# Dr. Bharati Choudhari

#### Bioprofile

Dr Bharati Choudhari is a faculty in the Department of Science and Humanities, K. J. Somaiya College of Engineering, Vidyavihar Mumbai, since July 2014. KJSCE is a constituent Institute under the Somaiya Vidyavihar University. It provides access and a platform for all the faculty and students of Somaiya Vidyavihar so as to fulfil their dreams to build their career and contribute through research and development in the field of Chemistry.

#### Education

Dr. Choudhari holds a Ph.D. (Science [Organic Chemistry], 2004) and M.Sc. (Science [Organic Chemistry], 2000) from The Institute of Science, University of Mumbai. She also holds a Post Graduate Diploma in IPR (2009) from Siddharth College, University of Mumbai.

#### Research

She carried her Ph.D. research work on Studies in Benzopyrans and Related Compounds. She has 6 publications and 3 conference presentations during this research period.

#### **Industrial Experience**

Dr. Choudhari is a Pharma professional with rich experience of over 15 years in hard core Research with 6 years in Teaching, and 11+ years of Indian pharmaceutical industrial, specifically in the areas of Research and Development. Her notable scientific contributions are in the areas of developing safe and cost effective non-infringing process/s for various Active Pharmaceutical Ingredients (API). Her expertise include taking a molecule taking a molecule from concept to delivery through selection of ROS, Design of Experiments, Benchscale Development, Pilot Plant Scale-up and finally commercial batches.

During her tenure with the Indian pharmaceutical industries she has successfully filed 49 patents both globally and in India with 6 granted patents to her credit. Dr. Choudhari has peer-reviewed publications in both National and International Journals and has participated in both oral and poster presentations in National and International conferences. She is a member of the NAAC Accreditation Steering Committee at KJSCE. She conducted Energy Audit of both KJSCE- A and B building during NAAC activity. She is the member of IQAC- Department of Science and Humanities, KJSCE. She is In-Charge of Teaching Enrichment Committee- Department of Science and Humanities, KJSCE.

Dr. Bharati Choudhari is a Lifetime member of ISTE Mumbai. She has received scholarships and award for her various achievements. She has submitted a Minor Research Project to the University of Mumbai. Dr. Choudhari has hands-on experience in planning and execution of multidisciplinary projects, excellent communication, scientific writing, interpersonal and organizational skills.

#### Objective

As a Research Guide, she wishes to explore and pursue research in Organic Chemistry, with a focus on finding a novel, simpler, economical and environment-friendly synthesis to make

medical treatment and health care affordable to all. The aim is to encourage young students who wish to pursue a career in synthetic organic chemistry to inculcate Green Chemistry principles while developing a new route of synthesis

# **Research Accomplishments**

### Publications

- Synthesis and antimicrobial screening of N-[coumarin-6-ylamino] thiazolidinone and spiro indolo-thiazolidinone derivatives; BP Choudhari, VV Mulwad, INDIAN JOURNAL OF CHEMISTRY SECTION B 44, 2005, 1074-1078.
- Synthesis and antimicrobial screening of N-[6'-coumarinylamino-3-chloro-4-aryl azetidine-2-ones]; BP Choudhari, VV Mulwad, INDIAN JOURNAL OF HETEROCYCLIC CHEMISTRY 12 (3), 2003, 197-200.
- Synthesis and antimicrobial screening of 3H, 11H-9-methyl-3-oxopyrano [2, 3-f] cinnolino [3, 4-c] pyrrazole and its derivatives; BP Choudhari, VV Mulwad, INDIAN JOURNAL OF CHEMISTRY SECTION B 45 (1), 2006, 309.
- Synthesis of biologically active 3, 8-dioxo-10-hydroxypyrano [2, 3-f] quinoline and its reactions; BP Choudhari, VV Mulwad, INDIAN JOURNAL OF CHEMISTRY SECTION B 42 (9), 2003, 2080-2085.
- Synthesis and antimicrobial screening of 5H, 7H-N-(coumarin-6-yl)-2, 8-diphenyl-5, 7-dioxo-4, 5, 6, 7-tetrahydrobenzimidazo [5, 6-c] furan and 5H, 7H-N-(coumarin-6-yl)-2, 8-diphenyl-5, 7-dioxo-6-(7-methoxy-4-methylcoumarin-6-yl)-4, 5, 6, 7-tetrahydro benzimidazo [5, 6-c] pyrrole; BP Choudhari, VV Mulwad, INDIAN JOURNAL OF CHEMISTRY SECTION B 45 (1), 2006, 314.
- Synthesis of biologically active N-[coumarin-6-yl]-3-methyl-5-(hydroxy/methyl/4-hydroxy-8-methylcoumarin-3-yl) pyrazoles and [2.3. 1]-bicyclo-N-[coumarin-6-yl]-1, 2-diazepines; BP Choudhari, VV Mulwad, INDIAN JOURNAL OF CHEMISTRY SECTION B 43, 2004, 1544-1547.

