful industrial functions. Our team has focused on optimizing and engineering microbial cell factories and consolidated bioprocessing for efficient and sustainable production of biofuels, biorefineries, and recombinant vaccines. Systems Microbiology allows biomanufacturing and process automation, leading to an Industry 4.0 transition.

- Chemical, molecular and genome evolution of methanogens.
- Molecular survival mechanisms of methanogens in Mars-like environments.
- Genome-scale and kinetic metabolic models for industrial microorganisms.
- Synthetic media for production of biofuels, biorefineries and chemicals.
- Consolidated methanogenic bioprocessing of flue gas carbon and seawater.
- Microbial processing for industrial enzyme production using groundnut shells.
- Aquaculture feed additives and probiotics for shrimp and murrel aquaculture.
- Automation in shrimp aquaculture and consolidated microbial processing.

Our team utilized a systems medicine approach to develop human therapeutics, integrating complex biological data to investigate treatment options for oral-lung-gut microbial axis diseases.

- Systems medicine models for understanding molecular virulence and pathogenesis mechanisms of oral-lung-gut microbial axis diseases.
- Systems medicine frameworks for drug repurposing and herbal formulations against these diseases.
- Metabolic inhibitors, peptide antibiotics, probiotics and engineered vaccines to treat these diseases.
- Synthetic biology devices for molecular diagnosis of these diseases.
- Methane mitigation interventions for veterinary animals.
- DNA barcoding databases for Indian medicinal plants

Hence, our group integrates biological data and synthetic gene circuits to develop innovative solutions for smart biomanufacturing and systems healthcare.

### **BIOGRAPHY**

Dr. P. Chellapandi, a prominent academic and researcher in Bioinformatics, holds M.Sc. in Biotechnology from the School of Biotechnology at Madurai Kamaraj University and a Ph.D. in Biotechnology from Bharathidasan University. He currently serves as Professor and Head of the Department of Bioinformatics at Bharathidasan University, with 26 years of experience in academia and research. His primary research interests include Industrial Systems Biology and Engineering Microbiology. He pioneered the development of genome-scale metabolic models, microbial chassis, and consolidated bioprocessing by using flue gas carbon, seawater and groundnut shells for production of biofuels, biorefineries and chemicals. In healthcare, his systems biology research addresses oral-lung-gut microbial axis diseases, developing metabolic inhibitors, peptide antibiotics, probiotics and engineered vaccines and synthetic biology devices for molecular diagnosis. His focus on the development of systems medicine frameworks for drug repurposing and herbal formulations demonstrated promising biomedical applications. He has made significant contributions, including the development of 2 systems biology databases, 10 microbial cell factories, 5 gut microbial metabolic models, and 20 microbial bioprocess systems. He authored 136 research articles in peerreviewed journals and a book with his work garnering 1,535 citations, an h-index of 20, and an i10-index of 53. His research had a cumulative SCI Impact Factor of **315.97**, with an average of 2.59 per publication, and a 5-year average of **4.02**. He has mentored seven Ph.D. candidates, currently supervising eight research scholars and one Postdoctoral Fellow. He received more than 5.20 Crore in research grants from various funding agencies. He has been awarded 20 fellowships and fellowships, including the Tamil Nadu Young Scientist Award, and continues to lead innovative research in this field. India is on the brink of a white biotechnology revolution. His innovations not only can provide new emerging platform for motivating young buds in systems and synthetic biology but also capitalize on this growth for smart biomanufacturing and systems healthcare in India.

## 1. ACADEMIC PROFILE

#### **Education**

- Post-Doctoral Fellow (DST-TARE Awardee) in Electromethanogenesis, (2018-2021) from CSIR-Central Electrochemical Research Institute
- Post-Doctoral Fellow (UGC-Research Awardee) in Molecular Systems Biology, (2013-2016) from Bharathidasan University
- Ph.D. Biotechnology (2005-2011) from Bharathidasan University (Date: 02-09-2011)
- **CSIR-UGC-JRF-NET** in Life Sciences (1998-99)
- M. Sc. Biotechnology (1997-99) from School of Biotechnology, Madurai Kamaraj University
- **B. Sc.** Chemistry (1994-97) from NMSSVN College (Autonomous), Madurai Kamaraj University

### **Life Member in Scientific Societies**

- Society of Chemical and Synthetic Biology (ID: LM0034)
- VDGOOD Technology Factory (Jan 2021-Jan 2022)
- The Association of Microbiologists of India (ID: 414-2009; AMI0186)

## 2. PROFESSIONAL PROFILE

### Administration

- March 01, 2023, onwards, Senate member of Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- March 01, 2023, onwards, Head, Department of Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- June 16, 2019 to June 31, 2022, Senate member of Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- **June 16, 2019 to June 31, 2022,** Head, Department of Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- April 01, 2007, onwards, Chief/Principal Investigators of various external funding agencies, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu

### **Academic and Research**

- March 26, 2019, onwards, Professor of Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu (Pay scale: 14)
- **March 26, 2016, to March 25, 2019,** Associate Professor in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu (Pay scale: 13A)
- November 02, 2005, to March 25, 2016, Assistant Professor in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu (Pay scale: INR 8000-275-1350)
- March 31, 2000, to October 28, 2005, Lecturer in Microbiology (Regular), Biogas Research Centre, Gujarat Vidyapith (A Central University), Ahmedabad-380 014, Gujarat (Pay scale: INR 8000-275-1350)

# 3. VISITING FELLOWSHIPS

Name of the Event : DBT-NER-Visiting Faculty Award

Organizer : DBT, New Delhi

Date : 18-04-2018 to 17-10-2018

Name of the Event : UGC Research Award Organizer : UGC, New Delhi

Date : 20-12-2013 to 20-12-2015

Name of the Event : TNSCST- Young Scientist Visiting Fellow

Organizer : Gujarat Vidyapith, Ahmedabad Date : 01-11-2012 to 31-12-2012

Name of the Event : Summer Research Teacher Fellow

Organizer : Indian Science Academies
Date : 03-05-2012 to 27-06-2012

Name of the Event : Visiting Fellow Organizer : INCASR, Bangalore

Date : 12-01-2012 to 12-04-2012

Name of the Event : CSIR JRF

Organizer : UGC, New Delhi Date : 01/07/1999

Name of the Event : Summer Research Student

Organizer : Central Leather Research Institute, Chennai

Date : 01-06-1998 to 30-07-1998

## 4. AWARDS/HONORS

Name of the Award : Outstanding Scientist Award Awarding Authority : VDGOOD Technology Factory

Purpose of award : Research contribution in Bioinformatics

Year : 2020

Name of the Award : Best Scientist Award

Awarding Authority : PEARL - A Foundation for Educational Excellence

Purpose of award : Research contribution in Bioinformatics

Year : 2019

Name of the Award : Best Scientist Award

Awarding Authority : GRABS Educational Charitable Trust Purpose of award : Research contribution in Bioinformatics

Year : 2019

Name of the Award : Teachers Associateship for Research Excellence

Awarding Authority : DST-SERB, New Delhi

Purpose of award : Development of microbial electrolysis cell to unravel the

mechanism of electrical interplay systems for

electromethanogenesis

Year : 2018-2021

Name of the Award : Tamil Nadu Young Scientist Award

Awarding Authority : Dept. of Higher Education, Govt. of Tamil Nadu

Purpose of award : Research contribution in Life Sciences

Year : 2018

Name of the Award : NER-Visiting Research Faculty

Awarding Authority : DBT, New Delhi

Purpose of award : Molecular involvement of human gut methanogens in

colorectal cancer metabolism – A systems biology approach

Year : 2018

Name of the Award : Young Scientist Travel Award Awarding Authority : Sri Balaji Vidyapeeth, Puducherry

Purpose of award : International Conference on Microbiome in Health, Disease,

and Environment

Year : 2017

Name of the Award : Young Faculty Award

Awarding Authority : Venus International Foundation, Chennai

Purpose of award : Contribution in Biotechnology

Year : 2015

Name of the Award : Research Award Awarding Authority : UGC, New Delhi

Purpose of award : Genome-scale metabolic modeling and simulation of rumen

methanogens – An *in silico* attempt to methane attenuation

Year : 2014-2016

Name of the Award : Young Scientist

Awarding Authority : Friends Foundation, Theni Purpose of award : Molecular Systems Biology

Year : 2014

Name of the Award : Young Scientist Awarding Authority : DST-SERB, New Delhi

Purpose of award : Cloning and expression of engineered uronate dehydrogenase

(*Udh*) in *Saccharomyces cerevisiae* 

Year : 2013-2016

Name of the Award : Young Scientist

Awarding Authority : Tamil Nadu State Council for Science and Technology, Govt. of

Tamil Nadu

Purpose of award : Systems biology

Year : 2012

Name of the Award : Summer Research Teacher Fellow

Awarding Authority : Indian Science Academies, Bangalore

Purpose of award : Genome-scale metabolic modelling and simulation of a rumen

methanogen, Methanobrevibacter ruminantium M1

Year : 2012

Name of the Award : Visiting Fellow

Awarding Authority : Jawaharlal Nehru Centre for Advanced Scientific Research,

Bangalore

Purpose of award : Structural and functional evolution of 2-C-methyl-D-erythritol

4-phosphate cytidylyltransferase homologs (IspD) among

Plasmodium genomes

Year : 2012

Name of the Award : Raja's Young Scientist Award Awarding Authority : H.H. Rajah's College, Pudukottai

Purpose of award : National Seminar on Recent Advances in Life Sciences

Year : 2011

Name of the Award : Best Poster Award

Awarding Authority: National Seminar on Genomics, Proteomics and Systems

Biology, IISc, Bangalore

Purpose of award : Metabolomic analysis of lactose utilizing metabolism in

Aspergillus genomes

Year : 2008

Name of the Award : CSIR-UGC-JRF Awarding Authority : CSIR, New Delhi Purpose of award : Life Sciences

Year : 1999

Name of the Award : Chemistry Association Award Awarding Authority : NMSSVN College, Madurai

Purpose of award : Chemistry Knowledge Competition

Year : 1997

### 5. STUDENT'S AWARDS/HONORS

Student name : Dr. S. Saranya

Name of the Award : Best Paper Presentation Award

Awarding Authority : Mary Matha College of Arts and Science, Periyakulam

Purpose of award : International Conference on Bio-Innovation

Year : 2024

Student name : Dr. S. Saranya

Name of the Award : Best Paper Presentation Award

Awarding Authority: Jamal Mohamed College, Tiruchirappalli

Purpose of award : International Conference on Biotechnological Approaches for

Global Environmental Problems

Year : 2024

Student name : Dr. S. Saranya

Name of the Award : Best Paper Presentation Award

Awarding Authority : Muthayammal College of Arts and Science, Rasipuram

Purpose of award : National Conference on Disease Diagnosis and Drug

Development

Year : 2023

Student name : Ms. L. Thammana

Name of the Award : Best Paper Presentation Award

Awarding Authority : Mary Matha College of Arts and Science, Periyakulam Purpose of award : National Conference on Emerging Trends in Biotechnology

Year : 2023

Student name : Dr. S. Saranya and Ms. L. Thammana Name of the Award : Best Paper Presentation Award

Awarding Authority : Jamal Mohamed College, Tiruchirappalli

Purpose of award : National Conferences on Post-COVID-19 Complications: A

**Biotechnological Approaches** 

Year : 2022

Student name : A. Prisilla

Name of the Award : Young Scientist Travel Award Awarding Authority : Sri Balaji Vidyapeeth, Puducherry

Purpose of award : International Conference on Microbiome in Health, Disease,

and Environment

Year : 2017

Student name : M. Bharathi

Name of the Award : Best Paper Presentation Award

Awarding Authority : Bharathidasan University, Tiruchirappalli Purpose of award : National Seminar on Bioinformatics

Year : 2015

Student name : R. Prathiviraj

Name of the Award : Best Oral Presentation Award

Awarding Authority : Srinivasan College of Arts and Science, Perambalore
Purpose of award : Intercollegiate Competition on Aspects in Life Science

