

## **SAYAN DUTTA GUPTA**

Associate Professor

Dept. of Pharmaceutical chemistry

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### **Research Interests:**

Discovery of cost effective synthetic and natural product derived medicinal agents by understanding the molecular biology of the pharmacological targets (Hsp90, BRaf, etc.) with the help of molecular docking, QSAR and other drug designing tools. The focus of research is cancer, microbial infectious diseases and various neurodegenerative disorders.

### **Education:**

1. PhD [2009-2015]: Pharmaceutical Sciences, Jawaharlal Nehru Technological University, Hyderabad, Telangana state, India
2. M. Pharmacy [2004-2006]: Pharmaceutical Chemistry, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal, Madhya Pradesh, India.
3. B. Pharmacy [1999-2003]: Vivekananda Institute of Pharmacy, Rajiv Gandhi University of Health Sciences, Bangalore, India.

### **Experience (Total = 13 years)**

#### **Industrial (1 year 6 months)**

As research associate in Jubilant Chemsys Limited, Noida, Uttar Pradesh India.

#### **Teaching (3 months)**

As Lecturer in KIET School of Pharmacy, Ghaziabad, Uttar Pradesh, India.

#### **Teaching (11 years 3 months)**

Presently working as Associate Professor in Gokaraju Rangaraju College of Pharmacy, Hyderabad, Telangana state, India.

### **Research Funding/Collaborations:**

1. Co-Investigator, "Design and development of Ras/Raf interaction inhibitors" funded by All India Council for Technical Education (AICTE), Government of India, under Research Promotion Scheme [Amount Sanctioned: INR `17,79,000; 2010-2012]
2. Collaborated with Dr. Mario. D. Galigniana, Laboratory of Nuclear receptors, Institute of Biology and Experimental Medicine, Buenos Aires, Argentina for carrying out HSP90 inhibition activity and anticancer studies.
3. Collaborated with Dr. Anindita Banerjee, Assistant professor, St. Xavier's college, Kolkata for the screening of tribal medicinal plants from Paschim Medinipur for their antioxidant and antimicrobial properties.

### **Professional Recognition, Awards, Achievements:**

1. Qualified GATE 2003 with 94.16 percentile (All India rank: 370).
2. Qualified Gate 2004 with 92.08 percentile (All India rank: 665).
3. Received A.I.C.T.E. scholarship worth Rs. 1 lakh, 30 thousand for M.Pharmacy.
4. International travel grant for **young scientist** from Science and Engineering Research Board (SERB), Department of Science and technology (DST), Government of India.
5. Pubmed citation:6. H-index: 7. i-10 index:6, Total citations: 162 (google scholar).

**Representative Publications:** [Total = 22. Best 7]

1. Kadasi S., Thadeu E., Costa M.M., Neha A., Mallika T., Chaitanya D., Sreekanth T., **Dutta Gupta S.**, Raj S., Penido C., Henriques M.G., Raghavendra N.M. Drug design, synthesis and in vitro evaluation of substituted benzofurans as Hsp90 inhibitors. **Medicinal Chemistry**, 2018;14: 44-52. **Impact factor:** 2.63.
2. Tiwari V.K., Vishalakshi M., Gangaraju M., Das. P, Roy P., Banerjee A., **Dutta Gupta S.** Evaluation of antibacterial, antioxidant and nootropic activities of *Tiliacora racemosa* Colebr. leaves: *in vitro* and *in vivo* approach. **Biomedicine and pharmacotherapy**, 2017; 86: 662-668. **Impact factor:** 3.45.
3. **Dutta Gupta S.**, Rao G.B., Bommaka M.K., Raghavendra N.M., Aleti S. Eco-sustainable synthesis and biological evaluation of 2-phenyl 1,3-benzodioxole derivatives as anticancer, DNA binding and antibacterial agents. **Arabian journal of chemistry**, 2016; 9(2): S1875-S1883. **Impact factor:** 2.96.
4. **Dutta Gupta S.**, Bommaka M.K., Mazaira G.I., Galigniana, M.D., Subrahmanyam C.V.S., Gowrishankar N.L., Raghavendra N.M. Molecular docking study, synthesis and biological evaluation of Mannich bases as Hsp90 inhibitors. **International journal of biological macromolecules**. 2015; 80: 253-259. **Impact factor:** 3.90.
5. **Dutta Gupta S.**, Revathi B., Mazaira G.I., Galigniana, M.D., Subrahmanyam C.V.S., Gowrishankar N.L., Raghavendra N.M. 2,4-dihydroxy benzaldehyde derived Schiff bases as small molecule Hsp90 inhibitors: Rational identification of a new anticancer lead. **Bioorganic chemistry**. 2015; 59: 97-105. **Impact factor:** 3.92.
6. **Dutta Gupta S.**, Snigdha D., Mazaira G.I., Galigniana, M.D., Subrahmanyam C.V.S., Gowrishankar N.L., Raghavendra N.M. Molecular Docking study, synthesis and biological evaluation of Schiff bases as Hsp90 inhibitors. **Biomedicine and pharmacotherapy**. 2014; 68(3): 369-376. **Impact factor:** 3.45.
7. **Dutta Gupta S.**, Singh H.P., Moorthy N.S.H.N. Iodine catalyzed one-pot synthesis of benzothiazole derivatives. **Synthetic communications**. 2007; 37: 4327-4329. **Impact factor:** 1.37.

