UNIVERSITY CURRICULUM VITAE FORMAT

NAME: **Virendra Nath Pandey, Ph.D.**
SENIOR TENURED FACULTY
Department of MICROBIOLOGY, BIOCHM. and Molecular GENETICS
RUTGERS BIOMEDICAL HEALTH SCIENCES
New Jersey Medical School
225 Warren Street, ICPH building, E450B
Newark, NJ 07103-2714
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EDUCATION:

A. Undergraduate Graduate and Professional

University or College:	Banaras Hindu University
City, State:	Varanasi, U.P., India
Degree (Discipline)*:*	B.Sc. (Biology and Agricultural Sciences)
Date Awarded:	July 1966

B. Graduate and Professional

University or College:	Banaras Hindu University
City, State:	Varanasi, U.P., India
Degree (Discipline)*:*	M.Sc. (Mycology and Plant Pathology)
Date Awarded:	July 1968

University or College:	Bhabha Atomic Research Center *(*University of Mumbai)
City, State:	Mumbai, India
Degree (Discipline)*:*	Ph.D. (Biochemistry)
Date Awarded:	July 1985

ACADEMIC APPOINTMENTS:

08/68 - 05/70 **Lecturer**, R.S.M. College, Agra University, India
05/70-03/73 Microbiologist (SSA 1) Antibiotics Plant, IDPL, Rishikesh, India

03/73 - 09/78 **Assistant Professor (Scientist C)** Isotope Division,
Bhabha Atomic Research Center, Mumbai, India

10/79 - 03/83 **Associate Professor (Scientist D),** Biochemistry Division,
Bhabha Atomic Research Center, Mumbai, India

03/87 - 03/91 **Professor (Scientist E)**, Biochemistry Division,
Bhabha Atomic Research Center, Mumbai, India

03/91 - 01/94 **Senior Professor (Scientist F),** Biochemistry Division,
Bhabha Atomic Research Center, Mumbai, India

07/90 - 12/91 **Hon. Professor**, Department of Biotechnology
Indian Institute of Technology, Mumbai

1988 - 1994 **Ph.D. Guide**, University of Bombay,
Awadh University and Banaras Hindu University, India

03/94 - 04/96 **Visiting Scientist and Assistant Professor,** Department of Biochemistry and Molecular Biology, Rutgers New Jersey Medical School, Newark, NJ (Formerly UMDNJ)

05/96 –present **Assistant Professor to Associate Professor (tenure track) to Senior Tenured Faculty,**
Rutgers New Jersey Medical School, Newark, NJ (Formerly UMDNJ)

OTHER EMPLOYMENT OR MAJOR VISITNG APPOINTMENTS:

05/70 - 03/73 **Senior Scientific Assistant (Microbiology)** Fermentation Division, Antibiotics Plant, Indian Drugs Pharmaceuticals Ltd., India

05/89 - 08/89 **Visiting Scientist,** Dept. of Biochemistry and Molecular Biology,New Jersey Medical School, Newark, NJ (on deputation from Bhabha Atomic Res. Center, Govt. of India)

05/91 - 08/91 **Visiting Scientist**, Dept. of Molecular Biology, Cleveland Clinic Foundation, OH (on deputation from Bhabha Atomic Res. Center, Govt. of India)

11/92 - 01/94 **Visiting Scientist** Department of Biochemistry and Molecular Biology, New Jersey Medical School, Newark, NJ. (on deputation from Bhabha Atomic Res. Center, Govt. of India)

MEMBERSHIPS, OFFICES AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES:

Membership of Scientific Societies

Member, International AIDS Society, American Society for Biochemistry and Molecular Biology, American Chemical Society, American Society of Microbiologists, Oligonucleotide Therapeutics Society, USA

Life Member, Society of Biological Chemists of India, Society of Cell Biologist of India, Environmental Mutagen Society of India, Association of Microbiologist of India, Indian Society for Radiation and Photochemical Sciences

Offices and Committee Assignments

1990: **Organizing Secretary**, 14th All India Cell Biology Conference, Bhabha Atomic Research Center, Mumbai, India

1991: **Chairman and Coordinator,** National Symposium on Recent Advances in Molecular Biology, Bhabha Atomic Research Center, Mumbai, India

HONORS AND AWARDS:

1991 **Shanti Swaroop Bhatnagar Award** in Life Sciences, the highest Scientific award in India conferred by Prime Minister of India

1991 Biotechnology Associateship Awarded by the Department of Biotechnology, Government of India

2003 Invited Chair "Reverse Transcription Session" Retroviral Meeting, **Cold Spring Harbor Laboratories**, New York

2005 **Invited Speaker** "Plenary Lecture" **International** Symposium on Recent Trends in Drug Discovery Indian Society of Chemists and Biologist, Saurastra University, India.

