

Detailed Biodata

Name & Corresponding Address

Dr. Somendu Kumar Roy
Analytical Chemistry Division
CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH
(Council of Scientific and Industrial Research)
MAHATMA GANDHI MARG, POST BOX NO. 80
LUCKNOW-226001 (U.P.) INDIA

Email(s) and contact number(s)

E-mail: somenduroy@iitr.res.in; somenduroy@gmail.com
Contact Number: Tel: 0522 2627586-05 Extension: 231
Mob. No.-8052558222

Academic Qualification

Ph.D. IN NATURAL PRODUCTS CHEMISTRY, DEPARTMENT OF NATURAL PRODUCT, NIPER-MOHALI (2008-2014)

Title: "Evaluation of efflux pump inhibitory activity of compounds isolated from selected medicinal plants and their synthetic analogues".

Research oriented responsibilities

- Isolation and synthesis of natural product analogues
- Efflux pump inhibitory activity of extracts and isolated/synthetic compounds
- Evaluation of anti-inflammatory activity of compounds
- Qualitative and quantitative analysis of plant extracts

M.S. (PHARMACY) IN NATURAL PRODUCTS CHEMISTRY, DEPARTMENT OF NATURAL PRODUCT, NIPER-MOHALI (2005-2007)

Title: Pancreatic Lipase inhibitory activity of few selected Indian medicinal plants and detailed study on the alkaloids of *Murraya Koenigii*.

Work experience (in chronological order)

SCIENTIST, ANALYTICAL CHEMISTRY DIVISION, CSIR-IITR (DEC 2013-PRESENT)

- Synthesis of molecularly imprinted polymer for the analysis of pharmaceuticals, nutraceuticals and xenobiotics etc in various matrices

- Bio-analysis of analytes/bioanalytes in various matrices (plasma, blood, urine samples etc).
- Study of changes in inflammatory mediator (Prostanoids) associated with Xenobiotic toxicity

SCIENTIST, NATURAL DRUG DIVISION, SAMI LABS (SEP 2013-DEC 2013)

- Identification, isolation, characterization of the bio-actives and optimization of the extraction methods

RESEARCH ASSOCIATE, DEPARTMENT OF NATURAL PRODUCTS , PIRAMAL LIFE SCIENCES LTD. (SEP 2007-JULY 2008)

- Isolation of secondary metabolites from plants, fungus, microbes and marine origin using various advanced chromatographic techniques (SepBox, Combiflash, Prep-HPLC, Gel permeation chromatography)
- Synthesis and semi synthesis of natural product analogues
- Structure elucidation of Secondary metabolites, synthetic and semi-synthetic compounds

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

S.No.	Name of Award	Awarding Agency	Year
1	GATE-2005	IIT Bombay	2005
2	GATE-2006	IIT--Kharagpur	2006
3	JRF-Fellowship	NIPER	July2008-June-2010
4	SRF-Fellowship	NIPER	July 2008-June 2013
5	DST-Travel Grant	DST	2012
6	ICMR-Travel Grant	ICMR	2012
7	DS Kothari Post Doc Fellowship	UGC	2013

Publications (List of papers published in SCI Journals, in year wise descending order).

Grover J, **Roy SK**, Jachak SM. Potassium carbonate mediated efficient and convenient synthesis of 3-methyl-1-phenylchromeno[4,3-*c*]pyrazol-4(1*H*)-ones: *Synth Commun*, 2013, doi: 10.1080/00397911.2013.879184. (IF: 1.06)

Roy SK, Pahwa S, Kumari N, Jachak SM and Nandanwar HS. NorA efflux pump inhibitory activity of coumarins from *Mesua ferrea*. *Fitoterapia*, 2013, 90, 140-150. (IF:2.23)

Bairwa K, Singh IN, **Roy SK**, Grover J, Shrivastava A, Jachak SM. Rotenoids from *Boerhaavia diffusa* as cyclooxygenase (COX)-1, COX-2 inhibitors. *J Nat Prod*, 2013, 76, 1393-8. (IF:3.28)

Roy SK, Bairwa K, Grover J, Srivastava A, Jachak SM. Analysis of flavonoids and iridoids in *Vitex negundo* Linn.by HPLC-PDA and method validation. *Nat Prod Commun*, 2013, 8, 241-244. (IF:1.24)

Roy SK, Kumari N, Gupta S, Pahwa S, Nandanwar H, Jachak SM. 7-Hydroxy-(*E*)-3-phenylmethylene-chroman-4-one analogues as efflux pump inhibitors against *Mycobacterium smegmatis* mc² 155. *Eur J Med Chem*, 2013, 66, 499-507. (IF:3.49)

