**1. Name** **& full** **Corresponding Address**

Dr. Somendu Kumar Roy

Senior Scientist and Assistant Professor

Analytical Chemistry Laboratory, Regulatory Toxicology Group

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**3. Academic Qualification (Undergraduate Onwards)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SI. No.** | **Degree/**  **Certificate** | **Year of Passing** | **University/Institute** | **Subject** |
| **iii** | Ph. D. | 2014 | NIPER, Mohali | Natural Products Chemistry |
| **ii** | M.S.(Pharm) | 2007 | NIPER, Mohali | Natural Products Chemistry |
| **i** | B.Pharm | 2005 | Jamia Hamdard, New Delhi | Pharmaceutical Science |

**4. Work experience (in chronological order)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SI. No.** | **From** | **To** | **Name of Institute** | **Position Held** |
| **iv** | Dec 2017 | Present | Analytical Chemistry Section,  CSIR-IITR, Lucknow | **Senior Scientist** |
| **iii** | Dec 2013 | Dec 2017 | Analytical Chemistry Section,  CSIR-IITR, Lucknow | **Scientist** |
| **ii** | Sept 2013 | Dec 2013 | NATURAL DRUG DIVISION,  SAMI LABS, Bangalore | **Scientist** |
| **i** | Sept 2007 | July 2008 | DEPARTMENT OF NATURAL PRODUCTS, Piramal Life Sciences Ltd., Mumbai | **Research Associate** |

**5. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Professional Recognition** | **Responsibility** |  |
| **i** | Member of Bureau of Indian Standards (BIS) | To formulate Indian Standards for terminology, methods of sampling and test, codes of practices and specifications for fragrance and flavoring ingredient to co-ordinate with the work of ISO/TC 54 – Essential Oils |  |
| **ii** | NABL | Testing of As and Hg in water |  |
| **iii** | GLP | Formulation preparation and analysis |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of Award** | **Awarding Agency** | **Year** |
| **i** | Young Scientist Award (Pharmacy / Chemistry) | Venus International Foundation-2015 | Dec-2015 |

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Certificate Course** | **Organized By** | **Year** |
| **i** | Online training programme on ISO/IEC 17025:2017-General Requirements for the Competence of Testing and Calibration Laboratories | CSIR-Human Resource Development Center, Gaziabad | 8-11 Feb 2021 |

**6. Postgraduate student-guided in their project work:** 06

**7**. **Ph.D. student-guided:** 03 (Pursuing); 1 (Awarded, Got PDF position in RECETOX, Faculty of Science, Masaryk University)

**8.** **Details of Projects completed/ongoing/approved during the last 5 years:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Title** | **Cost in Lakh** | **Duration** | **Role as PI/Co-PI** | **Agency** | **Status** |
| 1 | Selective COX- and LOX-derived bioactive lipids profiling using molecularly imprinted polymers (MIPs) | 23 | 16-Nov2015 to 15 Nov 2018 | PI | SERB | Final report submitted |
| 2 | Monitoring of bisphenols in Packed Food and Beverages of Plastic Container Available in Various Regions | 6.80 | 15 Nov2017 to 14 Nov 2019 | PI | Council of Science & Technology, U. P. | Final report submitted |
| 3. | A mass spectrometry based evaluation of metabolomics perturbation by bispheol A | 7 | March 2018 to March 2021 | PI | CSIR | Ongoing |
| 4. | Hippocampal E2, cognition loss and sexual dimorphism in adult rats: comparative effects of bisphenol S, F and A exposure | 70 | 2020 to 2023 (not yet started) | Co-PI | DHR-ICMR | Approved |

**9. Publications (Last 5 year)**

**Research articles: 17; Poster: 09**

# [Ved Prakash](https://www.sciencedirect.com/science/article/abs/pii/S0048969721049950#!), [Veena Jain](https://www.sciencedirect.com/science/article/abs/pii/S0048969721049950#!), [Shweta Singh Chauhan](https://www.sciencedirect.com/science/article/abs/pii/S0048969721049950#!), [Ramakrishnan Parthasarathi](https://www.sciencedirect.com/science/article/abs/pii/S0048969721049950#!), [Somendu K. Roy,](https://www.sciencedirect.com/science/article/abs/pii/S0048969721049950#!) [Sadasivam Anbumani](https://www.sciencedirect.com/science/article/abs/pii/S0048969721049950#!). Developmental toxicity assessment of 4-MBC in Danio rerio embryo-larval stages. *Science of The Total Environment*, 2021, 804, 149920.

