

## Biodata

**Dr.A.Shanmugapriya**

Assistant Professor

**Department of Biochemistry**

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### Work Experience

**2004-till date** Assistant Professor, Shrimati Indira Gandhi College, Tiruchirappalli

**Total Teaching Experience:** 19

**Specialization:** Analytical techniques, Molecular Biology, Bioinformatics

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### **EDUCATION**

Doctorate Degree in Biochemistry (2019) - “Cardioprotective Role Of *Tridax Procumbens* (Leaves) And *Boerhavia Diffusa* (Roots) Ethanolic Extract In Isoproterenol Induced Myocardial Infarcted Rats”

Master of Philosophy in Biochemistry (2003) - Cardioprotective effect of NAC against beta adrenergic agonist induced Myocardial infarction in male rats.

Master’s Degree in Biochemistry (2002)

Bachelor’s Degree in Biochemistry (2000)

Post Graduate Diploma in Bioinformatics (2006)

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### Book chapters: 05

**1. Book title: Physical, chemical and Biological sciences: Emerging trends and milestones in 2020.**

ISBN: 978-81-942052-9-6, Published in Feb. 2021

Chapter2: Effect of organic fertiliser on seed germination and seedling vigour of fenugreek

Publisher: V.H.N.Senthikumara Nadar College ( Autonomous)

(Accredited with 'A' grade by NAAC & 53<sup>rd</sup> 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. T.Karpagam, T. Abarna and **A.Shanmugapriya**. **Chapter 3 Sustainable life on earth - An Interaction between Plant, Animals and Microbes-** in the book of **“Plants, Animal and Microbes” 2022** with ISBN Number 978-93-93622- 22-8 (Hard Copy).
  3. T. Karpagam, B. Varalakshmi, Jannathul Firdous, **A. Shanmugapriya**, V. Suganya, Bacterial Fish Diseases and Treatment. Chapter in the book of **“Aquaculture Science and Engineering”** Springer 2022, 517-572, ISBN Number 978-981-19-0816-3.**DIO:** [10.1007/978-981-19-0817-0\\_19](https://doi.org/10.1007/978-981-19-0817-0_19), <https://oceanrep.geomar.de/id/eprint/56810/>
  4. T. Karpagam, A. Shanmugapriya, **V. Suganya**, B. Varalakshmi, Jannathul Firdous. **Chapter 10 - Advanced study of plant-microbe interactions in photosynthesis**, Editor(s): Prashant Swapnil, Mukesh Meena, Harish, Avinash Marwal, Selvakumar Vijayalakshmi, Andleeb Zehra, **Plant-Microbe Interaction - Recent Advances in Molecular and Biochemical Approaches**, Academic Press, 2023,Pages 205-228,ISBN 9780323918756,<https://doi.org/10.1016/B978-0-323-91875-6.00011-6>.
  5. B. Varalakshmi, V. Suganya, **A. Shanmugapriya**, T. Karpagam, S. Jannathul Firdous, R. Manikandan, R. Sridevi, V. Saradhasri, M. Abinaya, **Chapter 14 - Manipulation of cell wall components and enzymes on plant-microbe interactions**, Editor(s): Prashant Swapnil, Mukesh Meena, Harish, Avinash Marwal, Selvakumar Vijayalakshmi, And leeb Zehra, **Plant-Microbe Interaction - Recent Advances in Molecular and Biochemical Approaches**, Academic Press, 2023, Pages303-326, ISBN 9780323918756, <https://doi.org/10.1016/B978-0-323-91875-6.00010-4>.
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**No. of research articles published: 26**

