



**Prof. P. CHELLAPANDI**  
**Professor and Head**

### Contact

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### Academic Qualifications

- **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
- **M. Sc.** Biotechnology (1997-99) from School of Biotechnology, Madurai Kamaraj University
- **B. Sc.** Chemistry (1994-97) from NMSSVN College (Autonomous), Madurai Kamaraj University

### Teaching Experience: 21 Years

- **March 26, 2019 onwards**, Professor and Head in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- **March 26, 2016 onwards**, Associate Professor in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu

- **November 02, 2005 to March 25, 2008**, Lecturer in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- **March 31, 2000 to October 28, 2005**, Lecturer in Microbiology, Biogas Research Centre, Gujarat Vidyapith (Central University), Ahmedabad-380 014, Gujarat

### Research Experience: 21 Years

- **March 26, 2019 onwards**, Professor and Head in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- **March 26, 2016 onwards**, Associate Professor in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- **November 02, 2005 to March 25, 2008**, Lecturer in Bioinformatics, Bharathidasan University, Tiruchirappalli-620 024, Tamil Nadu
- **March 31, 2000 to October 28, 2005**, Lecturer in Microbiology, Biogas Research Centre, Gujarat Vidyapith (Central University), Ahmedabad-380 014, Gujarat

### Additional Responsibilities

- Principal Investigator (Various funding agencies )
- Research Supervisor (Bioinformatics)
- Board of Examination (Various Universities and Colleges)
- Board of Study (Various Universities and Colleges)
- Resource Person (Various Universities and Colleges)

### Areas of Research

- Industrial Systems Biology
- Biofuel Production
- Systems Medicine

### Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	05	08
	M.Phil.	03	01
Project	PG	60	00
	UG/Others	01	00

### Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
91	00	00	05	03

<b>Cumulative Impact Factor (as per JCR)</b>	:	<b>176</b>
<b>H-index</b>	:	<b>14</b>
<b>i10 index</b>	:	<b>25</b>
<b>Total Citations</b>	:	<b>770</b>

## Funded Research Projects

### Completed Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	SERB	2018	2021	Development of microbial electrolysis cell to unravel the mechanism of electrical interplay systems for electromethanogenesis	18.3
2	DBT	2017	2018	Molecular involvement of human gut methanogens in colorectal cancer metabolism - A systems biology approach	7.20
3	MHRD	2017	2018	Microbial processes for lignocellulosic biofuel production	8.16
4	SERB	2016	2018	Biofuel production from amino acid metabolism: Systems-level metabolic flux profiling approach to <i>Clostridium sticklandii</i>	11
5	UGC	2014	2016	Genome-scale metabolic modeling and simulation of rumen methanogens - An <i>in silico</i> attempt to methane attenuation	22
6	SERB	2013	2016	Cloning and expression of engineered uronate dehydrogenase ( <i>Udh</i> ) in <i>Saccharomyces cerevisiae</i>	22
7	UGC	2013	2017	Metabolic modeling and simulation of <i>Methanosarcina mazei</i> Go1 and its microbial mutualism	12.16
8	DRDO	2012	2015	Structural and functional evolution of bacterial ADP-ribosylation superfamily - A special emphasis for engineering immunotoxins from binary toxin A	21.67
9	UGC	2007	2009	Inferring metabolomes to phylome of archaeal domain	0.95

## Ongoing Projects

S. No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	TANSICHE	2021	2024	A systems biology approach for elucidation of molecular virulence mechanism of <i>Clostridium botulinum</i> type A1 in the mammalian gut	20.35
2	SERB	2021	2024	Design and development of a synthetic medium for bioconversion of industrial flue gases to methane – A systems biology approach	51.68
3	SERB	2020	2021	Repurposing of clinically approved drugs for SARS-CoV-2 (COVID-19) using systems pharmacology-based network modeling	5.50
4	MeitY	2020	2022	Development of top dressing automation technology for sustainable shrimp aquaculture	35.97

## Distinctive Achievements / Awards

Awards/Honors	Authority	Year
<b>Tamil Nadu Young Scientist Award-2018</b>	Dept. of Higher Education, Govt. of Tamil Nadu	2021
<b>Outstanding Scientist Award</b>	VDGOOD Technology Factory	2021
<b>Best Scientist Award</b>	PEARL - A Foundation for Educational Excellence	2019
<b>GRABS Best Scientist Award</b>	GRABS Educational Charitable Trust, Chennai	2019
<b>Teachers Associateship for Research Excellence</b>	DST-SERB, New Delhi	2018-2022
<b>NER-Visiting Research Faculty</b>	DBT, New Delhi	2018
<b>Young Scientist Travel Award</b>	International Conference on Microbiome in Health, Disease, and Environment, Sri Balaji Vidyapeeth, Puducherry	2017
<b>Young Faculty Award</b>	Venus International Foundation, Chennai	2015
<b>Research Award</b>	UGC, New Delhi	2014-2016
<b>Young Scientist</b>	DST-SERB, New Delhi	2013-2016
<b>Young Scientist</b>	Tamil Nadu State Council for Science and	2012

