

Curriculum Vitae

NAME : PROF. DR SANJAY JACHAK, NIPER-SAS Nagar, Punjab, India



Address: Professor and Head, Department of Natural Products,
National Institute of Pharmaceutical Education and Research (NIPER), Sector-
67, S.A.S. Nagar (Mohali) – 160062, Punjab.

QUALIFICATION:

Dr.rer.nat. (Pharmacy) [Ph.D.]	1997	Institute of Pharmaceutical Sciences, Karl Franzens University, Graz, Austria-Europe
M. Pharm.	1994	Pune University, Pune, India

JOB PROFILE:

1999-current: Faculty member at NIPER-SAS Nagar, Professor since 2011.

TEACHING & RESEARCH EXPERIENCE: 28 years

RESEARCH EXPERIENCE

- Ethnopharmacology of Indian medicinal plants, Standardization of herbal drugs and formulations, Phytochemical analysis.
- Discovery of anti-inflammatory natural products employing COX-2, microsomal Prostaglandin E Synthase-1 (mPGES-1), cytokines (TNF- α , IL-1 α , IL-1 β and IL-6) as targets.
- Discovery of natural product inhibitors of bacterial efflux pumps.
- Discovery of anti-diabetic and anti-obesity natural products
- Medicinal Chemistry and synthesis of natural products
- Phytopharmaceutical and Nutraceutical/Functional Food Development.
- Application of Novel Drug Delivery systems (Phytosomes, Nanoparticles, SMEDDS etc.) to herbals and herbal bioactives

PATENTS: 04

PEER REVIEWED PUBLICATIONS in International Journals: 105

h-Index: 33 as per Google Scholar Citations, Total citations: 4291 (as on 05-10-2022)

RESEARCH GRANTS :

Extramural grants (worth Rs. 5 crores) from CSIR, Deptt. of AYUSH and DBT, Govt. of India

AWARDS and HONOURS:

- Recently featured again in **World's Top 2% Indian Scientists rankings-2022**, area- **Medicinal and Biomolecular Chemistry**, published by Standford University, USA; **September 2022 and also in 2021, 2020.**
- **PharmInnova, Ahmedabad: Best PhD thesis Award as Research Guide, May 2017**
- Most cited paper award, Bioorganic Medicinal Chemistry Letters, 2005-2008.
- Research Fellowship, Austrian Academic Exchange Service, Vienna, Austria from 1995-1998.

GUIDANCE to STUDENTS and Academic activity

- **Ph.D.: 14 completed and 09 are currently working in his laboratory**
- **Master students: 105**

ADDITIONAL POSITION HELD

- Associate Dean, NIPER-SAS Nagar (2022-2023)
- Associate Dean, NIPER-SAS Nagar (2011-12)
- In-charge, **Small & Medium Pharmaceutical Industry Centre (SMPIC)** at NIPER-SAS Nagar (2010-2011).
- **Course Coordinator** for Indian Technical and Economic Cooperation (**ITEC**), Ministry of External Affairs, Govt. of India; sponsored training programs at NIPER-SAS Nagar since 2014- till date

PATENTS AND PUBLICATIONS

PATENTS:

1. Nandanwar H, **Jachak SM**, Tambat R, Chandal N, Mahey N, Kalia R, Ingawale RR. Use of novel pyrrole derivatives as inhibitors of Resistance-Nodulation-cell Division (RND) efflux system. Indian Patent Application No. **202011054425** dated 14-12-2020.

2. **Sanjay M. Jachak**, Uma Ramachandran, Alka Mital, Krishnamoorthy Srinivasan, Poduri Rama Rao, Chaman Lal Kaul. '**Naphthoquinones as Antidiabetic Agents**', Indian WTO Patent Application No. 669/DEL/2004. Granted on 31-03-2008.
3. C. Selvam, **Sanjay M. Jachak**, R. Thilagavathi and Asit K. Chakraborti. '**Novel Anti-inflammatory and Antioxidant Agents**', Indian WTO Patent Application No. 1704/DEL/2004 dated 09-09-2004.
4. Selvam, **Sanjay M. Jachak**, Gnana Oli R., K. K. Bhutani. '**New anti-inflammatory compounds from *Indigofera aspalathoides***', Indian WTO Patent Application No. 1489/DEL/2003 dated 28-11-2003.

