

Curriculum Vitae

Personal details

Dr. Shakta Mani Satyam, Ph.D.

Assistant Professor- Pharmacology

RAK College of Medical Sciences,

Chairman- Animal Ethics Committee &

In-Charge of Central Animal Research Facility &

Translational Medical Research Centre,

RAK Medical and Health Sciences University, Ras Al Khaimah (UAE)

Phone: +971-72043000, Ext. No.: 219; +971-503056422, +91-9986983586

E-mail: smsatyam21@gmail.com, satyam@rakmhsu.ac.ae



Education

- **2024-2026:** Pursuing FAIMER (Foundation for Advancement of International Medical Education and Research) Fellowship, Philadelphia, United States
- **2014 - 2018: Ph.D. (Pain & Neuroendocrine Pharmacology) awarded on October 08, 2018**, by the Manipal Academy of Higher Education (An Institution of Eminence declared by the Government of India), Manipal, (India).
- **2013:** Master of Science (M.Sc.) in Medical Pharmacology from the Department of Pharmacology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal (India). **(University Topper)**
- **2016:** Certificate Course in Bioethics from Manipal Academy of Higher Education, Manipal (India).
- **2015:** Certificate Course in Biostatistics, Epidemiology & Research Methodology from Manipal Academy of Higher Education, Manipal (India).
- **2010:** Industrial Diploma in Clinical Research & Pharmacovigilance from Aryabhatta Clinical Research Consultancy and Education Institute, Udupi (India).
- **2009:** Bachelor of Science (B.Sc.) Zoology Honours from M. S. College, Motihari (India).

Teaching & Research Experiences

- **Assistant Professor- Pharmacology & In-Charge- Central Animal Research Facility (From January 06, 2022 – Till date):** RAK College of Medical Sciences, RAK Medical and Health Sciences University, Ras Al Khaimah (UAE).

- **Chairman- Animal Ethics Committee & Member- RAKMHSU Postgraduate Studies Committee (From October 01, 2023 – Till date):** RAK Medical and Health Sciences University, Ras Al Khaimah (UAE)
- **In-Charge- Translational Medical Research Centre & Member- RAKMHSU Research Committee (From September 06, 2024 – Till date):** RAK Medical and Health Sciences University, Ras Al Khaimah (UAE)
- **Assistant Professor (From January 21, 2014 – December 31, 2021):** Department of Pharmacology, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal (India).
- **Research Associate (August 01, 2013–January 20, 2014):** Department of Pharmacology, Kasturba Medical College, Manipal Academy of Higher Education, Manipal (India).

Laboratory Experiences

- Experiments on animal models of human diseases- Pain, Inflammation, Myocardial ischemia-reperfusion injury, Hyperlipidaemia, Doxorubicin-induced cardiotoxicity, Burn-wound, Skin infections, Diabetes mellitus, Drug toxicity, Cataract, Hepatotoxicity, Membrane stabilizing activity, Immunotoxicity, Alzheimer's, In vitro and in vivo antioxidant potential, Allergic conjunctivitis, Allergic rhinitis, Epistaxis, Nephrotoxicity, Retinal degeneration & Chemotherapy-induced cytotoxicity.
- Hands-on exposure to Stereotaxic neurosurgery in rodents, Langendorff apparatus for myocardial ischemia-reperfusion experiment in isolated rat heart, ECG & BP recording in rodents, experiments on ECG, ELISA reader, UV-spectrophotometer, PCR, Semi-auto analyzer, Automatic blood cell counter, Microtome, animals, Langendorff apparatus, Polywriter, Plethysmograph.
- Rich experience in various cell line studies and molecular biology techniques like ELISA, DNA extraction, RNA extraction, Protein extraction, Real-time PCR techniques, Protein blotting, Flow cytometry analysis, and so on.
- Biochemical assays of DPPH, ABTS, Free testosterone, 17 beta-estradiol, Leptin, Alpha-melanocyte stimulating hormone, Troponin T, Creatine kinase-MB, Lactate dehydrogenase, NT-pro BNP, IL-1beta, IL-6, TNF-alpha, Actin-alpha1, Myosin light chain 2, ATP, Creatine kinase, Interleukin-2, Interleukin-4, Interferon- γ , Immunoglobulin-G, Immunoglobulin-M, Reactive oxygen species, Nitrites, 4-Hydroxynonenal, Malondialdehyde, Reduced glutathione, Glutathione-S-transferase, Glutathione peroxidase, Catalase, Superoxide dismutase, Caspase-3, FRAP, Protein thiol, Aldose reductase, Sorbitol dehydrogenase, Glucose-6-phosphate dehydrogenase, Total

cholesterol, HDL cholesterol, Triglyceride, Glucose, Total bilirubin, Direct bilirubin, Total Protein, Creatinine, ALT, AST, and ALP.

- Multi-point bioassays of drugs using isolated tissue preparations
- Histopathology of rat tissues using Light microscopy and Transmission electron microscopy
- Chemical tests for identification of drugs