Year : 2015

### 6. EXTERNAL FUNDING

Scheme : BECH-RUSA 2.0

Project title : Capturing CO<sub>2</sub> and flue gas carbon by *Methanosarcina mazei* Go1

and Methanothermobacter thermautotrophicus 21H

Sanctioned Fund : INR 25, 000/-

Sanction No. : BECH/SEED/PG/BS/BI/02/BDU Duration : 02-01-2024 to 01-06-2024

Scheme : DBT-NER

Project title : Development of a database for authentication of medicinal

plants abundance in the protected forests of Mizoram

Sanctioned Fund : INR 90, 92, 078/-

Sanction No. : BT/PR32289/NER/95/1633/2020

Duration : 13-05-2023 to 12-05-2026

Scheme : BECH-RUSA 2.0

Project title : Development of probiotics toothpaste for methanogen-

associated oral diseases

Sanctioned Fund : INR 24, 750/-

Sanction No. : BECH/SEED/PG/BS/BI/03/BDU

Duration : 02-01-2023 to 01-06-2023

Scheme : BECH-RUSA 2.0

Project title : Development of multi-strain probiotics on banana peel powder

for commercial shrimp aquaculture

Sanctioned Fund: INR 24, 750/-

Sanction No. : BECH/SEED/PG/BS/BI/05/BDU Duration : 02-01-2023 to 01-06-2023

Scheme : DST-VRITHIKA

Project title : Network modeling-based drug repurposing for respiratory

infection

Sanctioned Fund : INR 1, 50, 000/-Sanction No. : AV/VRI/2021/0079

Duration : 01-05-2022 to 30-06-2022

Scheme : TANSCHE

Project title : A systems biology approach for elucidation of molecular

virulence mechanism of Clostridium botulinum type A1 in the

mammalian gut

Sanctioned Fund : INR 20, 35, 250/-

Sanction No. : RGP/2019-20/BDU/HECP-0042 Duration : 16-05-2021 to 15-10-2024

Scheme : DST-SERB-EEOS

Project title : Design and development of a synthetic medium for

bioconversion of industrial flue gases to methane - A systems

biology approach

Sanctioned Fund : INR 51, 68, 800/-Sanction No. : EEQ/2020/000095

Duration : 01-04-2021 to 05-08-2024

Scheme : DST-SERB-MATRIX

Project title : Repurposing of clinically approved drugs for SARS-CoV-2

(COVID-19) using systems pharmacology-based network

modeling

Sanctioned Fund : INR 5, 50, 000/-Sanction No. : MSC/2020/000438

Duration : 07-09-2021 to 06-09-2021

Scheme DST-RUSA 2.0

Project title Bioconversion of industrial flue gases to methane using

Methanosarcina mazei Go1

Sanctioned Fund INR 12, 36, 000/Sanction No. 311/RUSA(2.0)/2018
Duration 01-04-2021-31-10-2024

Scheme DST-RUSA 2.0

Project title A synthetic biology approach for producing microbial cell

factories for unconventional methanogenic substrates to biofuel

Sanctioned Fund INR 6, 00, 000/-Sanction No. 311/RUSA(2.0)/2018

Duration 01-04-2021-31-10-2024

Scheme DST-PURSE II

Project title Development of systems biology databases for studying growth

physiology and model-driven systems metabolic engineering

Sanctioned Fund INR 6, 45, 563/-

Sanction No. BDU/DST-PURSE-I1/2020/003/186

Duration 25-08-2020 to 31-03-2022

Scheme : MietY

Project title : Development of top-dressing automation technology for

sustainable shrimp aquaculture

Sanctioned Fund : INR 38, 81, 000/-Sanction No. : 27(1)/2020-ESDA

Duration : 22-06-2020 to 21-12-2022

Scheme : DST-SERB-TARE

Project title : Development of microbial electrolysis cell to unravel the

mechanism of electrical interplay systems for

electromethanogenesis

Sanctioned Fund : INR 18, 30, 000/-Sanction No. : TAR/2018/000342

Duration : 30-11-2018 to 29-11-2021

Scheme : DBT-NER-VRF

Project title : Molecular involvement of human gut methanogens in colorectal

cancer metabolism - A systems biology approach

Sanctioned Fund : INR 7, 20, 000/-Sanction No. : BT/49/NE/2014

Duration : 18-04-2018 to 17-10-2018

Scheme : MHRD-UGC-GIAN

Project title : Microbial processes for lignocellulosic biofuel production

Sanctioned Fund : INR 8, 16, 000/-

Sanction No. : GIAN/S-17/994/2017 Duration : 18-12-2018 to 27-12-2018 Scheme : DST-SERB-EMQS

Project title : Biofuel production from amino acid metabolism: Systems-level

metabolic flux profiling approach to *Clostridium sticklandii* 

Sanctioned Fund : INR 11, 00, 000/-

Sanction No. : SERB/F/8173/2015-16 Duration : 01-04-2016 to 31-03-2018

Scheme : UGC-Research Award

Project title : Genome-scale metabolic modeling and simulation of rumen

methanogens – An *in silico* attempt to methane attenuation

Sanctioned Fund : INR 22, 00, 782/Sanction No. : F.30-1/2013/ (SA-II)
Duration : 02-01-2014 to 01-01-2016

Scheme : DST-SERB-FTSYS

Project title : Cloning and expression of engineered uronate dehydrogenase

(*Udh*) in *Saccharomyces cerevisiae* 

Sanctioned Fund : INR 22, 00, 000/-Sanction No. : SB/FT/LS-413/2012

Duration : 01-10-2013 to 30-09-2016

Scheme : UGC-MRP

Project title : Metabolic modeling and simulation of *Methanosarcina mazei* Go1

and its microbial mutualism

Sanctioned Fund : INR 12, 16, 800/-Sanction No. : 42-864/2013 (SR)

Duration : 01-04-2013 to 31-03-2017

Scheme : DRDO-LSRB

Project title : Structural and functional evolution of bacterial ADP-ribosylation

superfamily – A special emphasis for engineering immunotoxins

from binary toxin A

Sanctioned Fund : INR 21, 67, 050/-

Sanction No. : DLS/81/48222/LSRB-249/BTB/2012

Duration : 01-04-2012 to 31-03-2015

Scheme : UGC (Minor)

Project title : Inferring metabolomes to phylome of archaeal domain

Sanctioned Fund : INR 95, 000/-Sanction No. : 32-559/2006 (SR)

Duration : 01-04-2007 to 31-03-2009

## 7. MANPOWER DEVELOPMENT

2024

Name of the Fellow : L. Lourdu Lincy

Designation : University Research Fellow

Fellowship : 5,000/Month Duration : 06-11-2024 Name of the Scheme : BDU

Reference No. : 023929/URF/DIR-RES/2024 Dt. 29-11-2024

Name of the Fellow : S. Dhyanithi

Designation : University Research Fellow

Fellowship : 5,000/Month Duration : 06-11-2024

Name of the Scheme : BDU

Reference No. : 023929/URF/DIR-RES/2024 Dt. 29-11-2024

2023

Name of the Fellow : K. Heshma
Designation : Student Intern
Fellowship : 4, 000/Month
Duration : 08-08-2023
Name of the Scheme : DBT-NER

Reference No. : 10812/P3/2022 Dt. 03-08-2023

Name of the Fellow : L. Thamanna
Designation : Research Fellow
Fellowship : 16, 000/Month
Duration : 12-07-2023
Name of the Scheme : DBT-NER

Reference No. : 10812/P3/2022 Dt. 03-08-2023

Name of the Fellow : S. Saranya

Designation : Research Associate-I Fellowship : 67, 280/Month Duration : 12-07-2023 Name of the Scheme : DBT-NER

Reference No. : 10812/P3/2022 Dt. 03-08-2023

Name of the Fellow : R. Sasikumar

Designation : Research Fellow
Fellowship : 5,000/Month
Duration : 02-01-2023
Name of the Scheme : BDU-URF

Reference No. : 150927/URF/DIR-RES/2023 Dt. 14-02-2023

2022

Name of the Fellow : L. Lourdu Lincy
Designation : Project Assistant
Fellowship : 10,000/ Month
Duration : 01-08-2022
Name of the Scheme : TANSCHE

Reference No. : 01710/P6/2021 Dt. 24-08-2022

Name of the Fellow : R. Sasikumar

Designation : Senior Research Fellow Fellowship : 35,000/-+16% HRA Month

Duration : 05-05-2022

Name of the Scheme : MietY

Reference No. : 07098/P2/2019/ Dt. 26-05-2022

Name of the Fellow : L. Lourdu Lincy
Designation : Project Fellow
Fellowship : 14,000/ Month
Duration : 05-05-2022

Name of the Scheme : MietY

Reference No. : 07098/P2/2019/ Dt. 26-05-2022

Name of the Fellow : M. Sowmiya
Designation : Field Assistant
Fellowship : 9,400/ Month
Duration : 05-05-2022

Name of the Scheme : MietY

Reference No. : 07098/P2/2019/ Dt. 26-05-2022

Name of the Fellow : S. Dhayanithi

Designation : Junior Research Fellow

Fellowship : 29,000/ Month Duration : 26-04-2022 Name of the Scheme : SERB-EMEQ

Reference No. : 43166/P4/2020/Dt. 16-06-2022

Name of the Fellow : V.P. Sreekutty
Designation : Project Fellow
Fellowship : 14,000/ Month
Duration : 08-04-2022
Name of the Scheme : RUSA 2.0

Reference No. : 127-3BDU/RUSA 2.0/TRP/TS/Dt. 03-04-2021

Name of the Fellow : L. Thamanna
Designation : Research Fellow
Fellowship : 5,000/ Month
Duration : 07-01-2022
Name of the Scheme : BDU-URF

Reference No. : 43166/P4/2020 Dt. 19-08-2021

2021

Name of the Fellow : K. S. Praveenkumar
Designation : Project Assistant
Fellowship : 10,000/ Month
Duration : 28-09-2021
Name of the Scheme : SERB-EMEQ

Reference No. : 43166/P4/2020 Dt. 19-08-2021

Name of the Fellow : S. Dhayanithi
Designation : Project Assistant
Fellowship : 10,000/ Month
Duration : 27-08-2021

Name of the Scheme : TANSCHE

Reference No. : 01710/P6/2021 Dt. 27-08-2021

Name of the Fellow : M. Vaishnavi

Designation : Junior Research Fellow

Fellowship : 29,500/ Month Duration : 02-06-2021 Name of the Scheme : SERB-EMEQ

Reference No. : 43166/P4/2020 Dt. 19-08-2021

Name of the Fellow : R. Sasikumar
Designation : Research Fellow
Fellowship : 5,000/ Month
Duration : 20-04-2021
Name of the Scheme : BDU-URF

Reference No. : 024946/URF/DIR-RES/2020 Dt. 15-07-2021

Name of the Fellow : K. S. Praveenkumar
Designation : Research Fellow
Fellowship : 5,000/ Month
Duration : 20-04-2021
Name of the Scheme : BDU-URF

Reference No. : 024946/URF/DIR-RES/2020 Dt. 15-07-2021

Name of the Fellow : S. Saranya

Designation : Research Associate
Fellowship : 25,000/ Month
Duration : 26-04-2021
Name of the Scheme : RUSA 2.0

Reference No. : 02BDU/RUSA 2.0/ TRP/BS/Dt. 22-04-2021

Name of the Fellow : V. Gokulakannan
Designation : Project Fellow
Fellowship : 14,000/ Month
Duration : 22-04-2021
Name of the Scheme : RUSA 2.0

Reference No. : 02BDU/RUSA 2.0/TRP/BS/Dt. 22-04-2021

2020

Name of the Fellow : N.B. Ramya

Designation : Student Internship Fellowship : 5,000/ Month Duration : 29-10-2020

Name of the Scheme : MietY

Reference No. : 07098/P2/2019 Dt. 20-10-2020

Name of the Fellow : S Saranya

Designation : Research Associate
Fellowship : 47,000/ Month
Duration : 05-10-2020

Name of the Scheme : DST-SERB-MATRIX

Reference No. : 40927/P4/2020 Dt. 15-10-2020

Name of the Fellow : Kashmiri Gogoi
Designation : Research Fellow
Fellowship : 16,000/ Month
Duration : 12-08-2020

Name of the Scheme : MietY

Reference No. : 07098/P2/2019 Dt. 05-09-2020

Name of the Fellow : Divya Deogharia
Designation : Research Fellow
Fellowship : 16,000/ Month
Duration : 12-08-2020

Name of the Scheme : MietY

Reference No. : 07098/P2/2019 Dt. 05-09-2020

2019

Name of the Fellow : Divya deogharia
Designation : Research Fellow
Fellowship : 5000/ Month
Duration : 17-12-2019
Name of the Scheme : BDU-URF

Reference No. : 028128/URF/DIR-RES/2020 Dt. 24-02-2020

Name of the Fellow : M. Vaishnavi
Designation : Research Fellow
Fellowship : 5000/ Month
Duration : 17-12-2019
Name of the Scheme : BDU-URF

Reference No. : 028128/URF/DIR-RES/2020 Dt. 24-02-2020

Name of the Fellow : R. Sasikumar
Designation : Research Fellow
Fellowship : 12, 960/ Month
Duration : 10-12-2019
Name of the Scheme : DST-PURSE-II

Reference No. : 28888/P7/2019/PA/ Dt. 10-12-2019

Name of the Fellow : K. S. Praveenkumar
Designation : Project Fellow
Fellowship : 15,120/ Month
Duration : 26-06-2019
Name of the Scheme : DST-TARE

Reference No. : 06858/P4/2019 Dt. 26-06-2019

2017

Name of the Fellow : M. Saranya
Designation : Research Fellow
Fellowship : 12,800/ Month
Duration : 07-12-2017

Name of the Scheme : DST-PURSE-I

Reference No. : 28888/E12/2016/JRF Dt.07-12-2017

2016

Name of the Fellow : A. Prisilla
Designation : Project Fellow
Fellowship : 12,000/ Month
Duration : 22-06-2016
Name of the Scheme : SERB-EMEQ