Research papers:

1. Verma R, Jachak SM. Cassiarin B: Revision of structure and biological evaluation, Nat. Prod. Res., 2022, accepted.
2. Ambati GG, Yadav K, Maurya R, Kondepudi KK, Bishnoi M, Jachak SM. Evaluation of the in vitro and in vivo anti-inflammatory activity of *Gymnosporia montana* (Roth). Benth leaves. Journal of Ethnopharmacology 2022, in press (doi: 10.1016/j.jep.2022.115539.)
3. Kalia R, Srivastava AK, Jachak SM. Analysis of Phenolics in *Clematis gouriana* Roxb. Ex Dc. Aerial Parts by HPLC and Method Validation. Indian Forester 2022, 148 (4), 386-390.
4. Reyaz Hassan Mir, Goutami Godavari , Nasir Ali Siddiqui , Bilal Ahmad , Ramzi A Mothana , Riaz Ullah , Omer M Almarfadi , Sanjay M Jachak , Mubashir Hussain Masoodi Design, Synthesis, Molecular Modelling, and Biological Evaluation of Oleanolic Acid-Arylidene Derivatives as Potential Anti-Inflammatory Agents. *Drug Des. Devel. Ther.* 2021;**15**:385-397. (doi: 10.2147/DDDT.S291784. eCollection 2021)
5. Kumar G, Krishna VS, Sriram D, **Jachak SM** (2020). Pyrazole–Coumarin and Pyrazole–Quinoline Chalcones As Potential Antitubercular Agents. *Arch Pharm.* e2000077. (<https://doi.org/10.1002/ardp.202000077>). (Impact factor: 2.59)
6. Ahirrao P, Tambat R, Chandal N, Mahey N, Kamboj A, Jain UK, Singh IP, **Jachak SM**, Nandanwar HS (2020). MsrA Efflux Pump Inhibitory Activity of *Piper cubeba* L.f. and Its Phytoconstituents Against *Staphylococcus aureus* RN4220. *Chemistry and Biodiversity*, 17(8) e2000623 (<https://doi.org/10.1002/cbdv.202000144>) (**SCIE; IF 2.039**)
7. Kumar G, Godavari AG, Tambat R, Kumar S, Nandanwar H, Sobhia ME, **Jachak SM** (2020). Synthesis, Biological Evaluation and Computational Studies of Acrylohydrazide Derivatives as Potential *Staphylococcus aureus* NorA Efflux Pump Inhibitors. *Bioorg. Chem.*, 104, 104225. (Impact factor: 3.940)
8. Mir RH, Sawhney G, Verma R, Ahmad B, Kumar P, Ranjana S, Bhagat A, Madishetti S, Ahmed Z, **Jachak SM**, Choi S, Masoodi MH (2020). *Oreganum vulgare*: In-vitro Assessment of Cytotoxicity, Molecular Docking Studies, Antioxidant, and Evaluation of Anti-Inflammatory Activity in LPS Stimulated RAW 264.7 Cells. *Med. Chem.*, E-pub Ahead of Print (DOI: 10.2174/1573406416666200904110828). (Impact factor: 2.577)
9. Rushikesh Tambat, Manoj Jangra, Nisha Mahey, Nishtha Chandal, Manpreet Kaur, Surbhi Chaudhary, Manoj Raje, **Sanjay Jachak**, Neeraj Khatri, Hemraj Nandanwar. Microbe-derived Indole Metabolite Demonstrates Potent Multidrug Efflux Pump Inhibition in

