

**CURRICULUM VITAE**

**Name:** Shubhra Chaturvedi  
**Date of Birth:** March 18, 1979  
**Contact Address:** Division of Cyclotron and Radiopharmaceutical Sciences, Scientist D, INMAS, Timarpur, Delhi-54  
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**EDUCATION**

**Banaras Hindu University and Institute of Nuclear Medicine and Allied Sciences (INMAS), Doctorate in Chemistry** Awarded 2013  
*Dissertation title:* Design, synthesis and bioevaluation of ligands for targeted imaging and therapy.

**Indian Institute of Technology, Delhi, India, Masters in Chemistry** 2002  
*Dissertation title:* Three Phase Partitioning of Proteins: Application to Purification of Rabbit serum Albumin (Jan 2002 to May 2002).  
*Physical Chemistry, Inorganic Chemistry, Organic Chemistry, Biochemistry, Quantum Chemistry, Organic Spectroscopy, Organometallics, Protein Engineering, Biomaterials, Immunochemistry, Analytical Chemistry, Polymer Chemistry* CGPA: 9.613 out of 10

**St. Stephens College, University of Delhi, Delhi, India: Bachelors in Chemistry (Hons.)** 2000  
*Physics, Maths, Chemistry, Applications of Computer in chemistry* 75%

**All India Senior Secondary Certificate Examination, Central Board of Secondary Education** 1996  
*Physics, Chemistry, Biology, Maths and English* 83%

**OTHER ACADEMIC ACHIEVEMENTS**

- Achieved 1<sup>st</sup> rank in M. Sc. Chemistry IIT batch (2002).
- Qualified BARC-2003 and TIFR-2003.
- GATE 2002 Percentile: 97.39, AIR-65.
- Qualified UGC-CSIR-NET for JRF. Also selected for appearing in Shyama Prasad Mukherjee Award test of CSIR.
- Qualified Tata Institute of Fundamental Research Ph. D. Entrance 2002.

**EMPLOYMENT DETAILS**

<b>Institute of Nuclear Medicine and Allied Sciences (INMAS), D.R.D.O, Delhi, India</b> Scientist 'D' Work Responsibility: Managerial, Research, Teaching	2012-Till date
<b>Institute of Nuclear Medicine and Allied Sciences (INMAS), D.R.D.O, Delhi, India</b> Scientist 'C' Work Responsibility: Managerial, Research, Teaching	2007-2012
<b>Institute of Nuclear Medicine and Allied Sciences (INMAS), D.R.D.O, Delhi, India</b>	2004-2007

Scientist 'B'	
Work Responsibility: Research, Teaching	
Tata Institute of Fundamental Research, Mumbai	2002-2003
Research Scholar	(On extraordinary leave due to personal reasons)

## WORK EXPERIENCE

### INMAS, Division of Cyclotron and Radiopharmaceutical Sciences Scientist, Dr Anil K Mishra, Scientist 'G'

#### Research

- Involved in the development of novel radiopharmaceuticals for application in oncology and neuro-imaging at all the three levels- theoretical design, organic synthesis and in-vitro and in-vivo bioevaluation of the novel ligands.
- Primary focus on the development of small biomolecules and nucleosides for the development as ligands.
- Secondary focus involves synthesis of peptides.
- Core competence in computer based drug-design method, organic synthesis, *in-vitro* methods based on cytotoxicity assays and nuclear imaging techniques.
- Additional areas include metabolic profiling of biofluids using Nuclear Magnetic Spectroscopy along with the statistical analysis, DNA, RNA and protein isolation from human cultured cell lines, reverse transcription, PCR, Northern and Western Hybridization, Dot Blot, Flow cytometry, SDS-PAGE, Agarose gel electrophoresis

#### Managerial

- Analytical Laboratory: Installation, maintenance of NMR instrument (Bruker 400 MHz, Avance II), LC-MS (Agilent).
- Project Management which includes Procurement and Financial administration of the Projects
- Member of ISO Internal Audit, Institutional committees

#### Teaching:

- DRM and University of Delhi students
- Supervision of M.Sc. dissertations

### Indian Institute of Technology, Delhi Prof. M.N. Gupta

#### Research

- Involved in 6 months dissertation wherein protein BSA was isolated using three phase partitioning technique.

## HONOURS AND AWARDS

Invited Lecture at BHU : NMR application for visualizing changes at functional level caused by extreme environment , Frontiers of Spectroscopy , ICFS 2015	2015
Deputation assignment from DRDO at the Univ. of Bordeaux under the Sandwich Fellowship hosted by the Department of Science and Technology, French Embassy, India for a period of 3 months.	2011
Group Technology Award, INMAS, DRDO	2008
Outstanding promotion from Scientist 'B' to Scientist 'C'	2007

## PROFESSIONAL AFFILIATIONS

Member of the American Chemical Society	2012- Till date
Member of the Society of Nuclear Medicine, India	2012- Till date

**SKILLS**

Adept at homology modeling and docking using software such as Schrödinger, Autodock, NMR 1D, 2D acquisitions, processing and interpretation using Bruker NMR, organic synthesis, chromatography techniques, cell culture. Experienced in QSAR, high throughput screening and molecular dynamics simulations, mass spectrometry and various chemical analytical techniques, enzyme kinetics, protein purification, UV and fluorescence spectrophotometry.