Awards/Achievements

- Nominated for **O. D. Gulati Award for Best Cardiovascular Research** by the 54th Annual Conference of the Indian Pharmacological Society, AIIMS, New Delhi
- Received **“WCP2023 Early Career Travel Bursary Award”** at the 19th World Congress of Basic & Clinical Pharmacology **from the British Pharmacological Society, UK** on April 11, 2023
- **Three groups of MBBS students** under my research supervision received the **“Best Lab-Based Oral Presentation”** at the 13th Student Scientific Conference held in May 2023 at RAK Medical and Health Sciences University (UAE)
- Received **“Brick Builder Grant Award”** from ScholarRx in June 2022
- Received **“Young Researcher Award 2021”** for the study entitled **“Chia seed oil ameliorates doxorubicin-induced cardiotoxicity in Wistar rats: an electrocardiographic, biochemical and histopathological approach”** at Indian Medical Association TN State Branch Academy of Medical Specialities, India.
- Received **“Best Research Paper Award”** for the study entitled **“Methyl gallate attenuates doxorubicin-induced cardiotoxicity in Wistar rats by Suppressing Oxidative Stress”** in a **National E-Symposium** on ‘Inculcation of Research and Innovation Spirit in Postgraduate Medical Students and Faculty’ held on 20th and 21st March 2021, **under the aegis of National Academy of Medical Sciences (NAMS), organized by Centre for advanced research on platelet signaling and thrombus biology (ICMR), Department of Biochemistry, Institute of Medical Sciences, Banaras Hindu University, Varanasi, UP, India.**
- Received **repeatedly two times (alternate year) “Award for Excellence in Teaching”** MBBS students for the **academic year 2017-2018 and 2015-2016** (**Highest student feedback score on my teaching among all the 2nd year faculties of the college**) at Melaka Manipal Medical College, Manipal Campus, MAHE, Manipal (India)
- Received **“Best Young Faculty Award 2018”** by GRABS Educational Charitable Trust in Chennai, (India)

- Two groups of MBBS students mentored by me received the “**Best Poster Award**” in the Mentored Student Project Poster Presentation Competition
- Received **an award for standing “First rank (University Topper) in M.Sc. (Medical Pharmacology) University Level Degree Examination”** held in August 2013 at MAHE, Manipal (India)
- “**Reviewer**” for many reputed national/international indexed journals

Additional Responsibilities and Achievements at RAKMHSU:

- **Additional Responsibilities:** In-Charge of Central Animal Research Facility & Translational Medical Research Centre- RAKMHSU; Chairman of Animal Ethics Committee- RAKMHSU; Member of University Standing Committee- Postgraduate Studies Committee, Research Committee & Animal Ethics Committee- RAKMHSU; Module Coordinator of Respiratory System Module; Course Coordinator of Bioethics & Professionalism Course; Academic Advisor for MD Students; Research Supervisor for Undergraduate Medical, Pharmacy, and Postgraduate Pharmacy Students
- **Documentation at RAKMHSU:** Prepared documents on Ethical Policy of Pre-Clinical Research at RAKMHSU, Ethical Policy of Human Research at RAKMHSU, SOPs for the Central Animal Research Facility & Translational Medical Research Centre, Templates and Annexures for Pre-Clinical Research Proposal Submission, Circular for the Scientific and Ethical Conduct of Research at RAKMHSU, Designed and developed Bioethics & Professionalism Course for Undergraduate Medical Students, Reviewed Basic Sciences Module/Course Syllabi and Drafted Response to CAA Queries for RAKCOMS Accreditation, Drafted Response to CAA Queries for the Research Components for PG Courses Accreditation, Proposed and Presented Novel Idea and Strategic Action Plans for the Establishment of Research Centre of Excellence at RAKMHSU to the RAK Government
- **Secured Licensing (Reference Number: 24/00/346)** for the Central Animal Research Facility and Animal Ethics Committee from the **RAK Environment Protection & Development Authority**, Government of Ras Al Khaimah
- **Successfully Registered** the Central Animal Research Facility under the **UAE Ministry of Climate Change and Environment** (MOCCAE) with Organization Registration and Participant Number: **CP-20238-214026**
- **Number of Academic & Research Awards:** 04 (Academic Category- University Topper- 01, Excellence in Teaching Two Times- 02 & Best Young Faculty- 01) & 05 (Research Category- Young Researcher Award- 01, Best Research Paper- 04)

- **Number of Research Papers Published in High Impact Factor Indexed Journals:** 54
- **Extra-mural Grants Received from Pharmaceutical Industries:** Approximately One Million AED (Year 2011-2023) including 1,50,345/- AED to RAKMHSU in 2022-2023
- **Wet Lab Research Projects Completed at RAKMHSU:** 07 (02- Pharmaceutical Industry Sponsored, 04- MBBS Student Projects, 01- Faculty Project)
- **Currently Ongoing Wet Lab Research Projects at RAKMHSU:** 11 (05- Undergraduate Medical Student Projects, 01- Undergraduate Pharmacy Student Project, 02- Postgraduate Pharmacy Student Projects from GMU, 03- Faculty Projects)

Research Paper Publications in National/International Indexed Peer Reviewed Journals

1. **Satyam SM, Bairy KL.** Antioxidant activity of the combination of Grape seed extract and Zincovit tablets (nutritional food supplement) on free radical scavenging in vitro models. *Jokull Journal* 2013;63(5):360-369. **(Impact Factor 1.342)**
2. **Satyam SM, Bairy KL, Pirasanthan R.** Influence of Grape seed extract and Zincovit tablets (Nutritional food supplement) on glucose level in normal and streptozocin-induced diabetic rats. *International Journal of Pharmacy and Pharmaceutical Sciences* 2013;5(3):413-416.
3. **Satyam SM, Bairy KL, Shetty MS, Chakravarty S.** Influence of a combination of crude extract of *Aegle marmelos* leaves and *Tamarindus indica* seeds on sugar and lipid level in normal and streptozocin-induced diabetic rats. *RJPBCS* 2013;4(2):1071-1081.
4. **Satyam SM, Bairy KL, Magazine BC, Pirasanthan R, Gupta S.** Analgesic modulation of tramadol, amitriptyline and gabapentin in male and female Wistar rats. *RJPBCS* 2013;4(3):70-78.
5. **Satyam SM, Bairy KL, Vaishnav RL, Pirasanthan R.** Grape seed extract and Zinc containing nutritional food supplement, decreases the oxidative stress induced by carbon tetrachloride in rats. *International Journal of Pharmacy and Pharmaceutical Sciences* 2013;5(4):626-631.
6. **Satyam SM, Bairy KL, Pirasanthan R, Vaishnav RL.** Grape seed extract and zinc-containing nutritional food supplements prevent the onset and progression of age-related cataracts in Wistar rats. *The Journal of Nutrition, Health, and Aging* 2014;18(5):524-530. **(Q1, CiteScore 8.0, Impact Factor 5.8)**
7. **Satyam SM, Bairy KL, Pirasanthan R, Nath M, Vaishnav RL, Rao MD.** Grape seed extract and Zinc containing multivitamin-mineral nutritional food supplement ameliorate hepatic injury. *Jokull Journal* 2014;64(6):184-195. **(Q1, Impact Factor 1.342)**
8. **Satyam SM, Bairy KL, Pirasanthan R, Vaishnav RL.** Grape seed extract and Zinc containing multivitamin-mineral nutritional food supplement protect the heart against