- Staphylococcus aureus, *Frontiers in Microbiology* 2019, 10, Article 2153 (<https://doi.org/10.3389/fmicb.2019.02153>) (Impact factor: 4.019).
10. Kaur M, Jangra M, Singh H, Tambat R, Singh N, **Jachak SM**, Mishra S, Sharma C, Nandanwar H and Pinnaka AK (2019) Pseudomonas koreensis Recovered From Raw Yak Milk Synthesizes a β -Carboline Derivative With Antimicrobial Properties. *Front. Microbiol.* 10:1728. doi: 10.3389/fmicb.2019.01728.
 11. Kumar G, Sathe A, Siva Krishna V, Kumar P, Sriram D, **Jachak S M**. Synthesis and biological evaluation of dihydroquinoline carboxamide derivatives as anti-tubercular agents. *European Journal of Medicinal Chemistry* **2018**, 157, 1-13.
 12. Kumar G, Siva Krishna V, Kumar P, Sriram D, **Jachak S M**. Synthesis of carbohydrazides and carboxamides as anti-tubercular agents. *European Journal of Medicinal Chemistry* **2018**, 156, 871-884.
 13. Sharma M, Sandhir R, Singh A, Kumar P, Mishra A, **Jachak S**, Singh SP, Singh J, Roy J. Comparative analysis of phenolic compound characterization and their biosynthesis genes between two diverse bread wheat (*Triticum aestivum*) varieties differing for chapatti (unleavened flat bread) quality. *Frontiers in Plant Science* **2016**, 7 (article 1870), 1-18 (doi: 10.3389/fpls.2016.01870).
 14. Mahajan P, Oli RG, Jachak SM, Bharate SB, Chaudhuri B. Antioxidant and antiproliferative activities of indigocarpan, a pterocarpan from *Indigofera aspalathoides*. *J. Pharm. Pharmacol.* **2016**, 68, 1331-1339.
 15. Bairwa K, Jachak SM. Nanoparticle formulation of 11-Keto- β -Boswellic Acid (KBA): Anti-inflammatory activity and *in vivo* Pharmacokinetics. *Pharm. Biol.* **2016**, 54, 2909-2916 (DOI: 10.1080/13880209.2016.1194437).
 16. Randhawa HK, Hundal KK, Ahirrao PN, Jachak SM, Nandanwar HS. Efflux pump inhibitory activity of flavonoids isolated from *Alpinia calcarata* against methicillin-resistant Staphylococcus aureus. *Biologia* **2016**, 71(5), 484-493. (DOI: 10.1515/biolog-2016-0073).
 17. Patel NK, Bairwa K, Gangwal R, Jaiswal G, Jachak SM, Sangamwar AT, Bhutani KK. 2'-Hydroxy flavonone derivatives as inhibitors of pro-inflammatory mediators: Experimental and molecular docking studies. *Bioorg. Med. Chem. Lett.* **2015**, 25, 1952-1955 ([doi:10.1016/j.bmcl.2015.03.025](https://doi.org/10.1016/j.bmcl.2015.03.025)).
 18. Grover J, Bhatt N, Kumar V, Patel NK, Gondaliya BJ, Sobhia ME, Bhutani KK, Jachak SM. 2,5-Diaryl-1,3,4-oxadiazoles as selective COX-2 inhibitors and anti-inflammatory agents. *RSC Adv.* **2015**, 5, 45535-45544 (DOI: 10.1039/C5RA01428J).
 19. Bairwa K, Jachak SM. Development and optimization of 3-Acetyl-11-keto- β -boswlllic acid (AKBA) loaded PLGA-nanoparticles with enhanced oral bioavailability and *in vivo* anti-inflammatory activity in rats. *J. Pharm. Pharmacol.* **2015**, 67, 1188-1197 (doi: 10.1111/jphp.12420).
 20. Roy SK, Bairwa K, Grover J, Srivastava A, Jachak SM. Determination of negundoside and agnuside in *Vitex negundo* by qNMR and method validation. *J. Anal. Chem.* **2015**, 70, 639-646.
 21. Grover J, Kumar V, Sobhia ME, Jachak SM. Synthesis, biological evaluation and docking analysis of 3-Methyl-1-phenylchromeno[4,3-c]pyrazol-4(1H)-ones as potential cyclooxygenase (COX)-2 inhibitors. *Bioorg. Med. Chem. Lett.* **2014**, 24, 4638-4642 (DOI: 10.1016/j.bmcl.2014.08.050).
 22. Bairwa K, Jachak SM. Anti-inflammatory potential of a lipid based formulation of rotenoid rich fraction prepared from *Boerhaavia diffusa* L. *Pharm. Biol.* **2015**, 53, 1231-1238 (DOI: 10.3109/13880209.2014.971382).

