



**Name** : Prof. Prashant S. Kharkar  
**Designation** : Adjunct Faculty  
**Qualification** : M. Pharm. Sci., Ph. D. (Tech.)  
**Specialization** : Pharmaceutical Chemistry  
**E-mail** : ps.kharkar@ictmumbai.edu.in  
**Phone** : +91-9819467123

**Experience** : 19 years

Drug discovery professional with expertise in Medicinal Chemistry and Computer-aided Molecular Design (CAMD) with more than 16 years of research experience (academic, industrial and post-doctoral). Managed discovery projects (metabolic disorders, cancer, pain, inflammation) in the lead identification, optimization, pre-clinical development and Phase I trial stages. Managed interactions with team members from other disciplines & delivered all project goals in time. Spent ~7.5 years at SVKM's NMIMS as Professor (Since August 2018) and Associate Professor (Since July 2012) teaching Medicinal and Organic Chemistry. Currently with Institute of Chemical Technology (ICT), Mumbai as Professor of Medicinal Chemistry.



For More Information and Updates:

[https://www.ictmumbai.edu.in/Department\\_FacultyProfile.aspx?nDeptID=cmakea](https://www.ictmumbai.edu.in/Department_FacultyProfile.aspx?nDeptID=cmakea)

#### Research areas:

- Drug Discovery and Development
- Medicinal Chemistry
- Computer-Aided Molecular Design
- Cancer Stem Inhibitor Discovery
- Fluorescent Probes

#### Research

-  <https://scholar.google.com/citations?user=aCRIQY8AAAAJ&hl=en&authuser=2>
-  <https://www.scopus.com/results/authorNamesList.uri?st1=Kharkar&st2=Prashant&origin=searchauthorlookup>

Publications: 71 (International: 68; National: 03)

Book Chapters: 08

Patents: 07 (4 Published, 1 US Patent Granted)

Presentations: 40 (International: 21, National: 19)

- Government-funded projects: 04

**Ongoing:**

‘SWASHRAY (Self-Reliance in Working Around Sustainable, Helpful, Reliable and High-Yielding Processes and Technologies)’ – Department of Science and Technology (DST) under the scheme ‘Promotion of University Research and Scientific Excellence (PURSE)’ – 2020 (Sanction Letter SR/PURSE/2020/8, dated 15<sup>th</sup> February 2021) (Total Outlay 26 Cr.) (PI) (March 2021 – March 2025)

**Completed:**

1. Targeting Therapy-resistant Cancer Stem Cells (BIPP/BIRAC/DBT) (Total Outlay Rs. 1.5 Cr) (Sanctioned) (Collaborator) (Along with Godavari Biorefineries Ltd., Mumbai)
2. Design and Development of Novel Inhibitors of Inosine 5'-Monophosphate Dehydrogenase II (IMPDH II) as Anti-inflammatory Agents (DST/SERB) (Sanction Order No. SERB/F/60/2014-15 dated 09.04.2014) (Total Outlay Rs. 26,00,000/-) (May 28, 2014-May 27, 2017)(PI)
3. Discovery of Inhibitors of System Xc<sup>-</sup> Transporter, a Novel Therapeutic Target for Glutamate-Mediated Excitotoxicity and Epileptogenesis (DBT/NTF) (Reference No. BT/PR4605/MED/30/719/2012) (Rs. 18.16 lakh) (September 2012-August 31, 2015) (Co-PI)

**• Industry Projects****Ongoing:**

1. Design and Development of Novel Candidates for Neurodegenerative Diseases and Disorders (MinoniM Life Sciences Pvt. Ltd., Mumbai)(April 2021 onwards)
2. Design and Development of Novel Cancer Stem Cell (CSC) Inhibitors for Triple-Negative Breast Cancer (TNBC) (October 2013 onwards) (Phase I studies of the candidate CSC inhibitor are likely to begin in February 2022)

