




Faculty Details proforma for DU Web-site

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cc: director@ducc.du.ac.in)

Title	Prof./Dr./Mr./Ms./Mrs.	First Name	Pratibha Mehta	Last Name	Luthra	Photograph
Designation		Associate Professor				
Address		Dr. B.R. Ambedkar Centre for Biomedical Research University of Delhi Delhi 110007 India				
Phone No Office		011-27662778				
Residence		011-27651996				
Mobile						
Email		pmluthra@acbr.du.ac.in				
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph.D. Chemistry		Central Drug Research Institute, Lucknow (UP), India			1987	
M.Phil. / M.Tech.		-				
PG Organic Chemistry		Meerut University (UP), India			1981	
UG Chemistry, Zoology, Botany		Meerut University (UP), India			1978	
Any other qualification						
B.Ed.		Meerut University (UP), India			1979	
LL.B		Lucknow University (UP), India			1983-1985	
Biochemistry Graduate course (820 and 821, 6 credits), Techniques in Biochemistry & Molecular biology (850, 2 credits)		University of Nebraska, Omaha, NE, USA			1991-92	
Career Profile						
Post Doctoral Fellow (SERC)		University of Liverpool, U.K.			1987-1988	
Post Doctoral Fellow (UPJOHN)		University College London, U.K.			1988-1990	
Post Doctoral Fellow (NCI)		Eppley Institute, Omaha, NE, USA			1990-1993	
Pool Officer		CIMAP, Lucknow (UP), India			1994-1997	
Associate Professor		Dr BR Ambedkar Centre for Biomedical Research			1997 till date	

Administrative Assignments
<p><u>Administrative experience:</u></p> <p>Since the inception of M.Sc. Ph.D. combined Degree program in 1997 at Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, I have been involved in formulation of syllabus for various courses including theory and practical course, with internal and visiting faculty members leading to the beginning of this course in 1998. The purchase and installation of various equipments was carried during subsequent years to establish M.Sc. practical laboratories and development of Research facilities in the department.</p> <p><u>Formation of syllabus for theory and practicals</u></p> <p><i>Organic Chemistry</i></p> <p><i>Biochemistry</i></p> <p><i>Medicinal chemistry</i></p> <p><i>Instrumentation and Clinical Techniques</i></p> <p><i>Pharmacology</i></p> <p><u>Examination superintendent</u></p> <p>2000-2001 April-May M.Sc. Biomedical Examinations</p> <p>2003-2004 November-December Biomedical Examination</p> <p>2006-2007 November-December Biomedical Examination</p> <p>2008-2009 April- May Biomedical Examination</p> <p>2009-2010 April-May</p> <p>Time table Co-ordinator (2008-2010).</p> <p>Conducting Interview for Research Scientist (Lecturer), M.Sc. admission, appointment of staff in various projects, purchase committee/ Bill committee member, purchase of equipments and installation etc.</p>
Areas of Interest / Specialization
<p>Medicinal Chemistry/ synthesis of compounds acting on Central Nervous System: In Particular synthesis of anti-Parkinsonian and anti-tumor agents and carry their in vitro and in vivo screening.</p>
Subjects Taught

Research Guidance

List against each head (If applicable)

1. Supervision of awarded Doctoral Thesis

Singh, Rambir. 2004. SYSTEMATIC INVESTIGATION OF CURCUMA LONGA (TURMERIC): ISOLATION PURIFICATION AND CHARACTERIZATION OF SESQUITERPENOID COMPOUNDS ACTIVE AGAINST PATHOGENIC BACTERIA.

Sharma, Surbhi. 2004. PROTEOMICS APPROACH FOR MOLECULAR CHARACTERIZATION OF BIOCHEMICALLY ACTIVE MOLECULES OF *Pseudomonas fluorescens*.

Singh, Vimal Kishore. 2006. FUNCTIONAL EVALUATION OF HEMOPOITIC STEM CELLS SPECIFIC ANTIGEN CD 34 BY GENETIC ENGINEERING AND GENE TRANSFECTION

Kumar, Raj. 2009. ANALYSIS OF THE HOST CELLULAR RESPONSES INDUCED BY A BACTERIAL TOXIN.