	Technology, Govt. of Tamil Nadu	
<b>Summer Research Teacher Fellow</b>	Indian Science Academies, Bangalore	2012
<b>Visiting Fellow</b>	Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore	2012
<b>Raja's Young Scientist Award</b>	H.H. Rajah's College, Pudukottai	2011
<b>Best Poster Award</b>	National Seminar on Genomics, Proteomics and Systems Biology, IISc, Bangalore	2008
<b>Junior Research Fellowship</b>	CSIR, New Delhi	1999
<b>Chemistry Association Award</b>	NMSSVN College, Madurai	1997

### Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized:

- GIAN Course on "Microbial processes for lignocellulosic biofuel production" sponsored by MHRD (Rs. 8.16 Lakh)

### Events Participated (optional)

Conferences / Seminars / Workshops: **29**

Other Training Programs

- Summer Research Student, Central Leather Research Institute, Chennai, June 1- July 30, 1998
- Hands on Training on Bioinformatics: Tools and Applications, Lady Doak College, Madurai, May 02-12, 2007
- Visiting Fellow, JNCASR,, Bangalore, Jan 12-Apr 14, 2012
- IAS-Summer Research Teacher Fellow, University of Delhi, New Delhi, May 03-June 27, 2012
- TNSCST- Young Scientist Visiting Fellow, Gujarat Vidyapeeth, Ahmedabad, Nov 01-Dec 31, 2012
- DBT-NER-Visiting Faculty Award, DBT, New Delhi, April 18 to Oct 17, 2018

### Membership in

#### Professional Bodies

- Life Member: Microbiologists Association of India

#### Editorial Board

- Springer Publications
- Elsevier Publications
- Bentham Publications
- Wiley and Sons Publications
- OMICS Publications

#### Academic Bodies (such as Board of Studies etc.,)

- Tiruvalluvar University
- Bharathidasan University

- Madurai Kamaraj University
- Alagappa University
- Bharathiar University
- Vellore Institute of Technology
- Venkateshwara University

### Resource persons in various capacities

Number of Invited / Special Lectures delivered: **22**

1. Seminar-cum-Workshop on Systems Biology, Sathiyabama University, Chennai, Systems biology for metabolic engineering of industrial microorganisms, Mar 18, 2009
2. Botanical association 2009, Jamal Mohamed College, Tiruchirappalli, Plant Bioinformatics and its applications
3. Seminar on Molecular Modeling and Drug design, Srinivasan College of Arts and Science, Perambalore, Molecular modeling and drug designing, Sep 08, 2009
4. Wilmut club of Biotechnology, Special Lecture-cum-training Programme on Bioactive Natural Products and Bioinformatics, J.J. College of Arts and Science, Pudhukottai, Protein structure prediction and folding mechanism, Oct 06, 2010
5. Wilmut Association, Dhanalakshmi Srinivasan College of Arts and Science for Women, Perambalore, Systems biology and its applications, Aug 12, 2011
6. Faculty Improvement Programme on Protein Interactions and Dynamics, Vellore Institute of Technology, Vellore, Molecular docking and visualization software, Jan 24, 2011
7. National training-cum-workshop on DNA Barcoding of Fish and Marine Life-Molecular Analysis and Bioinformatics Approach, Bharathidasan University, Bioinformatics resources for DNA barcoding, Sep 12-14, 2012
8. Biocomets 2014 Inter-collegiate Competitions, Srinivasan College, Perambalore, Systems biology for metabolic engineering of industrial organisms, Feb 27-28, 2014
9. National Seminar on Biotechnology in Development of Therapeutics/Drugs and Vaccines, JSS College of Pharmacy, Ooty, Peptide-based vaccine designing and engineering, Aug 13-14, 2014
10. Simad Andavar College of Arts and Science, Trichy, Recent Trends in Bioinformatics, Jan 10, 2015
11. National Workshop on Application of Bioinformatics in Science and Research in Pharmaceutical Industries, JSS College of Pharmacy, Ooty, Application of Bioinformatics resources, Feb 12-14, 2015
12. Faculty Development Programme on New Perspectives in Drug Discovery and Progressive Technological Developments, BIT Campus, Anna University, Trichy, Pharmaceutical Bioinformatics and its applications in drug discovery, May 04-17, 2015
13. Refresher Course in Life Sciences at Calicut University, Kozhikode, Bioinformatics tools and applications, Dec 12, 2015
14. National Conference on Achievements, Challenges and Opportunities in Environmental Biotechnology for Sustainable Livelihood Security at Tamil Nadu Scientific Research Organisation, Pudukkottai, Molecular systems biology of methanogens, Feb 27-28, 2016