23. Bahl A, Jachak SM, Palaniveloo K, Ramachandram T, Vairappan CS, Chopra HK. 2-Acetoxyverecynarmin C, a new briarane COX inhibitory diterpenoid from *Pennatula aculeata*. *Nat. Prod. Comm.* **2014**, *9*, 1139-1141.
24. Chandna N, Kapoor JK, Grover J, Bairwa K, Goyal V, Jachak SM. Pyrazolylbenzyltriazoles as cyclooxygenase inhibitors: synthesis and biological evaluation as dual anti-inflammatory and antimicrobial agents. *New J. Chem.* **2014**, *38*, 3662-3672.
25. Grover J, Kumar V, Singh V, Bairwa K, Sobhia ME, Jachak SM. Synthesis, biological evaluation, molecular docking and theoretical evaluation of ADMET properties of nepodin and chrysophanol derivatives as cyclooxygenase (COX-1, COX-2) inhibitors. *Eur. J. Med. Chem.* **2014**, *80*, 47-56.
26. Bairwa K, Srivastava A, Jachak SM. Quantitative analysis of boeravinones in the roots of *Boerhaavia diffusa* by UPLC-PDA. *Phytochem. Anal.* **2014**, *25*, 415-420 (DOI 10.1002/pca.2509).
27. Grover J, Roy SK, Jachak SM. Potassium carbonate-mediated efficient and convenient synthesis 3-Methyl-1-phenylchromeno[4,3-c]pyrazol-4(1H)-ones. *Synth. Comm.* **2014**, *44*, 1914-1923.
28. Chandna N, Kumar S, Kaushik P, Kaushik D, Roy S, Gupta GK, Jachak SM, Kapoor JK, Sharma PK. Synthesis of novel celecoxib analogues by bioisosteric replacement of sulfonamide as potent anti-inflammatory agents and cyclooxygenase inhibitors. *Bioorg. Med. Chem.* **2013**, *21*, 4581-4590.
29. Roy SK, Kumari N, Gupta S, Pahwa S, Nandanwar H, Jachak SM. 7-Hydroxy-(E)-3-phenylmethylene-chroman-4-one analogues as efflux pump inhibitors against *Mycobacterium smegmatis* mc² 155. *Eur. J. Med. Chem.* **2013**, *66*, 499-507.
30. Roy SK, Pahwa S, Kumari N, Agrahari UC, Bhutani KK, Jachak SM and Nandanwar HS. NorA efflux pump inhibitory activity of coumarins from *Mesua ferrea*. *Fitoterapia* **2013**, *90*, 140-150.
31. Roy SK, Bairwa K, Grover J, Srivastava A, Jachak SM. Analysis of flavonoids and iridoids in *Vitex negundo* Linn. by HPLC-PDA and method validation. *Nat. Prod. Comm.* **2013**, *8*, 1241-1244.
32. Bairwa K, Singh IN, Roy SK, Grover J, Shrivastava A, Jachak SM. Rotenoids from *Boerhaavia diffusa* as cyclooxygenase (COX)-1, COX-2 inhibitors. *J. Nat. Prod.* **2013**, *76*, 1393-1398.
33. Somendu K Roy, Amit Srivastava, Sanjay M. Jachak. Analysis of homoisoflavonoids in *Caesalpinia digyna* by HPLC-ESI-MS, HPLC and method validation. *Nat. Prod. Comm.* 2012, **7**, 1189-1192.
34. Somendu K Roy, Sonika Pahwa, Hemraj Nandanwar, Sanjay M. Jachak. Phenylpropanoids of *Alipina galanga* as efflux pump inhibitors in *Mycobacterim smegmatis* mc² 155. *Fitoterapia* 2012, **83**, 1248-1255.
35. Sougata Ghosh, Mehul Ahire, Sumersingh Patil, Amit Jabgunde, Minakshi Bhat Dusane, Bimba N. Joshi, Karishma Pardesi, **Sanjay Jachak**, Dilip D. Dhavale, Balu A. Chopade. Antidiabetic activity of *Gnidia glauca* and *Dioscorea bulbifera*: Potent amylase and glucosidase inhibitors. *Evidence Compl. Alternative Med.*, vol. 2012, Article ID 929051, 10 pages, 2012. doi:10.1155/2012/929051.
36. Gaurav Kaithwas, Raju Gautam, **Sanjay M. Jachak**, Arvind Saklani. Antiarthritic effects of *Ajuga bracteosa* Wall ex. Benth. In acute and chronic models of arthritis in albino rats. *Asian Pacific Journal of Tropical Biomedicine* 2012, **2**, 185-188.