Competent in statistical analysis and chemical drawing using ChemDraw.

Fluent in English and Hindi.

**PUBLICATIONS**

1. Swastika, S Chaturvedi, A Kaul, PP Hazari, P Jha, S Pal, S Lal, B Singh, P Barthélémy, AK Mishra Evaluation of BBB permeable nucleolipid (NLDPU): A di-C15-ketalised palmitone appended uridine as neuro-tracer for SPECT. *International Journal of pharmaceuticals*. 2019; 565:269-82. IF 3.862
2. P Jha, S Chaturvedi, Anju, A Kaul, N Jain, AK Mishra. Acetylated Benzothiazolone as Homobivalent SPECT Metallo-Radiopharmaceutical  $^{99m}\text{Tc}$ -(6-AcBTZ) 2DTPA: Design, Synthesis, and Preclinical Evaluation for Mapping 5-HT<sub>1A/7</sub> Receptors. *ACS Omega*. 2019; 4(6):10044-55.
3. Virendra Kumar Meena, Shubhra Chaturvedi, Rakesh Kumar Sharma, Anil Kumar Mishra, and Puja Panwar Hazari\*, A Potent Acetylcholinesterase Selective and Reversible Homodimeric Agent based on Tacrine for Theranostics. 2019 *Mol. Pharmaceutics*, DOI: 10.1021/acs.molpharmaceut.8b01058 : IF 4.6
4. P Jha, S Chaturvedi, A Kaul, P Pant, S Pal, N Jain, AK Mishra, Design, physico-chemical and pre-clinical evaluation of a homo-bivalent  $^{99m}\text{Tc}$ -(BTZ) 2 DTPA radioligand for targeting dimeric 5-HT<sub>1A/5-HT 7</sub> receptors. *New Journal of Chemistry*. 2018; 42 (18), 15032-15043 IF 3.068
5. S Chaturvedi, S Lal, P Sen, AK Mishra. Synthesis, docking, and preliminary in vitro/in vivo evaluation of MPP-dithiocarbamate-capped silver nanoparticle as dual-imaging agent for 5HT 1A. *International Journal of Nanomedicine*. 2018;13(T-NANO 2014 Abstracts):19-23. IF 4.383
6. P Jha, S Chaturvedi, A Kaul, P Pant, S Pal, N Jain, AK Mishra, Design, physico-chemical and pre-clinical evaluation of a homo-bivalent  $^{99m}\text{Tc}$ -(BTZ) 2 DTPA radioligand for targeting dimeric 5-HT<sub>1A/5-HT 7</sub> receptors, *New Journal of Chemistry*. 2018; 42 (18), 15032-15043
7. **Chaturvedi S**, Lal S, Sen P, Mishra AK. Synthesis, docking, and preliminary in vitro/in vivo evaluation of MPP-dithiocarbamate-capped silver nanoparticle as dual-imaging agent for 5HT 1A. *International Journal of Nanomedicine*. 2018 Mar 15;13(T-NANO 2014 Abstracts):19-23. IF 4.383
8. Hazari PP, Pandey A, **Chaturvedi S**, Mishra AK. New Trends and Current Status of Positron-Emission Tomography and Single-Photon-Emission Computerized Tomography Radioligands for Neuronal Serotonin Receptors and Serotonin Transporter. *Bioconjugate chemistry*. 2017 Oct 13;28(11):2647-72. IF 4.818
9. Jha P, **Chaturvedi S**, Swastika, Pal S, Jain N, Mishra AK. Improving 5-HT<sub>7R</sub> homology model for design of high affinity ligands: model validation with docking, embrace minimization, MM-GBSA, and molecular dynamic simulations. *Journal of Biomolecular Structure and Dynamics*. 2017 Aug 10:1-20. IF 4.98
10. **Chaturvedi S.**, Kaul A., Hazari Puja P. and Mishra Anil K. Mapping neuroreceptors with metal-labeled radiopharmaceuticals *Med. Chem. Commun.*, 2017 IF 2.495