Kumar, Sandeep. 2010. MOLECULAR INTERACTION OF ADENOSINE A2A RECEPTOR ANTAGONISTS AS POTENTIAL ANTI-PARKINSONIAN AGENTS

2. Supervision of Doctoral Thesis, under progress

Kumar, Rakesh. 2005. STUDY THE MOLECULAR MECHANISM OF CHEMOPREVENTIVE AND CHEMOPROTECTIVE ACTIVITY OF CURCUMIN, A NATURAL PRODUCT FROM CURCUMA LONGA Submitted).

Singh, Satendra. 2005. PHYTOCHEMICAL INVESTIGATION OF MUCUNA PRURIENS AND *Psoralia corylifolia*

Kumari, Rita. 2006. MOLECULAR PATHOLOGY OF PARKINSON'S DISEASE.

Prakash, Amresh. 2008. INSILICO EXPLORING THE MOLECULAR TARGET IN ETIOLOGY OF PARKINSON'S DISEASE.

Mishra, Chandra Bhushan. 2009. SYNTHESIS OF NITROGEN AND SULPHUR HETEROCYCL -ES ACTING ON CENTRAL NERVOUS SYSTEM.

Kumar, J.B.Senthil. 2009. SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL HETEROCYCLIC COMPOUNDS TO STUDY THEIR ANTI-PARKINSONIAN ACTIVITY

3. Supervision of awarded M.Phil dissertations

4. Supervision of M.Phil dissertations, under progress

Publications Profile

List against each head (If applicable) (as illustrated with examples)

1. Books/Monographs (Authored/Edited)
2. Research papers published in Refereed/Peer Reviewed Journals

Mehta, Pratibha, Saxena, A. K., Gulati, A. and Anand, N. 1988. Synthesis of substituted pyrido [3,4-b] indoles-3-carboxamides and related compounds as benzodiazepine receptor agonist and antagonists. Indian J. Chemistry B 27:140-143.

Mehta, Pratibha, Kumar, Y., Saxena, A. K., Gulati, A., Singh, H.K. and Anand, N. 1991. Synthesis of *cis* and *trans*-1-substituted-1,2,3,4,4a,5,6,11a-octahydro-6H-pyrido [3,2-b]carbazoles, 4-substituted-1,2,3,4,4a,5,6,11c-octahydro-7Hpyrido [2,3-c]carbazole, *cis*-methyl-1,2,3,4,4a,5,6,12-octahydro-7H-pyrido[2,3-c]acridine and *cis*-1-methyl-2,3,4,4a,5,12,12a-octahydro[3,2-b]acridine, A new class of anti-Parkinsonian agents. Indian J. Chemistry, 30 (2): 213-221.

Mehta, Pratibha, Konakahara, T. and Gold, B. 1992. A convenient method to synthesize N [³ H]methyl-N-nitrosocarbamate transfer reagents. Journal of Labeled Comp. and Radiopharm. 31 (11): 925-931.

Yhang, Y., Chen, Fa-Xian, **Mehta Pratibha** and Gold B. 1993. Groove and sequence selective alkylation of DNA by sulfonate esters tethered to Lexitropsins **Biochemistry**, 32:7954-7965.

Mehta , Pratibha, Church, K., Williams, J., Chen, F-X, Encell, L. , Shuker D.E.G. and Gold B. 1996. The design of agents to control DNA methylaton adducts. Enhanced major groove methylation of DNA by an N-methyl-N-nitrosoureas functionalised phenylneutral red intercalator. 939- Chemical Res. Toxicol, 9(6): 948.

Ganellin, C. R. Bishop, P.B., Bambal, R.B., Chan, S.M.T. Law, J.K. Marabout, B., **Luthra Pratibha Mehta**, Moore, A.N.J., Peschard, O., Bourgeat, P., Rose, C., Vargas, F. and Schwartz, J-C. 2000. Inhibitors of Tripeptidyl peptidase II.2. Generation of first novel lead inhibitor of cholecystokinin-8-inactivating peptidase: a strategy for the design of peptidase inhibitors. J. Med. Chem. 43: 664-674.