37. Somendu K Roy, Udai Chand Agrahari, Raju Gautam, Amit Srivastava, **Sanjay M. Jachak**. Isointracatinol, a new antioxidant homoisoflavonoid from the roots of *Caesalpinia digyna* Rottler. *Nat. Prod. Res.* 2012, **26**, 690-695.
38. Raju Gautam, **Sanjay M. Jachak**, Vivek Kumar, C. Gopi Mohan. Synthesis, biological evaluation and molecular docking studies of stellatin derivatives as cyclooxygenase (COX-1, COX-2) inhibitors and anti-inflammatory agents. *Bioorg. Med. Chem. Lett.* 2011, **21**, 1612-1616.
39. Raju Gautam, **Sanjay M. Jachak**, Arvind Saklani. Anti-inflammatory effect of *Ajuga bracteosa* Wall Ex. Benth. mediated through cyclooxygenase (COX) inhibitor. *J. Ethnopharmacol.* 2011, **133**, 928-930.
40. **Sanjay M. Jachak**, Raju Gautam, C. Selvam, Himanshu Madhan, Amit Srivastava, Taj Khan. Anti-inflammatory, cyclooxygenase inhibitory and antioxidant activities of standardized extracts of *Tridax procumbens* L. *Fitoterapia* 2011, **82**, 173-177.
41. Raju Gautam, Amit Srivastava, **Sanjay M. Jachak**. Simultaneous determination of naphthalene and anthraquinone derivatives in *Rumex nepalensis* Spreng. roots by HPLC: Comparison of different extraction techniques and method validation. *Phytochem. Anal.* 2011, **22**, 153-157.
42. Uma R. Lal, Shailendra M. Tripathi, **Sanjay M. Jachak**, Kamlesh K. Bhutani, Inder P. Singh. RP-HPLC analysis of Jirakadyarishta and chemical changes during fermentation. *Nat. Prod. Comm.* 2010, **5**, 1767-1770.
43. Harmeet S. Sandhu, Sameer Sapra, Mukesh Gupta, Kunal Nepali, Raju Gautam, Sunil Yadav, Raj Kumar, **Sanjay M. Jachak**, Manoj Chugh, Manish K. Gupta, Om P. Suri, K.L. Dhar. Synthesis and biological evaluation of arylidene analogues of Meldrum's acid as a new class of antimalarial and antioxidant agents. *Bioorg. Med. Chem.* 2010, **18**, 5626-5633.
44. Madhukar N. Jachak, Maruti G. Ghagare, Dilip R. Birari, Ramhari V. Rote, Muddassar A. Kazi, **Sanjay M. Jachak**, Raghunath B. Toche. A novel synthetic approach towards pyrazole-4-carboxamides using *N*-(3-(dimethylamino)-2-formylacryloyl) formamide. *Monatsh. Chem.* 2010, **141**, 569-576.
45. Raju Gautam, Kailas V. Karkhile, Kamlesh K Bhutani, **Sanjay M. Jachak**. Anti-inflammatory, cyclooxygenase (COX)-2, COX-1 inhibitory and free radical scavenging effects of *Rumex nepalensis* Spreng. *Planta Med.* 2010, **76**, 1564-1569.
46. Raju Gautam, Amit Srivastava, **Sanjay M. Jachak**. Determination of chromones in *Dysophylla stellata* by HPLC: Method development, validation and comparison of different extraction methods. *Nat. Prod. Comm.* 2010, **5**, 555-558.
47. Uma R. Lal, Shailendra M. Tripathi, **Sanjay M. Jachak**, Kamlesh K. Bhutani, Inder P. Singh. Chemical changes during fermentation of Abhayarishta and its standardization by HPLC-DAD. *Nat. Prod. Comm.* 2010, **5**, 575-579.
48. Raju Gautam, Amit Srivastava, **Sanjay M. Jachak**, Arvind Saklani. Anti-inflammatory, cyclooxygenase (COX)-2, COX-1 inhibitory and antioxidant effects of *Dysophylla stellata* Benth. *Fitoterapia* 2010, **81**, 45-49.
49. Uma R. Lal, Shailendra M. Tripathi, **Sanjay M. Jachak**, Kamlesh K. Bhutani, Inder P. Singh. HPLC analysis and standardization of Arjunarista- An Ayurvedic cardioprotective formulation. *Sci. Pharm.* 2009, **77**, 605-616.
50. Raju Gautam, **Sanjay M. Jachak**. Anti-inflammatory and cyclooxygenase (COX)-2 inhibitory activities of *Rumex nepalensis* Spreng. *Planta Med.* 2008, **74**, 1019.