2005 **Chair** "Plenary Session" International Symposium on Recent Trends in Drug Discovery, Indian Society of Chemists and Biologist, India.

2006 **International Advisory Board, International** Conference on Drug Discovery, **Central** Drug Research Institute, Lucknow, India

2007 **Invited Speaker,** 3rd Annual Meeting of Oligonucleotide Therapeutic Society BERLIN, GERMANY, October 2007

2008 **Invited speaker** "Plenary Session" International Conference on the Interface of Chemistry-Biology in Biomedical Research, Feb 2008, at Birla Institute of Science and Technology, Pilani, Rajasthan.

2008 **Invited Speaker,** International Drug Discovery Science and Technology (IDDST) October 2008, BEIJING CHINA

2008 **Invited Chair** "Anti HIV-1 Drug Development Session" October 2008, International Drug Discovery Science and Technology BEIJING, CHINA

2009 **Invited speaker, 36th Annual Meeting of Control Release Society,** COPENHAGEN, DENMARK July 18-22, 2009

2011 **Invited Chair "Plenary Session"** 15th International Conference on "Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability, Saurashtra University, Gujarat, India, Feb 4-7, 2011

2011 **Invited Speaker** "Plenary session" 15th International Conference of Indian Society of Chemists and Biologists, Saurashtra University, India, Feb 4-7, 2011

2011 **Invited Speaker**, International conference on Virology, Baltimore, September 4-7, 2011

2011 **Session Chair**, 'Virology, Immunology and Epidemiology of Hepatitis Viruses' International Conference on Virology, Baltimore, September 7, 2011

2013 **Invited presentation** on "Fuse binding protein antagonizes p53 activity and facilitate persistent HCV replication in hepatoma cells" University of North Texas, Denton, Dallas, Jan 21, 2013.

2013 **Invited presentation** on "Anti-HCV phytochemicals from Eclipta alba" Banaras Hindu University, India, May 20, 2013.

2015: **Visiting Professor,** Guangzhou Red Cross Hospital Research Center, Guangzhou, China 10/26/2015 to 11/06/2015

BOARDS OF DIRECTORS/TRUSTEES POSITIONS: None

SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:

1997**: Member, NIH Study Section**, "Special Emphasis Panel on Structural Biology of Aids related Proteins".
2002**: Grant Reviewer, Wellcome Trust, International Programmes Department, and London, UK**
2003: **Grant Reviewer, the Israel Science Foundation ((ISF)**
2005: **Grant Reviewer, U.S. Civilian Research and Development Foundation,** "Targeted Research Competition in HIV/AIDS and Related Infections"
2006: **Member, NIH Scientific Review Group -**member conflicts for the AMCB and ADDT study section
2007: **Member, NIH Scientific Review Group -**member conflicts for the AMCB and ADDT study section
2008: **Member, NIH Scientific Review Group -**member conflicts for the AMCB and ADDT study section
2008: **Member, Merit Review Committee for Infectious Diseases,** US Dept. of Veteran Affairs
2008: **Grant Reviewer, NWO Council for Earth and Life Sciences,** Netherland.
2010: **Member, NIH Study section**: ZRG1IDM-L55R, OD-10-005 Directors Opportunistic Infectious Diseases B.
2011: **Member, NIH Study Section:** ZRG1 AARR-C 02, Member Conflict applications for several Study Sections within the AIDS and Related Research IRG.
2012: **Member, NIH Study Section:** ZRG1 AARR-C 02, Member Conflict applications for several Study Sections within the AIDS and Related Research IRG.
2013: **Member, NIH Study Section**, AIDS Discovery and Development of Therapeutics (ADDT) study section.

SERVICE ON MAJOR COMMITTEES:

A. **International:**

1990: **Organizing Secretary**, 14th Cell Biology Conference, Bhabha Atomic Research Center,Mumbai, India

1991: **Chairman and Coordinator,** Symposium on Recent Advances in Molecular Biology, Bhabha Atomic Research Center, Mumbai, India

2006**: Advisory Board, International** , Conference on Drug Discovery, Central Drug Research Institute, Lucknow, India

2008**: Advisory Board,** International Conference on the Interface of Chemistry-Biology in Biomedical Research, Feb 2008, at Birla Institute of Science and Technology, Pilani, Rajasthan.