11. **Chaturvedi S, Lal S, Sen P and Mishra AK.**, Synthesis, docking and preliminary in Vitro/Vivo Evaluation of MPP-Dithiocarbamate-capped silver nanoparticle as dual imaging agent for 5HT1A, *Int Journal of Nanomedicine*- Accepted as Short Report
12. Kaul A, **Chaturvedi S**, Attri A, Kalra M, Mishra AK. Targeted theranostic liposomes: rifampicin and ofloxacin loaded pegylated liposomes for theranostic application in mycobacterial infections. *RSC Advances*. 2016;6(34):28919-26.
13. **Chaturvedi S**, Mishra AK. Small molecule radiopharmaceuticals—a review of current approaches. *Frontiers in medicine*. 2016;3.
14. Chadha N, **Chaturvedi S**, Lal S, Mishra Anil K., Pulicharla R, Cledon M, Brar SK and Surampalli RY, Engineered Nanoparticles Associated Metabolomics: A Review, *Journal of Hazardous, Toxic, and Radioactive Waste* (2015) 10.1061/(ASCE)HZ.2153-5515.0000283 , B4015003
15. **Chaturvedi S**, Mishra AK. Vectors for the delivery of radiopharmaceuticals in cancer therapeutics. *Ther Deliv*. 2014 Aug;5(8):893-912. doi: 10.4155/tde.14.57. PubMed PMID: 25337647 IF 3.31
16. Oumzil, K., Khiati, S., Camplo, M., Koquely, M., Chuttani, K., **Chaturvedi, S.**, Mishra AK & Barthélémy, P. (2014). Nucleolipids as building blocks for the synthesis of <sup>99m</sup>Tc-labeled nanoparticles functionalized with folic acid. *New Journal of Chemistry*, 38(11), 5240-5246. IF 3.159
17. Yadav AP, **Chaturvedi S**, Mishra KP, Pal S, Ganju L, Singh SB. Evidence for altered metabolic pathways during environmental stress: (1)H-NMR spectroscopy based metabolomics and clinical studies on subjects of sea-voyage and Antarctic-stay. *Physiol Behav*. 2014 Aug; 135:81-90. doi: 10.1016/j.physbeh.2014.05.045. Epub 2014 Jun 5. PubMed PMID: 24910139. IF 3.150
18. **Chaturvedi S**, Kaul A, Yadav N, Singh B, and Mishra AK., Synthesis, Docking and Preliminary In-Vivo Evaluation of Serotonin dithiocarbamate as novel SPECT neuroimaging agent, *Med. Chem. Commun.*, (2013). IF 2.626
19. Tyagi R, Rana P, Gupta M, Khan AR, Bhatnagar D, Bhalla PJ, **Chaturvedi S**, Tripathi RP, Khushu S. Differential biochemical response of rat kidney towards low and high doses of NiCl<sub>2</sub> as revealed by NMR spectroscopy. *J Appl Toxicol*. 2013 Feb; 33(2):134-41. doi: 10.1002/jat.1730. Epub 2011 Sep 16. PubMed PMID: 21928331. IF 3.174
20. Hazari, Puja Panwar, Pandey, Anand Kumar, **Chaturvedi, Shubhra**, Tiwari, Anjani Kumar, Chandna, Sudhir, Dwarakanath, Bilikere Srinivasarao and Mishra, Anil Kumar, Synthesis of Oxovanadium(IV) Schiff base Complexes derived from C-substituted Diamines and Pyridoxal-5-Phosphate as Antitumor Agents, *Chemical Biology & Drug Design*, 79(2) ,223-234,2012, IF 2.504
21. Tyagi R, Rana P, Khan AR, Bhatnagar D, Devi MM, **Chaturvedi S**, Tripathi RP, Khushu S. Study of acute biochemical effects of thallium toxicity in mouse urine by NMR spectroscopy. *J Appl Toxicol.*, 31(7), 663-70, 2011. IF 3.174
22. Tanwar J, Datta A, Tiwari AK, **Chaturvedi S**, Ojha H, Allard M, Chaudary NK, Thirumal M, Mishra AK. Facile synthesis of non-ionic dimeric molecular resonance imaging contrast agent: its relaxation and luminescence studies. *Dalton Trans.*, 40(13), 3346-51, 2011. IF 4.097
23. Khan AR, Rana P, Devi MM, **Chaturvedi S**, Javed S, Tripathi RP, and Khushu S, Nuclear magnetic resonance spectroscopy-based metabonomic investigation of biochemical effects in serum of  $\gamma$ -irradiated mice, *Int. J. Radiat. Biol.*, Early Online, pp. 1–7, 2010. IF 1.837

24. Sinha D, Shukla G, Tiwari AK, **Chaturvedi S**, Chuttani K, Chandra H and Mishra AK, <sup>99m</sup>Tc-DTPA-Amino acids Conjugate as Specific SPECT pharmaceuticals for tumor imaging, Chemical Biology and Drug Design, 74, 159-164, 2009. IF 2.504
25. Upadhyay SN, Lal C, Bhardwaj R., **Chaturvedi S** and Chaudhary NK., Interaction of Spermine with DNA, vitamin C and bovine serum albumin in the unirradiated and gamma irradiated states, J Indian Chem Soc, 83(4), 379-382, 2006.