- myocardial ischemia-reperfusion injury in Wistar rats. *Austin J Pharmacol Ther* 2014;2(4):1-6.
9. Bairy KL, Abhinav R, **Satyam SM**. Evaluation of burn wound healing activity of topical regular insulin in non-diabetic and streptozocin-induced diabetic rats. *Int J Pharm Pharm Sci* 2014;6(8):127-130.
 10. **Satyam SM**, Bairy KL, Pirasanthan R. Acute and long-term safety evaluation of grape seed extract and zinc containing multivitamin-mineral nutritional food supplement in rodents. *RJPBCS* 2014;5(5):561-566.
 11. **Satyam SM**, Bairy KL, Nayak V, Chandrasekhar BR, Pawan KAV, Holla AM. Effect of Betamethasone dipropionate, Betamethasone valerate, and combination of Betamethasone valerate and Neomycin sulfate with Biopolymer on skin inflammatory model in Wistar rats. *IJAR* 2014;2(10):740-743.
 12. **Satyam SM**, Bairy KL, Adiga S, Chogtu B, Pirasanthan R, Vaishnav RL. Effect of fucithalamic and sofinox eye drops on experimental allergic conjunctivitis in rats. *IJPPS* 2014;6(11):458-460.
 13. **Satyam SM**, Bairy KL, Musharraf S, Fernandes DL. Safety assessment of topical formulation of nicotinamide gel (2%), (3%), and (4%) on the skin of normal healthy New Zealand white albino rabbits. *RJPBCS* 2014;5(6):815-817.
 14. **Satyam SM**, Bairy KL, Mukhyaprana PM. Tenofovir therapy induced Fanconi syndrome: A rare complication in hepatitis-B virus-infected patient. *RJPBCS* 2014;5(6):912-915.
 15. **Satyam SM**, Bairy KL, Pirasanthan R. Influence of Grape Seed Extract and Zinc Containing Multivitamin-Mineral Nutritional Food Supplement on Lipid Profile in Normal and Diet-Induced Hypercholesterolemic Rats. *JCDR* 2014;8(12): HC12-HC15.
 16. **Satyam SM**, Bairy KL, Musharraf S, Fernandes DL. Inhibition of Croton oil-induced edema in rat ear skin by topical nicotinamide gel. *Pharmacologyonline* 2014; 3:22-25.
 17. **Satyam SM**, Bairy KL, Pirasanthan R, Vaishnav RL, Kashyap S. Influence Of Topical Retapamulin (1%) Ointment, Sofinox- Rd Cream, Sofinox Cream (2%), Zinc Fusidate Cream (2%) And Zinc Fusidate Ointment (2%) On Nasal Mucosal Surface Safety in New Zealand Albino Rabbits. *International Journal of Pharmacy and Pharmaceutical Sciences* 2015;7(2):183-186.
 18. **Satyam SM**, Bairy KL. A meta-analysis of randomized controlled trials comparing various topical anti-bacterial, anti-fungal & steroid products alone and in combinations with biopolymer and without biopolymer in skin infection conditions. *International Journal of Advanced Research* 2015;3(1):622-629.

19. **Satyam SM**, Bairy KL, Musharraf S, Fernandes DL, Shashidhar V. Efficacy of Zincoderm G cream against wound infection by *Pseudomonas aeruginosa* in Sprague-Dawley rats. *Int J Basic Clin Pharmacol* 2015;4(1):20-23.
20. **Satyam SM**, Bairy KL, Musharraf S, Fernandes DL, Shashidhar V. Efficacy of Zincoderm G cream against wound infection by methicillin-resistant *Staphylococcus aureus* in Sprague-Dawley Rats. *Int J Pharm Bio Sci* 2015;6(2):446-449.
21. **Satyam SM**, Bairy KL, Pirasanthan R, Vaishnav RL. Grape seed extract and Zinc containing nutritional food supplements delay the progression and maturation of Streptozocin-induced diabetic cataracts in Wistar rats. *Journal of Food Science and Technology* 2015;52(5):2824-2832. **(Q1, CiteScore 6.5, Impact Factor 3.80)**
22. **Satyam SM**, Bairy KL. Zincovit syrup ameliorates oxidative stress induced by carbon tetrachloride in rats. *Int J Basic Clin Pharmacol* 2015; 4:449-452.
23. **Satyam SM**, Bairy KL, Rao SS. Hepatoprotective effect of Zincovit drops against Carbon Tetrachloride Induced Liver damage in Wistar rats. *JPR* 2015;4(5):197-200.
24. **Satyam SM**, Bairy KL. Zincovit Drop Reduces Oxidative Stress Induced by Carbon Tetrachloride in Rats. *AJPCT* 2015;43(5):469-474.
25. **Satyam SM**, Bairy KL, Musharraf S, Fernandes DL. Assessment of anti-dermatophytic activity of Zincoderm GM cream in experimental *Tinea pedis* in Wistar rats. *IJPCBS* 2015;5(3):683-687.
26. **Satyam SM**, Bairy KL. Acute and long-term safety evaluation of Zincovit drop (Nutritional food supplement) in Wistar rats. *Global Journal for Research Analysis* 2015; 4(8):203-205.
27. **Satyam SM**, Bairy KL. Acute and Long-Term Safety Evaluation of Zincovit Syrup (Nutritional Food Supplement) In Wistar Rats. *RJPBCS* 2015;6(5):604-608.
28. **Satyam SM**, Bairy KL, Rao SS. Hepatoprotective effect of Zincovit syrup against Carbon Tetrachloride Induced hepatotoxicity in Wistar rats. *Indian Medical Gazette* 2015; 7:275-280.
29. **Satyam SM**, Bairy KL. Comparative Effect of Betadine Ointment and Sodium Fusidate Cream on Experimentally Induced Burn Wound in Wistar Rats. *RJPBCS* 2015;6(6):887-890.
30. **Satyam SM**, Bairy KL. Influence of Zincovit drop (nutritional food supplement) on the immune system in normal and cyclophosphamide intoxicated Wistar rats. *Asian Journal of Pharmaceutical and Clinical Research* 2016;9(1):238-240.

