

FACULTY PROFILE

1. Name	:	Dr. Manimegalai Sengani
2. Designation	:	Assistant Professor
3. Qualification	:	M.Sc., Ph. D.
4. Mobile number	:	+91 9790948811
5. E-mail id	:	manimegalaimb@auxiliumcollege.edu.in / smanimegalaimsc@gmail.com
6. Teaching Experience	:	3 years and 4 months (as on 30.09.2023)
7. Area of specialization	:	Biotechnology
8. Research Experience and Guidance	:	5.8 years of research experience
9. No. of Papers Published	:	15 Research Papers published,
10. No. of Papers Presented in the International Conferences	:	5
11. No. of Seminars/Workshops/Conferences organized	:	1
12. No. of Books Published/Edited/Co-edited	:	-
13. Current Responsibilities	:	Faculty coordinator for AIIC
14. Honors & awards received (Descriptive)	:	Research Award received 2015, 2016, 2017 and 2018 at VIT for contribution to research

PUBLICATIONS

Publications in Journals

- **Manimegalai S**, Sridharan TB, Rameshpathy M, Devi Rajeswari V (2014). Antioxidant, phytochemical screening and antimicrobial activity of Courpita guianensis flower extract. Der Pharmacia Lettre 6(6):251-256.
- Haymanti Saha, Alok Prakash, Venkat Kumar S, **Manimegalai S**, Devi Rajeswari V (2014). Evaluation of antioxidant activity of Pisum sativum (pod and grain) and detection of its bioactive compounds by GCMS analysis. Der Pharmacia Lettre 6(6):359-365.
- Amit Kumar Srivastav, Raghvendra Singh, **S. Manimegalai** and V. Devi Rajeswari (2015). Identification of flavonoids in Methonolic extracts of Caryota Urens (Fish Tail Palm): A phytochemical screening involving structure analysis by FTIR Spectroscopy. Research Journal of Phytochemistry 9 (3): 127-136.
- Stephina Wilson, Cholan.S, Vishnu U, Mohammed Sannan, Jananiya R, Vinodhini S, **Manimegalai S**, Devi Rajeswari V. (2015) In Vitro assessment of the efficacy of free standing silver nanoparticles isolated from Centella asiatica against oxidative stress and its antidiabetic activity. Der Pharmacia lettre. 7(12): 194-205.
- **Manimegalai Sengani**, Devi Rajeswari. V (2016). Cytotoxicity and apoptotic effect of biogenic silver nanoparticles on human colorectal cell line HT-29. Research journal of biotechnology, 11(9) 65-70. I.F-0.2
- **Manimegalai Sengani**, Alexandru Mihai Grumezescu, V. Devi Rajeswari (2017). Recent trends and methodologies in gold nanoparticle synthesis – A prospective review on drug delivery aspect. Opennano 2:37-46
- Poppy Das, M. Himaja, V. Vinodhini and **Manimegalai.S** (2017). Evaluation of Anti-arthritis, HRBC Membrane Stabilization and Antioxidant Properties of the Edible Phlogacanthus thyriformis (Hardow) Mabb Flower Extracts and Their Correlation Studies. Studies on Ethno- medicine 11(1):1-7.
- **Manimegalai Sengani**, Devi Rajeswari. V (2017). Identification of potential antioxidant indices by biogenic gold nanoparticles in hyperglycemic Wistar rats. Environmental Toxicology and Pharmacology 50: 11-19. I.F- 3.06
- **Manimegalai Sengani**, Devi Rajeswari. V (2017) Gold nano supplement in selective inhibition of methylglyoxal and key enzymes linked to diabetes. IET Nanobiotechnology, NBT-2017-0032.R1. I.F-1.9