Reference No. : 04937/E8/2014 Dt.13-08-2016

2014

Name of the Fellow : Dipti Mothay
Designation : National Fellow
Fellowship : 31,000/ Month
Duration : 01-04-2014
Name of the Scheme : UGC-RGNF

\*Reference No. : 34171/E15/2016 Dt. 09-11-2016

2013

Name of the Fellow : M. Bharathi
Designation : Project Fellow
Fellowship : 14,000/ Month
Duration : 01-06-2013

Name of the Scheme : UGC

Reference No. : 44524/E4/2011 Dt.15-05-2013

Name of the Fellow : A. Prisilla

Designation : Junior Research Fellow

Fellowship : 12,800/ Month Duration : 10-12-2013 Name of the Scheme : SERB-FTSYS

Reference No. : 31864/E2/2011 Dt.10-02-2014

Name of the Fellow : R. Prathiviraj

Designation : Junior Research Fellow

Fellowship : 16,800/ Month Duration : 02-12-2013 Name of the Scheme : DRDO-LSRB

Reference No. : 001973/E13/2011 Dt. 17-09-13

Name of the Fellow : R. Jayalakshmi

Designation : Junior Research Fellow

Fellowship : 16,800/ Month Duration : 29-01-2013 Name of the Scheme : DRDO-LSRB

\*Reference No. : 001973/E13/2012 Dt. 24-01-13

### 8. RESEARCH SCHOLARS

Name of the Scholar : V. Saveetha Priya

Discipline : Biotechnology interdisciplinary Bioinformatics

Proposed Topic : Development of oral healthcare formulations for

methanogens-associated periodontitis

Date of Registration : 21-11-2024

Registration No. : BDU2510372781260

Name of the Scholar

Discipline

: S. Yamini Sri : Bioinformatics

Proposed Topic

: From genes to global health: Unraveling bacillus anthracis complexity through pan-genome analysis, comparative genomics, codon bias evaluation, and epidemiological

insights

Date of Registration

: 09-02-2024

Registration No.

: BDU2410242780750

Name of the Scholar

: G. Thenral

Discipline

: Bioinformatics

Proposed Topic

: Development of a database for authentication medicinal

plants abundance in the protected forests of Mizoram

Date of Registration

: 09-02-2024

Registration No.

: BDU2410242780911

Name of the Scholar

: L. Lourdu Lincy

Discipline

Zoology interdisciplinary Bioinformatics

Proposed Topic

: Dietary Monosodium Glutamate as a feed additive for striped

snakehead murrel in biofloc automation System

Date of Registration

: 10.08.2023

Registration No.

: BDU2310362780387

Name of the Scholar

: S. Dhayanithi

Discipline

: Biotechnology interdisciplinary Bioinformatics

Proposed Topic

: Consolidated methanogenic bioprocessing of microalgae in

Seawater

Date of Registration

: 10.7.2023

Registration No.

: BDU2310372780366

Name of the Scholar

Discipline

: V.P. Sreekutty

: Bioinformatics

Proposed Topic

: Development of consolidated bioprocessing for methane

production in space-like environment

Date of Registration

: 26.09.2022

Registration No.

: BDU2210242780168

Name of the Scholar

Discipline

: Bioinformatics

: L Thamanna

Proposed Topic

: Development of biogas plant simulators using metabolic flux

Date of Registration

balance analysis of anaerobic digester microbiome : 07-01-2022

Registration No.

: BDU2110242779709

Name of the Scholar

: R Sasikumar

Discipline : Zoology interdisciplinary Bioinformatics

Proposed Topic : Development of top-dressing automation technology for

sustainable shrimp aquaculture

Date of Registration : 12-12-2019 Registration No. : BDU1910240176

Name of the Scholar : B. Roja

Discipline : Biotechnology

Proposed Topic : Unraveling the mechanisms of molecular pathogenesis in

Clostridium botulinum type A1 at genome-scale

Date of Registration : 01-01-2016

Registration No. : 43359/Ph.D.K7/Biotechnology/Part-time/Jan 2016

Name of the Scholar : R. Murugan

Discipline : Bioinformatics

Title of the Thesis : Development of bioprocess systems for improved D-glucaric

acid production using engineered uronate dehydrogenase -

A in silico approach

Date of award : 06-07-2021

Registration No. : 44946/Ph.D.K1/Bioinformatics/Part-time/Jan 2014

Name of the Scholar : A. Prisilla

Discipline : Biotechnology

Title of the Thesis : Development of genetically engineered subunit vaccine from

Clostridium botulinum C2I toxin based on its evolutionary

imprints

Date of award : 07-02-2019

Registration No. : 44947/Ph.D.K7/Biotechnology/Full time/Jan 2014

Name of the Scholar : C. Sangavi

Discipline : Biotechnology

Title of the Thesis : Model-driven metabolic systems engineering of *Clostridium* 

sticklandii for biofuel production from protein catabolism

Date of award : 05-08-2019

Registration No. : 34494/Ph.D/K7/Biotechnology/Part-time/Oct 2013

Name of the Scholar : R. Prathiviraj
Discipline : Bioinformatics

Title of the Thesis : Reconstruction, modeling and metabolic simulation of

Methanothermobacter thermoautotrophicus delta H: 'Power-

to-methane gas' application

Date of award : 20-05-2019

Registration No. : 7933/Ph.D/K1/Bioinformatics/Full time/April 2013

: M. Bharathi

Discipline : Bioinformatics

Title of the Thesis : Unravelling molecular and metabolic mechanisms of

Methanobrevibacter ruminantium M1 in the gut ecosystem

using its genome-scale model

Date of award : 04-06-2019

Registration No. : 746908/Ph.D/K1/Bioinformatics/Full time/April 2012

## 9. PUBLICATIONS (SJR Impact factor as of 2024)

## **Research Papers**

#### 2025

- 1. Thamanna L, Saranya S, **Chellapandi P** (2025) systems medicine-driven drug repurposing for respiratory infections: Insights into the oral-gut-lung microbial axis and the therapeutic potential of Cannabidiol and Aspirin. Theory in Biosciences (In Press) (Impact factor: **1.691**)
- 2. Saranya S, Dhayanithi S, Thamanna L, Lourdu Lincy L, Surulinathi M, **Chellapandi P** (2025) Beyond methanogenesis: *Methanosarcina mazei* in biotechnology and biomedical research. Systems Microbiology and Biomanufacturing (In Press) (Impact factor: 3.138)
- 3. Saranya S, **Chellapandi P**, Abdi G (2025) Evolutionary insights into the geographic spread of pathogenic and opportunistic *Leptospira* strains. Microbial Pathogenesis (In Press) (Impact factor: **3.811**)
- 4. Dhayanithi S and **Chellapandi P** (2025) Capturing CO<sub>2</sub> and flue gas carbon by *Methanosarcina mazei* Go1 and *Methanothermobacter thermautotrophicus* ΔH. Bioresource Technology Reports 30: 102149. (Impact factor: **5.301**)
- 5. Saranya S, Dhayanithi S, **Chellapandi P** (2025) Sustainable biogas-powered desalination using marine microalgae: A review. Renewable and Sustainable Energy Reviews 219: 115886. (Impact factor: **20.299**)
- 6. Saranya S, Lourdu Lincy L, Thamanna L, Dhayanithi S, **Chellapandi P** (2025) *Wolffia*: A sustainable aquatic crop for future food systems and space agriculture. Trends in Food Science & Technology 161: 105069. (Impact factor: **17.757**)
- 7. Saranya S, Prathiviraj R, **Chellapandi P** (2025) Mobilome-mediated speciation: Genomic insights into horizontal gene transfer in *Methanosarcina*. Journal of Basic Microbiology: e70013 (Impact factor: **3.991**)
- 8. Saranya S and Chellapandi P (2025) Convergent evolution of coenzyme metabolism in *Methanosarcina mazei*: Insights into primitive life and metabolic adaptations. Journal of Basic Microbiology::e70015 (Impact factor: **3.991**)
- 9. Thamanna L, **Chellapandi P** (2025) Deciphering metabolic regulatory mechanisms in vital anaerobes for enhanced biogas production. Systems Microbiology and Biomanufacturing 5: 819-842. (Impact factor: **3.138**)

- 10. Saranya S, Prathiviraj R, **Chellapandi P** (2024) Evolutionary transitions of DNA replication origins between archaea and bacteria. Journal of Basic Microbiology: e2400527 (Impact factor: **3.991**)
- 11. Sasikumar R, Saranya S, Lourdu Lincy L, Thamanna L, **Chellapandi P** (2024) Genomic insights into fish pathogenic bacteria: A systems biology perspective for sustainable aquaculture. Fish and Shellfish Immunology 154:109978 (Impact factor: 4.367)
- 12. **Chellapandi P**, Sreekutty VP, Saranya S (2024) Methanogens and what they tell us about how life might survive on Mars. Critical Reviews in Biochemistry and Molecular Biology 59: 337-362. (Impact factor: **7.250**)
- 13. Saranya S, **Chellapandi P**, Velayutham P (2024) Enhanced production of Varv-A-like and cycloviolacin O23-like peptides in *Aspergillus niger* elicited-*Oldenlandia umbellata* cell culture. Plant Cell, Tissue and Organ Culture 159:7. (Impact factor: **2.808**)

- 14. Sreekutty VP and **Chellapandi P** (2024) Enhancing the efficiency of anaerobic sulfatereducing bacteria for biohydrogen production through gradual acclimation. International Journal of Hydrogen Energy 86: 1097-1106 (Impact factor: **10.188**)
- 15. Saranya S, Thamanna L, Sreekutty VP, Dhayanithi S, **Chellapandi P** (2024) Bioremediation of oil and natural gas industry waste using methanogens: Current status and future perspective to biohythane production. Arabian Journal for Science and Engineering 50: 4457-4475. (Impact factor: **3.696**)
- 16. Saranya S, Thamanna L, **Chellapandi P** (2024) Unveiling the potential of systems biology in biotechnology and biomedical research. Systems Microbiology and Biomanufacturing 4: 1217-1238. (Impact factor: **3.138**)
- 17. Saranya S, **Chellapandi P**, Velayutham P (2024) Enhancement of anti-cancer compounds in fungal elicited-*Oldenlandia umbellata* culture. Naunyn-Schmiedeberg's Archives of Pharmacology 397: 9777-9788. (Impact factor: **3.734**)
- 18. Sasikumar R, Lincy LL, Saranya S, Roja B, Thamanna L, Sreekutty VP, Dhayanithi S, Sathyan A, **Chellapandi P** (2024) Field trial evaluation of sensor-based aquaculture automation for improved biofloc shrimp culture. Journal of Water Process Engineering 64:105661 (Impact factor: **7.591**)
- 19. Roja B, Saranya S, Prathiviraj R, **Chellapandi P** (2024) Functional prediction and assignment of *Clostridium botulinum* type A1 operome: A quest for prioritizing drug targets. Medicine in Omics 12:100040 (Impact factor: 0)
- 20. Saranya S, Thamanna L, **Chellapandi P** (2024) Systems medicine framework for repurposable drug combinations for COVID-19 comorbidities. Medicine in Omics 11:100038 (Impact factor: **0**)
- 21. Roja B, Saranya S, Thamanna L, **Chellapandi P** (2024) Inferring molecular mechanisms of host-microbe-drug interactions in the human gastrointestinal tract. Medicine in Omics 10:100027 (Impact factor: 0)
- 22. Saranya S and **Chellapandi P** (2024) Development of "eIndian Medicine" App for subclinical infection of COVID-19. Research Journal of Biotechnology 19 (5):118-123. (Impact factor: **0.464**)
- 23. Saranya S, Bharathi M, Kumar NS, **Chellapandi P** (2024) Design and characterization of anticancer peptides derived from snake venom metalloproteinase library. International Journal of Peptide Research and Therapeutics 30(3):24 (Impact factor: **2.586**)
- 24. Sasikumar R, Lourdu Lincy L, Sathyan A, **Chellapandi P** (2024) Design, development, and deployment of a sensor-based aquaculture automation system. Aquaculture International 26:1-7 (Impact factor: **2.890**)
- 25. Sasikumar R, Saranya S, Lincy LL, Sathyan A, **Chellapandi P** (2024) Fermented rice extract as a carbon source for biomass production of aquaculture probiotics. Biomass Conversion and Biorefinery https://doi.org/10.1007/s13399-024-05466-9 (Impact factor: **5.002**)
- 26. Roja B, **Chellapandi P** (2024) Design and characterization of a multi-epitope vaccine against *Clostridium botulinum* A3 Loch Maree intoxication in humans. Gene 892: 147865 (Impact factor: **2.670**)
- 27. **Chellapandi P**, Saranya S (2024) Biogas starter from genome-scale data for methanogenic bioprocessing of protein waste. Systems Microbiology and Biomanufacturing 4: 542-563. (Impact factor: **3.138**)
- 28. **Chellapandi P**, Saranya S (2024) *Ophiocordyceps sinensis*: A potential caterpillar fungus for the production of bioactive compounds. Exploratory Research and Hypothesis in Medicine 9(3): 236-249. (Impact factor: **0.400**)