**BOOK CHAPTERS:**

Chadha, N., Chaturvedi, S., Mishra, A., and Lal, S. (2015) Nanomaterials Associated Metabolomics: Tool and Techniques for Assessment of Nanomaterials in Environmental Matrices. Nanomaterials in the Environment: pp. 513-551. doi: 10.1061/9780784414088.ch

Chaturvedi Shubhra and Mishra Anil K Neuro-ligands optimization using molecular modeling In Software and Techniques for Bio-Molecular Modeling- Accepted

**POSTERS AND ABSTRACTS**

	<b>EANM'19 - Annual Congress of the European Association of Nuclear Medicine.</b>	<b>12 Oct, 2019 – Wed, 16 Oct, 2019 Barcelona International Convention Centre, Barcelona, Spain</b>
<b>1.</b>	99mTc-labelled ketalised nucleolipid as SPECT-trackable Drug delivery system for CNS <i>Shubhra Chaturvedi, Swastika, A. Kaul, Puja Panwar Hazari, S. Pal, P. Barthélémy, B. Singh<sup>3</sup>, A. K. Mishra<sup>1*</sup></i>	
	NCNSMDT2 2018	<b>2018 In Kirori Mal College, Delhi</b>
<b>2.</b>	Design, Synthesis and biological evaluation of DTC based radioligand 99mTc-Fc-MPP(DTC) as brain imaging agent Vishakha Chaudhary, Shubhra Chaturvedi, Anju Wadhwa, Rupesh Kumar, A.K. Mishra	
	<b>25th National Magnetic Resonance Society Meeting (NMRS 2019)</b>	<b>13 - 16 February 2019 in All India Institute of Medical Sciences, New Delhi</b>
<b>3.</b>	Gd chelate of macrocyclic DO3A conjugated with ferrocene as a high relaxivity MRI blood-pool contrast agents (BPCAs) <i>Vishakha Chaudhary, Shubhra Chaturvedi, Anju Wadhwa, Deepa Bhaduria, Rupesh Kumar, A.K. Mishra</i>	
<b>4.</b>	Design, synthesis and preclinical evaluation of Gd-DO3AM-Propyl-MPP conjugate as CEST-MRI contrast agent. <i>Anju Wadhwa, Shubhra Chaturvedi, Deepa Bhaduria, Vishakha Chaudhary, Firasat Hussain, A. K. Mishra</i>	
	<b>International Society for Nanomedical Science Conference ISNSCON- 2018</b>	<b>07-10 January 2019 in Delhi University, New Delhi</b>

5.	Gd-DO3AM-Propyl-MPP and Gd-DO3A-Propyl-MPP conjugate as CEST-MRI contrast agents: Comparative evaluation of proton transfer in spinal cord injury and preclinical evaluation of Gd-DO3AM-Propyl-MPP conjugate as CEST-MRI contrast agent. <i>Anju Wadhwa, Shubhra Chaturvedi, Deepa Bhaduria, Vishakha Chaudhary, Firasat Hussain, A. K. Mishra</i>
	<b>December 21-22, 2018 in Jaipur, Rajasthan</b>
6.	Design, Synthesis and pre clinical evaluation of Prostate Specific Antigen inhibitor <sup>68</sup> Ga DO3A -UREA-LYSINE for PET Imaging of Prostate Membrane Cancer (First Prize in Oral Presentation) <i>Anju Wadhwa, Shubhra Chaturvedi, Dr. Firasat Hussain, Dr. Anil Kumar Mishra</i>
7.	Design, Synthesis and evaluation of BBB permeable ferrocene conjugated radioligand <sup>99m</sup> Tc-Fc-MPP(DTC) as SPECT imaging neurotracer <i>Vishakha Chaudhary, Shubhra Chaturvedi, Rupesh Kumar, A.K. Mishra</i> Click chemistry based nucleoside-capped surface modified silver nanoparticles as dual imaging agent for brain
	<b>November 22-25, 2018, in Bhargava Auditorium, PGIMER, Chandigarh, India</b>
8.	Design, synthesis, and evaluations of blood-brain barrier permeable ferrocene-conjugated complex <sup>99m</sup> Tc-Fc MPP (DO3A) as single photon emission computed tomography imaging neurotracer <i>Vishakha Chaudhary, Anil Kumar Mishra, Shubhra Chaturvedi, Amita Malik, Ankur Kaul, Deepa Bhadouria, Anju Wadhwa, Sunil Pal</i>
9.	A multimodal neuroimaging agent for human 5-HT1A/5-HT7 receptors (Oral Presentation) <i>Preeti Jha, Shubhra Chaturvedi, Ankur Kaul, Puja Panwar Hazari, Nidhi Jain, A. K. Mishra</i>
10.	Nucleoside-capped surface modified silver nanoparticles as dual imaging agent (Oral Presentation) <i>Deepa Bhadouria, Anil K. Mishra, Shubhra Chaturvedi, Anju Wadhwa, Vishakha Chaudhary, Sangeeta Lal, Ankur Kaul, Sunil Pal, Aruna Chhikara</i>
11.	Design, synthesis, and comparative evaluations of Gd-DO3AM-Propyl-1-2-methoxyphenylpiprazine and Gd-DO3A-Propyl-1-2-methoxyphenylpiprazine conjugate as chemical exchange saturation transfer-magnetic resonance imaging contrast reagents (Oral Presentation) <i>Anju Wadhwa, Shubhra Chaturvedi, Deepa Bhadouria, Firasat Hussain, A. K. Mishra</i>
12.	Stereotactic intracranial implantation and <i>in vivo</i> bioluminescent imaging of tumor xenografts in athymic mice model system of nucleolipid (DI- C15-ketalized uridine) <i>Swastika Mishra, A. K. Mishra, Philippe Barthelemy, Shubhra Chaturvedi</i>
	<b>December 6-8, 2018, in Satna, MP</b>
13.	Targeted Brain Imaging Agents for Serotonin-1A/7 Receptors in Normal and Treated Environments (Best Poster Paper Presentation) <i>Preeti Jha, Shubhra Chaturvedi, Ankur Kaul, Puja Panwar Hazari, Nidhi Jain and Anil K Mishra</i>
	<b>October 13 - 17, 2018 in Düsseldorf/Germany</b>
14.	Evaluation Of BBB Permeable Nucleo-Liposomes (NL-Nps): A DI-C15-Ketalised Palmitone Appended Uridine As Neuro-Tracer For SPECT <i>S Mishra, S Chaturvedi, P Barthelemy, A Mishra, B Singh</i> Also published in :EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING 45, S678-S678
15.	New multimodality PET/SPECT neuroimaging agent for 5-HT1A/5-HT7 receptors (Oral Presentation) <i>P Jha, S Chaturvedi, A Kaul, PP Hazari, S Pal, N Jain, AK Mishra</i> Also published in :EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING 45, S208-S209