51. **Sanjay M. Jachak**, Amit Srivastava, Doris Lechner, Franz Bucar. Evaluation of antimycobacterial activity of some *Piper* species. *Planta Med.* 2008, **74**, 1013.
52. Rajesh Rathore, Jay Prakash Jain, Amit Srivastava, **S. M. Jachak**, Neeraj Kumar. Simultaneous determination of Hydrazinocurcumin and phenol red in samples from rat intestinal permeability studies: HPLC method development and validation. *J. Pharm. Biomed. Anal.* 2008, **46**, 374-380.
53. **Sanjay M. Jachak**, C. Selvam, Amit Srivastava, Vijay Ahuja. Evaluation of anti-inflammatory activity and identification of bioactive compounds from *Vitex negundo* L., *Cardiospermum halicacabum* L. and *Tridax procumbens* L. *Planta Med.* 2007, **73**, 802-803.
54. **Sanjay M. Jachak**. Characterization, design and synthesis of potential COX-2 inhibitors based on natural products. *Planta Med.* 2006, **72**, 1021.
55. C. Selvam, **Sanjay M. Jachak**, R. Thilagavathi and Asit K. Chakraborti. Design, synthesis, biological evaluation and molecular docking of curcumin analogues as antioxidant, cyclooxygenase inhibitory and anti-inflammatory agents. *Bioorg. Med. Chem. Lett.* 2005, **15**, 1793-1797.
56. C. Selvam, **Sanjay M. Jachak**, Gnana Oli R., Ramasamy Thilagavathi, Asit K. Chakraborti, K. K. Bhutani. A New Cyclooxygenase (COX) Inhibitory Pterocarpan from *Indigofera aspalathoides*: Structure Elucidation and Determination of Binding Orientation in the Active Sites of the Enzyme by Molecular Docking. *Tetrahedron Lett.* 2004, **45**, 4311-4314.
57. C. Selvam, **Sanjay M. Jachak**. A Cyclooxygenase (COX) Inhibitory Biflavonoid from the seeds of *Semecarpus anacardium*. *J. Ethnopharmacol.* 2004, **95**, 209-212.
58. C. Selvam, **Sanjay M. Jachak**, K.K. Bhutani. Cyclooxygenase Inhibitory Flavonoids from the stem bark of *Semecarpus anacardium* Linn. *Phytother. Res.* 2004, **18**, 582-584.
59. Shilpi Mittal, Alpeshkumar Malde, C. Selvam, K.H.S. Arun, P. S. Johr, **Sanjay M. Jachak**, P. Rama Rao, P. V. Bharatam and H. P. S. Chawla. Synthesis and evaluation of S-4-(3-thienyl)phenyl- α -methylacetic acid. *Bioorg. Med. Chem. Lett.* 2004, **14**, 979-982.
60. **S. M. Jachak**, F. Bucar, Th. Kartnig. Anti-inflammatory activity of *Biophytum sensitivum* in carrageenin induced rat paw oedema. *Phytother. Res.* 1999, **13**, 73-74.
61. F. Bucar, **S. M. Jachak**, Y.Noreen, Th. Kartnig, L. Bohlin, M. Schubert-Zsilavec., Amentoflavone from *Biophytum sensitivum* and its effect on COX - 1/COX-2 catalysed prostaglandin biosynthesis. *Planta Med.* 1998, **64**, 373-374.
62. F. Bucar, **S. M. Jachak**, Th. Kartnig, M. Schubert-Zsilavec. Phenolic compounds from *Biophytum sensitivum*. *Pharmazie* 1998, **53**, 651-653.

