

Dr. Sovan Bagchi

Director-BBMS program and Professor of Physiology | Researcher in Neuroscience, Exercise Physiology & Biomedical Sciences

 dr.sovan@gmu.ac.ae | bagchisovan2828@gmail.com

 +971-562065395 |  +971 6 743 1333 Ext. 1689

 College of Medicine, Gulf Medical University, Ajman, UAE

Profile

Accomplished academic with over 27 years of teaching and research experience in physiology and biomedical sciences across India, Ethiopia, Libya, and the UAE. Expertise in neurophysiology, cardiopulmonary physiology, exercise science, and biomedical research methods. Recognized with prestigious fellowships and awards, with a strong publication record in international peer-reviewed journals.

Education

Ph.D. in Medical Physiology, Banaras Hindu University, India (1998)

M.Sc. in Physiology, University of Calcutta, India

Academic Appointments

- Director-BBMS program and Professor of Physiology | College of Medicine, Gulf Medical University, Ajman, UAE (2016 – Present)
- Professor & Head, Department of Biomedical Sciences | Dolphin Institute of Biomedical & Natural Sciences, Dehradun, India (2011 – 2016)
- Assistant Professor of Physiology | Faculty of Medicine, 7th October University, Misurata, Libya (2007 – 2011)
- Assistant Professor of Physiology | College of Health Sciences, Hawassa University (formerly Debub University), Ethiopia (2004 – 2007)
- Assistant Professor of Physiology | Acharya Shri Chander College of Medical Sciences, University of Jammu, India (2000 – 2004)
- Lecturer in Physiology | Acharya Shri Chander College of Medical Sciences, University of Jammu, India (1999 – 2000)

Awards & Fellowships

- INSA Visiting Fellowship – Institute of Medical Sciences, Banaras Hindu University (2003)

- Prof. B.B. Sarkar Memorial Research Award, Physiological Society of India (1999)
- UNESCO-IBRO Fellowship, Intensive Workshop in Neuroscience, Mahidol University, Thailand (1997)
- UGC Research Fellowship, India

Research Expertise & Training

- Neurophysiology: extracellular recordings, vagus nerve single fiber activity, stereotaxic procedures
- Molecular biology: PCR, RT-PCR, in situ hybridization, immunochemistry, neuronal culture
- Exercise physiology: VO₂max, cardiorespiratory assessment, physical fitness testing

Selected Publications

- Bagchi S, Deshpande SB. Indian red scorpion venom and cardiopulmonary reflexes. *Toxicon*. 1998;36:309-320.
- Dutta S, Sengupta P, Bagchi S, et al. Endocrine disruptors and reproductive toxicity. *Front Cell Dev Biol*. 2023.
- Bhattacharya K, Dutta S, Sengupta P, Bagchi S. Reproductive tract microbiome in infertility. *MEFSJ*. 2023.
- Supriya R, Shishvan SR, Bagchi S, et al. Astaxanthin supplementation and exercise benefits. *Nutrients*. 2023.
- Kannaiyan A, Bagchi S, et al. AI in Obstetrics & Gynecology. *JSAFOG*. 2024.
- Sharmila B, Bagchi S, et al. Neurobiological changes and excess weight. *JCDR*. 2025.
- Bagchi S, Tiwari N, Dutta S, Sengupta P. Antibacterial activity of pomegranate peel extracts. *JIST*. 2025.
- Ragupathi P, Bagchi S, et al. Molecular surveillance of ESBL and carbapenemase genes in UAE. *Microorganisms*. 2025.

Professional Affiliations

- Physiological Society of India
- International Brain Research Organization (IBRO)
- Reviewer for various peer-reviewed journals

Key Skills

- University-level teaching & curriculum development
- Research supervision (PhD, postgraduate, undergraduate)
- Biomedical laboratory training & advanced physiology techniques
- Multicultural academic leadership

List of Publication (Last two Academic Year)