ANNUAL CONFERENCE SOCIETY OF NUCLEAR MEDICINE SNMICON (International)-2017		14-17 December, 2017 in New Delhi
16.	In silico, synthesis, and preliminary evaluation of benzothiazolone-diethylene-triamine-pentaacetate acid-conjugates: $^{99m}\text{Tc}$ -DTPA-(BTZ) <sub>2</sub> and $^{99m}\text{Tc}$ -DTPA-(Ac-BTZ) <sub>2</sub> as single photon emission computed tomography neuroimaging agents (Oral Presentation) <i>Preeti Jha, Shubhra Chaturvedi, Ankur Kaul, Sunil Pal, Nidhi Jain, Anil K. Mishra</i>	
17.	Theranostic potential of nucleo lipidic liposomal assemblage for drug delivery in brain (Oral Presentation) <i>Swastika Mishra, Shubhra Chaturvedi, Ankur Kaul, Puja Panwar Hazari, Preeti Jha, Sunil Pal, Philippe Barthélémy, B. Singh, A. K. Mishra</i>	
18.	Linear electron accelerator-based radioisotope generation (Oral Presentation) <i>Abhay Deshpande, Tanuja Dixit, R. Krishnan, Anil Kumar Mishra, Sanjay Pethe, Shubhra Chaturvedi, Puja Panwar, Sandesh Bhat, Ganesh Gaikwad, Paresh Jadhav, Manoj Kumbhare, C. S. Nainwad, Sandeep Name, R. Sandeep Kumar, Sameer Kiran Thakur, Mandar Vidwans, Mathe, Krutika Natu</i>	
19.	Exploitation of solid targetry for scandium-44 production at INMAS: A potential alternative to generator-produced radioisotopes (Oral Presentation) <i>Shubhra Chaturvedi, Puja Panwar Hazari, Anil K. Mishra</i>	
20.	Design, synthesis, and development of $^{44}\text{Sc}$ - (1,4,7,10 tetrazacyclodecane-1yl) <sub>1,4,7</sub> triacetic acid -lipid conjugate: Theoretical insight and preclinical evaluation for positron emission tomography and single photon emission computed tomography imaging <i>Anju Wadhwa, Shubhra Chaturvedi, Deepa Bhadouria, Preeti Jha, Sunil Pal, Firasat Hussain, A. K. Mishra</i>	
21.	Synthesis, in silico studies, and preliminary in vitro/vivo evaluation of nucleoside-capped silver nanoparticle as dual imaging agent for brain imaging <i>Deepa Bhadouria, Shubhra Chaturvedi, Sangeeta Lal, Ankur Kaul, Anju Wadhwa, P. Sen, Aruna Chhikara, Anil K. Mishra</i>	
EANM'17 - Annual Congress of the European Association of Nuclear Medicine		October 21 - 25, 2017 in Vienna/Austria
22. 1	In Silico, Design, Synthesis, Pre-clinical studies of [ $^{11}\text{C}$ ]-BTZ-MPP: PET neuroimaging agent for 5-HT <sub>1A</sub> /1A /5-HT <sub>1A</sub> /7 Dimeric Serotonin receptors (Oral Presentation) <i>Preeti Jha, Shubhra Chaturvedi, Swastika Mishra, Sangeeta Lal, Nidhi Jain and Anil K Mishra</i>	
23. 2	Proof of Concept for Nucleolipids as potential SPECT tracer: Synthesis and Evaluation of Uridine derived Nucleolipid as Targeted Imaging Agent <i>Swastika Mishra, Shubhra Chaturvedi, Ankur Kaul, Sunil Pal, Philippe Barthelemy, B Singh and Anil Kumar Mishra</i>	
International conference on DRUG DESIGN 2017		7th -9th April 2017, JNU, Delhi First Prize in Poster Session
24. 1	Molecular Modeling, Synthesis and Physicochemical Studies of [ $^{11}\text{C}$ ]-BTZ-MPP: PET Neuroimaging Agent for 5-HT <sub>1A</sub> /1A /5-HT <sub>1A</sub> /7 Dimeric Serotonin Receptors <i>Preeti Jha, Shubhra Chaturvedi, Swastika Mishra, Sangeeta Lal, Nidhi Jain and Anil K Mishra</i>	
BITERM- 2016 - Society for Biomaterials and Artificial Organs (SBAOI)		15-17th April 2016, IIT Delhi Springer First Prize in Poster Session
25. 2	Targeted PET Neuroimaging of 5HT <sub>1A</sub> /5HT <sub>7</sub> Receptors: In silico, synthesis, and bioevaluation of [ $^{11}\text{C}$ ]-BTZ-MPP <i>Preeti Jha, Shubhra Chaturvedi, Swastika Mishra, Nidhi Jain and Anil K Mishra</i>	
26. 3	Nucleolipid Derivatized Monoamide DTPA: Synthesis and Preliminary Evaluation for SPECT Imaging <i>Swastika Mishra, Preeti Jha, Ankur Kaul, Shubhra Chaturvedi, B Singh and Anil K Mishra</i>	