Review articles and book chapters:

63. Muley MM, Doshi SM, Goyal A, Jachak SM (2022). Ethnopharmacology and Phytochemistry of Selected Species of *Boerhavia* occurring in India: A Review. *Curr. Traditional Med.*, **8**, in press.
64. Ranjana S, Goyal A, Jena GB, Tikoo K, Bansal AK, Singh IP, Jachak SM (2022). *Hippophae salicifolia* D. Don, a Fascinating Medicinal Plant: An Update on its Traditional Medicinal Uses, Ethnopharmacology and Phytochemistry, *Curr. Traditional Med.* in press (doi: [10.2174/2215083808666220527144311](https://doi.org/10.2174/2215083808666220527144311)).
65. Godavari AG, **Jachak SM** (2021). Natural Product Inhibitors of Cyclooxygenase (COX) Enzyme: A Review on Current Status and Future Perspectives. *Curr. Med. Chem.*, 28(10), 1877-1905. (DOI : [10.2174/0929867327666200602131100](https://doi.org/10.2174/0929867327666200602131100)) (Impact factor: 4.184)

66. Mir RH, Shah AJ, Mohi-ud-din R, Potoo FH, Dar MA, **Jachak SM**, Masoodi MH (2020). **Natural Anti-inflammatory Compounds as Drug Candidates in Alzheimer's Disease.** *Curr. Med. Chem.*, E-pub Ahead of Print (DOI: 10.2174/0929867327666200730213215) (Impact factor: 4.184)
67. Mir RH, Sawhney G, Potoo FH, Mohi-ud-din R, Madishetti S, **Jachak SM**, Ahmed Z, Masoodi MH (2020). Role of Environmental Pollutants in Alzheimer's Disease: A Review, *Environmental Sci. Pollution Res.*, (<https://doi.org/10.1007/s11356-020-09964-x>). (Impact factor: 3.056).
68. Khurana P, Jachak SM. Chemistry and biology of microsomal prostaglandin E2 synthase-1 (mPGES-1) inhibitors as novel anti-inflammatory agents: Recent development and current status. *RSC Adv.* **2016**, *6*, 28343-28369 (DOI: 10.1039/C5RA25186A).
69. Grover J, Jachak SM. Coumarins as privileged scaffold for anti-inflammatory drug development. *RSC Adv.* **2015**, *5*, 38892-38905. (DOI: 10.1039/C5RA05643H).
70. Mishra S, Aeri V, Gaur PK, Jachak SM. Phytochemical, therapeutic and Ethnopharmacological Overview of a Traditionally Important Herb: *Boerhavia diffusa* Linn. *Biomed Res Int.* **Volume 2014**, Article ID 808302, 19 pages (<http://dx.doi.org/10.1155/2014/808302>).
71. Bairwa K, Grover J, Kania M, Jachak SM. Recent developments in chemistry and biology of curcumin analogues. *RSC Advances* **2014**, *4*, 13946-13978.
72. Christina Kourtesi, Anthony R. Ball, Ying-Ying Huang, **Sanjay M. Jachak**, D. Mariano A. Vera, Prama Khondkar, Simon Gibbons, Michael R. Hamblin, George P. Tegos. Microbial Efflux Systems and Inhibitors: Approaches to Drug Discovery and the Challenge of Clinical Implementation. *The Open Microbiol. J.* 2013, **7**(Suppl 1-M3), 34-52.