UGC – 11

Peer Reviewed- 26

Scopus - 8

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1. Ms. V. Bharathi, Ms. A. Shanmuga Priya & Ms. S. Jannathul Firdous“Antibacterial stem extract of *ocimum basilicum L.*,”International Journal of Chemical Biological and Physical Science Vol. 2, Pg. No. 237 – 340, December 2011.
2. Ms. A. Shanmuga Priya, Ms. V. Bharathi and Ms.S.Jannathul Firdous“Cardioprotective Nature of N-Acetylcyteine against beta adrenergic agonist induced myocardial infarction in rats”International Journal of Pharmaceutical Research and Development, January2012.
3. Ms. S. Gomathi, Ms. A. Shanmuga Priya, Ms. V. Bharathi, Ms. B. Varalakshmi, and Ms. T. Karpagam“Antimicrobial activity and phytochemical studies of flowers of *tribulus terrestris*”International Journal of Biological Science, Vol. 1, Pg. No. 47 – 50, January 2012.
4. Ms. S.R.Subashini, Ms. G.Gayathri and Ms. S. Jannathul Firdous and Ms. A. Shanmuga Priya“Antimicrobial Activity and Phytochemical studies of *Ocimum Gratissimum L.*,International Journal of Pharmaceutical Research and Development, Januar 2012.
5. “Antibacterial activity of cocciniaindicalin”, Food processing technologies-challenges & solution for sustainable food security, ISBN-1-0978-81-926250-0-3, Page No.207 4&5 Jan2013
6. Ms.A.Shanmugapriya *et.al.* World Journal of Pharmaceutical Research, Peer reviewed, ISSN-2277-7105, [www.wjpr.net](http://www.wjpr.net). Biosynthesis of Silver nano particles by *Datura metal* flower extract. Vol.3, Issue 4, Page.No:1926-1930, June 2014.  
Indexed by SCOPUS. SJIF Impact Factor: 5.045.
7. Ms.A.Shanmugapriya and Dr.S.Maneemegalai. International journal of research in pharmacy and chemistry, Peer reviewed, ISSN-2231-2781, [www.ijrpc.com](http://www.ijrpc.com), Phytochemical Screening antimicrobial and antioxidant activity of leaf extracts of *Tridax procumbens*.Vol.7, Issue 3, Page.No: 320-326, July 2017.  
Indexed by UGC. IF=0.521.

<https://www.ijrpc.com/files/12-07-17/13.pdf>

8. Ms.A.Shanmugapriya and Dr.S.Maneemegalai. International Journal of Green Chemistry, peer reviewed, ISSN-2277-7105, [www.ijghc.com](http://www.ijghc.com). Quantitative Phytochemical Estimation & GC-MS Studies in Ethanolic Root Extracts of *Boerhavia diffusa*. Vol.7, Issue 1, Page.No: 010-016, Dec 2017. Indexed by UGC. SJIF Impact Factor: 5.045.  
[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=2ahUKewj1zZSgkLznAhXlzzgGHefwBAMOFjACegQIBhAB&url=http%3A%2F%2Fijghc.com%2Fdownload\\_frontend.php%3Fid%3D246%26table%3DGreen%2520Chemistry&usg=AOvVaw1nB9z1XL9YrKQsOotv4Yp5](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=2ahUKewj1zZSgkLznAhXlzzgGHefwBAMOFjACegQIBhAB&url=http%3A%2F%2Fijghc.com%2Fdownload_frontend.php%3Fid%3D246%26table%3DGreen%2520Chemistry&usg=AOvVaw1nB9z1XL9YrKQsOotv4Yp5).
9. Ms.A.Shanmugapriya and Dr.S.Maneemegalai. International Journal of Pharmaceutics and drug analysis, peer reviewed, ISSN-2348-8948, [www.ijpda.com](http://www.ijpda.com). FT-IR Spectroscopic studies on Synergistic Potential of *Boerhavia diffusa* and *Tridax procumbens*. Vol.5, Issue 12, Page.No: 442-446, Dec 2017. Indexed by UGC.  
[http://www.ijpda.com/view\\_issue.php?id=MzMz](http://www.ijpda.com/view_issue.php?id=MzMz)
10. Ms.A.Shanmugapriya *et.al.* Free radicals and Antioxidants, peer reviewed, ISSN-2231-2536, [www.phcog.net](http://www.phcog.net). Phytochemical Analysis of *Cinnamomum Zeylanicum* Bark and Molecular Docking of Procyanidin B<sub>2</sub> against the Transcription factor NF-KB. Vol.7, Issue 2, Page.No: 195-199, July-Dec 2017. Indexed by Google scholar.  
<https://www.antiox.org/article/80>
11. Ms.A.Shanmugapriya *et.al.*, Research Journal of Pharmacy and Technology, ISSN: 0974-360X(online), <http://www.ijpronline.com>. Genotyping of Angiotensin converting enzyme ACE-1 gene in study subject with hypertension and chronic kidney disease. Vol 10, Issue 1, Page. No: 2607-2010, August 2017. Indexed by SCOPUS, ICI, and Google scholar.  
<http://rjptonline.org/HTMLPaper.aspx?Journal=Research%20Journal%20of%20Pharmacy%20and%20Technology;PID=2017-10-8-32>
12. Ms.A.Shanmugapriya *et.al.*, International Journal of Research in Pharmaceutical Sciences, Peer-reviewed, ISSN: 0975-7538, <https://pharmascope.org/index.php/ijrps/>. Phytochemical screening of silver nano particles extract of *Eugenia jambolana* using Fourier Infrared Spectroscopy. Vol 8, Issue 3, Page No: 373-377, August 2017. Indexed by UGC (Journal No. 23466).