	<b>Society of Nuclear Medicine SNM (India), SNMICON 2016</b>	<b>Nov 2016, Ahmedabad, India</b>
27. 4	Nucleolipid nanoassemblies as novel molecular imaging probe Synthesis, theoretical insight and preclinical evaluation of uridine nucleolipid derivative using SPECT <i>Swastika Mishra, <b>Shubhra Chaturvedi</b> , Preeti Jha , Ankur Kaul , B. Singh , Anil Kumar Mishra</i>	
28. 5	Design, synthesis, preliminary evaluation of [ <sup>99m</sup> TcDTCMPPBTZ] complex: A novel SPECT neuroimaging agent for 5HT1AR/5HT7R dimeric complexes <i>Preeti Jha, <b>Shubhra Chaturvedi</b>, Swastika Mishra, Nidhi Jain, and Anil K. Mishra</i>	
	<b>Current Trends in Drug Discovery Research (CTDDR) 2015</b>	<b>February, 2016, , Central Drug Research Institute, (CDRI), Lucknow, India</b>
29. 6	Homology modeling of human 5HT7 Gprotein coupled receptor: quality assessment, validation, enrichment and refinement with MD simulation and docking evaluation <i>Preeti Jha , Swastika Mishra, <b>Shubhra Chaturvedi</b>, Nidhi Jain and Anil K Mishra</i>	
	<b>SNM (India) SNMICON 2015</b>	<b>February 2016, Puducherry, India</b>
30. 7	Nucleolipid Derivatized Monoamide Dtpa: Synthesis Based On Molecular Weight Cutoff Cassette and Preliminary Evaluation For SPECT Imaging <i>Swastika Mishra, Preeti Jha, <b>Shubhra Chaturvedi</b>, Ankur kaul, B. Singh and Anil Kumar Mishra</i>	
31. 8	Design, molecular modeling, synthesis and bio-evaluation of [ <sup>11</sup> C]BTZ-MPP based mixed affinity radioligand: A novel PET neuroimaging agent for 5-HT and 5-HT receptors <i>Preeti Jha , Swastika Mishra , <b>Shubhra Chaturvedi</b> , Nidhi Jain and Anil K Mishra</i>	
	<b>Current Challenges in Drug Discovery Research (CCDDR) International Conference, 2015,</b>	<b>November, 2015, Malaviya National Institute of Technology (MNIT) Jaipur, India</b>
32. 9	Homology modeling of human 5HT1A G protein coupled receptor: model validation and refinement with molecular dynamics simulation and docking evaluation <i>Preeti Jha , Swastika Mishra , <b>Shubhra Chaturvedi</b> , Nidhi Jain and Anil K Mishra</i>	
	<b>ISMRRM 23rd Annual Meeting &amp; Exhibition</b>	<b>30 May - 05 June 2015, Toronto, Ontario, Canada</b>
33. 10	Metabolic perturbations of Rat Spleen due to Chronic Cold Stress: 1H NMR based Metabolomic Study <i>Sonia Gandhi, Hemanth Kumar B S, Sunil Koundal, <b>Shubhra Chaturvedi</b>, Rajendra P Tripathi, and Subash Khushu</i>	
	<b>247th ACS National Meeting and Exposition, Chemistry and Materials for Energy Oral Presentation</b>	<b>March 16-20, 2014, Dallas, Texas</b>
34. 11	Importance of tetrahydrobiopterin mediated interactions in aromatic amino acid hydroxylases enzymes family: Assessing effect on biosynthesis due to effect of single site mutation on thermodynamic stability of hydroxylases <i>Nidhi Chadha, Anjani Kumar Tiwari, <b>Shubhra Chaturvedi</b>, Marilyn Daisy Milton, Anil Kumar Mishra.</i>	
	<b>T-NANO- 2014 International Conference on Translational Nanomedicine</b>	<b>15-17<sup>th</sup> December, 2014, Institute of Life Sciences (ILS), Ahmedabad University</b>
35. 12	Synthesis, docking and preliminary in Vitro/Vivo Evaluation of MPP-Dithiocarbamate-capped silver nanoparticle as dual imaging agent for 5HT1A <i><b>Shubhra Chaturvedi</b>, Sangeeta Lal, P. Sen, and Anil K Mishra</i>	
	<b>SNM (India) SNMICON 2014</b>	<b>10-13<sup>TH</sup> Dec 2014, Kolkata,</b>

