

BIODATA

Name & Qualification : Dr. T. Karpagam.,M.Sc., M.Phil.,
DMLT.,Ph.D.,
Designation : Head & Assistant professor
Name of the Department : Biochemistry
Specialization if any : Peptic Ulcer, Phytochemistry, Medicinal Chemistry



PROFESSIONAL MEMBERSHIP: -

Total Experience : 26 Years

Teaching Experience: 16 Years

Industry Experience : - 10 years

Research Experience:

Guideship: - M.Sc Projects more than 30

Funds Received:

Amount sanctioned INR 200,000 By Ministry of Skill Development, Entrepreneurship, Youth Affairs & Sports. Amount Received INR 7500 from TNSCST under student project scheme for the project on “Combating Pathogenic Gene Expression by Polyherbal Preparation on Vaginal Infection Causing Microorganism”

Programme:

“Health and Healthy Lifestyle” Training was provided to 100 students from National College, Kurinji College, Srimad Andavan Arts and Science College and Shrimati Indira Gandhi College on January 2016

PUBLICATIONS:

National	: 1	Peer Reviewed International	: 36
UGC	: 8	SCOPUS Indexed	: 10
Google scholar H index	: 11	i10 index	: 11
Citations	:375	Research articles	: 31
Research Interest Score	: 343.8	Scopus H Index	: 4

Orcid Id:

0000-0003-3861-3374

Scopus Id

54881962400

Vidwan Profile URL:

<https://vidwan.inflibnet.ac.in/file/359284>

Patents:2; 1 Published, 1 Granted

- Investigate the potential anti-diabetic and hypolipidemic effects of Psidium guajava leaf ethanolic extract against streptozotocin-induced diabetes and lipodosis in rats. (Application No: 202341037660). Status: Published. date of publish: 18.08.2023.
- Smart Device for Detecting Frozen Shoulders. (Design number: 392678-001)date of grant: 27.09.2023

BOOK CHAPTERS: 7

1. **Book title** : Physical, chemical and Biological sciences: Emerging trends and milestones in 2020. Published on FEB 2020.
Chapter 2 : Effect of organic fertilizers on seed germination and seedling vigour of fenugreek ISBN : 978-81-942052-9-6 Publisher: V.H.N.SenthikumaraNadar College (Autonomous). Accredited with 'A' grade by NAAC & 53rd rank (College Category) in India ranking NIRF 2020 by MHRD, Virudhunagar, Tamil nadu, India.
Co- Published by PEARL - A Foundation for educational excellence, Bengaluru, Karnataka, India.
2. **Book title**: Emerging Nanomaterials for Advanced Technologies, **Chapter title**: Nanoscale smart drug delivery systems and techniques of drug loading to nanoarchitectures. **Springer eBook**. ISBN number 978-3-030-80370-4.

<https://www.springer.com/gp/book/9783030803704#aboutAuthors>.

3. **Book title:** Emerging Nanomaterials for Advanced Technologies, **Chapter title:** An insight on emerging nanomaterials for the delivery of various nutraceuticals applications to betterment of health. **Springer eBook.** ISBN number 978-3-030-80370-4.
<https://www.springer.com/gp/book/9783030803704#aboutAuthors>
4. **Book title:** Sustainable life on Earth **Chapter title:** “An interaction between plant, Animals and Microbes”. ISBN Number 978-93-93622-22-8.
5. **Book Title:** Aquaculture Science and Engineering. **Chapter Title:** “Bacterial Fish diseases and Treatment” Page number 518-565 Springer Publications
<https://doi.org/10.1007/978-981-19-0817-0>
6. **Book Title:** Plant-Microbe Interaction - Recent Advances in Molecular and biochemical Approach Author Details: T. Karpagam, A. Shanmugapriya, V. Suganya, B. Varalakshmi, Jannathul Firdous. **Book title:**Advanced study of plant-microbe interactions in photosynthesis. volume 1, Year 2023, Pages 205-228.
<https://doi.org/10.1016/B978-0-323-91875-6.00011-6>
7. **Book Title:** Plant-Microbe Interaction - Recent Advances in Molecular and biochemical Approach, **Author Details:** B. Varalakshmi, V. Suganya, A. Shanmugapriya, T. Karpagam, S. Jannathul Firdous, R. Manikandan, R. Sridevi, V. Saradhasri, M. Abinaya. **Book chapter title:** Manipulation of cell wall components and enzymes on plant-microbe interactions. Volume 14 , Year 2023, Pages 205-228
<https://doi.org/10.1016/B978-0-323-91875-6.00010-4>.