<https://pharmascope.org/index.php/ijrps/article/view/617/590>.

13. Ms.A.Shanmugapriya *et.al*, International Journal of Pharmaceutics and drug analysis, Peer-reviewed, ISSN: 2348-8948, <http://www.ijpda.com/>. Outlining of Phytochemicals and GC-MS profile of *Centella asiatica*. Vol 6, Issue 2, Page No: 252-256, February 2018. Indexed by UGC (Journal No. 44824)  
<http://www.ijpda.com/admin/uploads/XMzEnh.pdf>
14. Ms.A.Shanmugapriya *et al.*, International Journal of Pharmaceutics and drug analysis, Peer-reviewed, ISSN: 2348-8948, <http://www.ijpda.com/>. A combinative evaluation of antioxidant potential of *Tridax procumbens* and *Boerhavia diffusa*. Vol 6, Issue 2, Page No: 197-202, February 2018. Indexed by UGC (Journal No. 44824)  
<http://www.ijpda.com/admin/uploads/XUf2Zj.pdf>
15. Ms.A.Shanmugapriya *et al.*, International Journal of Pharmaceutics and drug analysis, Peer-reviewed, ISSN: 2348-8948, <http://www.ijpda.com/>. Evaluation of anti hepatotoxic effect of *Avicennia marina* against alcohol induced liver injury. Vol 6, Issue 2, Page No: 225-231, February 2018. Indexed by UGC (Journal No. 44824)  
<http://www.ijpda.com/admin/uploads/gKp9Mv.pdf>
16. Ms.A.Shanmugapriya and Dr.S.Maneemegalai. European Journal of Biomedical and Pharmaceutical Sciences, peer reviewed, ISSN: 2349-8870, [www.ejbps.com](http://www.ejbps.com). Evaluation of markers and Antioxidants in *Boerhavia diffusa* on cardioprotective activity. Vol 5, Issue 6, Page. No: 569-573, May 2018. Indexed by ICI.  
[https://www.ejbps.com/ejbps/abstract\\_id/4619](https://www.ejbps.com/ejbps/abstract_id/4619)
17. Ms.A.Shanmugapriya and Dr.S.Maneemegalai. World Journal of Pharmaceutical Research, peer reviewed, ISSN: 2277-7105, [www.wjpr.com](http://www.wjpr.com). Cardioprotective potential of *Tridax procumbens* against Isoproterenol induced Myocardial Infarction in Experimental rats. Vol 7, Issue 10, Page.No: 885-893, May 2018. Indexed by SCOPUS  
[https://wjpr.net/admin/assets/article\\_issue/1526550959.pdf](https://wjpr.net/admin/assets/article_issue/1526550959.pdf)
18. Ms.A.Shanmugapriya *et al.*, Asian Journal of pharmaceuticals and clinical research, Peer –reviewed, ISSN Online - 2455-3891 Print - 0974-2441,  
<https://innovareacademics.in/journals/index.php/ajpcr>. Studies on hepatoprotective and anti-inflammatory activity of *Coix lacryma–jobi (linn)*. Vol 11, Issue 11, Page No:

290-293, Nov 2018. Indexed by google scholar, EMBASE, Elsevier Products, EBSCO, [SCImago\(SJR\)](#), Index, Copernicus (ICV-2018: 121.2)

<https://innovareacademics.in/journals/index.php/ajpcr/article/view/26307/16061>

19. Ms.A.Shanmugapriya *et al.*, Research Journal of Pharmacy and Technology, Peer-reviewed, ISSN: 0974-360X (online), Print - 0974-3618, <http://rjptonline.org/>. Anti-Cancer Activity of Aloe Vera Ethanolic Leaves Extract against In vitro Cancer Cells. Research journal of pharmacy and technology. Vol 12, Issue 5, Page No: 2167-2170, March 2019. Indexed by Scopus.

<http://rjptonline.org/AbstractView.aspx?PID=2019-12-5-19>

20. Ms.A.Shanmugapriya *et al.*, International journal of research in pharmaceutical sciences, Peer-reviewed, ISSN: 0975-7538 <https://www.pharmascope.org/index.php/ijrps/>. Phytochemical study in ethanolic leaves extract of *Aloe vera* using gas chromatography. Volume 10, Issue 2, Page No:1470-1473. February 2019. Indexed by Scopus.