**Completed:**

3. Synthesis of New Chemical Entities (NCEs) (SpargeChem Pvt. Ltd., Pune) (September 2018-November 2018) (Total Outlay Rs. 1,20,000/-)
4. Evaluation of XARTM for Anti-Aging Effects (Epigeneres Pvt. Ltd., Mumbai)(January 2018-April 2018) (Total Outlay Rs. 40,000/-)
5. Scale-up of Lead Anti-Cancer Stem Cell Molecule Intermediate (Godavari Biorefineries Ltd., Mumbai)(Total Outlay Rs. 1,00,000/-) (January 21, 2018 – March 31, 2018)
6. Evaluation of XAR<sup>TM</sup> for the Treatment of Polycystic Ovarian Syndrome using a Mice as an Animal Model (Epigeneres Pvt. Ltd., Mumbai)(October 2017-December 2017) (Total Outlay Rs. 50,000/-)
7. Development of Novel Fluorescent Substrates for Enzyme Sensitive Assays of Aminoacylases, Trypsin and Chymotrypsin (SVKM's NMIMS)(Total Outlay Rs. 1,00,000/-)(November 4, 2016-October 1, 2019)
8. Comparative Evaluation of Microcrystalline Cellulose obtained from Bagasse (MCC-B) with Pharmaceutical Grade MCC. Consultancy Project sponsored by Godavari Biorefineries Ltd., Mumbai. (Total Outlay Rs. 90,000/-) (February 1 – April 30, 2015) (PI)

- **Academic Activities**

He has guided Five Ph. D. students and 37 M. Pharm./M. Tech. students for their research projects. Currently six Ph. D. candidates are registered.

- **Awards**

- ✓ Newton Bhabha Researcher Links Workshop 2019 (2019) (In collaboration with University of Birmingham, UK)
- ✓ Best Research Output of the Year 2017-18 given by SVKM's NMIMS (Deemed to be University), Mumbai (August 11, 2018)
- ✓ Best Major Project Thesis in Quality Assurance (QA) (2017-18) to Ms. Madhushree Phalak, Guide: Dr. Prashant S. Kharkar (August 11, 2018)
- ✓ DST Foreign Travel Grant for presenting research work at Gordon Research Conference on Computer Aided Drug Design, West Dover, USA. (July 2017)
- ✓ Best Poster Award at International Conference on Pure and Applied Chemistry (ICPAC)-2016, Mauritius (July 2016) (Poster Presented by Mr. Chetan Shah)
- ✓ Indian National Science Academy (INSA) deputation under International Collaboration and Exchange Programme to University of Mauritius, Mauritius (2016)
- ✓ Best e-Presentation Award at the Virtual Conference on Computational Chemistry (VCCC)-2014 organized by University of Mauritius, Mauritius (August 1-31, 2014)
- ✓ Best Poster Award at International Conference on Pure and Applied Chemistry (ICPAC)-2014, Mauritius (June 2014) (Poster Presented by Ms. Sona Warriar)
- ✓ Best Poster Award at International Conference on Pure and Applied Chemistry (ICPAC)-2014, Mauritius (June 2014) (Poster Presented by Dr. Richie Bhandare)
- ✓ 2nd Prize in Oral Presentation at Manshodhan-IV (December 2013)
- ✓ DST Foreign Travel Grant for presenting research work at Gordon Research Conference on Bioorganic Chemistry, Andover, USA. (June 2013)
- ✓ 2nd Prize in Oral Presentation at Manshodhan-III (December 2012)
- ✓ All India Rank 1 at the Graduate Aptitude Test in Engineering (GATE)-1998 examination. Score : 99.96 percentile
- ✓ K. C. Mahindra Talent Scholarship for securing 1st rank in T. Y. and Final Yr. B. Pharm. (1997-98) 15. National Merit Scholarship for securing 90 % in S. S. C.
- ✓ University Grants Commission – Junior Research Fellowship award (1998)
- ✓ University Grants Commission – Senior Research Fellowship award (2000)
- ✓ Chemical Structure Association (CSA) Trust Grant 2003 (US \$ 1000) for presenting poster overseas.
- ✓ Council of Scientific and Industrial Research (CSIR) Foreign Travel Grant for presenting research paper at a Conference in Australia