Total No. of Research Articles Published : 35

National Journals 1

Thirunethiran Karpagam, B.Varalakshmi. A comparative study on the antidiabetic effects of *Trigonella foenum graecum* and *Caesalpinia bonducella* in alloxan induced diabetic rats BCAIJ, 4(2), 2010: 89-97.

International Journals: 34

1. B.Varalakshmi, Thirunethiran Karpagam, *Caesalpinia bonduc* (L.)roxb as a novel drug having hypoglycemic effect on alloxan induced diabetic rats. International Journal of Pharma and Bio Sciences. 2 (1), 2010: 384 – 391.
2. ArunaDevaraj, ThirunethiranKarpagam, Evaluation of Anti-inflammatory and Analgesic effect of Aloe vera leaf extract in rats. International Research Journal of Pharmacy.2 (3); 2011:103 – 110.
3. Thirunethiran Karpagam, B.Varalakshmi, J.SugunaBai, S.Gomathi. Effect of Different Doses OfCucurbitaPepo Linn Extract As An Anti-inflammatory and Analgesic Nutraceutical Agent on Inflamed Rats. IJPRD, 2011; 3(3):22; 184 – 192.
4. T. Karpagam and ArunaDevaraj, Studies on the Effect of *Aloe vera* on Antimicrobial Activity. IJRAP, 2(4), 2011; 1286 - 1289.

5. A. Pradeepaa, P. Venkata Lakshmi, T. Karpagam, A Comparative study of ranitidine and Eesomeprazole on nitric oxide production in indomethacin induced ulcerated rats. J.Sci.trans. Environ. Technov. 2011, 4(4): 151 – 154.
6. P. Lakshmi Prabha, S.Jannathul Firdous, Thirunethiran Karpagam, G.BanuKarthis, S.R.Subashini, A New Photometric Method of Assay of Vitamin C in Tomato. IJIPLS, 1(2), 2011; 66 – 74.
7. Prabha P, Karpagam T, Varalakshmi B, Sohna Chandra Packiavathy A. Indigenous anti-ulcer activity of *Musa sapientum* on peptic ulcer. Phcog Res 2011; 3:232-8.(Pubmed Indexed Journal)
8. B.Varalakshmi, Thirunethiran Karpagam, P.LakshmiPrabha, S.Jannathul Firdous, S.Gomathi. A comparative study on the effects of herbal and conventional medicine on cardiovascular disease. IJPRD, 2011; 3(6):13; 221 – 225.
9. M.Bharani, Thirunethiran Karpagam, B. Varalakshmi, G.Gayathiri and K. Lakshmi Priya Synthesis and Characterization of Silver nanoparticles From *Wrightia Tinctoria*. IJABPT 2012;3 (1): 58 – 63
10. M. Vanitha, T. Karpagam ,B.Varalakshmi, R. SujaPandian. Comparative Study on the Anti-Diabetic Potential of Aloe vera Gel and Fenugreek Seeds on Experimentally induced Diabetic Rats. Pharmacognosy Communications. 2012;2(1)57-61. Indexed in ProQuest, Index Copernicus.
11. S.Gomathi, A.ShanmugaPriya, V.Bharathi, B.Varalakshmi and T. Karpagam. Antimicrobial activity and phytochemical studies of flowers of *Tribulusterrestris*. JIJBS, Joseph's International journal of biological sciences. 2012;1(1): 47 - 50.
12. M.Bharani, B. Varalakshmi, T. Karpagam, P.Anitha, and K.Sathya. Isolation and characterization of marine sponges – *Sigmadocia fibulatus*. JIJBS, Joseph's International journal of biological sciences. 2012;1(1):31 – 35.
13. V.Bharathi, B.Varalakshmi, S.Gomathi, A.Shanmugapriya, T. Karpagam. Antibacterial Activity of *Tridax Procumbens* Linn. International Journal of Pharma Sciences and Research (IJPSR) 2012; Vol 3(4): 364 – 367.
14. J.Abarna Devi, M.Bharani, V.Bharathi, T.Karpagam. Studies on decolourization of molasses waste by various microorganisms, IJPRD, 2013;3 (13):Pg 13- 16.
15. B. Varalakshmi, A. VijayaAnand, T. Karpagam, J. SugunaBai, R. Manikandan. In Vitro Antimicrobial and Anticancer Activity of *Cinnamomum zeylanicum* Linn Bark Extracts. International Journal of Pharmacy and Pharmaceutical Sciences. 2014; 6(1): 12-18. Indexing :Elsevier, Indian Citation Index (ICI)
16. J. Sugunabai, M. Jayaraj, T. Karpagam, B. Varalakshmi. Antidiabetic Efficiency of *Moringa Oleifera* and *Solanum Nigrum*. International Journal of Pharmacy and Pharmaceutical Sciences. 2014; 6(1): 40-42. Indexing :Scopus,Elsevier, Indian Citation Index (ICI).
17. B. Varalakshmi, T. Karpagam, S.Gomathi, G.Gayathri, V.Rathinakumar, B.Supraja. Studies on salinity removal capacity of cost effective adsorbent. International Journal of Pharmaceutical research and development. 2014; 5(11):067 – 071.
18. J.SugunaBai, M.Jayaraj, T.Karpagam, R. Roy Rajakumari. Proximate, phytochemical and invitro antioxidants analysis of *Phyllanthus amarus*. World Journal of Pharmaceutical