2010: **Advisory Board,** 15th International Conference on "Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability, Saurashtra University, Gujarat, India, Feb 4-7, 2011

2013: **Advisory Board,** International Conference on "Recent advances and current trends in chemical and biological sciences, March 2-5, 2013 at Udaipur, Rajasthan, India

B. **National:**

1997 **: Member, NIH Study Section**, and "Special Emphasis Panel on Structural Biology of Aids related Proteins".
2005: **Grant Review Committee, U.S. Civilian Research and Development Foundation,** "Targeted Research Competition in HIV/AIDS and Related Infections"
2006: **Member, NIH Scientific Review Group -**member conflicts for the AMCB and ADDT study section
2007: **Member, NIH Scientific Review Group -**member conflicts for the AMCB and ADDT study section
2008: **Member, NIH Scientific Review Group -**member conflicts for the AMCB and ADDT study section
2008: **Member, Merit Review Committee for Infectious Diseases,** US Dept. of Veteran Affairs
2010: **Member, NIH Study section**: ZRG1 IDM-L 55R, OD-10-005 Directors Opportunity Infectious Diseases B.
2011: **Member, NIH Study Section:** ZRG1 AARR-C 02, Member Conflict applications for several Study Sections within the AIDS and Related Research IRG.
2012: **Member, NIH Study Section:** ZRG1 AARR-C 02, Member Conflict applications for several Study Sections within the AIDS and Related Research IRG.
2013: **Member, NIH Study Section**, AIDS Discovery and Development of Therapeutics (ADDT) study section.

C. **Editorial Boards:**

Jan 2016. Contd.: Austin Journal of Gastrointestinal Cancer: Research & Therapy
Jan 2016-Contd: Member, The Science Advisory Board
(https://www.scienceboard.net/members/home)
Jan 2015- contd: International J of HIV/AIDS Research (IJHR)
Jan 2016-contd : Recent Patents on Anti-Infective Drug Discovery
Jan 2015-contd: Journal of Clinical Microbiology and Biochemical Technology
Jan 2014-Dec 2017: World J. of Gastroenterology
Jan 2013- Dec 2014: Section Editor, Biochemistry section of ScienceJet
Jan 2009- Dec. 2014**:** World J of Virology,
Jan 2009-Dec.2014: World J of Gastrointest. Pharmacol. Therapeutics
April 2010-March 2013: Associate Editor**:** Global J. of Biochemistry.

D. ***Adhoc* Editorial/reviewer:**

Proceeding of National Academy of Sciences USA FEBS lett., Journal of Molecular Biology, Nucleic Acid Research, Biochemistry, Molecular and Cellular Biochemistry, Journal of Virology, Virology, Hepatology Research, Expert Opinion on Biological Therapy,	PLose 1 Journal of Biological Chemistry, Retrovirology, Virology Journal, Biopolymers: Peptide Science, BMC Molecular Biology, J. Hepatology, Biochemica Biophysica Acta, BMC-Biochemistry,

SERVICE ON GRADUATE SCHOOL COMMITTEES:

2009-2010: Graduate Admission committee (Biochemistry)

SPONSORSHIP OF CANDIDATES FOR M.S / Ph.D degrees:

Year	Student's name	Degree	Current position
1988-91	V. Dave	Ph.D. (Univ. of Bombay)	**Associate Professor**, Institute De Recherches Cliniques De Montreal, Canada
1988-92	N. Kaushik	Ph.D. (Univ. of Bombay)	**Associate Professor**, Dept. of Biochem., Rutgers NJMS
1989-93	R. Gupta	Ph.D. (Univ. of Bombay)	**Assistant Professor**, Dept. of Mol. Biol, Univ. at Albany, NY
1989-93	N.M. Gandhi	M.S. (Univ. of Bombay)	**Associate Professor** Bhabha Atomic Res. Center, India
1996-98	D. Harris	Ph.D. (UMDNJ)	**Associate Director,** Teva Pharmaceuticals
1996-02	P. Pandey	Ph.D. (Awadh Univ.)	**Scientist II**, Enzon Pharmaceuticals, NJ
2005-08	Z. Zhang	Ph.D. (UMDNJ)	**Postdoctoral Fellow,** Columbia University, NY.
2006-	A. Upadhyay	Ph.D. (UMDNJ)	**Postdoctoral fellow,** Fox Chase Cancer Center, PA
2007-08	S. Shukla	M.S. (NJIT)	Graduate student, Rutgers NJMS/GSBS
2009-11	N. Pandey	M.S. (MIST, India)	Research Scientist, Bhabha Atomic Res. Center, India
2011-16	U. Dixit	Ph.D.	Registered for Ph.D under my mentorship from Saurashtra University, India
2013- 16	Priya Mishra	Ph.D.	Graduate student, Rutgers, GSBS/NJMS

SPONSORSHIP OF POSTDOCTORAL FELLOWS:

Year	Name	Present Position
2002-04	Dr. H. P. Pandey	**Professor and Chairman**, Dept. of Biochem, Banaras Hindu Univ., India
2002-06	Dr. B. Chaubey	**Associate Professor**, Dept. of Botany, Kolkata University, India
1999-02	Dr. Bechan Sharma	**Professor and Chairman**, Dept. of Biochem., Allahabad Univ., India
1997-98	Dr. H. Misra	**Professor**, Biochem. Div., Bhabha Atomic Res. Center, India
1999-00	Dr. N. Khalap	**Professor**, Biochem. Div., Bhabha Atomic Res. Center, India

1999- 02	Dr. N. Kaushik	**Associate Professor**, Dept. of Biochemistry, Rutgers New Jersey Medical School
1999-02	Dr. T. T. Talele	**Associate Professor**, Dept. of Pharmaceutical Sciences, St. John University, NY
1997-98	Dr. R. Lee	Deceased
1998-99	Dr. S. Hodawadekar	**Associate Staff Scientist**, The Wistar Institute, Philadelphia, PA
2003-	Dr. D. Harris	**Associate Director, Teva Pharmaceuticals**
2002-05	Dr. S. Ganguly	**Research Teaching Specialist**, Radiation Safety, Rutgers University
2003-	Dr. S. Tripathi	**SCIENTIST 2**, ENZON PHEAMACEUTICALS, Bridgewater, NJ
2009-13	Dr. D. Manwer	**Research Teaching Specialist, NJMS**
2010- 11	Dr. S. Ghorai	**Research Associate,** The George Washington University, DC
2010-12	Dr. Z. Liu	**Assistant Professor**, Medical College, Jinan University, Guangzhou 510220, China
2012-contd	Dr. Ashutosh Pandey	**contd.**
2012	Dr. Ramesh Kothari	**Chairman,** Dept. of Microbiology, Christ College, Rajkot, India

Mentor FOR GRADUATE STUDENT RESEARCH ROTATION

1995	Dylan Harris	2004	Areche Eduardo
1995	Steve Tusky	2005	Zhengbin Zhang
1996	Nisha Rege	2005	Alok Upadhyay
2002	Liang Songchun	2006	Li Song
2003	Pinki Kukreti	2007	Anca Irina Selariu

GRANT SUPPORT: (A) **Principal Investigator:** The following four R01 grants and five R21 grants were awarded totaling over 6 million dollars as the extramural grant awards.

	Grant #/ Agency	**Project Title**	**Role**	**Period**	**Award**
1	**R21**AI102826 /NIAID/NIH	Implication of RNase H domain on dimer stability of HIV-1RT	P.I.	08/01/13-07/31/15	$ 437,250.00
2	**R21**DK083560 NIDDK/NIH	FUSE binding protein as cellular Effector of HCV replication	P.I.	07/01/10-06/30/13	$427,000.00
3	**R21**AI073703 NIAID/NIH	Proteomics of HCV replication complex	P.I.	05/07/09-04-30-12	$427,000.00
4	**R21**AI074477 NIAID/NIH	Structure-Based Development of nonnucleoside anti-HIV-1 RT Drugs	P.I.	04/10/09-03/31/12	$435,256.00
5	**R01**AI042520 NIAID/NIH	Genome targeted inhibitors of Retroviruses	P.I.	05/01/03-01/31/09	$1,821,250.00
6	**R21** AI042520 NIAID/NIH	Genome targeted inhibitors of Retroviruses	P.I.	07/01/02-04/30/03	$272,125.00
7	**K01**DK02920 **NIDDK/NIH**	Biochemistry of Hepatitis C virus replicase	Mentor	01/01/01-12-31-04	380,160.00
8	**R01**AI042520 NIAID/NIH	Genome targeted inhibitors of Retroviruses	P.I.	04/01/99-06/30/02	$680,277.00

9	**R01**CA72824 NCI/NIH	Structure function studies in HIV-1RT	P.I.	09/01/99-08/31/04	$773,840.00
10	**R01**CA72824 NCI/NIH	Structure function studies in HIV-1RT	P.I.	05/15/96-08/30/99	$727,104.00
11	UMDNJ Foundation	Genome targeted Inhibitors of HIV1	P.I.	01/01/10-12/31/11	$25,000
12	UMDNJ Foundation	Genome targeted Inhibitors of retroviruses	P.I.	07/01/02-06/30/03	$35,000

A. **Co-Investigator:** None

PUBLICATIONS:

A. Refereed Original Article in Journal

1. Dixit, U.; Pandey, AK; Mishra, P; Sengupta, A; **Pandey VN**. Staufen1 promotes HCV replication by inhibiting protein kinase R and transporting viral RNA to the site of translation and replication in the cells. *NUCLEIC ACIDS RESEARCH* Vol. 44, No. 11 5271–5287 (2016).
2. Dixit U, Pandey AK, Liu Z, Kumar S, Neiditch MB, Klein KM, **Pandey, VN.** FUSE Binding Protein 1 Facilitates Persistent Hepatitis C Virus Replication in Hepatoma Cells by Regulating Tumor Suppressor p53. *J. VIROLOGY*. 89(15): 7905-21 (2015).
3. U. Dixit, Z. Liu, D. Manvar and **V. N Pandey**. Fuse Binding Protein Antagonizes the Transcription Activity of Tumor Suppressor Protein p53. *BMC-CANCER* 14, 925 (2014).
4. A. Upadhyay, U. Dixit, D. Manvar, N. Chaturvedi, **V.N. Pandey**. Affinity capture and identification of host cell factors associated with hepatitis C virus (+) strand subgenomic RNA. *MOL CELL PROTEOMICS* 12:1539-1552 (2013).
5. D. Manvar, K. Singh, and **V. N. Pandey**. Affinity Labeling of Hepatitis C Virus Replicase with a Nucleotide Analogue: Identification of Binding Site. *BIOCHEMISTRY* 52: 432−444 (2012).
6. Das, I., De´sire, J., Manvar, D., Baussanne, I., ***Pandey VN** and De´cout*, J L. A Peptide Nucleic Acid-Aminosugar Conjugate Targeting Transactivation Response Element of HIV-1 RNA Genome Shows a High Bioavailability in Human Cells and Strongly Inhibits Tat- Mediated Transactivation of HIV-1 Transcription. *J. MED. CHEM*. 55, 6021-6032 (2012). (* Corresponding authors)
7. Manvar, D., Mishra, M., Kumar, S., **Pandey, V.N.** Identification and evaluation of anti Hepatitis C virus phytochemicals from Eclipta alba J*. ETHNOPHARMACOLOGY* 144: 545-554 (2012).
8. Upert, G., DiGiorgio, A., Upadhyay, A., Manvar, D., Pandey, N., **Pandey, V.N**., Patino, N. Inhibition of HIV Replication by Cyclic and Hairpin PNAs Targeting the HIV-1 TAR RNA Loop. *J. NUCLEIC ACIDS*. Doi: 10.1155/2012/591025 (2012).
9. N. Pandey, C.A. Mishra, C.A., D. Manvar, A. Upadhyay, T.T. Talele, T.W. Comollo, N. Kaushik-Basu, and V**. N. Pandey**. Glutamine side chain at position 91 on the β5a-β5b loop of Human Immunodeficiency Virus Type 1 Reverse Transcriptase is required for stabilizing the dNTP binding pocket. *BIOCHEMISTRY* 50: 8067−8077 (2011).
10. A. Upadhyay, T. T. Talele and **V. N. Pandey**. A single deletion at position 134, 135 or 136 in the beta 7-beta 8 loop of the p51 subunit of HIV-1 RT disrupts the formation of heterodimeric enzyme**.** *J. CELL. BIOCHEM* 109:598-605 (2010).
11. A. K. Upadhyay, N. Pandey, S. Kumar, **V N. Pandey.** Role of Tryptophan 24 and Phenylalanine 61 of the HIV-1 RT in template positioning, fidelity, and conferring drug sensitivity to the enzyme. *GLOBAL J. BIOCHEM*. 1: 1-17 (2010).

12. A. Upadhyay, T. T. Talele and **V. N. Pandey**. Impact of Template Overhang-binding Region of HIV-1 RT on the Binding and Orientation of the Duplex Region of the Template-Primer. *MOL. CELL. BIOCHEM.* 338:19-33 (2010).

13. T. T. Talele, A. Upadhyay and **V. N. Pandey**. Influence of the RNase H Domain of Retroviral Reverse Transcriptases on the Metal Specificity and Substrate Selection of their Polymerase Domain. *VIROLOGY J.* 6:159 (2009).

14. 13. Pandey VN, Upadhyay A, Chaubey B. Prospects for antisense peptide nucleic acid (PNA) therapies for HIV. Expert Opinion on Biological Therapy 9(8): 975-89. (2009).

15. A Upadhyay, N. M. Ponzio and **V. N Pandey**. Immunological Response to Polyamide Nucleic Acid and its Peptide conjugate Targeted to Transactivation Response (TAR) of HIV-1 RNA Genome. *OLIGONUCLEOTIDES* 18(4): 329-35 (2008).

