Dr. MANJUNATHA M R

#6 Near BWSSB, S M V Road, Surabhi L/O, Kempegowda Ward No.1, Yalahanka, Bangalore-560064, Karnataka(S), India. Mobile No**:** +91- 9945699086, email**:** mrmanjuu@gmail.com

Research Highlights

Having more than 19 years of research experience in the areas of drug discovery, synthetic organic and CRO-medicinal chemistry. Worked on several Lead Identification (LI) and Lead Optimization (LO) programmes for various therapeutic areas like Bacterial Infection, Oncology, Epilepsy, Topical, CNS and other therapeutic areas as well. Designed novel series and synthesized several novel molecules for DPRE1 project. Optimized the scale route for **TBA-7371** (DPRE1, M. tuberculosis) which is in phase 2 clinical trials. Experience in handling both medicinal and synthetic chemistry projects independently. Experience in leading a team 7-15 chemists. Published 12 Scientific Papers in well-renowned international journals and one Patent. **PhD** under guidance of Associate Prof. B. S. Priya, thesis entitled "A Facile and Efficient Novel Methodologies for C-C and C-Heteroatom Bond Formations in Organic Synthesis".

Industrial Experience

- **Sr. Research Scientist**

  Dec 2014-present: Currently working in Jubilant Biosys Limited, Yeshwanthpur, Bangalore-560022, Karnataka, India.
  - Currently working as a Sr. Research Scientist and managing of **15 FTE** project
  - Involved in designing novel scaffolds to address key issues in the project
  - Communicating the project progress with client on weekly basis and actively participating in project updates discussions with client through zoom meeting.
  - Worked on several therapeutic areas (Oncology, Epilepsy, Topical and CNS)
  - Taking care of project responsibilities like CMS, shipment and submitting compounds for DMPK studies
  - Designing and implementing commercially viable new synthetic routes for known and unknown molecules and ordering the raw materials cost effectively
  - Distributing the work among group members and closely monitoring the progress of the project
  - Problem solving by proposing alternate synthetic routes and reducing the number of steps
  - Proficient in planning and managing resources
  - Discussing chemistry progress with team members on dially basis and providing alternative methods
  - Having weekly team meetings and discussing the chemistry and medicinal chemistry with team
  - Imparting scientific knowledge to the group regarding safety and safe handling of chemicals
  - Ensuring the customer satisfaction by providing the required quantity of target material on time
  - Ensuring the laboratory activities are being carried out as per SOPs
  - Reviewing the monthly productivity and planning for the future

- **Sr. Research Associate**

  Jul 2014-Dec 2014: Syngene International Ltd, Bommasandra-Jigani Link Road, Bangalore-560099, Karnataka, India.
  - Involved in the synthesis of target molecules for Alzheimer's disease
  - Route scouting for target molecules
  - Involved in optimization of reaction conditions

- **Sr. Research Associate**

  Oct 2005-Apr 2014: AstraZeneca Pvt Ltd, Hebbal, Bangalore-560024, Karnataka, India.
  - Synthesized several novel potent molecules for various TB projects
  - Involved in SAR development and proposing new designs for TB projects
  - Developed novel synthetic routes for target molecules and executed successfully
  - Worked on several Lead Identification and Lead Optimization Tuberculosis (TB) programmes
  - Worked on both tuberculosis (TB) and infection targets like DPRE1, Gyrase and *Pseudomonas aeruginosa.*
  - Worked on β-Lactum chemistry (Serious Bacterial Infections) and gained experience in handling complex and challenging chemistry
  - Proposed new designs for β-Lactum and developed novel synthetic routes for the target molecules
  - Involved in optimization of reaction conditions for scale ups
  - Successfully synthesized lead molecules **(TBA-7371)** up to 5 to 25g scale
  - Experience in handling multi steps synthesis (more than 10-25 steps)
  - Experience in handling NMR, HPLC and LCMS

- **Officer R&D**

  Dec 2004-Sep 2005: Sanmar Speciality Chemicals, Perungudi, Chennai-600096, Tamil Nadu, India.
  - Experience in process and development
  - Involved in multi steps large scale synthesis (20 to 100 grms scale)
  - Experience in handling of organometallic reactions in small and large scale
  - Designing the synthetic routes and ordering raw materials cost effectively
  - Completed 3 projects which the synthesis consisting of 5-14 steps
  - Involved in the synthesis of library of compounds