		India
36. 13	Synthesis and Preliminary Evaluation of Triazole modified Nucleolipid based Ligand as SPECT Onco-Imaging Probe <i>Sonal Goel*, Swastika Mishra, Shubhra Chaturvedi and Anil Kumar Mishra</i>	
37. 14	Dithiocarbamate derivatization of nucleolipid for development as ligand for brain imaging (Oral Presentation) <i>Swastika Mishra*, Sonal Goel, Shubhra Chaturvedi and Anil Kumar Mishra</i>	
<b>EANM'13- Annual Congress of the European Association of Nuclear Medicine</b>		<b>2013, France</b>
38. 15	Design and development of Arylpiperazine based Homobivalent radioligand (DO3A-(MPP) <sub>2</sub> ): Synthesis based on 'Click Chemistry' and Preclinical Evaluation for Imaging GPCR oligomerization using SPECT and PET. <i>Shubhra Chaturvedi, Ankur Kaul, Swastika Mishra, Neelam Yadav, B.Singh and Anil K. Mishra</i>	
<b>SNM (India) SNMICON 2013</b>		
39. 16	Design and development of nucleolipid based fluorine labeled radiotracer: synthesis based on 'click chemistry', theoretical insight and preliminary evaluation for imaging. <i>Shubhra Chaturvedi, Ankur Kaul, Swastika Mishra, Bachcha Singh and Anil Kumar Mishra</i>	
40. 17	Theoretical insight into M2+/M3+-6 amino-(1H)-1,4,8,11-tetraacycltridecane-5,7-dione chelate: A bifunctional chelator as positron emission tomography tracers <i>Nidhi Chadha, Anjani Kumar Tiwari, Shubhra Chaturvedi, Marilyn Daisy Milton, Anil Kumar Mishra.</i>	
<b>EANM'11- Annual Congress of the European Association of Nuclear Medicine</b>		<b>2011, Birmingham/UK.</b>
41. 18	Synthesis, radiolabeling and biological evaluation of cross bridged macrobicyclic chelating agent with 5HT as potential PET imaging agent: 64 Cu- PABHD-5HT <i>Shubhra Chaturvedi, B Singh, and Anil K Mishra</i>	
<b>Special symposium on Magnetic Resonance and Biomolecular Mimetics &amp; 15<sup>th</sup> National Magnetic Resonance Meeting</b>		<b>Indian Institute of Chemical Technology, Hyderabad, India, 2009</b>
42. 19	Thermodynamics of the Acid dissociation of phosphonic acid based bone specific chelating agent: determination of Equilibrium constants by means of <sup>13</sup> C NMR Spectroscopy. <i>Anjani K. Tiwari, Puja Panwar, Shubhra Chaturvedi and Anil K. Mishra</i>	
43. 20	Exploration of the effect of whole body ionizing radiation exposure on the renal and hepatic tissue metabolism in mice using high resolution H NMR spectroscopy <i>Poonam Rana, Ahmad Raza Khan, Ritika, Poonam Singh, Shubhra Chaturvedi and Subash Khushu</i>	
<b>Seminar in Nuclear Medicine, India</b>		<b>Jaipur, India, 2009</b>
44. 21	Synthesis, Radiolabelling & biological evaluation DO3A-EA-RGD for targeted imaging of αvβ3-integrin expression in tumors. <i>Raunak, S.Chaturvedi, P.Panwar, J. Uppal, S.Pal, R.P.Tripathi, A.K.Mishra</i>	
45. 22	Solid phase synthesis, radio labeling of DO3EA-RGD for targeting tumor imaging. <i>Raunak, Puja Panwar, Jasleen Uppal, Michele Allard, Eric fouquet, Neeraj Singh, Shubhra Chaturvedi, Sachin Sony, A.K. Mishra</i>	
46. 23	Synthesis and Characterisation of Tc99m labeled folic acid conjugated superparamagnetic maghemite nanoparticles for enhanced imaging. <i>Ramprakash Chauhan, Rashi Mathur, Gurjaspreet Singh, Sweta Singh, Shubhra Chaturvedi, Ankur Kaul, A.K.Babbar and A.K.Mishra</i>	
47. 24	Drug design and nuclear medicine application of modified RGD. <i>Shubhra Chaturvedi, Sunil Pal, Raunak, Anjani K Tiwari, B. Singh and Anil K Mishra</i>	