15. Special lecture at Karpagam University, Coimbatore, Genome sequence analysis, July 13, 2016
16. International Conference on Environment and Health in Changing Climate, Bharathidasan University, Trichy, Chair person, Sep 14-16, 2016
17. National Seminar on Emerging Trends in Control of Vectors and Vector Borne Diseases, Puthanampatti, In silico approach for anti-malarial drugs discovery, Sep 29-30, 2016
18. National Level Workshop on Modernization in Bioinformatics and Bigdata, Anna University, BIT Campus, Tiruchirappalli, Genome-scale modeling: A computational platform for Microbial metabolic engineering, Dec 19-26, 2016
19. National Conference on Recent Advancements in Materials Science, Jayaraj Annapackiam College for Women, Periyakulam, Bionanotechnology and its applications, Feb 10, 2017
20. National Workshop on Taxonomic Identification of Coastal and Oceanic Copepods, Bharathidasan University, Phylogenetics and Molecular evolution of Copepoda (Crustacea)
21. Molecular phylogenetic analysis of Copepoda (Crustacea): Practice and applications, July 12-14, 2017
22. Mini- Symposium on Metabolic Bioengineering for production of small molecules, NIPER, Kolkata, Nov 16-17, 2018

## Others

- Articles published in Newspapers / Magazines : 00
- Products developed : 10
- No. of Ph.D. Thesis evaluated : **03**
- No. of Ph.D. Public Viva Voce Examination conducted : 01
- Sequences submitted in GenBank : **49**

\*\*Social Interests and Initiatives / Articles in News papers etc can also be included

## Publications

### A. Books and Chapters

1. **Chellapandi P** and Sivaramakrishnan S (2011) 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)
2. **Chellapandi P** (2007) *Laboratory Manual in Industrial Biotechnology*. Pointer Publications, Jaipur, India. (ISBN 978-81-7132-488-0)
3. **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)

### B. Research Papers

**2021**

4. **Chellapandi P** (2021) Development of dietary multi-strain probiotics on banana peel powder for sustainable shrimp aquaculture in India. *Aquaculture spectrum*
5. **Chellapandi P**, Saranya S (2021) A perspective on cordycepin and its nucleoside analogs for systemic COVID-19 infection. *Coronaviruses*

6. **Chellapandi P** (2021) Development of top-dressing automation technology for sustainable shrimp aquaculture in India. *Discover Sustainability*
7. 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* (Impact factor: **6.205**)
8. 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: **4.501**)
9. **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.

#### 2020

10. 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: **3.789**)
11. **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: **1.783**)
12. 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: **1.909**)
13. **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: **5.993**)
14. Prathiviraj R, **Chellapandi P** (2020) Evolutionary genetic analysis of unassigned peptidase clan-associated microbial virulence and pathogenesis. *Biologia* 75: 2083–2092. (Impact factor: **0.811**)
15. Prathiviraj R, **Chellapandi P** (2020) Comparative genomic analysis reveals starvation survival systems in *Methanothermobacter thermautotrophicus* ΔH. *Anaerobe* 64:102216 (Impact factor: **2.862**)
16. Sangavai C, Prathiviraj R, **Chellapandi P** (2020) Functional prediction, characterization and categorization of operome from *Acetoanaerobium sticklandii* DSM 519. *Anaerobe* 61: 102088 (Impact factor: **2.862**)
17. 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: **1.060**)
18. 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: **0.154**)
19. Prathiviraj R, **Chellapandi P** (2020) Deciphering molecular virulence mechanism of *Mycobacterium tuberculosis* Dop isopeptidase based on its sequence-structure-function link. *The Protein Journal* 39: 33-45. (Impact factor: **1.404**)

#### 2019

20. 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: **2.834**)



21. 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: **5.162**)
22. 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: **3.063**)
23. 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: **0.743**)
24. 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: **2.623**)
25. 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: **4.74**)
26. **Chellapandi P** (2019) Computational evaluation of designed phosphatase from a conserved sequence scratches for diverse substrate specificity. *International Journal of Bioautomation* (Impact factor: **1.350**)
27. **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: **2.546**)
28. 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: **1.609**)
29. 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: **1.901**)
30. 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: **5.162**)