1. Parnow, A., Hafedh, M., Tsunoda, I., Patel, D. I., Baker, J. S., Saeidi, A., Bagchi, S., Sengupta, P., Dutta, S., Łuszczki, E., Stolarczyk, A., Oleksy, Ł., Al Kiyumi, M. H., Laher, I., & Zouhal, H. (2023). Effectiveness of exercise interventions in animal models of multiple sclerosis. *Frontiers in Medicine*, 10. <https://doi.org/10.3389/fmed.2023.1143766>
2. Dutta, S., Sengupta, P., Bagchi S., Chikara, BS., Pavlik, A., Slama, P. and Roychoudhury, S., (2023) Reproductive toxicity of combined effects of endocrine disruptors on human reproduction. *Front. Cell Dev. Biol.* 11 – 2023 <https://doi.org/10.3389/fcell.2023.1162015>
3. Bhattacharya K, Dutta S, Sengupta P and Bagchi S (2023). Reproductive tract microbiome and therapeutics of infertility. *Middle East Fertil Soc J.* 28, 11 <https://mefj.springeropen.com/articles/10.1186/s43043-023-00136-8>
4. Supriya R, Shishvan SR, Kefayati M, Abednatanzi H, Razi O, Bagheri R, Escobar KA, Pashaei Z, Saeidi A, Shahrbanian S, Bagchi S, Sengupta P, Al Kiyumi MH, Heinrich KM, Zouhal H. Astaxanthin Supplementation Augments the Benefits of CrossFit Workouts on Semaphorin 3C and Other Adipokines in Males with Obesity. *Nutrients*. 2023 Nov 16;15(22):4803. <https://doi.org/10.3390/nu15224803>
5. Kannaiyan A, Bagchi S, Vijayan V, Georgiy P, Manickavasagam S, Kumar DS. Revolutionizing Women's Health: Artificial Intelligence's Impact on Obstetrics and Gynecology. *Journal of South Asian Federation of Obstetrics and Gynaecology*. 2024 Feb 23;16(2):161-8. <https://jsafog.com/doi/JSAFOG/pdf/10.5005/jp-journals-10006-2394>
6. Parnow A, Amani-Shalamzari S, Mohr M, Bagchi S, Dutta S, Sengupta P. Association between aerobic performance and physiological responses in Yo-Yo intermittent recovery test level 2, and the futsal-specific intermittent endurance test in trained futsal players. *Journal of Basic and Clinical Physiology and Pharmacology*. 2024. <https://doi.org/10.1515/jbcpp-2024-0039>
7. Innocent Rani V, Dash B, Nancy Lal M, P MP, Bagchi S, Aruna V, Prabha KS. Dysmenorrhea and recent treatment options in adolescents and young adults. *Univ Med*. 2024;43(3):349-62. <https://doi.org/10.18051/UnivMed.2024.v43.349-362>
8. Sharmila B, Bagchi S, Imran M, Chakraborty T, Pushpalatha K, Neurobiological Changes Associated with Excess Weight: A Narrative Review *J Clin of Diagn Res*.2025; 19(1):OE07- OE12 <https://www.doi.org/10.7860/JCDR/2025/76172/20542>
9. Kannaiyan, S. P., Prasanna, A., Chaganti, S., Perin, M., Dinakar, S., Khedekar, S., Bagchi, S., & Deshpande, G. (2025). Branched-chain amino acids in obesity and diabetes:

Implications and insights. *Int J Med Biochem*, 8(2), 139-150. <https://doi.org/10.14744/ijmb.2025.16779>.

10. Rani VI, Shobana B, Misra A, Raja K, Kannaiyan SP, Prasanna PM, Vasanthi RK, Bagchi S. Recent Developments Concerning Sturge-Weber Syndrome. *Cuestiones de Fisioterapia*. 2025; 54(3):3478-86. <https://doi.org/10.48047/zyhcya76>

11. Bindhu J, Umashankar R, Vasudevan R, Mahalakshmi B, Bagchi S, Kapfo W et al. Evaluating diagnostic approaches for diabetic foot infections: A systematic review. *IP Int J Med Microbiol Trop Dis*. 2025;11(1):9-23 <https://doi.org/10.18231/j.ijmmtd.2025.003>

12. K DP, Sanil Kumar D, Daripelli S, Bagchi S, Vasanthi RK, Khedekar S, Joseph D. Impact of Microglia in Neurodevelopmental Disorders: A Review. *Biomedical Sciences and Clinical Medicine*. 2025;64(2):167-75. <https://he01.tci-thaijo.org/index.php/CMMJ-MedCMJ/article/view/273854>

13. Bagchi S, Tiwari N, Dutta S, Nanda M, Sengupta P. Study on the antibacterial and antioxidant activities of *Punica granatum* (pomegranate) peel extracts. *Journal of Integrated Science and Technology*. 2025 Apr 11;13(6):1126 <https://doi.org/10.62110/sciencein.jist.2025.v13.1126>

14. Pandurang M. Narhare, Muthu Prasanna P, Sharmila. B, Naresh Bhaskar Raj, & Sovan Bagchi. (2025). Leveraging Artificial Intelligence for Enhanced Clinical Decision Support Systems (CDSS). *Jordan Medical Journal*, 59(2). <https://doi.org/10.35516/jmj.v59i2.2889>

15. Sengupta P, Dutta S, Bagchi S, Hegde P, Sebastian S, Taylor DC, Henkel R. Strategic Guidelines to Integrate Artificial Intelligence in Obstetrics and Gynecology: Best Practices and Ethical Considerations. *Reproductive Sciences*. 2025 Jun 16:1-8. doi: 10.1007/s43032-025-01903-w

16. Ragupathi P, Khamisani V, Sadiq AF, Mobiddo MA, Parwaiz N, Bagchi S, Rahamathullah N. Molecular Surveillance of ESBL and Carbapenemase Genes in Gram-Negative Bacterial Pathogens Isolated from Various Clinical Samples Collected from Northern Region of United Arab Emirates. *Microorganisms*. 2025 Aug 12;13(8):1880. <https://doi.org/10.3390/microorganisms13081880>

17. Rahamathullah N, Bagchi S, Nanda M, Dutta A. In Vitro Antibacterial Efficacy of Crude Leaf Extracts from *Catharanthus roseus*: A Natural Therapeutic Prospect. *Biomed Pharmacol J* 2025;18(3)

18. Nadendla R. R, Settipalli S, Bagchi S, Das G, Chakraborty T, Hasan T, Dabburu K, Kannaiyan S. P. Perivascular Adipose Tissue: Implications for Cardiometabolic Diseases. *Biomed Pharmacol J* 2025;18(3)