### **Professional Memberships**

- ✓ Registered Patent Agent
- ✓ Life Member, Association for Pharmaceutical Teachers of India (APTI), Maharashtra State for the term 2013-2016.
- ✓ Life Member, Indian Chemical Society (ICS)
- ✓ Member, American Chemical Society (ACS)

✓ Life Member, UDCT Alumni Association (UAA)

## Recent Publications

### 2021:

1. Sahoo, S.; Kharkar, Prashant S.; Sahu, Niteshkumar U.; Brijesh, S. Anxiolytic activity of *Psidium guajava* leaves ethanolic extract in mice subjected to chronic restraint stress. *Phytotherapy Res.* 2021, 35(3), 1399-1415. [Clarivate Analytics Impact Factor (2019): 4.087]. DOI: 10.1002/ptr.6900
2. Telange, Darshan R.; Jain, Shirish P.; Pethe, Anil M.; Kharkar, Prashant S.; Rarokar, Nilesh R. Use of combined nanocarrier system based on chitosan nanoparticles and phospholipids complex for improved delivery of ferulic acid. *Int. J. Biol. Macromol.* 2021, 171, 288-307. [Clarivate Analytics Impact Factor (2019): 5.162].
3. Shinde, Kailas W.; Kharkar, Prashant S.; Shah, Chetan P.; Rathod, Shrimant V. Synthesis, molecular docking and biological evaluation of novel 2-(3-chlorophenyl)quinoline-4-carboxamide derivatives as potent anti-breast cancer and antibacterial agents. *Thai J. Pharm. Sci.* 2021, 45(1), 41-49. [Indexed in Scopus].
4. Padhariya, Komal; Athavale, Maithili; Srivastava Sangeeta; Kharkar, Prashant S.\* A novel series of substituted 1,2,3-triazoles as potential cancer stem cell (CSC) inhibitors: Synthesis and biological evaluation. *Drug Develop. Res.* 2021, 82(1), 68-85. [Clarivate Analytics Impact Factor (2019): 1.902].
5. Telange, Darshan R.; Sohail, Nazish K; Hemke, Atul T.; Kharkar, Prashant S.; Pethe, Anil M. Phospholipid complex-loaded self-assembled phytosomal soft nanoparticles: Evidence of enhanced solubility, dissolution rate, ex vivo permeability, oral bioavailability, and antioxidant potential of mangiferin. *Drug Deliv. Transl. Res.* 2021, 11, 1056-1083. [Clarivate Analytics Impact Factor (2020): 4.617]. DOI: 10.1007/s13346-020-00822-4.
6. Joshi, Maithili P.; Chaudhari, Ameya; Kharkar, Prashant S.; Joshi, Shreerang V. Chemistry of iodinated contrast media: A Minireview. *Mini-Rev. Org. Chem.* 2021, 18(7), 885-901. [Clarivate Analytics Impact Factor (2020): 2.495].
7. Shah, Hriday; Jain, Ashvi S.; Joshi, Shreerang V.; Kharkar, Prashant S.\* Crocetin and related oxygen diffusion-enhancing compounds: Review of chemical synthesis, pharmacology, clinical development and novel therapeutic applications. *Drug Develop. Res.* 2021, 82(7), 883-895. [Clarivate Analytics Impact Factor (2020): 4.360].
8. Telange, Darshan R.; Ukey, Sarita A.; Hemke, Atul T; Umekar, Milind J.; Pethe, Anil M.; Kharkar, Prashant S. LIPOID SPC-3-based coprecipitates for the enhancement of aqueous solubility and permeability of ranolazine. *J. Pharm. Innovat.* 2021, 16 (December 2021), 643-658. [Clarivate Analytics Impact Factor (2020): 2.750].
9. Sawant, Siddhi; Juvale, Kapil; Kharkar, Prashant S. Small-molecule fluorescent probes for detection of metal ions and their application in live cell imaging (2017-till date). *Sensors and Actuators.* 2021 (Communicated)
10. Joshi, Monica; Singh, Vinayak; Kharkar, Prashant S.; Prabhakar, Bala. Co-loading of rifampicin and isoniazid on bovine serum albumin nanoparticles. 2021 (Communicated).

