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### **EDUCATIONAL CREDENTIALS**

| Year | Course         | Board/University    | Division                           |
|------|----------------|---------------------|------------------------------------|
| 2011 | Ph.D           | Jadavpur University | -                                  |
| 2007 | M.Pharm        | Jadavpur University | 1 <sup>st</sup> Class              |
| 2004 | <b>B.Pharm</b> | Jadavpur University | 1 <sup>st</sup> Class with Honours |

# **AREA OF RESEARCH INTEREST**

**❖ IN SILICO ADME/T MODELING** 

\* TOXICITY MODELING

**DATE OF JOINING: 02/01/2012** 

**RESEARCH EXPERIENCE: 5 YEARS** 

POST DOCTORAL FELLOW (2010-2011): UNIVERSITY OF INSUBRIA, VARESE, ITALY.

TITLE OF THE PROJECT: Development and validation of QSAR models on emerging organic pollutants

#### **DOCTORAL RESEARCH (2007-2010)**

TITLE OF THE PROJECT: In silico modeling of selected classes of Cytochrome inhibitors using chemometric tools.

### **MASTER OF PHARMACY (2005-2007)**

TITLE OF THE PROJECT: On Some Aspects of Validation of Predictive QSAR Models

#### **LIST OF PUBLICATIONS:**

## **INTERNATIONAL (20)**

- **1. Roy PP**, Kovarich S, Gramatica P, QSAR Model Reproducibility and Applicability: A Case Study of Rate Constants of Hydroxyl Radical Reaction Models Applied to Polybrominated Diphenyl Ethers and (Benzo-)Triazoles, *J Comput Chem* **2011**,32: 2386–2396.
- **2.** Pran Kishore D, Balakumar C, Raghuram Rao A, **Roy PP**, Roy K. QSAR of adenosine receptor antagonists: Exploring physicochemical requirements for binding of pyrazolo[4,3-e]-1,2,4-triazolo[1,5-c]pyrimidine derivatives with human adenosine A(3) receptor subtype, *Bioorg Med Chem Lett*, **2011**, 21:818-23.
- **3. Roy PP** and Roy K, Molecular docking and QSAR studies of aromatase inhibitor androstenedione derivatives, *J Pharm Pharmacol*, **2010**, 62: 1717-1728.
- **4. Roy PP** and Roy K, Pharmacophore mapping, molecular docking and QSAR studies of structurally diverse compounds as CYP2B6 Inhibitors, *Molecular Simulation*, **2010**, 36: 887-905.
- **5. Roy PP** and Roy K, Docking and 3-D QSAR studies of diverse classes of human aromatase (CYP19) inhibitors, *Journal of Molecular Modeling* **2010**, 16: 1597–1616.
- **6. Roy PP** and Roy K, Classical and 3D-QSAR studies of cytochrome 17 inhibitor imidazole substituted biphenyls, *Molecular Simulation*, **2010**, 36: 311–325.
- **7. Roy PP** and Roy K, Exploring QSAR for CYP11B2 binding affinity and CYP11B2/CYP11B1 selectivity of diverse functional compounds, *Journal of enzyme inhibition and medicinal chemistry*, **2010**, 25: 354–369
- **8.** Mitra I, **Roy PP**, Kar S, Ojha P K, Roy K, On further application of  $r_m^2$  as a metric for validation of QSAR models. *Journal of Chemometrics*, **2010**, 24: 22-33.
- **9.** Ray S, **Roy PP**, Sengupta C, Roy K, Exploring QSAR of hydroxyphenylureas as antioxidant using Physicochemical and electrotopological atom parameters, *Molecular Simulation*, **2010**, *36*: 484–492.
- **10.** Roy K and **Roy PP**, QSAR of Cytochrome inhibitors, *Expert opinion on Metabolism and Toxicology*, **2009**, 5: 1245-1266.
- **11. Roy PP**, Paul S, Mitra I, Roy K, On Two Novel Parameters for Validation of Predictive QSAR models, *Molecules*, **2009**, 14: 1660-1701.
- **12. Roy PP** and Roy K, QSAR Studies of CYP2D6 Inhibitor Aryloxypropanolamine Using 2D and 3D Descriptors, *Chem. Biol drug Des.* **2009**, 73:442-455.
- **13.** Roy K, **Roy PP**, Comparative chemometric modeling of cytochrome 3A4 inhibitory activity of structurally diverse compounds using stepwise MLR, FA-MLR, PLS, GFA, G/PLS and ANN techniques, *European Journal of Medicinal Chemistry* **2009**, 44; 2913-2922.
- **14.** Roy K, **Roy PP**, Exploring QSAR and QAAR for Inhibitors of Cytochrome P450 2A6 and 2A5 Enzymes Using GFA and G/PLS Techniques, *European Journal of Medicinal Chemistry* **2009**, 44: 1941-1951.
- **15. Roy PP** & Roy K, On some aspects of variable selection for partial least squares regression models, *OSAR Comb Sci*, **2008**: 27, 302-313.