- **Research Associate**

  Aug 2002-Nov 2004: Bio-organics & Applied Materials Pvt Ltd, Peenya, Bangalore-560058, Karnataka, India.
  - Worked under the guidance of Prof. H. Junjappa (Emeritus Professor, IIT Kanpur)
  - Designed the synthetic routes and synthesized several heterocyclic compounds
  - Proposed the new synthetic route and synthesized few derivatives of natural product Myxopyranin (±) A/B
  - Familiar in drying solvents and reagents for organometallic and other dry reactions

Educational details

Dec 2016-Feb 2022: PhD (Organic Chemistry) from University of Mysore.
Jun 2000-Jun 2002: MSc (Organic Chemistry) from Central College Bangalore University.
Jun 1996-Jun 1999: BSc (Physics, Chemistry and Mathematics) from Bangalore University.

Certifications

June 2012: Qualified **CSIR- NET** (Chemical Sciences)

Patents

Tricyclic fused pyridin-2-one derivatives and their use as BRD4 inhibitors **(WO 2017/042834 A1)**

Conferences Attended

International Conference Medicinal Chemistry India Apr-2013 at Sri Ramachandra University Porur, Chennai-600116.

List of Publications (12)

1. **Manjunatha M Ramaiah**, Priya Babu Shubha, Hari Prasad, Nanjundaswamy Shivananju. "Novel synthesis of N-unsubstituted imidazoles via the cycloaddition of N-(tert-butylsulfinyl)imines and TosMIC" ***Tetrahedron Letters*** 2020, 61, 151705.

2. **Manjunatha M Ramaiah**, Priya Babu Shubha, Pavan Kumar Prabhala, Nanjundaswamy Shivananju. "1,8-Diazabicyclo[5.4.0]undec-7-ene-mediated formation of *N*-sulfinyl imines" ***Journal of Chemical Research*** 2020, 44, 72-79.

3. **Manjunatha M Ramaiah**, Nanjundaswamy Shivananju, Priya Babu Shubha, "A Facile, Efficient and Solvent-Free Titanium(IV) Ethoxide catalysed Knoevenagel Condensation of Aldehydes and Active Methylenes" ***Letters in Organic Chemistry*** 2020, 17, 107-115.

4. **Manjunatha M. R**, Radha Shandil, Manoranjan Panda, Claire Sadler, Anisha Ambady, Vijender Panduga, Naveen Kumar, Jyothi Mahadevaswamy, M. Sreenivasaiah, Ashwini Narayan, Supreeth Guptha, Sreevalli Sharma, Vasan K. Sambandamurthy, Vasanthi Ramachandran, Meenakshi Mallya, Christopher Cooper, Khisi Mdluli, Scott Butler, Ruben Tommasi, Pravin S. Iyer, Shridhar Narayanan, Monalisa Chatterji, Pravin S. Shirude. "Scaffold Morphing to Identify Novel DprE1 Inhibitors with Antimycobacterial Activity" ***ACS Medicinal Chemistry Letters*** 2019, 10, 1480-1485.

5. Kerry E. Murphy-Benenato, Pratik R. Bhagunde, April Chen, Hajnalka E. Davis, Thomas F. Durand-Réville, David E. Ehmann, Vincent Galullo, Jennifer J. Harris, Holia Hatoum-Mokdad, Haris Jahić, Aryun Kim, **M. R. Manjunatha**, Erika L. Manyak, John Mueller, Sara Patey, Olga Quiroga, Michael Rooney, Li Sha, Adam B. Shapiro, Mark Sylvester, Beesan Tan, Andy S. Tsai, Maria Uria-Nickelsen, Ye Wu, Mark Zambrowski, Shannon X. Zhao. ''Discovery of Efficacious Pseudomonas Aeruginosa-Targeted Siderophore-Conjugated Monocarbams by Application of a Semi-Mechanistic PK/PD Model". ***Journal of Medicinal Chemistry*** 2015, 58, 2195-2205**.**