<https://www.pharmascope.org/index.php/ijrps/article/view/720>

21. Ms.A.Shanmugapriya and Dr.S.Maneemegalai. Biomedicine Journal, peer reviewed, ISSN: 0970 -2067, [www.biomedicineonline.org](http://www.biomedicineonline.org). Evaluation of synergistic potential of *Tridax procumbens* and *Boerhavia diffusa* in isoproterenol induced myocardial injury. Vol 39, Issue, 4, Page.No: 555-560. Jan 2020 . Indexed by SCOPUS.

22. .A review on chaotic covid-19 infection: pathophysiology and treatment insight. Journal of natural remedies vol. 21, no. 4(s2), (2020) page 50-59. Issn: 2320-3358 (e) Issn: 0972-5547(p). SCOPUS

<https://jnronline.com/ojs/index.php/about/article/view/215/208>

23. .Anti-Oxidant Evaluation And Molecular Docking Studies Of Phytocompound from *Madhucalongifolia*as Potential Thymidylate Synthase Inhibitor. Journal of Natural Remedies Vol. 21, No. 6(S2),(2020). ISSN: 2320-3358 (e) ISSN: 0972-5547(p) <https://www.jnronline.com/ojs/index.php/about/article/view/357>, Scopus, Web of Science, PubMed, UGC-CARE List Group II (Scopus Source List), Index Copernicus Value (ICV) for 2018 = 120.77

24. Preliminary phytochemical screening, green synthesis of silver nanoparticles and antibacterial activity using leaf extract of *Indigofera linifolia*. Alochana Chakra Journal (UGC-CARE Group-1) Vol 9(5):1928-1941. ISSN: 2231-3990.

<https://app.box.com/s/ym1x6qv9bfzanzvps3lej2m77m89wci0>

25. *In vitro* free radical scavenging potential and phytochemical screening of *Pedilanthus tithymaloides*. Alochana Chakra Journal (UGC-CARE Group-1) Vol 9(5):7033-7041. ISSN: 2231-3990. 2020

<https://app.box.com/s/nn7hoc6wh6uilmahtbmq5che2h35idt7>

26. Antibacterial action of *Pedilanthutithymaloides leaves* extract and FTIR phytochemical finger Printing. Research Journal of Pharmacy and Technology, 2021: 14(4):-5

<https://rjptonline.org/AbstractView.aspx?PID=2021-14-4-34>

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## **LIST OF PAPERS and POSTERS PRESENTED IN CONFERENCES**

### **National Level**

- Paper on **Structural Modelling, Ligand Binding & distance Calculation of Gelsolin For Renal Failure** in the National Level Conference on “Bioinformatics Tools For Gene & Protein analysis” on 7<sup>th</sup>& 8<sup>th</sup> September 2007 at Shrimati Indira Gandhi College.
- Paper on “Nanomedicine and Gene therapy” in a Seminar on “**Current Approaches and Challenges in nanomaterial and Nanomedicine**” held at Rajah Serfoji College, Thanjavur 28 and 30<sup>th</sup> August 2013.
- Poster entitled “**Effect of Plant Extracts on hemorrhoids**” in a Seminar on “**Herbal Focus**” held at Srimad Andavan Arts and Science College, Trichy on 13 and 14<sup>th</sup> February 2014.
- Paper entitled “**Phytochemical Screening and Antibacterial activity of leaf extracts of *Tridax procumbens* and root extracts of *Boerhavia diffusa***” in TNSCST sponsored “National conference on phymed-2015” BDU Constituent College for women, Orathanadu on 31.7.15 and 1.8.15
- *Paper on A combinative Evaluation of antioxidant potential in *Tridax procumbens* and *Boerhavia diffusa** at the National Conference on Phytochemicals in Medicinal Plants and Food (MEDFOOD’18)

### **International Level**

- Poster on “Biotechnology” in an International Seminar on “**Greening Food Processing Sector for Sustainable Safe food supply**” held at IICPT, Thanjavur on 30 and 31<sup>st</sup> October 2010.
- Poster entitled “**Germinated black and brown rice – a value added black product**” National seminar on “Whole grains for healthy life- Whole grains 2015” at IICPT, Tanjore on 16.10.15.
- Poster entitled “**Donan’s Disease**” in an International conference on “**Cardiovascular Research**” by department of Biochemistry, St. Joseph’s college, Trichy on 15.2.16.
- Poster on “**Eugenia jambolana synthesis of silver nanoparticles and its antimicrobial activity**” in an International conference on International conference on “New Frontiers and challenges in Environmental sciences” by school of bioscience, Marudupandiyar college, Tanjore on 11.2.16 and 12.2.16.
- *Paper on A combinative Evaluation of antioxidant potential in Tridax procumbens and Boerhavia diffusa* at the National Conference on Phytochemicals in Medicinal Plants and Food (MEDFOOD’18)