- Research. 2014; 3(3): 4747 – 4760. Indexing UGC no:47332
19. Ms. J. Sugunabai, Mr. M. Jayaraj, T. Karpagam. Protective Effect of *Centella asiatica* and *Phyllanthus amarus* on Ethanol Induced Hepatotoxicity in Wistar Rats”, *Asian Journal of Multidisciplinary Research*.2015;1(5):15-19. Indexing UGC no:47531
 20. Ms. J. Sugunabai,& Mr. M. Jayaraj& T. Karpagam. Analysis of Functional Compounds and antioxidants of *Centella asiatica*. *World Journal of Pharmacy and Pharmaceutical Sciences*.2015;4(8):1982-1992. Indexing: Indian Citation Index
 21. Aslam Khan, Vijay Anand, VaralakshmiBadrinarayanan, Karpagam Thirunethiran, PushpaNatarajan. In vitro Antioxidant and Cytotoxicity Analysis of Leaves of *Ficus racemosa*. *Free Radicals and Antioxidants*.2017; 7(1):8-12. Indexing UGC no:48850
 22. Varalakshmi B, Anand V, Karpagam T, Shanmugapriya A, Gomathi S, Suguna Bai J, V.Suganya, S.Geetha, S.Sathia Nachiyar. Phytochemical Analysis of *Cinnamomum zeylanicum* Bark and Molecular Docking of Procyanidin B2 against the Transcription Factor Nf- κ B. *Free Radicals and Antioxidants*.2017; 7(2):195-199. Indexing UGC no:48850
 23. Suganya V, Jannatul Firdous, T Karpagam, Varalakshmi B, Shanmugapriya A, Gomathi S, Suguna Bai J. Genotyping of Angiotensin Converting Enzyme (ACE 1) Gene in study subject with hypertension and Chronic Kidney Disease. *Research Journal of Pharmacy and Technology*.2017;10(8):2607-2610. Indexing UGC no:10467, Scopus, Indian Citation Index
 24. Gomathi S, Jannatul Firdous, Bharathi V, Shanmugapriya A, Suguna Bai J , Karpagam T, Geetha S, Sathia Nachiyar S, Anusuya. Phytochemical screening of Silver nanoparticles extracted from *Eugenia jambolana* using Fourier InfraRed spectroscopy. *International Journal of Research in Pharmaceutical Sciences (IJRPS)*.2017;8(3):373-377. Indexing UGC no:23466, Scopus
 25. B.Varalakshmi, T.Karpagam, A.Shanmugapriya, J.Suguna Bai, B.Ramya, P.Anitha, N.Abirami, K.Parkavi, W. Esther Rani, S.Kavya Lakshmi. Evaluation of antihepatotoxic effect of *Avicennia marina* against alcohol-induced liver injury.*International Journal of Pharmaceutics and Drug Analysis*. 2018; 6 (2): 225 – 231. ISSN: 2348-8948; Indexing UGC : 44824
 26. A. Shanmugapriya, S. Maneemegalai, B.Varalakshmi, T. Karpagam, J. Sugunabai, B. Ramya, A. Abinaya, S. Kamali, G. Praveena, C. Jayachitra, M. Jeyapriya. A Combinative Evaluation Of Antioxidant Potential In *Tridaxprocumbens* and *Boerhaviadiffusa*. *International Journal of Pharmaceutics and Drug Analysis*. 2018;6 (2): 197 – 202. ISSN: 2348-8948; Indexing UGC : 44824
 27. J. Sugunabai, M. Jeyaraj, T. Karpagam, B.Varalakshmi, S. Senthil Rani, A. Shanmugapriya, G. Kalaiyarasi, R. Renuga, S. Gomathi. Outlining of Phytochemicals and GC-MS Profile of *Centella asiatica*.*International Journal of Pharmaceutics and Drug Analysis*. 2018; 6 (2): 252 – 256. ISSN: 2348-8948; Indexing UGC : 44824.
 28. Karpagam.T, Jannthul Firdous, Revathy, Shanmugapriya, varalakshmi B, Gomathi S, Geetha S, NoorzaidMohamad. Anticancer activity of Aloe vera Ethanolic leaves extract against *in-vitro* cancer cells. *Research Journal pharmacy and Technology*;12(5):2019. Scopus
 29. Geetha S, Jannatul Firdous, Karpagam T, Varalakshmi B, ShanmugaPriya, Suguna Bai J,