11. Kharkar, Prashant S.; Athavale, Maithili; Srivastava, Sangeeta; Barve, Kalyani. Garcinol as a potential breast and prostate cancer stem cell (CSC) inhibitor: Preliminary biological investigations. *Ind. J. Med. Res.* 2021 (Under Review).

**2020:**

12. Kharkar, Prashant S.\* Cancer Stem Cell (CSC) inhibitors in oncology—A promise for a better therapeutic outcome: State of the art and future perspectives. *J. Med. Chem.* 2020, 63(24), 15279-15307. [Clarivate Analytics Impact Factor (2019): 6.205].
13. Kharkar, Prashant S.\*; Shah, Chetan P.; Sahu, Niteshkumar U. Drug repurposing for Breast Cancer: Preliminary medicinal chemistry investigations and future perspectives. *J. Indian Chem. Soc.* 2020, 97, 1245-1250 [Clarivate Analytics Impact Factor (2019): 0.150].
14. Rathod, Shrimant V; Shinde, Kailas W.; Kharkar, Prashant S.; Shah, Chetan P. Synthesis, molecular docking and biological evaluation of new quinoline analogues as potent anti-breast cancer and antibacterial agents. *Ira. J. Pharm. Sci.* 2020, 16(4), 17-30 [Indexed in Scopus].
15. Padhariya, Komal; Athavale, Maithili; Srivastava Sangeeta; Kharkar, Prashant S.\* Substituted chloroacetamides as potential cancer stem cell (CSC) inhibitors: Synthesis and biological evaluation. *Drug Develop. Res.* 2020, 81, 356-365. [Clarivate Analytics Impact Factor (2019): 1.902].
16. Kharkar, Prashant S.; Soni, Govind; Rathod, Vaibhavi; Shetty, Saritha; Gupta, M. K.; Yadav, Khushwant S. An outlook on procedures of conjugating folate to (co)polymers and drugs for effective cancer targeting. *Drug Develop. Res.* 2020, 81(7), 823-836. [Clarivate Analytics Impact Factor (2019): 1.902].
17. Kharkar, Prashant S.\* Computational approaches for the design of (mutant-)selective tyrosine kinase inhibitors: State-of-the-art and future prospects. *Curr. Top. Med. Chem.* 2020, 20(17), 1522-1533. [Clarivate Analytics Impact Factor (2019): 3.218]. DOI: 10.2174/1568026620666200502005853

**2019:**

18. Shah, Mayank; Kharkar, Prashant S.; Sahu, Niteshkumar, U.; Zoya, Peerzada; Desai, Krutika. Potassium 2- methoxy-4-vinylphenolate: A novel hit exhibiting quorum-sensing inhibition in *Pseudomonas aeruginosa* via LasIR/RhlIR circuitry. *RSC Adv.* 2019, 9, 40228-40239. [Clarivate Analytics Impact Factor (2018): 3.049]
19. Patel, Dhaval; Kharkar, Prashant; Gandhi, Neha; Kaur, Ekjot; Dutt, Shilpee; Nandave, Mukesh. Novel analogs of sulfasalazine as system xc- antiporter inhibitors: Insights from the molecular modelling studies. *Drug Develop. Res.* 2019, 80(6), 758-777. [Clarivate Analytics Impact Factor (2017): 2.646].
20. Shah, Chetan P.; Purushothaman, Gayathri; Thiruvencatam, Vijay; Kirubakaran, Sivapriya; Juvale, Kapil; Kharkar, Prashant S.\* Design, synthesis and biological evaluation of *Helicobacter pylori* inosine 5' monophosphate dehydrogenase (HpIMPDH) inhibitors. Further optimization of selectivity towards HpIMPDH over human IMPDH2. *Bioorg. Chem.* 2019, 87, 753-764. [Clarivate Analytics Impact Factor (2017): 3.929].
21. Salunke, Nishant; Kharkar, Prashant S.; Pandita N. Study of degradation behaviour of Besifloxacin, characteri- zation of its degradation products by LC-ESI-QTOF-MS and