# **Conference/ Seminars/ Presentations**

- 'Synthesis of biologically active *N*-(coumarin-6-yl)-3-methyl-5-(hydroxy/ methyl/ 4-hydroxy-8-methylcoumarin-3-yl)pyrazoles', for the 'Young Scientist Award' at the 39<sup>th</sup> Annual Convention of Chemist at Nagarjuna University, Vijaywada, A.P., Dr. Bharati Choudhari, Dec. 2002.
- 'Synthesis of biologically active *N*-(coumarin-6yl)-3,5-disubstitutedpyrazoles and [2.3.1]bicyclo-*N*-(coumarin-6-yl)-1,2-diazepines, at the International Symposium on Drug Discovery and Process Development, Kolhapur, **Dr. Bharati Choudhari**, Jan. 2003.
- 'Studies in Benzopyrones and related compounds' at the Research Scholars' Meet at Birla College, **Dr. Bharati Choudhari**, Feb. 2004.
- 'Blended Learning Approach using Virtual Laboratory Applications in Engineering Chemistry'; IEEE Express, **Dr. Bharati Choudhari** et. al, Dec. 2019.
- 'Active Learning and CO Attainment through Collaborative Learning in Engineering Chemistry'; IEEE Express, **Dr. Bharati Choudhari** et. al, Dec. 2019.

# Scholarships/ Award

- 'Government of Maharashtra Scholarship' for the period 2001-2003.
- University of Mumbai's 'Sir Currimbhoy Ebrahim and Bai Khanoobai Noormohamed Jairazbhoy Peefbhoy Scholarship' for the period July 2001- June 2003.
- Women Graduate Union's 'The Amy Rustomjee International Scholarship' for the period 2001- 2003.
- Dr. APJ Abdul Kalam Life Time Achievement National Award, IISER(R), Bengaluru, 26 Jan. 2019

# Intellectual Property Rights

# Patents

- Process for the production of etravirine. (2011-04-26 Priority to IN1441CH2011; WO2012147104A1, PT2702045T, PL2702045T3, EP2702045A1, ES2655525T3, US8653266 B2)
- Crystalline form of sunitinib and processes for its preparation. (2008-08-25 Priority to IN1434KO2008; WO2010023473A2, CN102197035A, JP2012500837A, CA2734965A1, US20120029046A1, EP2315764A2, AU2009286520A1)
- Novel polymorphs of sunitinib and processes for their preparation. (2008-08-25 Priority to IN1435KO2008; WO2010023474A1, JP2012500838A, CN102197034A, AU2009286521A1, CA2735084A1, EP2318393A1, US20110263670A1)
- Preparation of 3-pyrrole substituted 2-indolinone derivatives. (2008-07-02 Priority to IN1153KO2008; WO2010001167A2, CN102137842A, US20110275689A1, CA2729253A1, EP2318364A2, JP2011526615A, AU2009265360A1)
- Process for the preparation of crystalline forms of sunitinib malate. (2008-07-10 Priority to IN1193/KOL/2008; WO2010004339A1, CA2730079A1, JP2011527330A, AU2009269768A1, AU2009269768A1, EP2297138A1, CN102203085A)
- Novel polymorphs and processes for their preparation. (2008-02-21 Priority to IN314KO2008; WO2009104021A2, CA2715657A1, EP2252607A2, AU2009215377A1, JP2011512396A, US20110112164A1, CN101983195A)
- Novel process for the preparation of vorinostat (2008-02-07, Priority to IN220KO2008; WO2009098515A1, US20110039937A1, JP2011511053A, CN101939289A, AU2009211157A1, EP2240436A1, CA2712858A1, US20110039937A1)

# International & National Patents -

- Filed 49
- Granted 6

# **Preference – Ph.D. topic**

1. <u>Broad area:</u> Chemistry.

# **Specialization/ Core area:**

2. Synthetic Organic Chemistry

- 3. Heterocycles
- 4. Biologically Active Molecules/ Medicinal Chemistry
- 5. Drugs/ Active Pharmaceutical Ingredients (API)
- 6. Polymorphs and Bio-availability