- Gomathi S. Studies on hepatoprotective and anti-inflammatory activity of *Coix lacryma-jobi*(linn). Asian J Pharm Clin Res, Vol 11, Issue 11, 2018, 290-293. Scopus
30. Jannathul Firdous, Karpagam T, Varalakshmi B, Suguna Bai J, Gomathi S, Revathy, Noorzaid Muhamad. Phytochemical study in ethanolic leaves extract of Aloe vera using Gas Chromatography. International Journal of Research in Pharmaceutical Sciences. 10(2); 2019:1470-1473. Scopus
 31. JannathulFirdous, Karpagam T, Varalakshmi B, Shanmugapriya A, Sugunabai J, Anitha P, Gomathi S, Suganya V, Sumathy C, Nang ThinnThinnHtike, NoorzaidMuhamad. V.Bharathi. A Review On Chaotic Covid-19 Infection: Pathophysiology And Treatment Insight. Journal of Natural Remedies .Vol. 21, No. 4(S2), 2020. Scopus
 32. Karpagam T, Varalakshmi B, ShanmugaPriya, Suguna Bai J, Gomathi S, BharathiV, Priyadarshini, JannathulFirdous. antioxidant evaluation and molecular docking studies of phytocompounds from *Madhuca longifolia* as potential thymidylate synthase inhibitors. Journal of Natural Remedies. Vol. 21, No. 6(S2),(2020). Scopus, Web of Science, PubMed, UGC-CARE List Group II (Scopus Source List), Index Copernicus Value (ICV) for 2018 = 120.77
 33. JannathulFirdous, EmdadulHaque ATM, KarpagamT, Varalakshmi B, Bharathi V, Resni Mona, NoorzaidMuhamad. COVID-19 associated thrombo-embolism:causing respiratory failure. International Journal of Research in Pharmaceutical Sciences. 2020,11 (SPL) (1),1303-1306. Scopus
 34. Gomathi S, JannathulFirdous, Shanmugapriya A, Varalakshmi B, Karpagam T, BharathiV, Anitha P, Mahalakshmi P. Antibacterial action of *Pedilanthus tithymaloides* leaves extract and FTIR Phytochemical Fingerprinting. Research J. Pharm. and Tech. 14(4): April 2021. Scopus
 35. Varalakshmi B, Jannathul Firdous, Karpagam T, ShanmugaPriya A, Suganya V, Revathi S. Vaginitis phyto therapy against vaginal pathogen and molecular identification of isolated vaginal pathogen. Journal of medical pharmaceutical and allied sciences. Volume 12 – Issue 2, 4056, March – April 2023, Pages – 5762 - 5767. Scopus DOI: 10.55522/jmpas.V12I2.405

PARTICIPATION IN WORKSHOP / CONFERENCES / SEMINARS / FDPs - 21

1. Attended a workshop on “IT-Enabled Services” held at Shrimati Indira Gandhi College, Trichy on 9th August 2003.
2. Attended National Seminar on “Emerging Biomedical Sciences and Potential Applications” on 7 & 8 January 2008, organized by PG and Research Department of Zoology, Holy Cross College (Autonomous), Tiruchirappalli.
3. Attended National seminar on “Current perspectives in Animal Biotechnology” on 3 & 4th February 2011, organized by Department of Animal Biotechnology, Bharathidasan University, Tiruchirappalli.
4. Attended International Conference on “Greening food processing sector for sustainable safe food supply” on 30th & 31st October 2010, organized by IICPT, Thanjavur.
5. Encapsulation Model presented at International Conference conducted by IICPT on 30th & 31st Oct 2010.