- **Manimegalai Sengani**, Shahid Mahboob, Khalid A.Al-Ghanim, Fahad Al-Misned, Marimuthu Govindarajan, Krishnan Anbarasu, Vijayarangan Devi Rajeswari (2020). Down-regulation of hepatic G-6-Pase expression in hyperglycemic rats: Intervention with biogenic gold nanoconjugate. Saudi Journal of Biological Sciences. Article in press. I.F – 4.2
- **Manimegalai Sengani**, Vijayarangan Devi Rajeswari, Ranganathan Parameswari, Marcello Nicoletti, Saud Alarifi, Marimuthu Govindarajan. Green synthesis, characterization and biological activity of Solanum trilobatum-mediated silver nanoparticles(2021). Saudi Journal of Biological Sciences. I.F -4.2
- **Sengani, M.**, Bavithra, V., Banerjee, M., Choudhury, A.A., Chakraborty, S., Ramasubbu, K., Al Obaid, S., Alharbi, S.A., Subramani, B. and Brindhadevi, K., 2022. Evaluation of the anti-diabetic effect of biogenic silver nanoparticles and intervention in PPAR γ gene regulation. Environmental Research, 215, p.114408.
- **Manimegalai, S.**, Vickram, S., Deena, S.R., Rohini, K., Thanigaivel, S., Manikandan, S., Subbaiya, R., Karmegam, N., Kim, W. and Govarthanan, M., 2022. Carbon-based nanomaterial intervention and efficient removal of various contaminants from effluents–A review. Chemosphere, p.137319.
- Vinodhini, S., **Sengani, M.**, Choudhury, A.A., Ramasubbu, K., Chakraborty, S., Banerjee, M., Balaji, M.P. and Rajeswari, V.D., 2022. Regulation of glucose transporter-4 intervention with S. saman leaves extract in streptozotocin-induced diabetic rats. Journal of Diabetes and its Complications, 36(12), p.108340.
- **Sengani, M.**, Chakraborty, S., Balaji, M.P., Govindasamy, R., Alahmadi, T.A., Al baid, S., Karuppusamy, I., Chi, N.T.L. and Brindhadevi, K., 2023. Anti-diabetic efficacy and selective inhibition of methyl glyoxal, intervention with biogenic Zinc oxide nanoparticle. Environmental Research, 216, p.114475.

FDP's/ Seminars/ Workshops/Webinars

Conference proceedings

- Paper Presentation: A National Summit on Recent trends in Biosciences, BIOTRENDS 2014, Sep 29th and 30th. The paper entitled “**Phytochemical Screening, Antioxidant and Antimicrobial activity of Courpita guianensis flower extract**”.
- Poster Presentation: International Conference on Advances on Micro and Nanotechnologies for biological applications. ICAMB-2015, Aug 7th and 8th. The poster entitled with “Liver antioxidant defense indices by freestanding gold nanoparticles: A targeted therapy for diabetic complication”.
- Poster Presentation: International Conference on Reproductive Health - ISSRF 2016, Feb 18th-20th. The poster entitled with “Studies on type 2 diabetes impairment with reproductive function: Possible role of reactive oxygen species”.
- Presented oral paper entitled “**Biogenic Silver nanoparticles induce Insulin sensitivity in Streptozotocin induced diabetic Wistar rats**” in the International Web Conference on Advances in Biotechnology – Gene Technology (ICAB 2021 organized by the Department of Biotechnology, Dwaraka Doss Goverdhan Doss Vaishnav College, on 17th & 18th February 2021.

Conferences, seminars, courses organized

- Workshop on **BD Vacutainer, Good Pre-analytical practices** conducted by **Becton, Dickinson and Company (BD), Bengaluru** at Sri Narayani Hospital & Research Center, Thirumalaikodi, Vellore on 21st April 2014
- Organized Bridge courses on “**Good Laboratory Practices and Biological Safety Measures**” on 6/9/2021-19/9/2021 by the Department of Biotechnology, SRM Institute of Science and Technology, Ramapuram, Chennai.
- Organized One week National level Faculty Development Program on **Developmental Techniques on Biological Sciences** on 20/9/2021-26/9/2021 by the Department of Biotechnology, SRM Institute of Science and Technology, Ramapuram, Chennai.

- Organized Photography Contest on **Different shades of Fungus from Home** on 5/07/2021 by the Department of Biotechnology, SRM Institute of Science and Technology, Ramapuram, Chennai.
- Organized Memorandum of Understanding (MOU) with Hubert Enviro Care Systems (P) Ltd., Chennai.
- Organized Creative video contest on **Spread Awareness Stop Resistance**, World Antimicrobial Awareness week 2021 on 18/11/2021-24/11/2021.
- Organized Expert talk on **Fungal Opportune Gaining Momentum – Retrospection** on 5/07/2021 by the Department of Biotechnology, SRM Institute of Science and Technology, Ramapuram, Chennai.
- Organized Expert talk on **Membrane based separations for Sustainable Water recovery and Desalination – Retrospection** on 5/07/2021 by the Department of Biotechnology, SRM Institute of Science and Technology, Ramapuram, Chennai.