- 31. Satyam SM**, Bairy KL, Musharraf S, Fernandes DL, Prakash J. Effect of two different formulations of Zincovit tablets on galactose induced cataract in rats. RJPBCS 2016;7(2):1209-1216.
- 32. Satyam SM**, Bairy KL, Prakash J, Musharraf S, Kumar N, Patil J. Influence of Ageless liquid with or without piperine on gentamicin-induced nephrotoxicity in Wistar rats. RJPBCS 2016;7(3):1963-1976.
- 33. Satyam SM**, Patil J, Kumar N, Amzar M, Hafizi MA, Norfanan N, Selvaraj UA. A retrospective study of diabetic peripheral neuropathy among patients with diabetes mellitus at a tertiary care hospital in South India. RJPBCS 2016;7(3):1825-1828.
- 34. Patil J**, Kumar N, **Satyam SM**, Kupusamy K, Han LM, Rozan RB, Gill RK. Influence of blood group on the character traits -A cross-sectional study on Malaysian student population. Journal of Chemical and Pharmaceutical Sciences 2016;9(2):865-868.
- 35. Satyam SM**, Bairy KL. Influence of two different formulations of Zincovit tablets on sodium selenite induced cataract in rats. Int J Pharm Bio Sci 2016;7(3):1-9.
- 36. Satyam SM**, Bairy KL. Influence of Ageless liquid with or without piperine on sodium iodate-induced retinal degeneration in Sprague-Dawley rats. Int J Pharm Bio Sci 2016;7(3):866-871.
- 37. Satyam SM**, Bairy KL, Devi V. Correlation of gender and leptin with the analgesic effect of tramadol in rats. AJPCR 2018;11(6):493-497.
- 38. Satyam SM**, Bairy KL, Devi V. Correlation of gender and leptin with the analgesic effect of tramadol in high-fat diet-induced obese rats. JCDR 2018;12(6):FC06-FC10.
- 39. Satyam SM**, Bairy KL, Devi V. Influence of gender and obesity on analgesic modulation of tramadol in rats. AJPCR 2018;11(8):321-325.
- 40. Satyam SM**, Bairy KL, Devi V. Influence of gender on analgesic modulation of tramadol in Wistar rats. Proceedings of 109th The IRES International Conference, Muscat, Oman, 27th-28th March 2018.
- 41. Satyam SM**, Bharath Rao BK, Xin TS, Barakah AH, Surais V, Tian TX, Juen MHT, Seng WC, Muraly GP, Chauhan A, Hegde A, Chakravarthy PK. Knowledge, Awareness, and Compliance of Personal Protective Equipment and Measures among Undergraduate Dental Students of South India. Journal of International Dental and Medical Research 2020;13(3):1109-1116.
- 42. Satyam SM**, Bairy KL, Ern OT, Yen YG, Kanasin A, Muthaiah T, Ratnam US, Yadav K. Influence of a combination of docosahexaenoic acid supplement and a polyherbal formulation (Liv. 52) on carbon tetrachloride-induced hepatic injury: a pre-clinical study. J Datta Meghe Inst Med Sci Univ 2020;15:114-117.