6. Pravin S. Shirude, Radha K Shandil, **M. R. Manjunatha**, Claire Sadler, Manoranjan Panda, Vijender Panduga, Jitendar Reddy, Ramanatha Saralaya, Robert Nanduri, Anisha Ambady, Sudha Ravishankar, Vasan K. Sambandamurthy, Vaishali Humnabadkar, Lalit K. Jena, Rudrapatna S. Suresh, Abhishek Srivastava, K. R. Prabhakar, James Whiteaker, Robert E. McLaughlin, Sreevalli Sharma, Christopher B. Cooper, Khisi Mdluli, Scott Butler, Pravin S. Iyer, Shridhar Narayanan, Monalisa Chatterji. "Lead Optimization of 1,4-azaindoles as antimycobacterial agents". ***Journal of Medicinal Chemistry*** 2014, 57, 5728-5737.

7. Monalisa Chetterji, Radha Shandil, **M. R. Manjunatha**, Suresh Solapure, Vasanthi Ramachandran, Naveen Kumar, Ramanatha Saralaya, Vijender Panduga, Jitendar Reddy, Prabhakar KR, Sreevalli Sharma, Claire Sadler, Christopher B. Cooper, Khisi Mdluli, Pravin S. Iyer, Shridhar Narayanan, Pravin S. Shirude. "1,4-Azaindole: potential drug candidate for the treatment of tuberculosis". ***Antimicrobial Agents and Chemotheraphy*** 2014, 58, 5325-5331**.**

8. Ramesh R. Kale, Manoj G. Kale, David Waterson, Anandkumar Raichurkar, Shahul P. Hameed, **M. R. Manjunatha**, B. K. Kishore Reddy, Krishnan Malolanarasimhan, Vikas Shinde, Krishna Koushik, Lalit Kumar Jena, Sreenivasaiah Menasinakai, Vaishali Humnabadkar, Prashanti Madhavapeddi, Halesha Basavarajappa, Sreevalli Sharma, Radha Nandishaiah, K. N. Mahesh Kumar, Samit Ganguly, Vijaykamal Ahuja, Sheshagiri Gaonkar, C. N. Naveen Kumar, Derek Ogg, P. Ann Boriack. "Thiazolopyridone ureas as DNA gyrase B inhibitors: Optimization of antitubercular activity and efficacy". ***Bioorganic & Medicinal Chemistry Letters*** 2014, 24*,* 870-879**.**

9. Maruti Naik, Vaishali Humnabadkar, Subramanyam J. Tantry, Manoranjan Panda, Ashwini Narayan, Supreeth Guptha, Vijender Panduga, Praveena Manjrekar, Lalit kumar Jena, Krishna Koushik, Gajanan Shanbhag, Sandesh Jatheendranath, **M. R. Manjunatha**, Gopinath Gorai, Chandramohan Bathula, Suresh Rudrapatna, Vijayashree Achar, Sreevalli Sharma, Anisha Ambady, Naina Hegde, Jyothi Mahadevaswamy, Parvinder Kaur, Vasan K. Sambandamurthy, Disha Awasthy, Chandan Narayan, Sudha Ravishankar, Prashanti Madhavapeddi, Jitendar Reddy, KR Prabhakar, Ramanatha Saralaya, Monalisa Chatterji, James Whiteaker, Bob McLaughlin, Laurent R. Chiarelli, Giovanna Riccardi, Maria Rosalia Pasca, Claudia Binda, João Neres, Neeraj Dhar, François Signorino-Gelo, John D. McKinney, Vasanthi Ramachandran, Radha Shandil, Ruben Tommasi, Pravin S. Iyer, Shridhar Narayanan, Vinayak Hosagrahara, Stefan Kavanagh, Neela Dinesh**,** Sandeep R. Ghorpade**.** "4-Aminoquinolone piperidine amides: non-covalent inhibitors of DprE1 with long residence time and Potent antimycobacterial activity". ***Journal of Medicinal Chemistry*** 2014, 57, 5419-5434.