- **16. Roy PP**, Leonard J T & Roy K, Exploring the impact of the size of training sets for the development of predictive QSAR models, *Chemom Intell Lab Sys*, **2008**: 90, 31-42.
- **17.** Roy K, **Roy PP**, Exploring QSARs for binding affinity of azoles with CYP2B and CYP3A enzymes using GFA and G/PLS techniques, *Chem Biol Drug Des.* **2008**, 71: 464-471.
- **18.** Roy K, **Roy PP**, Comparative QSAR studies of CYP1A2 inhibitor flavonoids using 2D and 3D descriptors, *Chem. Biol Drug Des.* **2008**, 72: 370-382.
- **19.** Roy K, Sanyal I and **Roy PP**, QSTR with Extended Topochemical Atom Indices. 9. A QSAR study on the Bioconcentration Factors of Nonionic Organic Compounds in Fish, *SAR QSAR Environ. Res.*, **2006**, 17: 563–582.
- **20.** Ray S, **Roy PP**, A QSAR Study of Biphenyl Analogues of 2-Nitroimidazo-[2,1-b][1,3]-Oxazines as Antitubercular agents using Genetic function Approximation, *Medicinal Chemistry* **2102(In press)**

### LIST OF PRESENTATIONS IN SEMINARS/CONFERENCES

- **1. Roy PP,** Papa E, Gramatica P, QSAR model reproducibility and applicability: Acase Study of Hydroxyl radical rate constants model. **Conferentia Chemometrica**, Sümeg, Hungary, Sept 18-21, 2011.
- **2. Roy PP,** Papa E, Gramatica P, Exploring the QSARs for OH Tropospheric Degradation of VOCs using freely available online descriptors, **SEATAC Europe**, Milan, 15-19 may, 2011.
- **3.** Roy P P & Roy K, QSAR Studies of CYP2D6 Inhibitor Aryloxypropanolamine Using 2D and 3D Descriptors, **International Conference on Open Source for Computer Aided Drug Discovery** (**OSCADD**), March 22-26, 2009, Chandigarh, India.
- **4.** Roy P P & Roy K, Exploring impact of method of selection and size of training sets on the predictability of QSAR models, for three days in **International Conference on Cheminformatics**, 22-24 Jan, 2007, Pune, India.
- **5.** Roy P P & Roy K, Classical and 3D-QSAR studies of cytochrome 17 inhibitor imidazole substituted biphenyls, **National conference of Stem cell research and computational biology and Chemistry**, Chennai, India.
- **6.** Roy K& Roy P P, Comparative QSAR Studies of CYP1A2 Inhibitors using 2D and 3D descriptors, Proceedings of the "Acharya Prafulla Chandar Ray Memorial Symposium Kolkata, 01-02 August, 2008.

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