43. **Satyam SM**, Bairy KL, Shetty P. An insight on pain modulation with gender and obesity: a systematic review. *Research J Pharm and Tech* 2020;13(12):6284-6290. **(Q2)**
44. **Satyam SM**, Dash S, Kamath MG, Sharma K, Hui LW, Ponusamy T, Pathmaseelan K, Santhiran T. Problematic mobile phone use among undergraduate medical students and its impact on sleep quality and sleep pattern. *Mal J Med Health Sci* 2020;16(4):132-137.
45. Ahmed AZ, **Satyam SM**, Shetty P, D'Souza MR. Methyl Gallate Attenuates Doxorubicin-Induced Cardiotoxicity in Rats by Suppressing Oxidative Stress. *Scientifica* 2021; Volume 2021, Article ID 6694340, 12 pages, <https://doi.org/10.1155/2021/6694340> **(Q1, 90%, CiteScore 6.7, Impact Factor 2.3)**
46. Ahmed AZ, Mumbreakar KD, **Satyam SM**, Shetty P, D'Souza MR, Singh VK. Chia Seed Oil Ameliorates Doxorubicin-Induced Cardiotoxicity in Female Wistar Rats: An Electrocardiographic, Biochemical, and Histopathological Approach. *Cardiovascular Toxicology* March 2021, 10 pages, <https://doi.org/10.1007/s12012-021-09644-3> **(Q1, 80%, CiteScore 6.6, Impact Factor 3.4)**
47. Akheruz AZ, Shetty P, **Satyam SM**, D'Souza MR, Herle AM, Singh VK. Methyl Gallate Mitigates Doxorubicin-Induced Peripheral Cytopenia: A Preclinical Experimental Study. *Research J Pharm and Tech* 2021;14(9):4529-4534. <https://doi.org/10.52711/0974-360X.2021.00788> **(Q2)**
48. **Satyam SM**, Bairy KL. Neuronutraceuticals Combating Neuroinflammation: Molecular Insights and Translational Challenges—A Systematic Review. *Nutrients* 2022; 14(15):3029. <https://doi.org/10.3390/nu14153029> **(Q1, 89% CiteScore 9.2, Impact Factor 5.8)**
49. Bairy KL, **Satyam SM**. The art and science of clinical medicine. *Association of Physicians, Dakshin Kannada* 2022;3(1):25-8.
50. **Satyam SM**, Bairy LK, Shetty P, Sainath P, Bharati S, Ahmed AZ, Singh VK, Ashwal AJ. Metformin and Dapagliflozin Attenuate Doxorubicin-Induced Acute Cardiotoxicity in Wistar Rats: An Electrocardiographic, Biochemical, and Histopathological Approach. *Cardiovascular toxicology* 2023;23(2):107-19 <https://doi.org/10.1007/s12012-023-09784-8> **(Q1, 80%, CiteScore 6.6, Impact Factor 3.4)**
51. **Satyam SM**, Bairy LK, Shetty P. Endogenous Sex Hormones Modulate the Analgesic Effect of Tramadol in Lean and High-Fat Diet-Induced Obese Wistar Rats: A Preclinical Molecular Approach. *Neuroendocrinology*. 2023 Feb 16:1-1. <https://doi.org/10.1159/000529761> **(Q1, 84%, CiteScore 8.3, Impact Factor 3.2)**
52. **Satyam SM**, Bairy LK, Rehman A, Attia M, Ahmed L, Emad K, Jaafer Y, Bahaaeldin A. Unlocking Synergistic Hepatoprotection: Dapagliflozin and Silymarin Combination

Therapy Modulates Nuclear Erythroid 2-Related Factor 2/Heme Oxygenase-1 Pathway in Carbon Tetrachloride-Induced Hepatotoxicity in Wistar Rats. *Biology*. 2024 Jun 26;13(7):473. <https://doi.org/10.3390/biology13070473> (Q1, 85%, CiteScore 5.7, Impact Factor 3.80)

53. Kumari R, **Satyam SM**, Bairy LK, Rehman A, Shetty P, Mohammed CA. Crossing horizons: unraveling perspectives on enhancing medical students' success through at-risk factor exploration. *BMC Medical Education*. 2024 Aug 2;24(1):835. <https://doi.org/10.1186/s12909-024-05819-y> (Q1, 83%, CiteScore 4.9, Impact Factor 3.4)

54. **Satyam SM**, Bairy LK, Rehman A, Farook M, Khan S, Nair AA, Binu NN, Yehya M, Khan MM. Unlocking Synergistic Hepatoprotection: Dapagliflozin and Silymarin Combination Therapy Modulates Nuclear Erythroid 2-Related Factor 2/Heme Oxygenase-1 Pathway in Carbon Tetrachloride-Induced Hepatotoxicity in Wistar Rats. *Biology*. 2024 Aug 29;13(9):672. <https://doi.org/10.3390/biology13090672> (Q1, 85%, CiteScore 5.7, Impact Factor 3.80)

Research Project Collaborations

1. **Ongoing two research projects in collaboration with Gulf Medical University, Ajman, UAE**
2. **Completed two research projects as an international academic-corporate collaboration** for screening of pharmaceutical products
3. Conducted many pre-clinical & clinical studies **sponsored (Extramural grant of approximately 2,00,000/- USD) by pharmaceutical industries for screening of their molecules in various diseases**
4. **Received an extramural grant of 1,50,345/- AED** from a pharmaceutical industry **in the academic year 2022-2023** for the pre-clinical screening of certain molecules

Research Students' Supervision (January 2022 onwards)

- Undergraduate Students: 30 (Completed), 51 (Ongoing)
- Postgraduate Students: 02 (Ongoing)
- Ph.D. Students: 01 (Completed); 01 (Ongoing)

Guest Speaker/Chairperson/Judge in National/International Conferences

1. **Chaired a scientific session on "Clinical Trials, Regulatory, and Pharmacovigilance Aspects of Biosimilars"** at the 54th Annual International Conference of the Indian Pharmacological Society in collaboration with the International Union of Basic and Clinical Pharmacology. Held at AIIMS, New Delhi, from November 28–30, 2024

2. **Delivered a Guest Lecture on “Cutting-Edge Innovative Horizons in Drug Discovery: Leveraging Advanced Research Facilities and Ethical Animal Use for Tomorrow’s Medical Breakthroughs”** in a research seminar organized by the Gulf Medical University, Ajman, UAE on 12th September 2024
3. **Delivered a Guest Lecture on “Cutting-Edge Innovative Horizons in Drug Discovery: Leveraging Advanced Research Facilities and Ethical Animal Use for Tomorrow’s Medical Breakthroughs”** in a seminar organized by the Gulf Medical University, Ajman, UAE on 12th September 2024
4. **Delivered a Guest Lecture on “COVID-19 Treatment: Facts & Fictions”** in a webinar organized by the NMTA, India on 15th June 2021
5. **Judged** a poster session in the **64th Annual National Conference of Association of Physiologists & Pharmacologists of India** held at Manipal Academy of Higher Education, Manipal (India) on 1st December 2018
6. **Delivered a Guest Lecture on “Ethics teaching and Research ethics”** at **GRABS Educational Charitable Trust, Chennai (India)** on April 8, 2018
7. **Judged** a poster session for the Seminar cum Workshop on **“Management of dermatological disorders and cancer- moving towards an integrative (Siddha & Modern) approach”** held during 11-12 February 2017 organized by **Central Council for Research in Siddha (CCRS) and Manipal Academy of Higher Education, Manipal, Karnataka (India)**
8. **Chaired** a scientific session at an **International Conference on Pharmacy and Pharmaceutical Sciences held in Singapore** on September 11, 2014