16. M. Mehiri, G. Upert, S. Tripathi, A. Di Giorgio, R. Condom, **V. N. Pandey*** and N. Patino. * An efficient biodelivery system for antisense polyamide nucleic acid (PNA). *OLIGONUCLEOTIDES* 18(3): 245-56 (2008) (* Corresponding authors)

17. S. Ganguly[1], B. Chaubey, S. Tripathi, P. V. S. V. Neti, R. W. Howell and **V. N. Pandey**. Pharmacokinetic analysis of polyamide nucleic-acid-cell penetrating peptide conjugates targeted against HIV-1 transactivation response element. *OLIGONUCLEOTIDES* 18(3): 277-86 (2008).

18. Z.Zhang, D. Harris and **V.N.Pandey.** The FUSE Binding Protein is a Cellular Factor Required for Efficient Replication of Hepatitis C Virus *J. VIROLOGY* 82: 5761-5773, (2008).

19. H. D. Lewis, A. W. Thomas, F. Murphy, S. Tripathi, **V. N. Pandey** and B. E. Barton. STAT3 inhibition in prostate and pancreatic cancer lines by STAT3 binding sequence oligonucleotides: differential activity between 5'and 3'ends. *MOLECULAR CANCER THER* 2008; 7(6). 1543-1550 (2008).

20. B Chaubey and **V N. Pandey**. Single acute-dose and repeat-doses toxicity of anti-HIV-1 PNATAR-penetratin conjugate after intraperitoneal administration to mice. *OLIGONUCLEOTIDES* 18(1): 9-20 (2008).

21. B. Chaubey, S. Tripathi, J. Désiré, I. Baussanne, J. Décout and **V. N. Pandey*** RNA Cleavage mechanism Catalyzed by Sequence Specific Polyamide Nucleic Acid -Neamine Conjugate. *OLIGONUCLEOTIDES* 17: 302-313 (2007).

22. S Tripathi, B Chaubey, B E. Barton and **V N. Pandey**. Anti HIV-1 Virucidal Activity of Polyamide Nucleic Acid-Membrane Transducing Peptide Conjugates Targeted to Primer Binding Site of HIV-1 Genome. *VIROLOGY* 363, 91-103 (2007).

23. D. Harris, Z. Zhang, B. Chaubey and **V. N. Pandey**. Identification of Cellular Factors Associated With the 3' Nontranslated Region of the HCV Genome by RNA Affinity Capture and Mass Spectrometry. *MOL. CELL. PROTEOM*. 5(6): 1006-1018, (2006).

24. B. Chaubey, S. Tripathi, S. Ganguly, D. Harris, R. A. Casale, **V. N. Pandey**. A PNA-transportan conjugate targeted to the TAR region of the HIV-1 genome exhibits both antiviral and virucidal properties. *VIROLOGY* 331: 418-428 (2005).

25. S. Tripathi, B. Chaubey, S. Ganguly, D. Harris, R. A Casale and **V. N. Pandey**. Anti-HIV-1 Activity of Anti-TAR Polyamide Nucleic Acid Conjugated with Various Membrane Transducing Peptides. *NUCLEIC ACIDS RES*. 33, 4345-4356, (2005).

26. E Riguet, S. Tripathi, B. Chaubey, J. Désiré, **V N. Pandey*** and J. Décout*. A peptide nucleic acid-neamine conjugate that targets and cleaves HIV-1 TAR RNA inhibits viral replication. *J. MED. CHEMISTRY* 47: 4806-4809 (2004). (* Corresponding authors)

27. **V.N.Pandey** and A. Upadhyay. DNA binding function and polymerase activity of the p51 subunit of HIV-1 RT are stimulated in the presence of 15-kDa RNase H fragment. *ANTIVIRAL RES* 8: S 262 (2003).

28. B. Sharma, N. Kaushik, Alok Upadhyay, K. Singh and **V. N. Pandey**. A positively charged side chain at position 154 on the beta8-alphaE loop of HIV-1 RT is required for stable Ternary Complex formation. *NUCLEIC ACIDS RES*. 31 (17): 5167-74 (2003).

29. B. Sharma, N. Kaushik, K. Singh, S. Kumar and **V. N. Pandey**. Substitution of Conserved Hydrophobic Residues in Motifs B and C of HIV-1 RT Alters the Geometry of the Catalytic Pocket *BIOCHEMISTRY* 41: 154685-15697 (2002).

30. N. Kaushik and **V. N. Pandey.** PNA Targeting the PBS and A-Loop Sequences of HIV-1 Genome Destabilizes Packaged $tRNA_3^{Lys}$in the Virions and Inhibits HIV-1 Replication. *VIROLOGY* 303: 297-308 (2002).