R. Singh, R. Chandra, M. Bose, **Luthra, Pratibha Mehta**. 2002. Antibacterial activity of *Curcuma longa* rhizome extract on pathogenic bacteria. Current Science 83 (6): 737-740.

Gangenahalli, G.U. Singh, V.K., Verma, Y.K., Gupta,P., Sharma, R. K., Chandra, R., Gulati, S. and **Luthra, Pratibha Mehta**. 2005. Three-dimensional structure prediction of the interaction of CD34 with the SH3 domain of Crk-L. Stem Cells Dev 14(5): 470-7.

Gangenahalli, G.U. Singh, V.K., Verma, Y.K., Gupta,P., Sharma, R. K., Chandra, R., and **Luthra, Pratibha Mehta**.

2006. Hematopoietic Stem Cell Antigen CD34: Role in Adhesion or Homing. *Stem Cells Dev* 15(3): 305-13,
Sharma, S, **Luthra, Pratibha Mehta**, Singh, Y., Sirdeshmukh, R., Gade, W.N. 2006. Role of proteins in resistance mechanism of *Pseudomonas fluorescens* against heavy metal induced stress with proteomics approach. *J Biotechnol.* 126(3): 374-82.

Luthra, Pratibha Mehta, Barodia, S.K. and Raghubir, R. 2009. Antagonism of haloperidol-induced swim impairment in L-dopa and caffeine treated mice: a pre-clinical model to study Parkinson's disease. *J Neurosci Methods* 178(2): 284-90.

Pratibha Mehta Luthra, R Kumar, and A Prakash 2009. Demethoxycurcumin induces Bcl-2 mediated G2/M arrest and apoptosis in human glioma U87 cells. *Biochem Biophys Res Commun*, 384(4): 420-5.

Luthra, Pratibha Mehta, Prakash,A., Barodia, S.K., Kumari, R., Mishra, C.B., Kumar J.B.S. 2009. *In silico* study of naphtha [1, 2-d] thiazol-2-amine with adenosine A_{2A} receptor and its role in antagonism of haloperidol-induced motor impairments in mice. *Neuroscience Letters*, 463, 215-218.

Luthra, Pratibha Mehta and Singh S, 2010. [Identification and optimization of tyrosine hydroxylase activity in *Mucuna pruriens DC. var. utilis*](#) *Planta*, 231 (6) : 1361-1369.

Luthra , Pratibha Mehta, Mishra CB, Jha PK, et al. 2010. [Synthesis of novel 7-imino-2-thioxo-3,7-dihydro-2H-thiazolo \[4,5-d\] pyrimidine derivatives as adenosine A\(2A\) receptor antagonists](#) *Bioorganic & Medicinal Chemistry Letters* 20 (3) :1214-1218.

Aneja R, **Pratibha Mehta Luthra**, Ahuja S. 2010. [High-Performance Liquid Chromatography Separation of Enantiomers of Mandelic Acid and Its Analogs on a Chiral Stationary Phase](#) *CHIRALITY*, 22(5): 479-485.

Mishra CB, Barodia SK, Prakash A, **Luthra, Pratibha Mehta** et al. 2010. [Novel 8-\(furan-2-yl\)-3-substituted thiazolo \[5,4-e\]\[1,2,4\] triazolo\[1,5-c\] pyrimidine-2\(3H\)-thione derivatives as potential adenosine A\(2A\) receptor antagonists](#). *Bioorganic & Medicinal Chemistry* 18 (7) : 2491-2500.