	<b>9<sup>th</sup> Asia Oceania Congress of Nuclear medicine and biology</b>	<b>Delhi, India, 2008</b>
48. 25	A Novel Non-Ionic Contrast Agent for MRI: Bismacrocylic DO3A-AME-DO3A. <i>Jyoti Tanwar, Anupama Datta, Shubhra Chaturvedi, R. P. Tripathi, A. K. Mishra</i>	
	<b>Future Directions in NMR, NMR, 2008 Symposium on Future Directions in NMR</b>	<b>Indian Institute of Science Centenary, Bangalore, India, 2008</b>
49. 26	Dev of Dextran coated Superparamagnetic nanoparticles for targeted tumor imaging. <i>R.Chauhan ,Rashi ,Sweta, Shubhra, A.K.Mishra</i>	

SI No	Details / No. of Personnel	Skills Required	Project/Work details of Association	
1.	Urja			Jun- Jul 2019
2.	Akansha			Jun- Jul 2019
3.	Shivani			Jun- Jul 2019
4.	Tanya Kapoor			Jul-Dec 2019
5. 1.	Akreti Goyal	Bachelor Btech, Banasthali University	Biofluids as valuable tools in drug desin	Jul-Dec 2019
6. 2.	Kartikey Pandey			May-July 2019
7. 3.	Divya Gautam	Masters in chemistry from Indian Institute of Technology, Roorkee		May-July 2019
8. 4.	Ayushi Verma	Masters (Appl. Microbiology and Biotechnology), Banasthali University	A Comprehensive approach for designing Radiophaceuticals/ Pharmaceuticals	Jan-Jun 2019
9. 5.	Akshita Upreti	Masters (Appl. Microbiology and Biotechnology), Banasthali University	Design, Synthesis, In silico studies and development of metalloradiopharmaceuticals as diagnostic agents	Jan-Jun 2019
10. 6.	Ridhima	B.Tech Biotechnology Amity Institute of Biotechnology	Screening of ligands for imaging and therapy	Feb-Apr 2019

11. 7.	Swati Kumari	Masters Biotechnology Central University of Haryana	Aspect of drug designing and evaluation of diagnostic and therapeutic drug	Jan-Jun 2019
12. 8.	Pragya Rawal	Bachelor Btech, Banasthali University	Different Steps in Design and development of Radiopharmaceuticals	Jul-Dec 2018
13. 9.	Drishti Khurana	Bachelor BTech, Banasthali University	In silico, In vitro and In vivo experiments for radiopharmaceutical development	June-Dec 2017
14. 10.	Sonakshi Madan	Bachelor BTech, JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA	Cold stress metabolomics study and haemolytic analysis to assess drug toxicity	June -July 2017
15.	Kanchan Pandey	M.Pharm., Kumaun University, Nainital	Development of Methoxy Phenyl Piperazine Based Ligand for Receptor Imaging	Aug 2016- June 2017
16.	Gloria Parmar	Masters of Biotechnology To Amity University	Molecular dynamics of Nucleolipid and a model lipidic bilayer membrane	June 2015
17.	Subhechha Roy	M.Tech(CSPT),University of Delhi	Design and Dvelopment of radiopharmaceuticals using CADD and Bioorthogonal Approach	Jan- Dec 2014
18.	Sangeeta Gupta	M.Tech (CSPT), University of Delhi, Delhi	Molecular Dynamics and Synthesis of <sup>18</sup> F derived Molecules for Application in Imaging	Feb-Dec 2014
19.	Ruby Khan	M.Tech(C.S.P.T) University of Delhi, Delhi	Molecular Modelling of Antibacterial Agents By QSAR& Design and Synthesis of Precursors for Radiopharmaceuticals as Imaging Agents	Feb- Dec 2014
20.	Sweta Gahlot	Masters in Chemistry, Dr BR Ambedkar National Institute of Technology	Design and Synthesis of radiopharmaceuticals	May-July-2014
21.	Yatin Tuteja	B.Tech(Biotechnology) from Amity University	Molecular Modeling and docking of 5-HT Serotonin	March - April 2012

			Receptor by preparing various homology models using Schrodinger	
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