

**Dr. Pratibha Srivastava**

Scientist C

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**Research Interest**

Synthetic and natural product chemistry

Research interest is focused on synthetic and natural product chemistry. The group is working in design and synthesize of new bioactive molecules by new routes for anti-diabetic, antioxidant, antiviral, hepatoprotective, antibacterial and anticancer activity. They also deal with isolation, purification and characterization of natural product molecules such as proteins and secondary metabolites. The focus is also on natural product molecules which play important role in biology and medicine, serving as pharmaceutical leads, drugs, and powerful reagents in the area of scientific research. The group is interested to develop new molecules based on naturally active pharmacophores.

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**Education & Scientific Career**

Post Doctoral Fellow at National Institute of Health, USA

**Awards**

Research Associate (CSIR) at National Institute of Immunology, New Delhi

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**Funding**

National Medicinal Plant Board, New Delhi

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**Publications**

- 1) Ninad V. Puranik, Pratibha Srivastava\*, Sagar Swamy, Amit Choudhari, Dhiman Sarkar. Molecular modeling studies and in vitro screening of dihydro rugosaflavonoid and its derivatives against Mycobacterium tuberculosis. RSC Advances 2018, 8, 10634-10643. (\*Corresponding Author)
- 2) Puranik N. V. and Srivastava, P. First synthesis of rugosaflavonoid and its derivatives and their activity against breast cancer. RSC Advances 2017, 7, 33052-33060.

- 3) Puranik, N. V. Puntambekar, H. M. Srivastava P., Antidiabetic potential and enzyme kinetics of benzothiazole derivatives and their non-bonded interactions with  $\alpha$ -glucosidase and  $\alpha$ -amylase. *Medicinal Chemistry Research*, 2016, 25, 805-815
- 4) Srivastava\* P., Renuka S. Wagh, Ninad V. Puranik, Raut, H. N. Puntambekar, H. M. Sheetal S. Jahagirdar, In vitro plasmid curing activity of aqueous extract of terminalia chebula fruit against plasmids of bacillus subtilis and shigella sonnei, *International Journal of Pharmacy and Pharmaceutical Sciences*. 2015, 7, 298-301
- 5) Srivastava\* P., Raut, H. N. Puntambekar, H. M., Desai, A. HPLC Analysis of Phyllanthus amarus Samples Stored in Stability Chambers under Different Conditions and Study of the Effect on Quantification of the Phytomarkers Phyllanthin and Hypophyllanthin. *Acta Chromatographica*. 2015, 27, 147-156.
- 6) Srivastava\* P., Raut, H. N. Puntambekar, H. M., Desai, A. Stability study of crude plant material of Bacopa monnieri and quantitative determination of bacopaside I and bacoside A by HPLC. *Phytochemical Analysis*, 2012, 23, 502-507
- 7) Srivastava\* P., Raut, H. N. Wagh, R. S. Puntambekar, H. M., Kulkarni, M. J. Purification and characterization of an antioxidant protein (~16 kDa) from Terminalia chebula fruit Accepted in *Food Chemistry Journal* 131, 141-148, 2012.
- 8) Srivastava\*, P., Raut, H. N., Puntambekar H. N., Desai, A. C. Effect of storage conditions on free radical scavenging activities of crude plant material of Piper longum. *J. Phytology*, 3(6), 23-27, 2011.
- 9) Srivastava\*, P., Raut, H. N., Puntambekar H. N., Upadhye, A. S., Desai, A. C. Stability studies of crude plant material of Bacopa monnieri and its effects on free radical scavenging activity. *J. Phytology*, 2(8), 103-109, 2010.
- Irradiations: A simple route for the Isomerization of geraniol into nerol and linalool. *Radiochemistry* 2010, 52, 561-564.
- 10) Srivastava\* P., Wagh, R. S., Naik, D. G.
- 11) Miller Jenkins, L. M.; Byrd, J. C.; Hara, T.; Srivastava, P.; Mazur, S. J.; Stahl, S. J.; Inman, J. K.; Appella, E.; Omichinski, J. G.; Legault, P. Studies on the Mechanism of Inactivation of the HIV-1 Nucleocapsid Protein NCp7 with 2-Mercaptobenzamide Thioesters. *J. Med. Chem.*, 48(8), 2847-2858, 2005.
- 12) Srivastava, P., Schito, M., Fattah, R. J., Hara, T., Hartman, T., Buckheit, Jr. R. W., Turpin, J. A., Inman, J. K., Appella, E.: Optimization of unique, uncharged thioesters as inhibitors of HIV replication. *Bioorganic Medicinal Chemistry* 12(24) 6437 – 6450, 2004.
- 13) Ram, V. J., Srivastava, P, Goel, A.: Synthesis of bridgedhead azolo[3,2-a]pyrimidines and imidazo[2,1-b]thiazines through ring transformation of 2H-pyran-2-ones. *Tetrahedron*, 59, 7141-7146 2003.