- 29. Roja B, Saranya S, **Chellapandi P** (2023) Discovery of novel virulence mechanisms in *Clostridium botulinum* type A3 using genome-wide analysis. Gene. 869:147402. (Impact factor: **2.670**)
- 30. Roja B, Sasikumar R, **Chellapandi P** (2023) Development of dietary multi-strain probiotics on banana peel powder for sustainable shrimp aquaculture in India. Research Journal of Agricultural Sciences 14(1): 178-182. (Impact factor: **0.0**)
- 31. Roja B, Thamanna L, **Chellapandi P** (2023) Reconstruction and analysis of the transcriptome regulatory network of *Clostridium botulinum* type A3 str. Loch Maree. Asian Journal of Microbiology, Biotechnology and Environmental Sciences 25(2): 102-108. (Impact factor: **0.158**)
- 32. Lakshmikanth AM, Rangesh K, **Chellapandi P**, Prathiviraj R (2023) Inter and Intraspecific relationship between goat fishes *Upeneus vittatus* (Forsskal, 1775) and *Upeneus tragula* based on their *mtCOI* gene from Palk Bay and Gulf of Mannar Coast (Mandapam, Tamil Nadu) of India. Gene Reports 30: 101713. (Impact factor: 1.000)

- 33. **Chellapandi P**, Prathiviraj R (2022) Chemical evolution of nucleic acids to sustain a life of Archaea. Ecological Genetics and Genomics 25: 100145. (Impact factor: **1.861**)
- 34. **Chellapandi P**, Balachandramohan J (2022) Computational evaluation of designed phosphatase from a conserved sequence scratches for diverse substrate specificity. International Journal of Bioautomation 26(3): 297-310. (Impact factor: **0.412**)
- 35. Sudha B, Poornima A, Suganya K, Swathi K, Senthil Kumar N, **Chellapandi P** and Sumathi S (2022) Identification of hub genes and role of CDKN2A as a biomarker in cervical cancer: An in-silico approach. Human Gene 33: 201048. (Impact factor: **0.812**)
- 36. Prathiviraj R, **Chellapandi P**, Seghal Kiran, Joseph Selvin (2022) Identification of genotypic variants and its proteomic mutations of Brazilian SARS-CoV-2 isolates. Virus Research 307:198618. (Impact factor: **2.903**)
- 37. Bharathi M, **Chellapandi P** (2022) Reconstruction and analysis of transcriptome regulatory network of *Methanobrevibacter ruminantium* M1. Gene Reports 26: 101489. (Impact factor: **1.000**)

### 2021

- 38. Sangavai C, **Chellapandi P** (2021) Comparative genomic analysis of hyper-ammonia producing *Acetoanaerobium sticklandii* DSM 519 with purinolytic *Gottschalkia acidurici* 9a and pathogenic *Peptoclostridium difficile* 630. Genomics 113(6):4196-4205. (Impact factor: **3.110**)
- 39. **Chellapandi P**, Saranya S (2021) Cordycepin and its nucleoside analogs for the treatment of systemic COVID-19 infection. Coronaviruses: e100921196360. (Impact factor: **0.414**)
- 40. **Chellapandi P** (2021) Development of top-dressing automation technology for sustainable shrimp aquaculture in India. Discover Sustainability 2(1): 26. (Impact factor: **3.792**)
- 41. Prathiviraj R, Saranya S, Bharathi M, **Chellapandi P** (2021) A hijack mechanism of Indian SARS-CoV-2 isolates for relapsing contemporary antiviral therapeutics. Computers in Biology and Medicine 132: 104315. (Impact factor: **8.427**)
- 42. **Chellapandi P** (2021) A perspective on immune cell metabolic models for host-based therapeutic discovery against COVID-19. Journal of Clinical and Anatomic Pathology 6(1):111. (Impact factor: **0.0**)

### 2020

43. Bharathi M, Senthil Kumar N, **Chellapandi P** (2020) Functional prediction and assignment of *Methanobrevibacter ruminantium* M1 operome using a combined bioinformatics approach. Frontiers in Genetics 11:593990. (Impact factor: **2.767**)

- 44. **Chellapandi P**, Saranya S (2020) Genomics Insights of SARS-CoV-2 (COVID-19) into target-based drug discovery. Medicinal Chemistry Research 20: 1-15. (Impact factor: **2.988**)
- 45. Sangavai C, **Chellapandi P** (2020) Growth-associated catabolic potential of *Acetoanaerobium sticklandii* DSM 519 on gelatin and amino acids. Journal of Basic Microbiology 60: 882-893. (Impact factor: **3.991**)
- 46. **Chellapandi P,** Prathiviraj R (2020) *Methanothermobacter thermautotrophicus* strain ΔH as a potential microorganism for bioconversion of CO<sub>2</sub> to methane. Journal of CO<sub>2</sub> Utilization 40:101210. (Impact factor: **7.653**)
- 47. Prathiviraj R, **Chellapandi P** (2020) Evolutionary genetic analysis of unassigned peptidase clan-associated microbial virulence and pathogenesis. Biologia (Poland) 75: 2083–2092. (Impact factor: **8.865**)
- 48. Prathiviraj R, **Chellapandi P** (2020) Comparative genomic analysis reveals starvation survival systems in *Methanothermobacter thermautotrophicus* ΔH. Anaerobe 64:102216. (Impact factor: **2.525**)
- 49. Sangavai C, Prathiviraj R, **Chellapandi P** (2020) Functional prediction, characterization and categorization of operome from *Acetoanaerobium sticklandii* DSM 519. Anaerobe 61: 102088. (Impact factor: **2.525**)
- 50. Prathiviraj R, **Chellapandi P** (2020) Modelling a global regulatory network of *Methanothermobacter thermautotrophicus* strain ΔH. Network Modeling Analysis in Health Informatics and Bioinformatics 9:17. (Impact factor: **2.506**)
- 51. Murugan R, Prathiviraj R, Dipti Mothay, **Chellapandi P** (2020) Evolution-guided optimization for screening, selection and evaluation of *Agrobacterium tumefaciens* uronate dehydrogenase mutants. Asian Journal of Microbiology, Biotechnology and Environment 22: 139-148. (Impact factor: **0.158**)
- 52. Prathiviraj R, **Chellapandi P** (2020) Deciphering molecular virulence mechanism of *Mycobacterium tuberculosis* Dop isopeptidase based on its sequence-structure-function link. Protein Journal 39: 33-45. (Impact factor: **1.709**)

- 53. Bharathi M, **Chellapandi P** (2019) Comparative analysis of differential proteome-wide protein-protein interaction network of *Methanobrevibacter ruminantium* M1. Biochemistry and Biophysics Reports 20:100698. (Impact factor: **2.357**)
- 54. Murugan R, Prathiviraj R, Dipti Mothay, **Chellapandi P** (2019) Substrate-imprinted docking of *Agrobacterium tumefaciens* uronate dehydrogenase for increased substrate selectivity. International Journal of Biological Macromolecules 140:1214-1225. (Impact factor: **9.292**)
- 55. Sangavai C, **Chellapandi P** (2019) A metabolic study to decipher amino acid catabolism-directed biofuel synthesis in *Acetoanaerobium sticklandii* DSM 519. Amino acids 51:1397-1407. (Impact factor: **2.961**)
- 56. Prathiviraj R, Sheela Berchmans, **Chellapandi P** (2019) Analysis of modularity in proteome-wide protein interaction networks of *Methanothermobacter thermautotrophicus* strain ΔH across metal-loving bacteria. Journal of Proteins and Proteomics 10:179–190. (Impact factor: **1.000**)
- 57. Sangavai C, Bharathi M, Shilpkar P. Ganesh, **Chellapandi P** (2019) Kinetic modeling of Stickland reactions-coupled methanogenesis for a methanogenic culture. AMB Express 9:82. (Impact factor: **3.944**)
- 58. Sangavai C, Bharathi M, Acharya KP, Prajapati KP, Parmar HB, Shilpkar PK, **Chellapandi P** (2019) Evaluation of the biomethanation potential of enriched methanogenic cultures on gelatin. Bioresources and Bioprocessing 6: 13. (Impact factor: **5.734**)

- 59. **Chellapandi P**, Prathiviraj R, Prisilla A (2019) Deciphering structure, function and mechanism of *Plasmodium* IspD homologs from their evolutionary imprints. Journal of Computer-Aided Molecular Design 33:419-436. (Impact factor: **3.291**)
- 60. Prisilla A, Deena Remain M, Roja B, **Chellapandi P** (2019) A human-food web-animal Interface on the prevalence of food-borne pathogens (*Clostridia* and *Enterococcus*) in mixed veterinary farms. Food Science and Biotechnology 28:1583-1591. (Impact factor: 3.818)
- 61. Prisilla A, Chellapandi P (2019) Cloning and expression of immunogenic *Clostridium botulinum* C2I mutant proteins designed from its evolutionary imprints. Comparative Immunology, Microbiology and Infectious Diseases 65:207-212. (Impact factor: 2.284)
- 62. Prathiviraj R, **Chellapandi P** (2019) Functional annotation of operome from *Methanothermobacter thermautotrophicus* ΔH: An insight to metabolic gap filling. International Journal of Biological Macromolecules 123:350-362. (Impact factor: **9.292**)

- 63. **Chellapandi P**, Prisilla A (2018) PCR-based molecular diagnosis of botulism outbreaks in aquatic birds. Annals of Microbiology 68: 835-849. (Impact factor: **4.110**)
- 64. **Chellapandi P**, Prathiviraj R, Prisilla A (2018) Molecular evolution and functional divergence of IspD homologs in malarial parasites. Infection, Genetics and Evolution 65:340-349. (Impact factor: **2.810**)
- 65. **Chellapandi P**, Prathiviraj R, Sangavai C, Bharathi M (2018) *Methanobacterium* formicicum as a target rumen methanogen for the development of new methane mitigation interventions. Veterinary and Animal Science 6: 86-94. (Impact factor: **2.630**)
- 66. **Chellapandi P**, Prisilla A (2018) *Clostridium botulinum* type A-virulome-gut interactions: A systems biology insight. Human Microbiome Journal 7:15-22. (Impact factor: 1.200)
- 67. Razia M, Karthik Raja R, Padmanaban K, **Chellapandi P**, Sivaramakrishnan S (2018) Phylogeographic analysis of entomopathogenic nematophilic symbiotic bacteria using 16s rDNA gene sequencing. Munis Entomology & Zoology Journal 13: 604-615.

- 68. Sangavai C, **Chellapandi P** (2017) Amino acid catabolism-directed biofuel production in *Clostridium sticklandii*: An insight into model-driven systems engineering. Biotechnology Reports 16: 32-43. (Impact factor: **6.701**)
- 69. Prisilla A, Prathiviraj R, **Chellapandi P** (2017) Molecular evolutionary constraints that determine the avirulence state of *Clostridium botulinum* C2 toxin. Journal of Molecular Evolution 86 174-186. (Impact factor: **1.793**)
- 70. Bharathi M, **Chellapandi P** (2017) Phylogenomic proximity and metabolic discrepancy of *Methanossarcina mazei* Go1 across methanosarcinal genomes. BioSystems 155:20-28. (Impact factor: **1.899**)
- 71. **Chellapandi P**, Prisilla A (2017) Structure, function and evolution of *Clostridium botulinum* C2 and C3 toxins: Insight to poultry and veterinary vaccines. Current Proteins and Peptide Science 18(5): 412-424. (Impact factor: **1.945**)
- 72. **Chellapandi P**, Mohamed Khaja Hussain M, Prathiviraj R (2017) CPSIR-CM: a database for structural properties of proteins identified in cyanobacterial C1 metabolism. Algal Research 22: 135-139. (Impact factor: **5.517**)
- 73. Bharathi M, **Chellapandi P** (2017) Intergenomic evolution and metabolic cross-talk between rumen and thermophilic autotrophic methanogenic archaea. Molecular Phylogenetics and Evolution 107: 293–304. (Impact factor: **3.583**)

74. **Chellapandi P**, Bharathi M, Prathiviraj R, Sasikala R, Vikraman R (2017) Genomescale metabolic model as a virtual platform to reveal the environmental contribution of methanogens. Current Biotechnology 6:149-160. (Impact factor: **0.0**)

#### 2016

75. Prisilla A, Prathiviraj R, Sasikala R, **Chellapandi P** (2016) Structural constraints-based evaluation of immunogenic avirulent toxins from *Clostridium botulinum* C2 and C3 toxins as subunit vaccines. Infection, Genetics and Evolution 44: 17-27. (Impact factor: **2.810**)

