

Vinoth Rajendran

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Post-doctoral Experiences

DST-Inspire Faculty (2019 to present) Pondicherry University, Puducherry, India
National Post-doctoral fellow (2018-19) Indian Institute of Technology Madras (IITM), Chennai, India.
Post-doctoral fellow (2017-18) Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, India.

Education

PhD in Biochemistry (2017), University of Delhi, Delhi, India.
MS in Biotechnology (2009), Loyola College, University of Madras, Chennai, India.
BS in Biotechnology (2007), Loyola College, University of Madras, Chennai, India.

Doctoral Thesis

Liposome mediated delivery of anti-malarial drugs for the treatment of malaria.

Scholarships/Fellowships/Awards

Best Oral presentation Award, Biosparks 2017 organized by School of Life sciences, Jawaharlal Nehru University, India.
Best Oral presentation Award, National Science Day Symposium (February 2016), University of Delhi, India
Wellcome Trust Travel Award from DBT India Alliance for participation in the Science Communication Workshop (March 2015) Hyderabad, India.
Selected for participation in the International Workshop on Discovery of New Drugs Against Malaria, International Center for Genetic Engineering and Biotechnology (January 2015), New Delhi, India.
Best Poster Award in the International conference on Emerging Trends of Nanotechnology in Drug Discovery (May 2014), University of Delhi, India.
Awarded Travel grant for participation in the Biotechnology Entrepreneurship Student Teams (October 2014), Bangalore, India.
Senior Research Fellowship (2014-2016) Council for Scientific and Industrial Research (CSIR), Government of India.
Awarded Travel grant for participation in the International symposium MIF in health and disease (November 2012), Piramal Life sciences, Mumbai, India.
Selected for participation in the International Theoretical Course on Mouse Genetics-Models for Human Diseases, International Center for Genetic Engineering and Biotechnology (February 2011) Trieste, Italy.

Research Experiences

Project Assistant (August 2009-January 2010) on Zebrafish functional genomics, **Institute of Genomics and Integrative Biology**, New Delhi, India (Advisor: Dr. Sridhar Sivasubbu)

Summer Research Program (May 2009-July 2009) School of Life Sciences, **Jawaharlal Nehru University**, New Delhi, India. (Advisor: Dr. Ashis Kumar Nandi)

Master dissertation (January 2009–April 2009) on Carbon and metal effects on Biopolymer production from Shallow vent Bacteria, **National Institute of Oceanography**, Goa, India. (Advisor: Dr. C. Mohandass)

Master Summer training program (May 2008-June 2008) on Isolation of bioactive molecules from marine bacteria, **National Institute of Oceanography**, Goa, India. (Advisor: Dr. Lisette D'Souza)

Bachelors Summer internship program (May 2006-June 2006) on Biochemical and Molecular techniques in Phycology, **University of Madras**, Chennai, India. (Advisor: Prof. N. Anand)

Mentoring Experience

Mentored 5 Postgraduate Students in Dept. of Biochemistry, Delhi University for thesis.

Publications

1. Parashar, D, **Rajendran, V***, Shukla, R, & Ramakrishna, S. (2019). Lipid-Based Nanocarriers for delivery of Small interfering RNA for therapeutic use. **European Journal of Pharmaceutical Sciences**, 105159. (***Co-first authors**)
2. Sangaraju R, Nalban N, Alavala S, **Rajendran V**, Jerald MK, Sistla R. Protective effect of galangin against dextran sulfate sodium (DSS)-induced ulcerative colitis in Balb/c mice. **Inflammation Research**. 2019 May 30:1-4.
3. **Rajendran V**, Rangarajan TM, Singh RP, Singh M. Synthesis of Novel Chalcones through Palladium-Catalyzed C–O Cross-Coupling Reaction of Bromo-Chalcones with Ethyl Acetohydroxamate and their Antiplasmodial Evaluation against *Plasmodium falciparum in vitro*. **Bioorganic Chemistry**. 2019 Feb 8.
4. Singh S, **Rajendran V***, He J, Singh AK, Achieng AO, Vandana, Pant A, Nasamu AS, Pandit M, Singh J, Quadiri A. Fast-acting small molecules targeting malarial aspartyl proteases, plasmepsins, inhibit malaria infection at multiple life stages. **ACS infectious diseases**. 2018 Dec 17. (***Co-first authors**)
5. **Rajendran V**, Ilamathi HS, Dutt S, Lakshminarayana TS, Ghosh PC. Chemotherapeutic Potential of Monensin as an Anti-microbial Agent. **Current topics in medicinal chemistry**. 2018 Sep 1;18(22):1976-86. (**corresponding author**)
6. Batra N, **Rajendran V**, Agarwal D, Wadi I, Ghosh PC, Gupta RD, Nath M. Synthesis and Antimalarial Evaluation of [1, 2, 3]-Triazole-Tethered Sulfonamide-Berberine Hybrids. **ChemistrySelect**. 2018 Sep 14;3(34):9790-3.
7. **Rajendran V**, Singh C, Ghosh PC. Improved Efficacy of Doxycycline in Liposomes Against *Plasmodium falciparum* in Culture and *P. berghei* infection in mice. **Canadian journal of physiology and pharmacology**. 2018 Aug 3(ja). (**co-corresponding author**)
8. Singh AK, **Rajendran V***, Singh S, Kumar P, Kumar Y, Singh A, Miller W, Potemkin V, Grishina M, Gupta N, Kempaiah P. Antiplasmodial activity of hydroxyethylamine analogs: Synthesis, biological activity and structure activity relationship of plasmepsin inhibitors. **Bioorganic & medicinal chemistry**. 2018 Jul 30;26(13):3837-44. (***Co-first authors**)