10. Shahul Hameed P, Suresh Solapure, Kakoli Mukherjee, Vrinda Nandi, David Waterson, Radha Shandil, Meenakshi Balganesh, Vasan K. Sambandamurthy, Anand Kumar Raichurkar, Abhijeet Deshpande, Anirban Ghosh, Disha Awasthy, Gajanan Shanbhag, Gulebahar Sheikh, Helen McMiken, Jayashree Puttur, Jitendar Reddy, Jim Werngren, Jon Read, Mahesh Kumar, **Manjunatha R**, Murugan Chinnapattu, Prashanti Madhavapeddi, Praveena Manjrekar, Reetobrata Basu, Sheshagiri Gaonkar, Sreevalli Sharma, Sven Hoffner, Vaishali Humnabadkar, Venkita Subbulakshmi, Vijender Panduga. "Optimization of pyrrolamides as mycobacterial GyrB ATPase inhibitors: structure-activity relationship and *In vivo* efficacy in a mouse model of tuberculosis". ***Antimicrobial Agents and Chemotheraphy*** 2014, 58, 4993-4994.

11. Manoj G. Kale, Anandkumar Raichurkar, Shahul Hameed P, David Waterson, David McKinney, **M. R. Manjunatha**, Usha Kranthi, Krishna Koushik, Lalit kumar Jena, Vikas Shinde, Suresh Rudrapatna, Shubhada Barde, Vaishali Humnabadkar, Prashanti Madhavapeddi, Halesha Basavarajappa, Anirban Ghosh, VK Ramya, Supreeth Guptha, Sreevalli Sharma, Prakash Vachaspati, K.N. Mahesh Kumar, Jayashree Giridhar, Jitendar Reddy, Vijender Panduga, Samit Ganguly, Vijaykamal Ahuja, Sheshagiri Gaonkar, C. N. Naveen Kumar, Derek Ogg, Julie A. Tucker, P. Ann Boriack-Sjodin, Sunita M. de Sousa, Vasan K. Sambandamurthy, Sandeep R. Ghorpade. "Thiazolopyridine Ureas as Novel Antitubercular Agents Acting through Inhibition of DNA Gyrase B". ***Journal of Medicinal Chemistry*** 2013, 56, 8834-8848.

12. Pravin S. Shirude, Radha Shandil, Claire Sadler, Maruti Naik, Vinayak Hosagrahara, Shahul Hameed, Vikas Shinde, Chandramohan Bathula, Vaishali Humnabadkar, Naveen Kumar, Jitendar Reddy, Vijender Panduga, Sreevalli Sharma, Anisha Ambady, Naina Hegde, James Whiteaker, Robert E. McLaughlin, Humphrey Gardner, Prashanti Madhavapeddi, Vasanthi Ramachandran, Parvinder Kaur, Ashwini Narayan, Supreeth Guptha, Disha Awasthy, Chandan Narayan, Jyothi Mahadevaswamy, KG Vishwas, Vijaykamal Ahuja, Abhishek Srivastava, KR Prabhakar, Sowmya Bharath, Ramesh Kale, **Manjunatha Ramaiah**, Nilanjana Roy Choudhury, Vasan K. Sambandamurthy, Suresh Solapure, Pravin S. Iyer, Shridhar Narayanan, Monalisa Chatterji**.** "Azaindoles: Noncovalent DprE1 Inhibitors from Scaffold Morphing Efforts, Kill Mycobacterium tuberculosis and Are Efficacious *in Vivo*". ***Journal of Medicinal Chemistry*** 2013**,** 56, 9701-9708.

References

Dr. Priya B S
Associate Professor
DOS Chemistry, Manasagangotri
University of Mysore
Mysore- 570009, Karnataka, India
Email: priyabs_chem@yahoo.com
Ph: +91-974392112

Dr. Shahul Hameed P
Director-Medicinal Chemistry
Bugworks Research India Pvt Ltd., NCBS, TIFR
GKVK Campus, Bellary Road
Bangalore-560065, Karnataka, India
Email: shahulhameed@bugworksresearch.com
Ph: +91 9945699089

Dr. Pravin Shirude
Associate Director
Bristol Myers Squibb, Bangalore
Email: psshirude@gmail.com
Ph : +91 8698018138