6. Attended a FDP/ Skill based training program on “e – LITERACY” conducted by ICT Academy of Tamil Nadu and Bharathidasan University on 11th - 13th August 2011 held at Shrimati Indira Gandhi College, Tiruchirappalli.
7. Attended the “One Day Workshop on SPSS 19.0 Software” conducted by Shivani School of Business Management in association with SPSS South Asia on 9th September 2011 held at Shivani School Of Business Management, Tiruchirappalli.
8. Presented a paper in the UGC sponsored National level seminar on “Exploring techniques in Biological Science” on 14th – 15th December 2011 at Kunthavai Nachiyar Government Arts College for women, Thanjavur.
9. Presented a paper in the Ministry of Food processing industries sponsored International Seminar on “Food Processing Technologies – Challenges and solution for sustainable food security” on 4th and 5th January 2013 at IICPT, Thanjavur.
10. Participated and Presented a Paper in the National Conference on “Phytochemicals in Medicinal Plants and Food” organized by the Department of Biochemistry held on 30 & 31st July 2015 at Bharathidasan University Constituent College for Women, Orathanadu.
11. Participated and presented posters in the National seminar on “Whole Grains for Healthy Life – Whole Grains -2015” organized by IICPT, Thanjavur on 16.10.2015.
12. Participated and presented a paper in an International conference on “Clinical Research” – ICCR-2016 organized by the Department of Biochemistry, Shrimati Indira Gandhi College, Trichy, on 25.1.2016.
13. Participated and presented paper in an International Seminar on “New frontiers and Challenges in Environmental Sciences” – BIOENVIRON-16 organized by the School of Biosciences, MaruthuPandyar College, Thanjavur, on 11.02.2016 -12.02.2016.
14. Participated and presented poster in one day International Seminar on “Cardiovascular research” organized by the Department of Biochemistry, St.Joseph’s College (autonomous), Tiruchirappalli-2, on 15.02.2016.
15. An Industrial Visit to Kumily from 07.03.2016 to 09.03.2016 and participated in an off campus Seminar on “Cultivation of Cardamom and other spices” at Indian Cardamom Research Institute, Myladumpara, Kumily on 09.03.2016.
16. Participated in the International workshop on “ Biochemical Techniques” Held on 02.01.2017 at Shrimati Indira Gandhi College, Trichy
17. Participated in the two day workshop on “Strategies for Biotech Entrepreneurship” on 27th and 28th January 2017 at Sastra University, Thanjavur.
18. Presented a paper on “Credible Health benefits of Centella asiatica” in the symposium on “Medicinal and Aromatic Plants (NASYMP’17)” on 15th February 2017 at St Joseph College, Trichy.
19. Participated in the workshop on “Cytochemical Staining Techniques” on 15.09.2022 at Shrimati Indira Gandhi College, Trichy.
20. **Presented poster** “Comparative analysis of amino acid content in kiwi and dragon fruits” in the International Conference on Research Trends, Strategies, and Technical Advancement in Biological and Biomedical Sciences for Sustainability held on 14th & 15th December, 2022 organized by the Research Department of Zoology, Seethalakshmi Ramaswami College, Trichy.
21. Presented a paper on “In Vitro Antidiabetic Activity of Cuminum Cyminum, Coriandrum Sativum, Trigonella Foenum Greacum Formulation” in the “International Conference on

Phytotherapeutics (ICPT-2023)” organized by PG & Research Department of Biochemistry, Sengamala Thayaar Educational Trust Women’s College (Autonomous), Thiruvarur on 10th February 2023.

Conference Proceedings: 2

National : 1

T.Karpagam, R.Arunadevaraj. Anti diabetic and antioxidant potential of aloe vera gel on experimentally induced Diabetic rats. Exploring Techniques in Biological Science. Edited by G.VijiStella Bai. Proceedings of UGC sponsored National level seminar at Kunthavai Nachiyar College Government Arts College for women, Thanjavur. 14, 15 December, 2011. 39 – 47.

International : 1

T.Karpagam, ArunaDevaraj, B.Varalakshmi, J. Sugunabai, David Raj. Encapsulation of Aloe vera using natural polymer. Food Processing Technologies – Challenges and Solution for Sustainable Food Security. Proceedings of MOFPI sponsored International Seminar at IICPT, Thanjavur. 4th and 5th January 2013. 439 – 442.

Any other services provided / Positions held during my tenure as Teacher:

1. Coordinator of students’ EXNORA (2010 – 2012, 2019 - 2020), at Shrimati Indira Gandhi College, Trichy.
2. Coordinator of Entrepreneurship development cell (2015- 2019).
3. Webinar Team Lead from 2021- 2023
4. Senior member of IQAC 2023 till date

Any other information:

Reviewer

Indian Journal of Gastroenterology, A & V Publication and BMC Alternative medicine.

Resource person

Entitled “Mangaiyarai Pirapatharku ” to NSS students (2020)

Entitled “Herbs as Nutraceuticals” to Santhanam Vidhyalaya school staff members (2015).

Acted as judge for evaluation of exhibit for school science exhibition (2015, 2016).