- their in silico toxicity prediction. *Biomed. Chromatography* 2019, 33(6), e4489. [Clarivate Analytics Impact Factor (2017): 1.688]
22. Mishra, Shweta; Kharkar, Prashant S.; Pethe, Anil. M. Nanocrystalline cellulose from biomass and waste materials: Review of preparation methods and their comparative analyses (2016-2018). *Carbohydr. Polym.* 2019, 207, 418427. [Clarivate Analytics Impact Factor (2017): 5.185]
  23. Silbermann, Katja; Shah, Chetan; Sahu, Niteshkumar U; Juvale, Kapil; Stefan, Sven M.; Kharkar, Prashant S.\*; Wiese, Michael\*. Novel chalcone and flavone derivatives as selective and dual inhibitors of the transport proteins ABCB1 and ABCG2. *Eur. J. Med. Chem.* 2019, 164, 193-213. [Clarivate Analytics Impact Factor (2017): 4.816].
  24. Joondan, N.; Jhaumeer Laulloo, S. B.; Caumul, P.; Kharkar, Prashant S. Antioxidant, antidiabetic and anticancer activities of L-phenylalanine and L-tyrosine ester surfactants: In vitro and in silico studies of their interactions with macromolecules as plausible mode of action for their biological properties. *Curr. Bioact. Compd.* 2019, 15(6), 610622. [Indexed in Scopus]
  25. Sahu, Niteshkumar U.; Purushothaman, Gayathri; Thiruvencatam, Vijay; Kharkar, Prashant S.\* Design, synthesis and biological evaluation of *Helicobacter pylori* inosine 5'-monophosphate dehydrogenase (HpIMPDH) inhibitors. *Drug Develop. Res.* 2019, 80(1), 125-132. [Clarivate Analytics Impact Factor (2017): 2.646]
  26. Damani-Shah, Hetal; Saranath, Dhananjaya; Das, Soma; Kharkar, Prashant; Karande, Anjali. In-silico identification of small molecules targeting H-Ras and in-vitro cytotoxicity with caspase-mediated apoptosis in carcinoma cells. *J. Cell. Biochem.* 2019, 120(4), 5519-5530. [Clarivate Analytics Impact Factor (2017): 2.959].
- 2018:**
27. Rhyman, L.; Tursun, M.; Abdallah, H. A.; Choong, Y. S.; Parlak, C.; Kharkar, P.; Ramasami, P. Theoretical investigation of the derivatives of favipiravir (T-705) as potential drugs for Ebola virus. *Phys. Sci. Rev.* 2018, 3(9), 20170198. [Indexed in Web of Science]
  28. Shah, Chetan P.; Kharkar, Prashant S.\* Discovery of novel human inosine 5'-monophosphate dehydrogenase 2 (hIMPDH2) inhibitors as potential anticancer agents. *Eur. J. Med. Chem.* 2018, 158, 286-301. [Clarivate Analytics Impact Factor (2017): 4.816]
  29. Shah, Chetan; Kharkar, Prashant S.\* Newer human inosine 5'-monophosphate dehydrogenase 2 (hIMPDH2) inhibitors as potential anticancer agents. *J. Enzyme Inhibit. Med. Chem.* 2018, 33, 972-977. [Clarivate Analytics Impact Factor (2016): 4.293]
  30. Sahu, Nitesh U.; Singh, V.; Ferraris, D. M.; Rizzi, M.; Kharkar, Prashant S.\* Hit discovery of *Mycobacterium tuberculosis* inosine 5'-monophosphate dehydrogenase, GuaB2, inhibitors. *Bioorg. Med. Chem. Lett.* 2018, 28, 1714-1718 [Clarivate Analytics Impact Factor (2016): 2.454]
  31. Hoonjan, M.; Sachdeva, G.; Chandra, S.; Kharkar, Prashant S.; Sahu, N.; Bhatt, Purvi. Investigation of HSA as a biocompatible coating material for arsenic trioxide nanoparticles. *Nanoscale* 2018, 10, 8031-8041. [Clarivate Analytics Impact Factor (2016): 7.367]