31. N. Kaushik, A. Basu and **V. N. Pandey.** Inhibition of HIV-1 Replication by Anti-TAR Polyamide Nucleotide Analog. *ANTIVIRAL RES* 56: 13-27 (2002).

32. P.K. Pandey, N. Kaushik, D. Harris, B. Sharma, A. Upadhyay, K. Singh, S. Kumar and **V. N. Pandey**. Insertion of a small peptide of 6 amino acids in the β7-β8 Loop of the p51 Subunit of HIV-1 Reverse Transcriptase Prevents Dimerization and Disrupts Enzymatic Activities *BMC-BIOCHEMISTRY* 3(1): 18 (2002).

33. N. Kaushik, A. Basu, P. Palumbo R. Meyers and **V. N. Pandey**. Anti-TAR Polyamide Nucleotide Analog Conjugated with a Membrane-Permeating Peptide Inhibits Human Immunodeficiency Virus Type 1 Production. *J. VIROLOGY* 76:3881-3891 (2002).

34. N. Kaushik, T. T. Talele, R. Monel, P. Palumbo and **V. N. Pandey**. Destabilization of $tRNA_3^{Lys}$ from the Primer Binding Site of HIV-1 Genome by Anti-A Loop Polyamide Nucleotide Analog. *NUCLEIC ACIDS RES.* 29: 5099-5106 (2001).

35. P. K. Pandey, N. Kaushik and **V. N. Pandey**. Insertion of a peptide from MuLV RT into the connection subdomain of HIV-1 RT results in a functionally active chimeric enzyme in monomeric conformation. *MOL. CELL. BIOCHEM*. 225: 135-144 (2001).

36. P. K. Pandey, N. Kaushik, T. T. Talele, P. N. S. Yadav and **V. N. Pandey.** The beta 7-beta 8 loop of the p51 subunit in the heterodimeric (p66/p51) Human Immunodeficiency Virus Type 1 Reverse Transcriptase is essential for the catalytic function of the p66 subunit. *BIOCHEMISTRY* 40: 9505- 9512 (2001).

37. T. Mayhood, N. Kaushik, P. K. Pandey, L. Deng, F. Kashanchi and **V. N. Pandey**. Inhibition of Tat Mediated Transactivation of HIV-1 LTR Transcription by Polyamide Nucleic Acid Targeted to TAR Hairpin Element. *BIOCHEMISTRY* 38: 11532 –11539 (2000).

38. N. Kaushik, K. Chowdhury, **V. N. Pandey**, M.J. Modak. Valine of the YVDD Motif of Moloney Murine Leukemia Virus Reverse Transcriptase: Role in the Fidelity of DNA Synthesis. *BIOCHEMISTRY* 39:5155-5165 (2000).

39. N. Kaushik, P. K. Pandey, D. Harris, P. N. S. Yadav and **V. N. Pandey**. Role of Glutamine 151 of Human Immunodeficiency Virus Type-1 Reverse Transcriptase in substrate selection as assessed by site directed mutagenesis. *BIOCHEMISTRY* 39: 2912 –2920 (2000)..

40. D. Harris, N. Kaushik, P. K. Pandey, P. N. S. Yadav and **V. N. Pandey**. Functional analyses of amino acid residues constituting the dNTP-binding pocket of HIV-1 reverse transcriptase. *J. BIOL. CHEM*. *273*:33624-33634 (1998).

41. D. Harris, P. N. S. Yadav and **V. N. Pandey**. Loss of polymerase activity of human immunodeficiency virus type-1 reverse transcriptase due to Tyr Phe substitution in the YMDD motif is restored by Met Val substitution within the same motif. *BIOCHEMISTRY 37*: 9630-9640 (1998).

42. D. Harris, R. Lee, H. S. Misra, P. K. Pandey and **V. N. Pandey**. The p51 subunit of HIV-1 reverse transcriptase is essential in loading the p66 subunit on the template primer. *BIOCHEMISTRY 37*: 5903-5908 (1998).

43. H. S. Misra, P. K. Pandey and **V. N. Pandey**. An enzymatically active chimeric HIV-1 RT with the RNase-H domain of MuLV-RT exists as a monomer. *J. BIOL. CHEM. 273*: 9785-9789 (1998).

44. H. S. Misra, P. K. Pandey, R. Vinayak, M. J. Modak and **V. N. Pandey**. Polyamide nucleic acid-DNA chimera lacking the phosphate backbone is novel primer for polymerase reaction catalyzed by DNA polymerases. *BIOCHEMISTRY 37*: 1917-1925 (1998).