- a) *Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals*
- b) *Research papers published in Refereed/Peer Reviewed Conferences*
- c)

Luthra, Pratibha Mehta, Barodia,S.K., Prakash,A., Ramraghubir' 2007. cDNA-derived amino acid sequence from rat brain A_{2a}R possesses conserved motifs PMNYM of TM 5 domain involved in dimerization of A_{2a}R, In **Lecture Notes in Bioinformatics (LNBI 4774)**: Pattern Recognition in Bioinformatics, ed. J. C. Rajapakse,

Bertil Schmidt Gwenn Volkert 41-50 (**Springer**).

d) *Research papers Published in Conferences/Seminar other than Refereed/Peer Reviewed Conferences*

3. *Other publications (Edited works, Book reviews, Festschrift volumes, etc.)*

ATENTS

. An Improved Process for the Purification of Bio-active Sesquiterpenoids from *Curcuma longa* by Reverse Phase High Performance Liquid Chromatography, **Pratibha Mehta Luthra** * and R. Singh, Dr. B.R. Ambedkar center for Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi – 110007, INDIA Indian Patent No. 225387.

. Novel thiazolo [4,3-e] 1,2,4-triazolo [1,5-c] pyrimidine and thiazolo [4,3-e] 1,3-imidazo [1,2-c] pyrimidine derivative and process for preparation thereof; **Pratibha Mehta Luthra** * and Chandra Bhushan Mishra, Dr. B.R. Ambedkar center for Biomedical Research, University of Delhi, Delhi – 110007 and Council of Scientific and Industrial Research New Delhi, 2376 DEL 2009 (Patent filed with CSIR dated 30th April 2009)

. A Novel 3-substituted 7-imino-2-thioxo-3, 7-dihydro-2H-thiazolo [4,5-d] pyrimidin-6-yl –amide and process for preparation thereof **Pratibha Mehta Luthra** * and Chandra Bhushan Mishra, Dr. B.R. Ambedkar center for Biomedical Research, University of Delhi, Delhi – 110007 and Council of Scientific and Industrial Research New Delhi, 2376 DEL 2009 (Patent filed with CSIR dated October 2009).

. Novel thiazolo [4,3-e] 1,3-imidazo [1,2-c] pyrimidine derivatives and process for preparation thereof; **Pratibha Mehta Luthra** * and Chandra Bhushan Mishra, Dr. B.R. Ambedkar center for Biomedical Research, University of Delhi, Delhi – 110007 and Council of Scientific and Industrial Research New Delhi, 1240 DEL 2010 (Patent filed with CSIR dated 30th April 2010)

Conference Organization/ Presentations (in the last three years)

List against each head (If applicable)

Organization of a Conference

Participation as Paper/Poster Presenter

Luthra, Pratibha Mehta. 2009. Targeting A_{2A} receptor, a novel therapeutic approach to prevent neuronal cell death in PD. Paper presented at International Conference on Neuroscience updates & Annual Meeting of Society for Neurochemistry, 12th December –14th December 2009, Cochin University Science & Technology, Cochin - 682022 (Kerala), India.

Luthra, Pratibha Mehta, Singh R. and Singh, J. 2009. Bioassay-Guided HPLC Purification of turmerones from turmeric oil of *Curcuma longa*. Paper presented at 13th International Meeting on Rapid Development in Pharmaceutical Analysis (RDPA) from September 9-12, University of Milan via Festa del Perdono 7, Milan, Italy.

Luthra, Pratibha Mehta, Barodia, S.K., Maikho, A. and Pasha, S. 2008. Synthesis of oligopeptide as substrate of Parkin protein involved in the pathology of Parkinson's Disease : a therapeutic approach for Parkinson's Disease.

Presented at [International Structural Neuroscience Conference on Peptides](#), February 22-24, Department of Pharmaceutical Sciences, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur, India.

Luthra, Pratibha Mehta, Barodia, S.K., Prakash, A., Ramraghubir. 2007. cDNA-derived amino acid sequence from rat brain A_{2a}R possesses conserved motifs PMNYM of TM 5 domain involved in dimerization of A_{2a}R. Paper presented at Pattern Recognition in Bioinformatics October 1-2, NTU Singapore.

Luthra, Pratibha Mehta. 2006. Antibacterial Agent from Curcuma longa (Turmeric): Approach to Drug Discovery from Natural Products on June 1 at Department of Chemistry & Physics, University of North Florida, Jacksonville, FL 32224, USA.