32. Warriar, Sona; Kharkar, Prashant S.\* A coumarin based chemosensor for selective determination of Cu (II) ions based on fluorescence quenching. *J. Lumin.* 2018, 199, 407-415. [Clarivate Analytics Impact Factor (2016): 2.686]
33. Tambe, A.; Pandita, N.; Kharkar Prashant S.; Sahu, N. Encapsulation of boswellic acid with  $\beta$ - and hydroxypropyl $\beta$ -cyclodextrin: Synthesis, characterization, in vitro drug release and molecular modelling studies. *J. Mol. Struct.* 2018, 1154, 504-510. [Thomson Reuters Impact Factor (2016): 1.753]
34. Warriar Sona, Kharkar, Prashant S.\* Highly selective on-off fluorescence recognition of Fe<sup>3+</sup> based on a coumarin derivative and its application in live-cell imaging. *Spectrochim Acta A Mol Biomol Spectrosc.* 2018, 188, 659-664. [Thomson Reuters Impact Factor (2016): 2.536]
35. Acharya, Pratap; Bansal, Ranju; Kharkar, Prashant S. Hybrids of steroid and nitrogen mustard as antiproliferative agents: Synthesis, in vitro evaluation and in silico inverse screening. *Arzneim. Forsch.* 2018, 68, 100-103. [Thomson Reuters Impact Factor (2016): 0.706]

#### **2017:**

36. Vaghela, M.; Sahu, N.; Kharkar, P.; Pandita, N. In vivo pharmacokinetic interaction by ethanolic extract of *Gymnema sylvestre* with CYP2C9 (Tolbutamide), CYP3A4 (Amlodipine) and CYP1A2 (Phenacetin) in rats. *Chem. Biol. Interact.* 2017, 278, 141-151. [Thomson Reuters Impact Factor (2016): 3.143]
37. Dutta, Shreelekha; Kharkar, Prashant S.; Sahu, Niteshkumar U.; Khanna, Aparna. Molecular docking prediction and in vitro studies elucidate anti-cancer activity of phytoestrogens. *Life Sci.* 2017, 185, 73-84. [Thomson Reuters Impact Factor (2016): 2.936]
38. Kharkar, Prashant S.\* Cancer stem cell (CSC) inhibitors: a review of recent patents (2012-2015). *Exp. Opin. Therap. Pat.* 2017, 27(7), 753-761. [Thomson Reuters Impact Factor (2016): 3.012]
39. Kulkarni, Mahesh R.; Mane, Madhav S.; Ghosh, Usha; Sharma, Rajiv; Lad, Nitin, P.; Srivastava, Ankita; KulkarniAlmeida, Asha; Kharkar, Prashant S.; Khedkar, Vijay, M.; Pandit, S. S. Discovery of tetrahydrocarba-zoles as dual pERK and pRb inhibitors. *Eur. J. Med. Chem.* 2017, 134, 366-378. [Thomson Reuters Impact Factor (2016): 4.519]
40. Murahari, M.; Kharkar, Prashant S.; Lonikar, N.; Mayur, Y. C. Design, synthesis, biological evaluation, molecular docking and QSAR studies of 2,4-dimethylacridones as anticancer agents. *Eur. J. Med. Chem.* 2017, 130, 154-170. [Thomson Reuters Impact Factor (2016): 4.519]