### 2015

- 76. **Chellapandi P**, Ranjani J (2015) Knowledge-based discovery for designing CRISPR-CAS systems against invading mobilomes in thermophiles. Systems and Synthetic Biology 9: 97-106. (Impact factor: **0.857**)
- 77. Prathiviraj R, Prisilla A, **Chellapandi P** (2015) Structure-function discrepancy in *Clostridium botulinum* C3 toxin for its rational prioritization as a subunit vaccine. Journal of Biomolecular Structure and Dynamics 34:1317-1329. (Impact factor: **3.057**)
- 78. **Chellapandi P** (2015) In silico analysis of heavy metal assimilation behaviors in the genome of *Methanosarcina barkeri* str. Fusaro. Current Bioinformatics 10(1): 59-68. (Impact factor: **3.047**)
- 79. Acharya KP, Shilpkar P, Shah MC, **Chellapandi P** (2015) Biodegradation of the insecticide monocrotophos by *Bacillus substilis* KPA-1, isolated from agriculture soils. Applied Biochemistry and Biotechnology: 175(4): 1789-1804. (Impact factor: **4.238**)

#### 2014

- 80. **Chellapandi P** (2014) Structural functional and therapeutic aspect of snake venom metalloproteinases. Mini-Reviews in Organic Chemistry 11(1): 28-44. (Impact factor: **2.366**)
- 81. **Chellapandi P** (2014) Structural-functional integrity of hypothetical proteins identical to ADP-ribosylation Superfamily upon point mutations. Protein and Peptide Letters 21(8): 722-735. (Impact factor: 1.231)
- 82. Padmanaban K, Karthik Raja R, Razia M, **Chellapandi P**, Sivaramakrishnan S (2015) Genetic diversity of entomopathogenic nematodes in nonagriculture ecosystem revealed with PCR-RAPD markers. International Journal of Nematology 24(2): 1-8. (Impact factor: **0.0**)

### 2013

- 83. **Chellapandi P,** Sakthi Shree S, Bharathi M (2013) Phylogenetic approach for inferring the origin and functional evolution of bacterial ADP-ribosylation superfamily. Protein and Peptide Letters 20(9): 1054-1065. (Impact factor: **1.231**)
- 84. **Chellapandi P** (2013) Computational studies on enzyme-substrate complexes of methanogenesis for revealing their substrate binding affinities to direct the reverse reactions. Protein and Peptide Letters 20(3): 265-278. (Impact factor: 1.231)

- 85. **Chellapandi P**, Uma L (2012) Evaluation of methanogenic activity of biogas plant slurry on ossein factory wastes. Journal of Environmental Science and Engineering 54 (1): 10-13. (Impact factor: **0.837**)
- 86. Karthik Raja R, Padmanaban K, Razia M, **Chellapandi P**, Sivaramakrishnan (2012) Evaluating Heavy metal stress responses of entomophilic nematodes *steinernema glaseri* in the agro-ecosystem of Tamil Nadu. Journal of Advances in Developmental Research 3(1): 49-51. (Impact factor: **0.0**)
- 87. Razia M, Rajkuberan C, Karthik Raja R, Padmanaban K, **Chellapandi P**, Sivaramakrishnan S (2012) Agriculture practices diminished the entomophilic

- nematode diversity in Karur District of Tamil Nadu, India. Journal of Advances in Developmental Research 3(1): 45-48. (Impact factor: **0.0**)
- 88. Karthik Raja R, Razia M, Padmanaban K, **Chellapandi P**, Sivaramakrishnan S (2012) Survey and assessment of soil nematodes in Tsunami impacted agricultural areas of South India. Journal of Advances in Developmental Research 3(1): 40-44. (Impact factor: **0.0**)
- 89. **Chellapandi P**, Balachandramohan J (2012) Implication of molecular conservation on computational designing of haloarchaeal urease with novel functional diversity. Turkish Journal of Biochemistry 37(2): 110-119. (Impact factor: **0.794**)
- 90. **Chellapandi P**, Uma L (2012) Co-digestion of ossein factory waste for methane production in batch. Elixer Biotechnology 42: 6383-6385. (Impact factor: **0.0**)
- 91. **Chellapandi P**, Balachandramohan J (2012) Cobalt and nickel-containing enzyme constructs from the sequences of methanogens. Biopolymers and Cell 28(1): 68-74. (Impact factor: **0.356**)

- 92. **Chellapandi P** (2011) Current scenario of computer-aided metalloenzymes designing. Biopolymers and Cell 27(6):432-435. (Impact factor: **0.356**)
- 93. **Chellapandi P** (2011) Molecular evolution of methanogens based on their metabolic facets. Frontiers in Biology 6(6):490-503. (Impact factor: **0.632**)
- 94. **Chellapandi P** (2011) *In silico* description of cobalt and nickel assimilation systems in the genomes of methanogens. Systems and Synthetic Biology 5: 105-114. (Impact factor: **0.857**)
- 95. **Chellapandi P**, Sivaramakrishnan S (2011) Current evolutionary genomic perspective of methanogens. Advanced Biotech 11(4): 29-35. (Impact factor: **0.0**)
- 96. Sundaramoorthy M, Saravanan TS, Shivashanmugam P, **Chellapandi P** (2011). Identification and sequencing of a cDNA clone encoding cathelicidin-like antimicrobial peptide from chicken heart tissues. Electronic Journal of Biology 7(2): 26-31. (Impact factor: **0.0**)
- 97. Razia M, Padmanaban K, Karthick Raja R, **Chellapandi P**, Sivaramakrishnan S (2011) 16S rDNA-based phylogeny of non-symbiotic bacteria of Entono-pathogenic nematodes from infected insect cadavers. Genomics, Proteomics and Bioinformatics 9(3): 104-112. (Impact factor: **7.214**)
- 98. **Chellapandi P**, Balachandramohan J (2011) Molecular evolution-directed approach for designing archaeal formyltetrahydrofolate ligase. Turkish Journal of Biochemistry 36(2): 122-135. (Impact factor: **0.794**)
- 99. **Chellapandi P**, Balachandramohan J (2011) Molecular evolution-directed approach for designing of β-methylaspartate mutase from the sequences of Haloarchaea. International Journal of Chemical Modeling 3(3): 143-154. (Impact factor: **0.0**)
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- 103. **Chellapandi P** (2011) A molecular conception for protein engineering algorithms. Advanced Biotech 10(7): 41-46. (Impact factor: **0.0**)
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- 106. **Chellapandi P**, Dhivya C (2010) Overview of microbial metabolomics: A special insight to cyanobacterial methylotrophy. Journal of Advances in Developmental Research 1(1): 59-73. (Impact factor: **0.0**)
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- 108. Razia M, Raja KR, Padmanaban K, Sivaramakrishnan S, **Chellapandi P** (2010) A phylogenetic approach for assigning function of hypothetical proteins in *Photorhabdus luminescens* subsp. laumondii TT01 genome. Journal of Computer Science and Systems Biology 3(1): 21-29. (Impact factor: **0.0**)
- 109. **Chellapandi** P (2010) Pharmacological perspectives of snake venoms from Viperidae family. Internet Journal of Pharmacology 8(2). DOI: 10.5580/e36 (Impact factor: **0.0**)
- 110. **Chellapandi P** (2010) Production and preliminary characterization of alkaline protease from *Aspergillus flavus* and *Aspergillus terreus*. Journal of Chemistry 7(2): 479-482. (Impact factor: **3.234**)
- 111. **Chellapandi P**, Prabaharan D, Uma L (2010) Evaluation of methanogenic activity of biogas plant slurry for monitoring codigestion of ossein factory wastes and cyanobacterial biomass. Applied Biochemistry and Biotechnology 162(2): 524-535. (Impact factor: 4.238)

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- 113. Vedhagiri K, Natarajaseenivasan K, **Chellapandi P**, Prabhakaran SG, Selvin J, Sharma S, Vijayachari P (2009) Evolutionary implication of outer membrane lipoproteinencoding genes *ompL1*, *ompL32* and *lipL41* of pathogenic Leptospira species. Genomics, Proteomics and Bioinformatics 7(3): 96-106. (Impact factor: **7.214**)
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- 119. Sangavai C, **Chellapandi P** (2008). *In vitro* propagation of a tuberose plant (Polianthes tubarosa, L). Electronic Journal of Biology 4(3): 98-101. (Impact factor: **0.0**)
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- 121. **Chellapandi P**, Jebakumar SRD (2008) Purification and antibacterial activity of Indian cobra and viper venoms. **Electronic Journal of Biology** 4(1): 11-16. (Impact factor: **0.0**)
- 122. **Chellapandi P**, Jani HM (2008) Production of endoglucanase by the native strains of *Streptomyces* isolates in submerged fermentation. Brazilian Journal of Microbiology 39: 122-127. (Impact factor: **2.346**)
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- 124. **Chellapandi P**, Karthigeyan C, Sivaramakrishnan S (2007) Phylogenomic analysis of archaeal domain: An overview. Research & Reviews in BioSciences 1(4): 37-55. (Impact factor: **0.0**)
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- 126. Karthigeyen C, Sivaramakrishnan S, **Chellapandi P** (2007) Phylogenomic analysis of archaeal domain. Bioinformatics Trends 2(1): 1-19. (Impact factor: **0.0**)

### **Books and Chapters**

- 127. Bharathi M, Saranya S, Senthil Kumar N, **Chellapandi P** (2023) Functional prediction of anti-methanogenic targets from *Methanobrevibacter ruminantium* M1 operome. Marvels of Artificial Intelligence in Life Sciences. Edited by Sivaraman T, Thangarasu VS, Balakrishnan G. p228-243. (ISBN: 978-981-5136-81-4)
- 128. Prathiviraj R, Sheela Berchmans, **Chellapandi P** (2023) Comparative prediction of electrical interplay systems in *Methanothermobacter thermautotrophicus* delta H and metal-loving bacteria. Marvels of Artificial Intelligence in Life Sciences. Edited by Sivaraman T, Thangarasu VS and Balakrishnan G. p244-262. (ISBN: 978-981-5136-81-4)
- 129. **Chellapandi P**, Sivaramakrishnan S (2012) Superprotein-based phylogenomic analysis of archaeal domain. In: Baginski SJ (Ed.) Biochemistry Research Updates. Nova Science Publications, Inc, USA, pp.185-217 (ISBN 978-1-61209-700-8)
- 130. **Chellapandi P** (2007) Laboratory Manual in Industrial Biotechnology. Pointer Publications, Jaipur, India. (ISBN 978-81-7132-488-0)
- 131. **Chellapandi P** (2004) Enzymes and microbiological pre-treatments of oil industry wastes for biogas production in batch digesters. In: Pathade GR and Goel PK (Ed.) Biotechnology in Environmental Management, 39-74, ABD Publishers, Jaipur, India. (ISBN 81-89011-11-1)

### **Conference Proceedings**

132. **Chellapandi P** (2017) Molecular phylogenetic analysis of *Copepoda* (*Crustacea*): Practice and applications. Proceeding of National Workshop on Taxonomic Identification of Coastal and Oceanic Copepodes, Bharathidasan University, Tiruchirappalli.

- 133. **Chellapandi P** (2017) Phylogenetics and Molecular evolution of *Copepoda* (*Crustacea*). Proceeding of National Workshop on Taxonomic Identification of Coastal and Oceanic Copepodes, Bharathidasan University, Tiruchirappalli.
- 134. **Chellapandi P** (2012) Bioinformatics resources for DNA barcoding. Proceeding of National training-cum-workshop on DNA Barcoding of Fish and Marine Life-Molecular Analysis and Bioinformatics Approach, Bharathidasan University, Tiruchirappalli.
- 135. **Chellapandi P** (2003) Rural biotechnology: An integrated approach for rural development in India. Proceeding of National Seminar on reaching for unreached. Kumaraguru College of Technology, Coimbatore.
- 136. **Chellapandi P**, Pokar VD, Thiagarajan VR, Suman LS (2002) Anaerobic digestion of enzyme and microbial pretreated oil-industry wastes. Proceeding of National Seminar on Solid Waste Management at Current Status and Prospectus. Bangalore University, Bangalore.