Ratnakar Tiwari, Radha Dutt Singh, Monika Binwal, Anurag Kumar Srivastav, Neha Singh, Hafizurrahman Khan, Siddhartha Gangopadhyay, Nidhi Argaria, Prem Narain Saxena, **Somendu Kumar Roy**, Mahadeo Kumar, Vineeta Sharma, and Vikas Srivastava. Perinatal exposure to silver nanoparticles reprograms immunometabolism and promotes pancreatic beta-cell death and kidney damage in mice. *Nanotoxicology*, 2021, 82, 6, 1710-1713. https://doi.org/10.1080/17435390.2021.1909767

Saba Qureshi, SonamChandra, Deepti Chopra, Divya Dubey, Veena Jain, **Somendu Kumar Roy**, Ratan Singh Ray. Nabumetone induced photogenotoxicity mechanism mediated by ROS generation under environmental UV radiation in human keratinocytes (HaCaT) cell line. *Toxicology and Applied Pharmacology*, 2021, 420, 115516. https://doi.org/10.1016/j.taap.2021.115516

Mandrah K, Jain V, Ansari JA, **Roy SK\***. Metabolomic perturbation precedes glycolytic dysfunction and procreates hyperglycemia in a rat model due to bisphenol S exposure. *Environmental Pharmacology and Toxicology*, 2020, 77, 103372. https://doi.org/10.1016/j.etap.2020.103372. (IF#: 4.86, No. of citations-3)

Rajesh K. Kori, Kapil Mandrah, Whidul Hasan, Devendra K. Patel, **Somendu K. Roy**, Rajesh S. Yadav. Identification of markers of depression and neurotoxicity in pesticide exposed agriculture workers. *Biochemical and Molecular Toxicology,* 2020, 34(6), e22477. DOI: https://doi.org/10.1002/jbt.22477.

Singh R, Mandrah K, Asati A, Patel DK, Goel B, Vishwakarma RA, **Roy SK\***, Jain SK\*. Transformation of Santonin to a Naproxen Analogue with Anti-Inflammatory Activity. *Journal of Natural Products*, 2019, 82(6): 1710-1713. (IF#: 4.05; No. of citations-1)

Mohd S, Kushwaha AS, Shukla J, Mandrah K, Shankar J, Arjaria N, Saxena PN, Khare P, Narayan R, Dixit S, Siddiqui MH, Tuteja N, Das M, **Roy SK**, Kumar M. Fungal mediated biotransformation reduces toxicity of arsenic to soil dwelling microorganism and plant. *Ecotoxicol Environ Saf.*, 2019, 176:108-118.

Kushwaha, R., Mishra, J., Tripathi, S., Raza, W., Mandrah, K., **Roy SK**,& Bandyopadhyay, S. Arsenic Attenuates Heparin-Binding EGF-Like Growth Factor/EGFR Signaling That Promotes Matrix Metalloprotease 9-Dependent Astrocyte Damage in the Developing Rat Brain.Toxicol Sci, 2018,162(2):406-428.

Mandrah K, Satyanarayana G.N.V., **Roy SK\***. Development of a dispersive liquid-liquid microextraction method based on solidification of floating organic droplet followed by injector port silylation coupled with GC-MS/MS for simultaneous determination of nine bisphenols in bottled carbonated beverages. *J Chromatogr A*,2017,1528: 10-17. (IF#: 4.75; No. of citations-26)

Singh VK, Arora D, Satija NK, Khare P, **Roy SK**\*, Sharma PK\*. Intricatinol synergistically enhances the anticancerous activity of cisplatin in human A549 cells via p38 MAPK/p53 signalling. *Apoptosis,* 2017, Jul 29. doi: 10.1007/s10495-017-1404-0. (IF#: 4.67; No. of citations-14)

Dhiman N, Fatima F, Saxsena PN, **Roy SK**, Rout PK, Patnaik S. Predictive modeling and validation of arsenite removal by a one pot synthesized bioceramic buttressed manganese doped iron oxide nanoplatform. *RSC Advances,* 2017, 7**,** 32866-32876.

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Mohd S, Shukla J, Kushwaha AS, Mandrah K, Shankar J, Arjaria N, Saxena PN, Narayan R, **Roy SK**, Kumar M. Endophytic Fungi Piriformospora indica Mediated Protection of Host from Arsenic Toxicity. *Front microbiol,* 2017, doi: 10.3389/fmicb.2017.00754.

Pandey R, Rai V, Mishra J, Mandrah K, **Roy SK**, Bandyopadhyay S. Arsenic induces hippocampal neuronal apoptosis and cognitive impairments via an up-regulated BMP2/Smad-dependent reduced BDNF/TrkB signalling in rats. *Toxicological Sciences*, 2017, 159, 137–158. https://doi.org/10.1093/toxsci/kfx124

Tiwari R, Singh RD, Khan H, Gangopadhyay S, Mittal S, Singh V, Arjaria N, Shankar J, **Roy SK**, Singh D, Srivastava V. Oral Subchronic Exposure to Silver Nanoparticles Causes Renal Damage through Apoptotic Impairment and Necrotic Cell Death. *Nanotoxicology*, 2017, 11, 671-686.

Khan S, Bhatia T, Trivedi P, Satyanarayana G.N.V., Mandrah K, Saxena PN, Mudiam MKR, **Roy SK\***. Selective solid-phase extraction using molecularly imprinted polymer as a sorbent for the analysis of fenarimol in food samples. *Food Chemistry*, 2016, 199, 870–875. (IF#: 7.51; No. of citations-47)

Note: #-IF as per 2020-2021