Presentations in National/International Conferences

1. Poster presentation on a study entitled **"Topoisomerase I as a molecular target for anticancer evaluation"** at the Indian Association of Pharmaceutical Scientists and Technologists Association National Conference held at Manipal Academy of Higher Education (India) in November 2009
2. Poster presentation on a study entitled **"Cardiotoxicity of anti-cancer drugs: The need for Cardio-Oncology"** in an International Patient Safety Conference organized by the University of LEEDS, UK, and AIIMS, New Delhi held at All India Institute of Medical Sciences, New Delhi (India) in October 2010
3. Oral presentation on a study entitled **"Antioxidant and Anti-glycation activity of new 7-hydroxy-6-amino benzopyrone"** in a National Symposium on Antioxidants: Current trends in research, held at Government College of Pharmacy, Karad (India) in March 2010

4. Poster presentation on a study entitled "**Adverse reaction pattern among rheumatoid arthritis patients in a tertiary care hospital**" at the Indian Pharmacological Society National Conference held at Manipal Academy of Higher Education, Manipal (India) in December 2011
5. Oral presentation on a study entitled "**Leptin vs NMDA receptor-mediated nociception**" in a Journal Update at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in April 2012
6. Oral presentation on a study entitled "**Prevention effects of ND-07, a novel drug candidate with a potent antioxidative action and anti-inflammatory action, in animal models of severe acute pancreatitis**" in a Journal Update at Department of Pharmacology, Kasturba Medical College, Manipal (India) in August 2012
7. Poster presentation on a study entitled "**Analgesic modulation of amitriptyline and gabapentin in male and female Wistar rats**" in an International conference held at MGIMS, Wardha (India) in February 2013
8. Poster presentation on a study entitled "**Acute and long-term safety evaluation of Zincovit tablets with grape seed extract (Nutritional food supplement) in rodents**" at an International conference on medicinal plants and herbal products held at Manipal Academy of Higher Education, Manipal (India) in January 2013
9. Oral presentation on a study entitled "**Grape seed extract and Zinc containing multivitamin-mineral nutritional food supplement protects the heart against myocardial ischemic-reperfusion injury in Wistar rats**" in International Conference on Pharmacy and Pharmaceutical Sciences held at Singapore on September, 11-12, 2014
10. Poster presentation on a study entitled "**A neuroendocrinological approach to developing an inimitable analgesic molecule**" on Innovation Day held at MUTBI, Manipal Academy of Higher Education, Manipal (India) in December 2014
11. Poster presentation on a study entitled "**Cardioprotective effect of Ageless liquid in high-fat diet-induced hyperlipidemic Sprague Dawley rats**" at the 2nd International Conference on Healthcare and Technical Research organized by Manipal Academy of Higher Education Research Forum, Manipal (India) during December 7-8, 2016
12. Poster presentation entitled "**Influence of gender and obesity on analgesic modulation of tramadol in rats: A neuroendocrinological approach**" in the Ph.D. Poster Presentation Competition 2017 held at Manipal Academy of Higher Education, Manipal (India) on April 05, 2017
13. Oral presentation on a study entitled "**Influence of gender on analgesic modulation of tramadol in Wistar rats**" in Golden Jubilee International Conference of Indian

Pharmacological Society- Southern Region 2017 organized by the Department of Pharmacology, Mahatma Gandhi College & Research Institute, Puducherry (India) held on 04th and 05th July 2017

14. Poster presentation on a study entitled **“Influence of gender on analgesic modulation of tramadol in obese Wistar rats”** at the International Conference on Sleep Medicine and Research held at Clube de Tennis Gaspar Dias, Miramar, Goa (India) on 22nd and 23rd September 2017
15. Poster presentation on a study entitled **“Influence of Liv. 52 and docosahexaenoic acid alone and their combination against carbon tetrachloride-induced hepatotoxicity in Wistar rats”** in the 64th Annual National Conference of Association of Physiologists & Pharmacologists of India held at Manipal Academy of Higher Education, Manipal (India) on 29th, 30th November and 1st December 2018
16. Oral presentation on a study entitled **“Analgesic modulation of tramadol with gender and leptin in high fat diet-induced obese Wistar rats: An empirical approach using an infrared-tissue interaction & acetic acid-induced writhing test”** in an International Conference on Nanoscience and Photonics for Medical Applications organized by the Department of Atomic and Molecular Physics, Manipal Academy of Higher Education, Manipal (India) held on 28th, 29th and 30th December 2019
17. Oral presentation on a study entitled **“Correlation of gender and leptin with the analgesic effect of tramadol in rats”** in an International Conference on Healthcare and Technical Research organized by Manipal Academy of Higher Education Research Forum, Manipal (India) held on 30th and 31st October 2020
18. Oral presentation on a study entitled **“Methyl Gallate Attenuates Doxorubicin-Induced Cardiotoxicity in Rats by Suppressing Oxidative Stress”** in a National E-Symposium on ‘Inculcation of Research and Innovation Spirit in Postgraduate Medical Students and Faculty’ held on 20th and 21st March 2021, under the aegis of National Academy of Medical Sciences (NAMS), organized by Center for advanced research on platelet signaling and thrombus biology (ICMR), Department of Biochemistry, Institute of Medical Sciences, Banaras Hindu University, Varanasi, UP, India.
19. Oral presentation on a study entitled **“Chia seed oil ameliorates doxorubicin-induced cardiotoxicity in Wistar rats: an electrocardiographic, biochemical and histopathological approach”** at Indian Medical Association TN State Branch Academy of Medical Specialities, India held on 15th December 2021.
20. Poster presentation on a study entitled **“Methyl gallate and chia seed oil upregulates Nrf-2/HO-1 signaling pathway and abrogates doxorubicin-induced acute cardiotoxicity: a**

pre-clinical molecular approach” during the 9th edition of the Top to Toe Transcatheter Solutions Conference 2023 held from 10 - 11 February 2023 at Jumeirah Emirates Towers, Dubai, UAE.