### 10. RESEARCH COLLABORATIONS

Name of Agencies : Bishop Heber College, Tiruchirappalli-01

MoU formulated Year : 2021-2024

Activities done : Academic research on Bioinformatics

Name of the Collaborator : Mkshinika Feeds and Needs, Chidambaram

Purpose : Sustainable shrimp farming

Duration : 2019

Name of the Collaborator : Rajiv Gandhi Centre for Aquaculture, Sirkazhi

Purpose : Sustainable shrimp farming

Duration : 2019

Name of the Collaborator : CDAC, Tiruvendram

Purpose : Aquaculture automation system

Duration : 2019

Name of the Collaborator : Mizoram University, Aizawl

Purpose : Colorectal cancer and Medicinal plants

Duration : 2019

Name of the Collaborator : Department of Marine and Coastal Studies

Madurai Kamaraj University

Purpose : Phylogenetics

Duration : 2019

Name of the Collaborator : Department of Molecular Microbiology

Madurai Kamaraj University

Purpose : Biofuel technology

Duration : 2018

## 11. ORGANIZED ACADEMIC EVENTS

Name of the Event Free Oral HealthCare Camp

Organization Bharathidasan University and Lions Club, Cumbum

Date 09-02-2025

Role Organizing Secretary

Name of the Event : New Beginning of Snake Head Murrel Fish-Tank Culture

Organization : Bharathidasan University and Willow way Fish Farming,

Tirunelveli

Date : 27-01-2025

Role : Organizing Secretary

Name of the Event : Systems and Synthetic Biology Lecture Series

Organization : Bharathidasan University

Date : 17-10-2024

Role : Organizing Secretary

Name of the Event : National Conference on Engineering in Biological

Applications-2024

Organization : Bharathidasan University

Date : 12-04-2024

Role : Organizing Secretary

Name of the Event : Entrepreneurship Awareness programme

Organization : BECH-RUSA 2.0 Date : 23-02-2024

Role : Organizing Secretary

Name of the Event : Workshop on COSMOsuite
Organization : Zastra Innovations, Bangalore

Date : 19-10-2023

Role : Organizing Secretary

Name of the Event : National Level Farmer Training Program on "Automatic

**Biofloc Shrimp Cultivation** 

Organization : Bharathidasan University and CTAC-T

Date : 31-03-2023

Role : Organizing Secretary

Name of the Event : Workshop on Machine Learning in Computational Biology

Organization : Bharathidasan University

Date : 28-08-2022

Role : Organizing Secretary

Name of the Event : MultiOmics: A road to Interdisciplinary Research
Organization : Bharathidasan University and Build Geeks Pvt. Ltd

Date : 23-04-2021

Role : Organizing Secretary

Name of the Event : Virtual School on Intellectual Property
Organization : Bharathidasan University and BDU-IPR Cell

Date : 17-03-2021

Role : Organizing Secretary

Name of the Event : Online Workshop on Python

Organization : Bharathidasan University and University of Wisconsin, USA

Date : 18-11-2020; 24-11-2020 Role : Organizing Secretary

Name of the Event : Workshop on Data Science

Organization : Bharathidasan University and Live Wire Pvt. Ltd.

Date : 06-09-2019

Role : Organizing Secretary

Name of the Event : Awareness campaign on IPR: Relevance to your career

Organization : Bharathidasan University and BDU-IPR Cell

Date : 04-00-2019

Role : Organizing Secretary

Name of the Event : Microbial processes for lignocellulosic biofuel production

Organization : Bharathidasan University and GIAN

Date : 18-12-2017 to 27-12-2017

Role : Course Coordinator

# 12. INVITED TALKS/RESOURCE PERSONS

### 2025

Name of the Event : In-Service Training for Science Teachers Organizer : Government Arts College, Perambalur

Date : 24-01-2025

Topic : Career opportunities for Science students

Name of the Event : Aquamap-2025

Organizer : National Centre for Aquatic Animal Health, Cochin University

of Science and Technology, Kochi

Date : 17-01-2025

Topic : Precision Aquaculture, Aquaculture System Design and

Automation for Socio-economic and Environmental

Sustainability

Name of the Event : Knowledge Enrichment Programme

Organizer : Srimad Andavan Arts and Science College, Tiruchirappalli

Date : 06-01-2025

Topic : Current perspectives on systems and Synthetic biology

## 2024

Name of the Event : National Seminar on Data Science and Emerging

Computational Applications for Sustainable Management of

**Biodiversity and Environment** 

Organizer : Jamal Mohamed College, Tiruchirappalli

Date : 11-12-2024

Topic : Systems biology and its applications

Name of the Event : ATAL Online Faculty Development Programme Organizer : Rathinam College of Arts and Science, Coimbatore

Date : 04-12-2024

Topic : Systems biology and its applications

Name of the Event : Lecture Series entitled Evolutionary Approaches to DNA

Design in Synthetic Biology

Organizer : Bon Secours College for Women (Autonomous) Thanjavur

Date : 23-08-2024

Topic : Synthetic biology and its applications

Name of the Event : Bioinformatics club

Organizer : Bishop Heber College, Trichy

Date : 23-08-2024

Topic : Systems and synthetic biology

Name of the Event : Refresher course in Bioinformatics and Biotechnology

Organizer : University of Calicut, Calicut

Date : 16-03-2024

Topic : Systems and synthetic biology

Name of the Event : National Level Seminar on Vulnerability of biomedical waste,

animal waste on human health and environment: Disposal management by nano and geospatial technologies for

sustainable development

Organizer : Government Arts College, Salem

Date : 27-02-2024

Topic : Vulnerability of biomedical and animal waste on environment

2023

Name of the Event : National Conference on Disease Diagnosis and Drug

Development

Organizer : Muthayammal College of Arts and Science, Rasipuram

Date : 17-11-2023

Topic : Recent trends in systems and synthetic biology

Name of the Event : National Seminar on Socioeconomic upliftment of

marginalized farmers through value addition in Traditional

rice varieties

Organizer : Bon Secure College for Women, Tanjavur

Date : 26-09-2023

Topic : Network pharmacology in type 2 diabetes

Name of the Event : National Seminar on Emerging Trends in Computer-Aided

Drug Discovery

Organizer : Periyar College of Pharmaceutical Sciences, Trichy

Date : 12-08-2023 Topic : Drug discovery

Name of the Event : National Conference on Emerging Trends in Biotechnology

Organizer : Mary Matha College of Arts and Science, Periyakulam

Date : 17-03-2023

Topic : Systems and synthetic biology of industrial microorganisms

Name of the Event : National Seminar on Recent Innovations in Biological Sciences

Organizer : H.H. Rajah's College, Pudhukottai

Date : 11-03-2023

Topic : Plant bioinformatics and its applications

2022

Name of the Event : Refresher Course in Botany Organizer : Madurai Kamaraj University

Date : 10-11-2022

Topic : Plant Bioinformatics and its applications

Name of the Event : COMBIGS

Organizer : SASTRA University

Date : 16-11-2022 Topic : Systems biology

\*Name of the Event : In-service Training to Science Teachers

Organizer : Government Arts and Science College, Perambalore

Date : 25-07-2022

Topic : Bioinformatics awareness among students

Name of the Event : Three day seminar on Research Methodology
Organizer : Vinayaka Mission's Research Foundation

Date : 06-05-2022

Topic : Data collection-Type of data-Sources-Tools for data collection-

Constructing Questionarie-Reliability and validity-Pilot Study

2021

Name of the Event : DST-STAR scheme-Special Lecture

Organizer : Jamal Mohamed College, Tiruchirappalli

Date : 15-12-2021

Topic : Phylogenetic analysis and molecular evolution

Name of the Event : Workshop on Research Methodology
Organizer : Vinayaka Mission's Research Foundations

Date : 30-11-2021

Topic : Biostatistics and its applications

Name of the Event : Student Induction Program

Organizer : Bon Secours College of Women, Thanjavur

Date : 21-09-2021

Topic : Scope of research in biological sciences

Name of the Event : Faculty Development Program Organizer : Holy Cross College, Tiruchirappalli

Date : 28-07-2021

Topic : Systems and synthetic biology in biomedical sciences

Name of the Event : Workshop on Research Methodology
Organizer : Vinayaka Mission's Research Foundations

Date : 21-06-2021

Topic : Biostatistics and its applications

Name of the Event : DBT-Workshop on Synthetic Biology Organizer : Pondicherry University, Pondicherry

Date : 24-02-2021 to 27-02-2021 Topic : Systems and Synthetic Biology

2020

Name of the Event : Training Programme in Translational Bioinformatics

Organizer : Presidency College, Chennai

Date : 21-02-2020

Topic : Industrial systems biology

Name of the Event : National Seminar on Computing Platforms for Biological Big

**Data Analytics** 

Organizer : NGP Arts and Science College, Coimbatore
Date : DRN/PASC/FCS/2019-20/201 Dt. 01-02-2020

Topic : Big data analytics and systems biology

Name of the Event : National seminar on Cancer Biology and Epidemic diseases
Organizer : Meenakshi Chandrasekaran College of Arts and Science

Date : 31-01-2020 Topic : Drug Discovery

2018

Name of the Event : DBT-Workshop on Synthetic Biology Organizer : Pondicherry University, Pondicherry

Date : 21-05-2019 to 22-05-2019 Topic : Systems and Synthetic Biology

Name of the Event : Mini-Symposium on Metabolic Bioengineering for The

**Production of Small Molecules** 

Organizer : NIPER, Kolkata Date : 01-11-2018

Topic : Systems medicine approach for type-2 diabetes

Name of the Event : Basic Bioinformatics Workshop

Organizer : St. Joseph's College (Autonomous), Calicut, Kerala

Date : 20-03-2018 to 21-03-2018
Topic : Basic Bioinformatics Workshop

2017

Name of the Event : National Workshop on Taxonomic Identification of Coastal

and Oceanic Copepods

Organizer : Bharathidasan University, Tiruchirappalli

Date : 12-07-2017 to 14-07-2017

Topic : Phylogenetics and molecular evolution of Copepoda

(Crustacea) Molecular phylogenetic analysis of Copepoda

(Crustacea): Practice and applications

Name of the Event : National Conference on Recent Advancements in Material

Science

Organizer : Jayaraj Annapackiam College for Women, Periyakulam

Date : 10-02-2017

Topic : Bionanotechnology and its medical applications

2016

Name of the Event : National Level Workshop on Modernization in Bioinformatics

and Big data

Organizer : Anna University, BIT Campus, Tiruchirappalli

Date : 19-12-2016 to 25-12-2016

Topic : Genome-scale modeling: A computational platform for

microbial metabolic engineering

Name of the Event : National Seminar on Emerging Trends in Control of Vectors

and Vector-Borne Diseases

Organizer : Nehru Memorial College, Puthanampatti

Date : 29-09-2016 to 30-09-2016

Topic : *In silico* approach for anti-malarial drugs discovery

Name of the Event : International Conference on Environment and Health in

**Changing Climate** 

Organizer : Bharathidasan University, Tiruchirappalli

Date : 14-09-2016 to 16-09-2016

Topic : Chairperson

Name of the Event : Guest Lecture Series

Organizer : Karpagam University, Coimbatore

Date : 13-07-2016

Topic : Genome sequence analysis

Name of the Event : National Conference on Achievements, Challenges and

Opportunities in Environmental Biotechnology for

Sustainable Livelihood Security

Organizer : Tamil Nadu Scientific Research Organization, Pudukkottai

Date : 28-02-2016

Topic : Molecular systems biology of methanogens for environmental

applications

2015

Name of the Event : Refresher Course in Life Sciences Organizer : Calicut University, Kozhikode

Date : 07-12-2015

Topic : Plant bioinformatics tools and their applications

Name of the Event : Faculty Development Programme on New Perspectives in

Drug Discovery and Progressive Technological Developments

Organizer : BIT Campus, Anna University, Tiruchirappalli

Date : 13-05-2015

Topic : Pharmaceutical bioinformatics and its applications in drug

discovery

Name of the Event : National Workshop Application of Bioinformatics in Science

and Research in Pharmaceutical Industries

Organizer : JSS College of Pharmacy, Ooty
Date : 12-02-2015 to 14-02-2015

Topic : Bioinformatics resources and their applications

\*Name of the Event : Guest Lecture Series

Organizer : Srimad Andavar College of Arts and Science, Tiruchirappalli

Date : 10-01-2015

Topic : Recent trends in Bioinformatics

2014

Name of the Event : National Seminar on Role of Biotechnology in Development of

Therapeutics/Drugs and Vaccines

Organizer : JSS University, Mysore

Date : 14-08-2014

Topic : Peptide-based vaccine designing and engineering

Name of the Event : Biocomets 2014 Inter-collegiate Competitions

Organizer : Srinivasan College of Arts and Science, Perambalore

Date : 27-02-2014

Topic : Systems biology for metabolic engineering of industrial

organisms

2012

Name of the Event : National training-cum-workshop on DNA Barcoding of Fish

and Marine Life-Molecular Analysis and Bioinformatics

Approach

Organizer : Bharathidasan University, Tiruchirappalli

Date : 14-09-2012

Topic : Bioinformatics resources for DNA barcoding

2011

Name of the Event : Wilmut Association-2011

Organizer : Dhanalakshmi Srinivasan College of Arts and Science for

Women, Perambalore

Date : 12-08-2011

Topic : Systems biology and its applications

\*Name of the Event : Faculty Improvement Programme Organizer : Vellore Institute of Technology, Vellore

Date : 24-01-2011

Topic : Molecular docking and visualization software

2010

Name of the Event : Wilmut club of Biotechnology: Lecture-cum-Training

Programme on Bioactive Natural Products and Bioinformatics

Organizer : IJ College of Arts and Science, Pudhukottai

Date : 06-10-2010

Topic : Protein structure prediction and folding mechanism

Name of the Event : Seminar on Molecular Modeling and Drug Design Organizer : Srinivasan College of Arts and Science, Perambalore