Chandna N, Kumar S, Kaushik P, Kaushik D, **Roy SK**, Gupta GK, Jachak SM, Kapoor JK, Sharma PK. Synthesis of novel celecoxib analogues by bioisosteric replacement of sulfonamide as potent inflammatory agents and cyclooxygenase inhibitors. *Bioorg Med Chem*, 2013, 21, 4581-4590. (IF:2.90)

Mishra PD, Deshmukh SK, Kulkarni-Almeida A, **Roy SK**, Jain S, Verekar A, Blakrishnan, Vishwakarma R. Anti-inflammatory & anti-diabetic naphthoquinones from an endophytic fungus. *Indian J Chem Sec B*, 2013, 52, 565-567. (IF:0.64)

Roy SK, Srivastava A, Jachak SM. Analysis of homoisoflavonoids in *Caesalpinia digyna* by HPLC-ESI-MS, HPLC and method validation. *Nat Prod Commun*, 2012,7,1189-1192. (0.95)

Roy SK, Pahwa S, Nandanwar HS and Jachak SM. Phenylpropanoids of *Alpinia galanga* as efflux pump inhibitors in *Mycobacterium smegmatismc*²155. *Fitoterapia*, 2012, 83, 1248-1255. (IF:2.23)

Roy SK, Agrahari UC, Gautam R, Srivastava A, Jachak SM. Isointracatinol, a new antioxidant homoisoflavonoid from the roots of *Caesalpinia digyna* Rottler. *Nat Prod Res*, 2012,26, 690-695. (IF:1.09)

Birari R, **Roy SK**, Singh A, Bhutani KK. Pancreatic lipase inhibitory alkaloids of *Murraya koenigii* leaves. *Nat Prod Commun*, 2009, 4,1089-1092.(IF:0.74)

Roy SK, Bairwa K, Grover J, Srivastava A, Jachak SM. Determination of negundoside and agnuside in *vitex negundo* by qNMR and method validation. *J Anal Chem*. (Accepted)

Books/Reports/Chapters/General articles etc

Jachak S, **Roy SK**, Gupta S, Ahirrao P, Gibbons S. 2012. Small molecule efflux pump inhibitors from natural products as a potential source of antimicrobial agents. In: Tegos GP, ed. Antimicrobial Drug Discovery: Emerging Strategies. UK: CAB International, 62-76.

List of Conference/Symposium attended (From 2010 to present)

Roy SK, Gupta S, Kumari N, Pahwa S, Nandanwar HS and Jachak SM. Synthesis of homoisoflavonoids as efflux pump inhibitors. Presented in international conference on

Gordon Research Conference-Natural Products on 22nd-27th July. 2012 at Proctor Academy, Andover, NH, USA.

Roy SK, Pahwa S, Nandanwar HS and Jachak SM. Coumarins of *Mesua ferrea* as modulator of ethidium bromide susceptibility against *Mycobacterium smegmatis* mc² 155. Presented in International conference on developments in drug discovery from natural products and traditional medicines (DDNP-TM) on 22th-24th Nov. 2012, at NIPER, Mohali, India.

Bairwa K, **Roy SK**, Singh IN, Jachak SM. Rotanoids of *Boerhavia diffusa* as cyclooxygenase (COX)-1, COX-2 inhibitors. Presented in International conference on developments in drug discovery from natural products and traditional medicines (DDNP-TM) on 22th-24th Nov. 2012, at NIPER, Mohali, India.

Swetha, **Roy SK**, Jachak SM. Synthesis of ursolic acid derivatives for α -glucosidase inhibitory activity. Presented in International conference on developments in drug discovery from natural products and traditional medicines (DDNP-TM) on 22th-24th Nov. 2012, at NIPER, Mohali, India.

Pahwa S, **Roy SK**, Nandanwar HS and Jachak SM. Phenylpropanoids from *Alpinia galanga* as modulator of ethidium bromide susceptibility against *Mycobacterium Smegmatis* mc² 155. Presented in international conference on Open Source for Computer Aided Drug Discovery (OSCADD) on 22nd-26th Feb. 2012 at IMTECH, Chandigarh, India.

Roy SK, Gupta S, Tegos GP, Jachak SM. Homoisoflavonoids as efflux pump inhibitors. Presented in International conference on developments in drug discovery from natural products and traditional medicines (DDNP-TM) on 20th-24th Nov. 2010, at NIPER, Mohali, India.