**Books/Chapter:** [3]

1. Raghavendra N.M., **Sayan DG: Laboratory manual of pharmaceutical organic chemistry - I: Synthesis and qualitative analysis of organic compounds**, 2013, Vallabh Prakashan, New Delhi. ISBN No. 978-81-85731-81-0.
2. **Dutta Gupta S.** A chapter titled "Novel anti-cancer drugs based on Hsp90 inhibitory mechanisms: A recent report" has been published for the book "Medicinal Chemistry with Pharmaceutical Product Development". Publisher: **CRC Press**, a Taylor & Francis Group. 2018. ISBN: 9781771887106.
3. **Dutta Gupta S.** and Banerjee A. A chapter titled "Design and Development of Polio Virus Polymerase Inhibitors" was published in the book "Viral Polymerases: Structures, Functions and Roles as Antiviral Drug Targets". Publisher: **Elsevier**. 2018. ISBN: 9780128154229.

**Conference Publications:** [Total = 13. Selected 5 oral/poster presentations]

1. Presented a talk on development of small molecule Hsp90 inhibitors at **6<sup>th</sup> RTTC, Shanghai, China** held from Nov 14<sup>th</sup> -16<sup>th</sup>, 2014.
2. Presented a paper on "Application of Computer in Pharmacy" at an **International conference, GLOGIFT-2005** held in RGPV, Bhopal Author- Sayan Dutta Gupta
3. A research article on "Structure based virtual screening and chemical synthesis of Heat Shock Protein 90 (HSP 90) inhibitors." was presented in **Indian Pharmaceutical Congress, held at Bengaluru, from 16<sup>th</sup>-18<sup>th</sup> December, 2011. Authors: Sayan Dutta Gupta, C.V.S. Subrahmanyam and Raghavendra N.M. (Code: B 61)**
4. Published a paper on "Identification of conserved water molecules and comparative study of docking score in structure based drug design of HSP 90 inhibitors" at **BIOFEST 2012**,

**an international bio-conference and event**, held in Hyderabad from 12<sup>th</sup> -13<sup>th</sup> December, 2012. **Authors: Sayan Dutta Gupta**, C.V.S. Subrahmanyam and Raghavendra N.M.

5. A research article on “Computer assisted drug design, synthesis and biological evaluation of phenyl propanone analogues as Heat shock protein 90 (Hsp90) inhibitors” was published in **AICTE sponsored National Level Seminar on “Universal perception of Pharmaceutical Research & Development”** held in Pulla reddy institute of pharmacy, Hyderabad from September 3<sup>rd</sup> – 4<sup>th</sup>, 2013. **Authors: Sayan Dutta Gupta**, Manish Kumar Bommaka, Giela I Mazaiara, Mario D. Galigniana, N.M. raghavendra, C.V.S. Subrahmanya and N.L. Gowrishankar.

**Life Member of the Following National Societies:**

1. Association of Pharmaceutical Teachers of India (APTI). Registration number: AP/LM-651
2. West Bengal pharmacy Council. Registration number: A-7779