Date : 08-09-2009

Topic : Molecular modeling and drug designing

\*Name of the Event : Botanical Association-2009

Organizer : Jamal Mohamed College, Tiruchirappalli

Date : 18-08-2009

Topic : Plant Bioinformatics and its applications

Name of the Event : Seminar-cum-Workshop on Systems Biology

Organizer : Sathiyabama University, Chennai

Date : 18-03-2009

Topic : Systems biology for metabolic engineering of industrial

microorganisms

## 13. TRAINING PROGRAMMES

Name of the Event : International Workshop on Ocean Energy–Recent Trends

Organizer : IIT, Madras Date : 30-31, 10-2023

Name of the Event : Bioinformatics Workshop

Organizer : St. Joseph's College, Calicut, Kerala

Date : 20-03-2018 to 21-03-2018

Name of the Event : Bioinformatics for Whole Genome Sequencing
Organizer : ICAR-Indian Institute of Spices Research, Kozhikode

Date : 27-01-2016 to 29-01-2016 and 01-02-2016

Name of the Event : DST sponsored Training Workshop on Advances in

Biotechnology

Organizer : The Energy and Resources Institute, New Delhi

Date : 14-11-2011 to 19-11-2011

Name of the Event : National Workshop on Petroleum Exploration Organizer : Bharathidasan University, Tiruchirappalli

Date : 31-03-2011 to 01-04-2011

Name of the Event : Refresher course in Bioinformatics

Organizer : Bharathidasan University, Tiruchirappalli

Date : 03-12-2010 to 23-12-2010

Name of the Event : National Workshop on Molecular Modelling and Drug Design

Organizer : CMSD, University of Hyderabad, Hyderabad

Date : 02-08-2010 to 07-08-2010

Name of the Event : Access to e-Resources and Digital Library Consortium

Organizer : Bharathidasan University, Tiruchirappalli

Date : 01-08-2008 to 02-08-2008

Name of the Event : Refresher course in Life Sciences Organizer : Bharathiar University, Coimbatore

Date : 10-09-2007 to 30-09-2007

Name of the Event : Hands-on Training on Bioinformatics: Tools and Applications

Organizer : Lady Doak College, Madurai Date : 02-06-2007 to 12-06-2007

Name of the Event : Training Course on The aspects of Remote Sensing

Organizer : Bharathidasan University, Tiruchirappalli

Date : 26-10-2006 to 30-10-2006

Name of the Event : Orientation course

Organizer : Bharathidasan University, Tiruchirappalli

Date : 10-06-2006 to 06-06-2006

Name of the Event : Faculty Induction Programme

Organizer : Bharathidasan University, Tiruchirappalli

Date : 26-12-2005 to 27-12-2005

## 14. PRESENTATION IN INTERNATIONAL ACADEMIC EVENTS

Author's Name : Chellapandi P

Name of the Event : International Conference on Microbiome in Health, Disease

and Environment

Date : 3-4, March 2017

Organizer : Sri Balaji Vidyapeeth, Puducherry

Abstract Title : Systems-biological approach for the development of anti-

methanogenic vaccine against Methanobrevibacter

ruminantium M1 found in the rumen gut.

Author's Name : Prisilla A and Chellapandi P

Name of the Event : International Conference on Reasserting Microbial

Biotechnology to Deflate Global Disease Burden

Date : 28-29, September 2015

Organizer : Manonmaniam Sundaranar University, Tirunelveli

Abstract Title : Structure, function and evolution of *Clostridium botulinum* C2

and C3 toxins: Insight to poultry and veterinary vaccines

:

Author's Name : Chellapandi P

Name of the Event : International Science Congress

Date : 24-25, December 2011

Organizer : Maharaja Ranjit Singh College of Professional Sciences, Indore

Abstract Title : Exploring methylotrophic capability of cyanobacteria based

on their genome functional homologies

Author's Name : Chellapandi P and Divya C

Name of the Event : International Conference on Bioinformatics and Systems

Biology

Date : 3-4, March 2011

Organizer : Annamalai University, Chidambaram

Abstract Title : Metabolic reconstruction of  $C_1$  assimilation pathways in the

genomes of Prochlorococcus

Author's Name : Chellapandi P, Nandhini J and Sivaramakrishnan S

Name of the Event : International Conference on Climate Change and Bioresource

Date : 9-12, February 2010

Organizer : Bharathidasan University, Tiruchirappalli

Abstract Title : Computational analysis of enzyme-substrate complexes for

reverse methanogenesis

Author's Name : Karthigeyan G, Sivaramakrishnan and P. Chellapandi

Name of the Event : International Seminar on Biotechnological approach for Bio-

resource management

Date : 23-26, January 2007

Organizer : Bharathidasan University, Tiruchirappalli.

Abstract Title : Super gene families based phylogenomics of archaeal domain

Author's Name : Chellapandi P and Amin SB

Name of the Event : International Conference on New Horizons in Biotechnology

Date : 18-21, April 2001

Organizer : Regional Research Laboratory, Thiruvananthapuram, India.

Abstract Title : Production and characterization of extra cellular alkaline

proteinase from Aspergillus foetidus NCIM 505

## 15. PRESENTATION IN NATIONAL EVENTS

Author's Name : Chellapandi P

Name of the Event : National Conference on Heavy Metals in the Environment

Date : 28-30, November 2013

Organizer : Mahadma Gandhi University, Kottayam

Abstract Title : Elucidating heavy metal ions-coupled reverse methanogenesis

in the genomes of methanogenic archaea

Author's Name : Chellapandi P

Name of the Event : National Seminar on Recent Advances in Life Sciences

Date : 28-29, December 2011

Organizer : H.H. Rajah's College, Pudukottai

Abstract Title : Sequence-structure-function integrity of ADP-ribosylation

superfamily for engineering avirulent toxins from identical

hypothetical proteins.

Author's Name : Chellapandi P and Nandhini J

Name of the Event : National Seminar in Frontiers in Biotechnology

Date : 22-24, July 2009

Organizer : Bharathiar University, Coimbatore

Abstract Title : Molecular mimics for understanding the mechanism of reverse

#### methanogenesis in methanobacteria

Author's Name : Chellapandi P, Kalaiarasi M and Sangavai C

Name of the Event : National Conference on Genomics, Proteomics and Systems

Biology

Date : 1-3, October 2008 Organizer : IISC, Bangalore

Abstract Title : Metabolomic analysis of lactose utilizing metabolism in

Aspergillus genomes

Author's Name : Chellapandi P

Name of the Event : National Seminar on reaching for unreached

Date : 27-30, December 2003

Organizer : Kumaraguru College of technology, Coimbatore

Abstract Title : Rural biotechnology: An integrated approach for rural

development in India

Author's Name : Chellapandi P

Name of the Event : National Symposium on Microbial Diversity for Sustainable

Development

Date : 1-2, March 2003

Organizer : Gujarat University, Ahmadabad

Abstract Title : Biodiversity of industrial enzymes producing microorganisms

Author's Name : Chellapandi P, Patel JP, Patel A and Takkur M

Name of the Event : National Symposium on Environmental Biotechnology and

**Biodiversity** 

Date : 31 January to 1 February 2003

Organizer : S.P. University, Anand

Abstract Title : Aerobic degradation potential of Aspergillus oryzae and

Fusarium lini on groundnut shell

Author's Name : Chellapandi P, Pokar VD, Thiagarajan VR and Suman LS

Name of the Event : National Seminar on Solid Waste Management at Current

**Status and Prospectus** 

Date : 12-14, December 2002

Organizer : Bangalore University, Bangalore

Abstract Title : Anaerobic digestion of enzyme and microbial pretreated oil-

industry wastes

Author's Name : Chellapandi P and Jani HM

Name of the Event : National Seminar on Microbial Technology

Date : 1-2, June 2001

Organizer : G.R.D. College of Science, Coimbatore

Abstract Title : Optimizing Production of extracellular endogluconase from

*Streptomyces* sp.BRC.2

Author's Name : Chellapandi P and Patel JK

Name of the Event : National Seminar on Microbial Technology

Date : 1-2, June 2001

Organizer : G.R.D. College of Science, Coimbatore

Abstract Title : Production of extra cellular lipase production from *Bacillus* 

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## 16. MEMBERS OF ACADEMIC COUNCIL

Nature of the duty : University Representative

Organization : Rajah Serfoji Government College, Thanjavur Role : Governing body (23-08-2024 to 22-08-2030) Reference No. : 19385/R/CCCD/L/2022 Dt. 24-04-2025

Nature of the duty : University Representative

Organization : Jamal Mohamed College, Tiruchirappalli

Role : Academic Council member (29-03-2025 to 28-03-2028)

Reference No. : 19868/R/CCCD/L/2022 Dt. 08-04-2025

Nature of the duty : University Representative

Organization : Nehru Memorial College, Puthanampatti

Role : College Committee member (04-02-2025 to 03-02-2028)

Reference No. : 19701/A2/2014/ Dt. 19-02-2025

Nature of the duty : University Representative

Organization : Servite Arts and Science College, Edaiyapatty

Role : College Committee member (04-02-2025 to 03-02-2028)

Reference No. : 19701/A2/2014/ Dt. 19-02-2025

Nature of the duty : Chairman

Organization : Teacher Recruitment Board, Government of Tamil Nadu

Role : Biotechnology panel

Reference No. : 01079/E/S1/2024 Dt. 23-02-2025

Nature of the duty : Reviewer

Organization : CSIR, New Delhi

Role : Proposal for Emirates Scientist

Reference No. : Dt. 23-04-2024

Nature of the duty : Selection Committee member

Organization : ADM College for Women, Nagapattinam

Role : Principal appointment

Reference No. : Dt. 08-01-2024

Nature of the duty : University Representative

Organization : ADM College for Women, Nagapattinam

Role : College Committee member

Reference No. : 19701/A2/2014/ Dt. 08-09-2023

Nature of the duty : Issuance of course equivalence

Organization : Tamil Nadu State Council for Higher Education

Role : Chairperson

Reference No. : 2515/2021/A Dt. 05-04-2022

Nature of the duty : University Representative

Organization : ADM College for Women, Nagapattinam

Role : College Committee member

Reference No. : 19701/A2/2014/ Dt. 30-03-2022

Nature of the duty : University Representative

Organization : Bishop Heber College, Tiruchirappalli

Role : Academic Council member

Reference No. : 19868/R/CCCD/L/2022 Dt. 18-03-2022

Nature of the duty : Research advisor for project proposals

Organization : Shrimati Indra Gandhi College, Tiruchirappalli

Role : Research advisor

Reference No. : 08-12-2021

Nature of the duty : Issuance of course equivalence

Organization : Tamil Nadu State Council for Higher Education

Role : Chairperson

Reference No. : 1410/2021/A Dt. 08-10-2021

Nature of the duty : Selection committee meeting for CAS

Organization : Pondicherry University

Role : Subject expert Reference No. : 06-07-2021

Nature of the duty : Appointment document analyzing committee

Organization : Bharathiar University, Coimbatore

Role : Subject expert

Reference No. : E7/DVAC/DSC/2021/7543-3 Dt. 21-04-2021

Nature of the duty : Student Ready Programme

Organization : Tamil Nadu Agriculture University, Coimbatore

Role : Host trainer

Reference No. : Dean (Agri)/BTECH(Bioinfo)/SRP/2021 Dt. 29-01-2021

Nature of the duty : Scrutinizing the Research Advisor

Organization : Bharathidasan University, Tiruchirappalli

Role : Subject expert

Reference No. : DIR-RES/RA-RECO/2020 Dt. 16-03-2020

Nature of the duty : ASRB-ARS exam evaluation

Organization : ASRB, New Delhi

Role : Evaluation committee member Reference No. : PA/CE/EVL/05/17 Dt.17-08-2018

Name of the Duty : Manpower appointment

Organization : Alagappa University, Karaikudi

Role : Subject expert

Reference No. : AU:DBI: DST project: PA: 2014 Dt. 20.06.2014 (21-07-2014)

#### 17. MEMBERS OF BOARD OF STUDIES

Nature of the duty : Board of Studies for Pharmaceutical Technology

Organization : Anna University, Chennai

Reference No. : May 10, 2025

Nature of the duty : Board of Studies for Biotechnology and Bioinformatics

Organization : SAFI Institute of Advanced Study, Malapuram

Reference No. : Bo/M/1/2024 Dt. 29-07-2024

Nature of the duty : Board of Studies for Biochemistry Programme

Organization : Holy Cross College, Tiruchirappalli

Reference No. : 03555/R/CCCD/L/2023 Dt. 05-05-2023

Nature of the duty : Board of Studies for Bioinformatics Programme

Organization : National College, Tiruchirappalli

Reference No. : 6589/R/CCCD/I/2023 Dt. 28-04-2023

Nature of the duty : Board of Studies for Bioinformatics Programme

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 51195/C3/BOS/2021 Dt. 23-08-2022

Nature of the duty : Board of studies for Life Sciences

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 51195/C3/BOS/2021 Dt. 20-04-2022