21. Poster presentation on a study entitled **“Methyl gallate attenuates doxorubicin-induced chronic cardiotoxicity via upregulation of the nuclear factor erythroid 2-related factor-2/heme oxygenase-1 (Nrf2/HO-1) signaling pathway”** in the 19th World Congress of Basic and Clinical Pharmacology (WCP2023) at the Scottish Event Campus (SEC), Glasgow held from July 02-07, 2023.
22. Oral presentation on a study titled **“Development of an innovative animal model for cardiometabolic risk factors associated ischemic heart disease”** in the Annual Congress of the Central Europe Diabetes Association (CEDA) 2024 at Palermo, Italy held from June 06-08, 2024
23. Oral presentation for the **“Best Cardiovascular Research” Nominated Under the O. D. Gulati Award Category** at the 54th Annual International Conference of the Indian Pharmacological Society in collaboration with the International Union of Basic and Clinical Pharmacology. Held at AIIMS, New Delhi, from November 28–30, 2024

Participation in Scientific Workshops/CMEs/Symposiums/Guest Talks

1. Attended a pre-conference workshop on **“Medical writing”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in December 2011
2. Attended a scientific meeting on **“Pharmacovigilance”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in October 2011
3. Attended an Indo-US symposium on **“Molecular pharmacology and applied therapeutics”** held at JSS Medical College, Mysore (India) in November 2012
4. Attended a scientific meeting on **“Manipal Cardiology Update-2012”** held at the Department of Cardiology, Kasturba Medical College, Manipal (India) in November 2012
5. Attended a scientific meeting on **“Neuropsychopharmacology: Trends in clinical practice”** held at the Department of Pharmacology, Kasturba Medical College, Mangalore (India) in October 2012
6. Attended a workshop on **“Pharmacovigilance”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in October 2012
7. Attended a workshop on **“Clinical trials and biostatistics”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in September 2012
8. Attended a workshop on **“Medical writing”** held at the Department of Medicine, Kasturba Medical College, Manipal (India) in June 2012

9. Attended a workshop on **“How to write and publish a paper”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in May 2013
10. Attended a workshop on **“Fundamentals of mass spectrometry-based proteomics for beginners”** held at the Institute of Bioinformatics, Bangalore (India) in March 2014
11. Attended a workshop on **“Pharmacoeconomics”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in March 2014
12. Attended a CME and workshop on **“Diabetes mellitus and cardiovascular disease: Therapeutics and Investigations”** held at the Department of Biochemistry, Kasturba Medical College, Manipal (India) in May 2014
13. Attended a workshop (8 hrs) on the **“Investigator training program”** held at the Department of Pharmacology, Kasturba Medical College, Manipal (India) in September 2014 conducted by Pfizer Ltd.
14. Attended a workshop on **“Digitized Lab-based teaching in human physiology”** held at the Department of Physiology, Melaka Manipal Medical College, Manipal (India) in October 2014 conducted by AD instruments.
15. Attended a workshop on **“1-Week hands-on workshop on human/cancer cell culture techniques & MTT assay”** held at ICSCCB, Pune (India) in January 2015
16. Attended a workshop on **“Pedagogic & Personal Effectiveness”** held at MCPD, Manipal Academy of Higher Education, Manipal (India) in July 2015
17. Attended a symposium on **“Drug Development, Clinical Trials, Data Management & Pharmacovigilance-A comprehensive overview by Indian Society for Clinical Research (ISCR)”** organized by Indian Society for Clinical Research and Manipal College of Pharmaceutical Sciences, Manipal Academy of Higher Education, Manipal (India) on 11-12 November 2016
18. Attended a workshop on **“Implementing Instructional Initiatives Imaginatively”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 28th November 2016
19. Attended a workshop on **“Developing Undergraduate Medical Curriculum”** organized by the Medical Education Unit of Kasturba Medical College, Manipal Academy of Higher Education, Manipal (India) on 29th November 2016
20. Attended a workshop on **“Futura Pedagogica”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 10th December 2016

21. Attended a symposium on **“Drug-resistant Tuberculosis: Challenges & Opportunities”** held at Manipal McGill International Diseases, Manipal Academy of Higher Education, Manipal (India) on December 21st, 2016
22. Participated as a part of the organizing committee in the Seminar cum workshop on **“Management of dermatological disorders and cancer-moving towards an integrative (Siddha & Modern) approach”** organized by the Central Council for Research In Siddha (CCRS) and Centre for Integrative Medicine and Research (CIMR), Manipal Academy of Higher Education, Manipal (India) during 11-12 February 2017
23. Attended a workshop on **“Patient Reported Outcomes: A new era in clinical research & Health Economics Outcomes Research Writing”** organized by the Department of Pharmacology, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal (India) on 05th August 2017
24. Attended a guest talk on **“Health Economics Outcomes Research and Real-World Evidence”** organized by the Department of Pharmacology, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal (India) on 05th August 2017
25. Attended a guest talk on **“Market Access & Health Technology Assessment”** organized by the Department of Pharmacology, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal (India) on 05th August 2017
26. Attended a workshop on **“Scholarship of Teaching and Learning”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 08th August 2017
27. Attended a workshop on **“Use of Animals in Research: Care and Concern”** organized by the Enteric Diseases Division, Manipal Academy of Higher Education, Manipal (India) on 08th September 2017
28. Attended a workshop on **“Congenial Classroom Climate: Creating conditions conducive to learning”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 21st October 2017
29. Attended a workshop on **“Sculpting an Academic Teaching Portfolio”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 14th May 2018
30. Attended a workshop on **“Sculpting an Academic Teaching Portfolio”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 19th June 2018