## **PARTICIPATION IN WORKSHOP / CONFERENCES / SEMINARS**

### **National level**

- Participated in a work shop on **Patent awareness** on 26<sup>th</sup> March 2004 at Shrimati Indira Gandhi College.
- Attended a one day Work Shop on “**Enhancing & sensitizing Women in Science & technology in Societal issues**” on 7<sup>th</sup> July, 2004.
- Participated in a National Level Seminar on “**Emerging Trends in Biological Sciences**” held on 9<sup>th</sup> to 10<sup>th</sup> October 2006 at Shrimati Indira Gandhi College.
- Participated in a Two day National Seminar on “**Ensuring Environmental Sustainability**” on 7<sup>th</sup> & 8<sup>th</sup> March 2007 at Bishop Heber College, Trichy.
- Participated in the National Level Conference on “Bioinformatics Tools for Gene & Protein analysis” on 7<sup>th</sup> & 8<sup>th</sup> September 2007 at Shrimati Indira Gandhi College.
- Attended three day skill based training on “**e-literacy**” conducted by ICT academy at Shrimati Indira Gandhi College, Trichy from 11 – 13<sup>th</sup> August 2011.
- Attended Science Academies Lecture Workshop on “**Challenges in environmental Restoration**” at BDU, Trichy on 5 and 6<sup>th</sup> March 2012.



- Attended a Seminar on “**Current Approaches and Challenges in nanomaterial and Nanomedicine**” held at Rajah Serfoji College, Thanjavur 28 and 30<sup>th</sup> August 2013.
- Attended a Seminar on “**Herbal Focus**” held at Srimad Andavan Arts and Science College, Trichy on 13 and 14<sup>th</sup> February 2014.
- Attended TNSCST sponsored “National conference on phymed-2015” BDU Constituent College for women, Orathanadu on 31.7.15 and 1.8.15
- Participated in a National seminar on “Whole grains for healthy life- Whole grains 2015” at IICPT, Tanjore on 16.10.15.

### **International Level**

- Attended an International Seminar on “**Greening Food Processing Sector for Sustainable Safe food supply**” held at IICPT, Thanjavur on 30 and 31<sup>st</sup> October 2010.
- Attended an International conference on “**Cardiovascular Research**” by department of Biochemistry, St. Joseph’s college, Trichy on 15.2.16.
- Attended an International conference on International conference on “New Frontiers and challenges in Environmental sciences” by school of bioscience, Marudupandiyar college , Tanjore on 11.2.16 and 12.2 16.
- Participated in off campus exposure visit on 09.03.2016 at Indian cardamom research Institute, Myladumpara, Idukky Dt and attended a seminar on “**Cultivation of Cardamom and other spice crops**”
- Participated in the International Seminar on **Recent Advances in Translational Medicine** held on 26<sup>th</sup> November, 2021 conducted by School of Life Sciences, Marudupandiyar College, Thanjavur.
- Participated in the International Conference on **Research Trends, Strategies, and Advancements in Biological and Biomedical Sciences for Sustainability** held on 14<sup>th</sup>& 15<sup>th</sup> December, 2022 organized by Research Department of Zoology, Seethalakshmi Ramaswami College, Trichy.

## **FACULTY DEVELOPMENT PROGRAMME**

1. 26.07.2021– 30.07.2021- National Level Five Days Faculty Development

Programme on Digital transformation and innovation in biological sciences- redefining the role of 2K teachers – Holy Cross College, Trichy

2. 21.02.2022 – 26.02.2022 – Aligning with the new educational era – Primax foundation, Bengaluru, Karnataka.
3. 26.02.2022 – Introduction to cloud computing – Shrimati Indira Gandhi College, Trichy

### **Resource Person**

- Acted as a Resource Person in a Regional Level Workshop on **“Electrophoresis For Biologists” – BIOELECTS 2005** at Shrimati Indira Gandhi College on 10<sup>th</sup> & 11<sup>th</sup> March 2005.
- Acted as a Resource Person in a seminar on **“RENEWABLE ENERGY”** and presented a **Guest Lecture on “BIOGAS PRODUCTION FROM WASTE”** organized by the National Service Scheme on 26<sup>th</sup> August 2008 at Shrimati Indira Gandhi College.
- Acted as a resource person in an International conference on **“Biochemical techniques and Bioinformatics”** at Shrimati Indira Gandhi College, Trichy on 5<sup>th</sup> September 2017.

### **Extension activities**

EXNORA Cordinator – 2004 -2005, 2019