## 2018

31. **Chellapandi P**, Prisilla A (2018) PCR-based molecular diagnosis of botulism outbreaks in aquatic birds. *Annals of Microbiology* 68: 835-849. (Impact factor: **1.528**)
32. **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: **2.773**)
33. **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: **1.818**)
34. **Chellapandi P**, Prisilla A (2018) *Clostridium botulinum* type A-virulome-gut interactions: A systems biology insight. *Human Microbiome Journal* 7:15-22. (Impact factor: **0.724**)

35. 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. (Impact factor: **0.50**)

#### 2017

36. 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: **4.576**)
37. 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: **1.821**)
38. Bharathi M, **Chellapandi P** (2017) Phylogenomic proximity and metabolic discrepancy of *Methanosarcina mazei* Go1 across methanosarcinal genomes. *BioSystems* 155:20-28. (Impact factor: **1.808**)
39. **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 Sciences* 18(5): 412-424. (Impact factor: **2.520**)
40. **Chellapandi P**, Mohamed Khaja Hussain M, Prathiviraj R (2017) CPSIR-CM: a database for structural properties of predicted proteins in cyanobacterial C1 metabolism. *Algal Research* 22: 135-139. (Impact factor: **4.008**)
41. 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: **3.496**)
42. **Chellapandi P**, Bharathi M, Prathiviraj R, Sasikala R, Vikraman R (2017) Genome-scale metabolic model as a virtual platform to reveal the environmental contribution of methanogens. *Current Biotechnology* 6:149-160. (Impact factor: **0.667**)

#### 2016

43. 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: **2.773**)

#### 2015

44. **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: **1.107**)
45. 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: **3.549**)
46. **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: **2.068**)
47. Padmanaban K, Karthik Raja R, Razia M, **Chellapandi P**, Sivaramakrishnan S (2015) Genetic diversity of entomopathogenic nematodes in undisrupted ecosystem revealed with PCR-RAPD markers. *International Journal of Nematology* 24(2): 1-8.
48. Acharya KP, Shilpkar P, Shah MC, **Chellapandi P** (2015) Biodegradation of the monocrotophos by *Bacillus substilis* KPA-1, isolated from agriculture soils in India. *Applied Biochemistry and Biotechnology*: 175(4): 1789-1804. (Impact factor: **2.277**)

## 2014

49. **Chellapandi P** (2014) Structural evaluation of snake venom metalloproteinases and their therapeutic uses. *Mini-Reviews in Organic Chemistry* 11(1): 28-44. (Impact factor: **1.824**)
50. **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: **1.156**)

## 2013

51. **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: **1.156**)
52. **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: **1.156**)

## 2012

53. **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: **0.25**)
54. Karthik Raja R, Padmanaban K, Razia M, **Chellapandi P**, Sivaramakrishnan (2012) Evaluating Heavy metal stress responses of nematodes in the agro-ecosystem of Tamil Nadu in South India. *Journal of Advances in Developmental Research* 3(1): 49-51.
55. 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.
56. 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.
57. **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: **0.4**)
58. **Chellapandi P**, Uma L (2012) Co-digestion of ossein factory waste for methane production in batch. *Elixer Biotechnology* 42: 6383-6385.
59. **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: **0.48**)

## 2011

60. **Chellapandi P** (2011) Current scenario of computer-aided metalloenzymes designing. *Biopolymers and Cell* 27(6):432-435. (Impact factor: **0.48**)
61. **Chellapandi P** (2011) Molecular evolution of methanogens based on their metabolic facets. *Frontiers in Biology* 6(6):490-503. (Impact factor: **0.67**)
62. **Chellapandi P** (2011) *In silico* description of cobalt and tungsten assimilation systems in the genomes of methanogens. *Systems and Synthetic Biology* 5: 105-114. (Impact factor: **1.107**)

63. **Chellapandi P**, Sivaramakrishnan S (2011) Current evolutionary genomic perspective of methanogens. *Advanced Biotech* 11(4): 29-35.
64. 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: **0.46**)
65. Razia M, Padmanaban K, Karthick Raja R, **Chellapandi P**, Sivaramakrishnan S (2011) 16S rDNA-based phylogeny of non-symbiotic bacteria of Entorno-pathogenic nematodes from infected insect cadavers. *Genomics, Proteomics and Bioinformatics* 9(3): 104-112. (Impact factor: **7.051**)
66. **Chellapandi P**, Balachandramohan J (2011) Molecular evolution-directed approach for designing archaeal formyltetrahydrofolate ligase. *Turkish Journal of Biochemistry* 36(2): 122-135. (Impact factor: **0.4**)
67. **Chellapandi P**, Balachandramohan J (2011) Molecular evolution-directed approach for designing of  $\beta$ -methylaspartate mutase from the sequences of Haloarchaea. *International Journal of Chemical Modeling* 3(3): 143-154.
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