31. Attended a guest talk on **“Resistance to malaria treatment and role of natural products in therapy”** organized by the Department of Pharmacology, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal (India) on 16th August 2018
32. Attended a guest talk on **“Management of Type 2 Diabetes mellitus by Traditional Siddha Medicine”** organized by the Department of Pharmacology, Melaka Manipal Medical College (Manipal Campus), Manipal Academy of Higher Education, Manipal (India) on 16th August 2018
33. Attended a workshop on **“Has the Flipped Classroom Flopped?”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 11th October 2018
34. Attended a research awareness program (level 1) on **“Scopus and Selection of Quality Journals”** organized by the Directorate of Research, Manipal Academy of Higher Education, Manipal (India) on 23rd October 2018
35. Attended a research awareness program (level 2) on **“SciVal and Mendeley”** organized by the Directorate of Research, Manipal Academy of Higher Education, Manipal (India) on 30th October 2018
36. Attended a workshop on **“Composing Objective Questions”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 09th November 2018
37. Attended a workshop on **“Assay of the Essay”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 28th November 2018
38. Attended a workshop on **“Maxims of Formative Assessment”** organized by Manipal Centre for Professional and Personal Development (MCPD), Manipal Academy of Higher Education, Manipal (India) on 12th April 2019
39. Attended a workshop on **“Portfolio: A manifesto of personalized learning”** organized by the Centre for Continuing Education and Interprofessional Development (CCEID), Manipal Academy of Higher Education, Manipal (India) on 16th April 2019
40. Attended a workshop on **“Outcome Based Education (OBE)”** organized by Melaka Manipal Medical College (Melaka Campus), Manipal Academy of Higher Education, Melaka (Malaysia) on 29th April 2019.
41. Attended a Hippocratic Webinar Series on **“Paradigm Shift from F2F to Virtual Learning in the COVID-19 Era: Innovations and Challenges in Teaching and**

- Learning”** organized by Global Health Academy, The University of Edinburgh on 13th June 2020.
42. Attended a CME Webinar on **“Living with Chronic Kidney Disease”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 20th September 2020.
 43. Attended a National Conference on **“Conflict, Conservation & Coexistence”** organized by the Centre for Wilderness Medicine, KMC, MAHE, Manipal on 20th & 21st March 2021.
 44. Attended a CME Webinar on **“When the Pandemic (COVID-19) meets Epidemic (Diabetes)”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 26th November 2021.
 45. Attended a CME Webinar on **“World Antimicrobial Awareness Week (WAAW)”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 28th November 2021.
 46. Attended a CME Webinar on **“Surgical Update 2022”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 30th January 2022.
 47. Attended a CME Webinar on **“Why Pause in Menopause”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 27th February 2022.
 48. Attended a CME Webinar on **“Current Trends in Neonatal and Pediatric Practice 2022”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 6th March 2022.
 49. Attended a CME Webinar on **“Update in Nephrology, Metabolic Disorders, and Transplantation”** organized by Fakeeh University Hospital in association with RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 12th March 2022.
 50. Attended a CME Webinar on **“Advances in surgical subspecialties”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 22nd January 2023.
 51. Attended a CME Webinar on **“Current Trends in Neonatal and Pediatric Practice 2023”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 12th February 2023.
 52. Attended a CME Webinar on **“Updates in fetal medicine practice”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 19th February 2023.

53. Designed and Organized a **“Free health assessment & awareness camp”** for the biomedical and general waste collection team from the **Public Services Department, Government of Ras Al Khaimah** at the RAK Medical & Health Sciences University from March 13-17, 2023.
54. Attended a CME on **“3D bioprinting: future of medicine & genomic diagnostics”** organized by RAK College of Medical Sciences, RAK Medical & Health Sciences University (UAE) on 19th March 2023.
55. Organized **“13th RAKMHSU Students’ Scientific Conference 2023”** on 6th May 2023.
56. Attended **“Northern Emirates Cardiology Symposium”** organized by Sheikh Khalifa General Hospital (UAE) on 16th September 2023.
57. Attended **“Stereology Workshop”** organized by Department of Anatomy, RAK College of Medical Sciences, RAK Medical and Health Sciences University, UAE on 28 October 2023
58. Attended **“2nd EHS Diabetes Conference 2024: Diabetes 360: Choices, Challenges, and Change”** organized by Ibrahim Bin Hamad Obaidullah Hospital, on 27-28 Apr 2024
59. Designed and Organized three days **“Certificate Course in Basics of Laboratory Animal Handling & Experimental Techniques”** with **200+ Participants across UAE**
60. Attended a CME on **“Unlocking the Secrets Beneath: How Skin Signs Reveal Systemic Health Insights”** Organized by RAK Hospital, in association with RAK Medical & Health Sciences University, RAKMHSU on 13th September 2024
61. Attended **“Launch of the MENA Health Research Network (MHRN)”** on 18th November 2024, at the University of Birmingham Dubai Campus
62. Actively participated in the **“Pre-Conference Hands-on workshop on assessment of Hemodynamics and cardiac function in rodents using invasive/non-invasive techniques and echocardiography, Hands-on workshop on stereotactic surgery in rodents, Hands-on workshop on fluorescence & Electron microscopy, Demonstration of use of High Performance Liquid Chromatography (HPLC) and Liquid chromatography mass spectrometry (LC-MS), Hands-on workshop on nanomedicine and cell culture techniques, and Application of systematic review and metanalysis in research”** at the 54th Annual International Conference of the Indian Pharmacological Society in collaboration with the International Union of Basic and Clinical Pharmacology. Held at AIIMS, New Delhi, from November 26–27, 2024

Professional Membership

1. Regular (Life-time) member of British Pharmacological Society, United Kingdom

2. Regular (Life-time) member of American Society for Pharmacology and Experimental Therapeutics, United States
3. Regular (Life-time) member of Indian Pharmacological Society, India