73. **Sanjay M. Jachak**, Somendu K Roy, Shiv Gupta, Pallavi Ahirrao, Simon Gibbons. Small Molecule Efflux Pump Inhibitors from Natural Products as a Potential Source of Anti-microbial Agents. In: *Anti-microbial Drug Discovery: Emerging Strategies.* (Eds. Tegos GP, Mylonakis E.) *Advances in Molecular and Cellular Microbiology Series.* CABI, Oxford, UK. **2012**, pp. 62-76.
74. Raju Gautam, **Sanjay M. Jachak**. Recent Developments in Anti-inflammatory Natural Products. *Med. Res. Rev.* 2009, **29**, 767-820.
75. **Sanjay M. Jachak**, Somendu Roy. Small Molecule efflux Pump Inhibitors from Natural Products as Potential Source of Antimicrobial Agents. *Current Research and Information on Pharmaceutical Sciences* 2009, **10**, 62-67.
76. **Sanjay M. Jachak**. PGE synthase inhibitors as an alternative to COX-2 inhibitors. *Curr. Opinion Invest. Drugs* 2007, **8**, 411-415.
77. Raju Gautam, Arvind Saklani, **Sanjay M. Jachak**. Indian Medicinal Plants as a Source of Antimycobacterial Agent. *J. Ethnopharmacol.* 2007, **110**, 200-234.
78. **Sanjay M. Jachak**, Arvind Saklani. Challenges and Opportunities in Drug Discovery from Plants. *Curr. Sci.* 2007, **92**, 1251-1257.
79. **Sanjay M. Jachak**. "Cyclooxygenase Inhibitory Natural Products: Current Status", *Curr. Med. Chem.* 2006, **13**, 659-678.
80. **Sanjay M. Jachak**, Rahul Jain. Current Status of Target-based Antimycobacterial Natural Products. *Anti-Infective Agents in Medicinal Chemistry* 2006, **5**, 123-133.
81. Raju Gautam, Sanjay M. Jachak. Naturally occurring polyphenols with anti-inflammatory activity. *Current Research Information in Pharmaceutical Sciences* 2007, **8** (October-December Issue), 62-67.
82. **Sanjay M. Jachak**, Arvind Saklani, K. K. Bhutani. Nature-Best combinatorial chemist: Drug Discovery from Plants. *Pharmabiz Exclusive 57th Indian Pharmaceutical Congress* 2005, December 1-3, 169-172.

83. **Sanjay M. Jachak.** Natural Products and COX Inhibition: A Way Forward. Current Research Information in Pharmaceutical Sciences 2004, **5** (October-December Issue), 6-9.
84. **Sanjay M. Jachak,** Gnana Oli R. Natural Products: An important source for Antitubercular Drugs. Current Research Information in Pharmaceutical Sciences 2004, **5** (January- March Issue), 9-11.
85. **Sanjay M. Jachak.** Herbal Drugs as Antidiabetics: An Overview”, Current Research Information in Pharmaceutical Sciences 2002, **3** (April-June Issue), 9-13.
86. **Sanjay M. Jachak.** “Natural Products: Potential Source of COX Inhibitors”, Current Research Information in Pharmaceutical Sciences 2001, **2** (January- March Issue), 12-15.

Conference (International & National) presentations/abstracts: 70.