Luthra, Pratibha Mehta 2006. cDNA-derived amino acid sequence of adenosine A_{2a} receptor from rat brain encodes fifth transmembrane domain. Paper presented at Frontier in Biomedical Research-06 on 30th November 2006, Dr. B. R. Ambedkar Centre for Biomedical Research, University of Delhi, Delhi 110007, India.

Luthra, Pratibha Mehta, Singh, S. and Azam F. 2006. Synthesis of 2-Benzylideneamino-naphthothiazoles as potential Antibacterial Agents. Paper presented at the Joint International conference on Building Bridges, Forging Bonds for 21st Century Organic Chemistry and Chemical Biology (ACS-CSIR), January 6-9, National Chemical Laboratory, Pune, Maharashtra, India.

Luthra, Pratibha Mehta, Singh, S. and Azam F. 2006. Reduction of haloperidol induced motor impairments in Naphtha[1,2-d]thiazol-2-amine treated mice evocative of its potential as A_{2a} receptor antagonists. Paper presented at the Targeting Adenosine A_{2A} Receptors in Parkinson's Disease and other CNS Disorders, May 17-19, Massachusetts General Hospital, Boston (MO) USA.

Azam, F., Singh, S. and **Luthra, Pratibha Mehta**. 2006. Modulation of Naphtha [1,2-d] thiazol-2-amine induced free cytosolic Ca²⁺ concentration by adenosine A_{2a} receptor in human embryonic kidney (HEK 293) cell line. Sandeep Kumar Barodia, Paper presented at the Targeting Adenosine A_{2A} Receptors in Parkinson's Disease

Research Projects (Major Grants/Research Collaboration)

Projects Sanctioned as PI:

1. Synthesis of selective adenosine A_{2a} receptor antagonists as anti-Parkinsonian agents and study their interaction with adenosine A_{2a} receptors **(Council of Scientific and Industrial Research) 2004-2008 (Completed)**.
2. Synthesis of 5-substituted octahydropyridocarbazoles, octahydropyrido-pyridocarbazoles and their biological evaluation on dopamine D₁ receptor as potential anti-Parkinsonian agents **(Department of Biotechnology) 18th December 2006 to 17th June 2010**.
3. Synthesis of DNA intercalator ellipticine tethered to DNA alkylating agent N-methyl-N-nitrosourea to study the relationship between groove and sequence selective alkylation of DNA and cyto-toxicity of brain tumors

(Department of Science and Technology) 2007-2010.

4. Synthesis of ar-turmerone and its analogues to study the mechanism of action of anti-fungal activity and Study the Molecular Mechanism of Chemopreventive and Chemoprotective Activity of Curcumin, A Natural Product From *Curcuma longa* (**DST-PURSE**), **2009-2012**.

5. Synthesis of selective adenosine A2a receptor antagonists as anti-Parkinsonian agents and study their interaction with adenosine A2a receptors (**Council of Scientific and Industrial Research**) **2010-2013**.

Institutional projects as PI

1. Establishment of High Resolution NMR [400 MHz] Central Facility for Biomedical Research, at Dr. B.R. Ambedkar Centre for Biomedical Research, University of Delhi, Delhi by **Department of Science and Technology, 2008-2013**.

2. Renovation and Modernization of Animal House Facility at Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi by **Department of Science and Technology, 2009-2014**.

Awards and Distinctions

Consultant	Central Revenue Control Laboratory (CRCL), Ministry of Finance, Govt. of India, New Delhi,	1999-2002
Visiting Scientist	American Radiochemical Company, St. Louis, USA	June 4th 2007-13th July 2007

Association With Professional Bodies

1. *Editing*
2. *Reviewing*
3. *Advisory*
4. *Committees and Boards*
5. *Memberships*

Life Member, Society of Chemists and Biologists, India

Life Member, Chemical Society for Analytical Scientists, India

Graduate Member, Royal Society of Chemistry (1992)

Member, American Chemical Society (1993)

Life Member, Society for Biotechnologists, India (2009).

Other Activities
<u>Extra-curricular Activities</u> 1. <i>NCC 'C' Certificate</i> 2. <i>Hockey District level</i>

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.