#### **2016:**

41. Gadekar, Pradip K.; Roychowdhury, Abhijit; Kharkar, Prashant S.; Khedkar, Vijay M.; Arkile, Manisha; Manek, Hardik; Sarkar, Dhiman; Sharma, Rajiv; Vijayakumar, V.; Sarveswari, S. Design, synthesis and biological evaluation of novel azaspiro analogs of linezolid as antibacterial and antitubercular agents. *Eur. J. Med. Chem.* 2016, 122, 475-487. [Thomson Reuters Impact Factor (2015): 3.902]
42. Kharkar, Prashant S.\*; Ramasami, Ponnadurai; Choong, Yee Siew; Rhyman, Lydia; Warriar, Sona. Discovery of anti-Ebola drugs: a computational drug repositioning case study. *RSC Adv.* 2016, 6, 26329–26340. [Thomson Reuters Impact Factor (2014): 3.84]

43. Gala, Viraj C.; John, Nithya R.; Bhagwat, Ashok M.; Datar, Ajit G.; Kharkar, Prashant S.; Desai, Krutika B. Attenuation of quorum sensing-regulated behaviours by *Tinospora cordifolia* extract and identification of its active constituents. *Ind. J. Med. Res.* 2016, 144, 92-103. [Thomson Reuters Impact Factor (2015): 1.446]
44. Sahu, Niteshkumar U.; Kharkar Prashant S.\* Computational drug repositioning: A lateral approach to traditional drug discovery? *Curr. Top. Med. Chem.* 2016, 16(19), 2069-2077. [Thomson Reuters Impact Factor (2014): 3.402]

**2015:**

45. Chhabria, Sagar V.; Akbarsha, Mohammad A.; Li, Albert P.; Kharkar, Prashant S., Desai, Krutika B. In situ allicin generation using targeted alliinase delivery for inhibition of MIA PaCa-2 cells via epigenetic remodeling, oxidative stress and cyclin-dependent kinase inhibitor (CDKI) expression. *Apoptosis* 2015, 20(10), 1388-1409. [Thomson Reuters Impact Factor (2013): 3.614]
46. Shah, Chetan P.; Kharkar, Prashant S.\* Inosine 5'-monophosphate dehydrogenase (IMPDH) inhibitors as antimicrobial agents: Recent progress and future perspectives. *Fut. Med. Chem.* 2015, 7(11), 1415-1429. [Thomson Reuters Impact Factor (2013): 4.0]
47. Patel, Dhaval; Kharkar, Prashant S.; Nandave, Mukesh. Emerging roles of system Xc- antiporter and its inhibition in CNS disorders. *Mol. Membr. Biol.* 2015, 32(4), 89-116. [Thomson Reuters Impact Factor (2013): 1.729]
48. Singasane, Namrata; Kharkar, Prashant S.; Ceruso, Mariangela; Supuran, Claudiu T.; Toraskar, Mrunmayee P. Carbonic anhydrase inhibitors: design, synthesis and evaluation of a novel series of new chemical entities (NCEs). *J. Enz. Inhibit. Med. Chem.* 2015, 30(6), 901-907. [Thomson Reuters Impact Factor (2013): 2.383]
49. Kharkar, Prashant S.\*; Borhade, Sheetal; Dangi, Arti; Warriar, Sona. In Search of Novel Anti-inflammatory Agents: Computational Repositioning of Approved Drugs. *J. Comput. Sci.* 2015, 10, 215-224. [Thomson Reuters Impact Factor (2013): 1.512]
50. Preeja, M. P.; Palivela, Hemant; Soman, K. P.; Kharkar, Prashant S. Ligand-based virtual screening using random walk kernel and empirical filters. *Procedia Comput. Sci.* 2015, 57, 418-427. [Thomson Reuters Impact Factor (2012): None]