Nature of the duty : Board of Studies for Biotechnology Programme Organization : Bharathidasan University, Tiruchirappalli : 51363/C3/BOS/2021 Dt. 27-09-2021

Nature of the duty : Board of Studies for Bioinformatics Programme

Organization : Thiruvalluvar University, Vellore

Reference No. : TU/R/RC of BOS/2020/339 Dt. 17-02-2020

Nature of the duty : Board of Studies for Bioinformatics Programme

Organization : Holy Cross College, Tiruchirappalli

Reference No. : 29331/R/CCCD/L/2019 Dt. 08-02-2020

Nature of the duty : Board of Studies for Bioinformatics Programme

Organization : Thiruvalluvar University, Vellore

Reference No. : TVU/BOS Meeting/2020/339 Dt. 06-02-2020

Nature of the duty : Board of studies for Life Sciences

Organization : Bharathidasan University, Tiruchirappalli Reference No. : BU/SLS/CO/2018/53706 Dt. 11-05-2018

Nature of the duty : Board of Studies for Academic Programmes

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : 8487/C3/BoS/2013 Dt. 24-04-2018

Nature of the duty : Board of Studies in Bioinformatics

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 48749/C3/BoS/2015 Dt. 28-12-2015

Nature of the duty : Board of Studies in Bioinformatics

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 46211/C2/BoS/2014 Dt. 13-07-2015

Nature of the duty : Board of Studies in Bioinformatics

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 43488/C1/CCCD-BoS/2011 Dt. 17-08-2012

Nature of the duty : Board of Studies in Bioinformatics and Information technology

Organization : Thiruvalluvar University, Vellore

Reference No. : TU/R/Reconst. BoS/2009-2010/A/1433 Dt. 28-04-2010

### 18. DOCTORAL COMMITTEE MEMBERS

Name of the Candidate : V. Ramanarayanan

Organization : Madurai Kamaraj University, Madurai Reference No. : MKU24FFOS11506 Dt. 04-09-2024

Name of the Candidate : Oishee Mondal

Organization : VIT University, Vellore Reference No. : 24PHD0162 Dt. 30-07-2024

Name of the Candidate : Angeline Priscilla

Organization : SRM University, Chennai

Reference No. : 15-11-2023

Name of the Candidate : S. Naveenkumar

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : PhD/K10/DR03/231204151053

Name of the Candidate : C M. Durga

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : PhD/K10/DR03/231204151903

Name of the Candidate : T S. Shalini

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : PhD/K5/DR03/220928143425

Name of the Candidate : S K. Vandhana

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : PhD/K10/DR03/220728144322

Name of the Candidate : B. Rengasamy

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : PhD/K9/DR03/2201331152713

Name of the Candidate : H. Sreenithya

Organization : SRM University, Chennai

Reference No. : 16-08-2021

Name of the Candidate : T. Kokila Prinsha

Organization : Bharathidasan University, Tiruchirappalli

Reference No. : PhD/K10/DR03/210701120229

Name of the Candidate : S Maharaja

Organization : Bharathidasan University, Tiruchirappalli Reference No. : BDU/PhD/2020/0145-5133 Dt. 31-03-2020

Name of the Candidate : R. Sujatha

Organization : Periyar E.V.R College, Trichy

Reference No. : 34466/PhD.K9/Zoology/FT/Oct-2019

Name of the Candidate : P. Chandra Sekar

Organization : VIT University, Vellore Reference No. : 18PHH0098 Dt. 04-03-2019

Name of the Candidate : M. Indhumathi

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 26966/PhD-K1/Plant Science/FT/Oct-2016

Name of the Candidate : Bela Rani Bhagat

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 8426/PhD-K1/Microbiology/FT/April-2013

Name of the Candidate : C. Thiyagarajan

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 47152/PhD-K1/Bioinfo/PT/April-2012

Name of the Candidate : S. Kalaivanan

Organization : Bharathidasan University, Tiruchirappalli Reference No. : 46918/PhD-K1/Bioinfo/FT/April-2012

Name of the Candidate : J. Febin Prabhu Dass Organization : VIT University, Vellore

Reference No. : VIT/Dir(AR)/PhD/SBST/06PHD002/1110895/2012

## 19. EXTERNAL EXAMINERS

Name of the Exam : Ph.D. Thesis valuation for J.J. Venkata Nagamani

Organization : CSIR-IICT, Hyderabad

Date : 19-09-2024

Name of the Exam : Ph.D. Thesis valuation for A. Yamuna

Organization : Bharathiar University

Date : 22-11-2023

Name of the Exam : Ph.D. Thesis valuation for T. Lokesh

Organization : Bharathiar University

Date : 15-01-2023

Name of the Exam : Ph.D. Thesis valuation Organization : Mizoram University

Date : 22-04-2022

Name of the Exam : M.Sc. Bioinformatics

Organization : Bishop Heber College, Tiruchirappalli

Date : 11-03-2020

Name of the Exam : B. Tech. Bioinformatics

Organization : SASTRA University, Thanjavur

Date : 09-05-2019

Name of the Exam : M.Sc. Bioinformatics

Organization : Bishop Heber College, Tiruchirappalli

Date : 24-04-2019

Name of the Exam : Ph.D. Viva -Voce examination

Organization : Bharathiar University, Coimbatore

Date : COE/Ph.D./1st Noti/2019/2860 Dt. 22-02-2019

Name of the Exam : M.Sc. Biomedical Science

Organization : Bharathidasan University, Tiruchirappalli

Date : BU/BMS/2016 Dt. 20-10-2016

Name of the Exam : M. Phil. and PGD in Bioinformatics Project Viva -Voce

Organization : Alagappa University, Karaikudi

Role External examiner

Date : 17-07-2014

Name of the Exam : M.Sc. Biomedical Science

Organization : Bharathidasan University, Tiruchirappalli

Date : BDU/BMS/4145 Dt.17-04-2013

Name of the Exam : M.Phil. Bioinformatics dissertation evaluation

Organization : Bharathiar University, Coimbatore
Date : COE/MPhil/2013/002 Dt. 21-01-2013

Name of the Exam : M.Sc. Biotechnology practical examination

Organization : Thiruvalluvar University, Vellore

Date : TVU/COE/Practical/ 2009/1727 Dt. 24-03-2009

Name of the Exam : PGD in Bioinformatics

Organization : Ayya Nadar Janaki Ammal College, Sivakasi

Date : 17-05-2008

## 20. CAPACITY BUILDING

Infrastructure Details : Lab infrastructure

Funding Agency : RUSA 2.0

Quantum of Grant : INR 4, 63, 000/-Year of Establishment : 2021-2024

Position Held : Head of the Department Reference No. : 311/RUSA (2.0)/2018

Infrastructure Details : Bioinformatics Lab, Department of Bioinformatics

Funding Agency : Bharathidasan University, Tiruchirappalli

Quantum of Grant : INR 6, 07, 600/-Year of Establishment : 2019-2020

Position Held : Head of the Department Reference No. : 14967/J/2019 Dt.14-11-2019

Infrastructure Details : Bioinformatics Lab, Department of Bioinformatics

Funding Agency : DST-PURSE-II Quantum of Grant : INR 3, 62 563/= Year of Establishment : 2020-2021

Position Held : Principal Investigator

Reference No. : 38651/P7/2020/ Dt. 20-10-2020

Infrastructure Details : Bioinformatics Lab, Department of Bioinformatics

Funding Agency : DST-PURSE-I Quantum of Grant : INR 2, 00, 000/= Year of Establishment : 2017-2018

Position Held : Principal Investigator

Reference No. : 28888/E12/2016/Infra/ Dt. 15.02.2018

#### 21. LAB FACILITIES **Equipment Name** Make Model Air pump Hailea HAP-120 Aquaculture automation system Own construction Anaerobic Culture Jar **GENIST INTERNATIONAL** 3.5 L 0.01 TO 300GM Analytical balance G-LAB Automated autoclave Hasihas HSI-101 **Bacteriological Incubator** LabTech LTINS-3 Bench top centrifuge **REMI** R-8C-DX Binocular Microscope Gemkolabwell G-S-725-10 Bio safety cabinet class IIB2 $(4\times2\times2)$ **KEMI** KBSC-3 Biogas plant 500L Biotech India Pvt Ltd Bioreactor 5L Bio-Age BIO-Spin 05A Biofuel cell (Single chamber) Own fabrication 500 mL Biofuel cell (Double chamber) Own fabrication 500 mL Bioreactor 10L Own fabrication Clear water sludge pump Kirloskar 1 HP

Colony counter, DS	Deep vision	361
Computer workstation	HP	Z820
Consolidated bioprocessing unit	Own fabrication	
Cooling microcentrifuge	Eppendorf	5418R
Cyclomixer	REMI	CM-101
Daul vertical electrophoresis unit	Genei	Medium
Deep freezer -20°C, 170 L	Blue Star	
Digital pH meter	ELICO	LI-120
Digital spectrophotometer	Lab Junction	LJ-306
Digital multi-meter	,	,
Digital water and soil analysis kit	SKY TECH	STI-440P6
Doctor centrifuge	REMI	R-304
Double distillation unit	Borosil	34/35
Dry bath	Genei	LI-DB-120
Electronic balance	Shimadzu	BL-220H
Electronic balance	SHIMADZU	ELB-300
Electrophoresis Power Supply	Tarsons	7090
Fluorescence spectrophotometer	PerkinElmer	L845
Freeze Dryer	Thermostar	SLFD 5Kg
Gas chromatograph with FID/TCD	Agilent Inc.	GC8890
Gel Caster for Electrophoresis	Tarsons	7024
Heating mantle	GUNA	
Hot air oven	LABLINE	
Hot air oven	Labtech	LTHOS-3
HPLC with UVD/RID	Agilent Inc.	1260 Infinity
Incubator (Bottom heated)	LABLINE	
Industrial Conductivity Probe Kit	ATLAS SCIENTIFIC	AS KIT-106E
Industrial DO Probe Kit	ATLAS SCIENTIFIC	AS KIT-103D
Industrial ORP Probe Kit	ATLAS SCIENTIFIC	AS Kit-1030
Industrial pH Probe Kit	ATLAS SCIENTIFIC	AS KIT102P
Industrial Temperature Probe	ATLAS SCIENTIFIC	ENV-TMP-D
Mass flow controller	Alicat	
Megnitic stirrer with hot plate	Tarsons	MC-02
Microwave oven	Whirl pool	Magicook
Midi Submarine Electrophoresis	Tarsons	7050
Mini Cooler -20°C	Tarsons	525060
Mini Dual Vertical Electrophoresis	Tarsons	7080
Mini Oscillating Granulator Machine	SS 316	
Mini Submarine Electrophoresis	Tarsons	7030
Monocular Microscope	OLYMPUS	HAS
Motor speed controller	Robodo	MO39
Orbital shaker incuabtor	BIO CHROME INDIA	BS-1
Orbital shaker incubator (25x250 ml)	Bio-Age	BSR-R2
pH meter	ELICO	
Rocking Shaker	Tarsons	Rockymax
Semi-automatic gassing manifold	Own fabrication	
Single distillation unit	BHANU	PH4/BASIC
Vortex Shaker	Tarsons	3020
Microcentrifuge	Tarsons	MC-01

Thermocycler (PCR) Tissue homogenizer	Eppendorf REMI	NexusX1 10 ml
UV/VIS spectrophotometer	Agilent	Cary60
UV-Trans illuminator	Genei	107171GB
UV-VIS spectrophotometer	ELICO	SL-150
Vacuum drying oven		
Vacuum oven	Hasihas	HSI-137
Vacuum pump	Tarsons	M/N300
Vertical autoclave 25 Lit	Labline	AV101
Water bath 2KVa	Guna	
Water bath incubator shaker	LABLINE	WBIS-2
Water distillation Unit	GENIST	International



**Last updated on 17-06-2025** 



# Dr. P. CHELLAPANDI, INDUSTRIAL SYSTEMS BIOLOGY LAB **BHARATHIDASAN UNIVERSITY**

Research Team - 2025



Dr. M. BHARATHI Veterinary Systems Biology



Mrs. V..P. SREEKUTTY **Systems Space Microbiology** 



Dr. R. PRATHIVIRAJ **Industrial Systems Biology** 



Ms. S. DHAYANITHI **Industrial Systems Biology** 



Dr. C. SANGAVAI **Industrial Systems Biology** 



Ms. L. LOURDU LINCY **Aquaculture Systems Biology** 



Dr. R. MURUGAN **Enzyme Engineering** 



Mrs. V. THENDRAL **Network Pharmacology** 



Dr. A. PRISILLA Vaccine Engineering



Ms. S. YAMINI SRI **Systems Medicine** 



Dr. B. ROJA **Systems Medicine** 



Ms. V. SAVITHA **Systems Oral Medicine** 



Dr. R. SASIKUMAR **Aquaculture Engineering** 



Ms. L. THAMMANA Systems Medicine





Dr. S. SARANYA **Systems and Synthetic Biology**