9. Devi K, **Rajendran V**, Rangarajan TM, Singh RP, Ghosh PC, Singh M. Synthesis and Evaluation of Antiplasmodial Activity of 2, 2, 2-Trifluoroethoxychalcones and 2-Fluoroethoxy Chalcones against *Plasmodium falciparum* in Culture. **Molecules**. 2018 May 14;23(5):1174.
10. **Rajendran V**, Pachauri M, Ghosh PC. Combinatorial Effects of Monensin in Liposome Formulations with Antimalarial Drugs Against Blood Stages of *Plasmodium falciparum* in Culture and *P. berghei* Infection. **Current Drug Therapy**. 2018 Apr 1;13(1):74-82. **(co-corresponding author)**
11. Sharma S, **Rajendran V***, Kulshreshtha R, Ghosh PC. Enhanced efficacy of anti-miR-191 delivery through stearylamine liposome formulation for the treatment of breast cancer cells. **International journal of pharmaceutics**. 2017 Sep 15;530(1-2):387-400. **(*Co-first authors)**.
12. Kumar P, Achieng AO, **Rajendran V**, Ghosh PC, Singh BK, Perkins DJ, Rawat M, Kempaiah P, Rathi B. 2017. Synergistic blending of high-valued heterocycles inhibits growth of *Plasmodium falciparum* in culture and *P. berghei* infection in mouse model. **Scientific Reports: Jul 27;7(1):6724**.
13. **Rajendran V**, Rohra S, Raza M, Hasan GM, Dutt S, Ghosh PC. 2015. Stearylamine Liposomal Delivery of Monensin in combination with free Artemisinin eliminates blood stages of *P. falciparum* in culture and *P. berghei* infection in Murine Malaria. **Antimicrobial Agents and Chemotherapy** **14**:60(3):1304-18. **(co-corresponding author)**
14. Singh AK, Rathore S, Tang Y, Goldfarb NE, Dunn BM, **Rajendran V**, Ghosh PC, Singh N, Latha N, Singh BK, Rawat M, Rathi B. 2015. Hydroxyethylamine Based Phthalimides as New Class of Plasmeprin Hits: Design, Synthesis and Antimalarial Evaluation. **PLoS One** **10**:e0139347.
15. Singh AK, **Rajendran V**, Pant A, Ghosh PC, Singh N, Latha N, Garg S, Pandey KC, Singh BK, Rathi B. 2015. Design, synthesis and biological evaluation of functionalized phthalimides: a new class of antimalarials and inhibitors of falcipain-2, a major hemoglobinase of malaria parasite. **Bioorganic and Medicinal Chemistry** **23**:1817-1827.
16. Mahajan RV, Kumar V, **Rajendran V**, Saran S, Ghosh PC, Saxena RK. 2014. Purification and characterization of a novel and robust L-asparaginase having low-glutaminase activity from *Bacillus licheniformis*: in vitro evaluation of anti-cancerous properties. **PLoS One** **9**:e99037.
17. Gupta R, **Rajendran V**, Ghosh PC, Srivastava S. 2014. Assessment of anti-plasmodial activity of non-hemolytic, non-immunogenic, non-toxic antimicrobial peptides (AMPs LR14) produced by *Lactobacillus plantarum* LR/14. **Drugs R D** **14**:95-103.
18. Goel D, **Rajendran V**, Ghosh PC, Bhatnagar R. 2013. Cell mediated immune response after challenge in Omp25 liposome immunized mice contributes to protection against virulent *Brucella abortus* 544. **Vaccine** **31**:1231-1237.

Patents: Chalcone Derivatives and Uses Thereof ", Raj Pal Singh, Kavita Devi, Brijesh Rathi, **Vinoth Rajendran**, Prahlad C Ghosh, Rishi Pal Singh, T.M Rangarajan, Final Indian patent filled (application number 2017110041295), December 04/12/2017.

Journal Papers Reviewed

- International Journal of Nanomedicine
- Current pharmaceutical design
- Journal of visualized experiments
- Current topics in medicinal chemistry
- Asia pacific journal of Tropical medicine
- Malaria Journal
- Journal of Pathogens
- Journal of experimental pharmacology