45. R. Lee, N. Kaushik, Mukund J. Modak, R. Vinayak and **V. N. Pandey**. Polyamide nucleic acid targeted to the primer binding site of the HIV-1 RNA genome blocks in vitro HIV-1 reverse transcription. *BIOCHEMISTRY 37*: 900-911 (1998).

46. N. Kaushik, D. Harris, N. Rege, M. J. Modak, P. N. S. Yadav and V. N. Pandey. Role of glutamine-151 of human immunodeficiency virus type I reverse transcriptase in RNA-directed DNA synthesis. BIOCHEMISTRY *36*: 14430-14438 (1997).

47. K. Chowdhury, N. Kaushik, **V. N. Pandey** and M. J. Modak. Elucidation of the role of Arg 110 of murine leukemia virus reverse transcriptase in the catalytic mechanism: Biochemical characterization of its mutant enzymes. BIOCHEMISTRY *35*: 16610-16620 (1996).

48. N. Kaushik, N. Rege, P. N. S. Yadav, S. G. Sarafianos, M. J. Modak and **V. N. Pandey**. Biochemical analysis of catalytically crucial aspartate mutants of human immunodeficiency virus Type 1 reverse transcriptase. *BIOCHEMISTRY 35*: 11536-11546 (1996).

49. N. Kaushik, **V. N. Pandey** and M. J. Modak. Significance of the O-helix residues of *Escherichia coli* DNA polymerase I in DNA synthesis: Dynamics of the dNTP-binding pocket. *BIOCHEMISTRY 35*: 7256-7266 (1996).

50. **V. N. Pandey**, N. Kaushik, N. Rege, S. G. Sarafianos, P. N. S. Yadav and M. J. Modak. Role of Met 184 of human immunodeficiency virus type-1 reverse transcriptase in the polymerase function and fidelity of DNA synthesis. *BIOCHEMISTRY 35:* 2168-2179 (1996).

51. S. G. Sarafianos, **V. N. Pandey**, N. Kaushik and M. J. Modak. Site-directed mutagenesis of Arginine 72 of HIV-1 reverse transcriptase. *J. BIOL. CHEM. 270*: 19729-19735 (1995).

52. S. G. Sarafianos, **V. N. Pandey**, N. Kaushik and M. J. Modak. Glutamine 151 participates in the substrate dNTP binding function of HIV-1 reverse transcriptase. *BIOCHEMISTRY 34*: 7207-7216 (1995).

53. S. G. Sarafianos, **V. N. Pandey**, N. Kaushik and M. J. Modak. Arginine 78 participates in the DNA binding function of HIV-1 reverse transcriptase. *PROTEIN ENG*. *8*: 65 (1995).

54. S. D. Desai, **V. N. Pandey** and M. J. Modak. Properties of Tyrosine 766 serene mutant of *E. coli* DNA polymerase I: Template specific effects. *BIOCHEMISTRY 33*: 11868-11874 (1994).

55. **V. N. Pandey,** N. Kaushik and M. J. Modak. Photoaffinity labeling of DNA template-primer binding site in *E. coli* DNA polymerase I: Identification of involved amino acids. *J. BIOL. CHEM. 269*: 21823-21830 (1994).

56. S. B. Amrute, Z. A. Manan, **V. N. Pandey**, K. R. Williams and M. J. Modak. Purification and nucleic acid binding properties of a fragment of Type C1/C2 heterogeneous nuclear ribonucleoprotein from thymic nuclear extracts. *BIOCHEMISTRY 33*: 8282-8291 (1994).

57. **V. N. Pandey**, N. Kaushik and Mukund J. Modak. Role of Lysine 758 of Escherichia coli DNA polymerase I as assessed by site directed mutagenesis. *J. BIOL. CHEM.* 269: 13259- 13265 (1994).

58. M. A. Nadkarni, **V. N. Pandey** and D. S. Pradhan. An invertase with unusual properties secreted by sucrose grown cells of *Corynebacterium murisepticum*. *IND. J. BIOCHEM. BIOPHYS 30*: 156-159 (1993).

59. **V. N. Pandey,** N. A. Kaushik, R. P. Sanzgiri, M. S. Patil and S. Barik. Site-directed mutagenesis of *E. coli* DNA polymerase I: Significance of Arg 682 in the catalysis. *EUR. J. BIOCHEM. 214*: 59-65 (1993).

60. N. A. Kaushik, R. P. Sanzgiri, M. S. Patil and **V. N. Pandey**. Cloning and overproduction of the large proteolytic fragment (Klenow) of *Escherichia coli* DNA polymerase I. *CURR. SCIENCE 64*: 102-107 (1993).

61. M.A. Nadkarni, **V.N.Pandey**, D.S. Pradhan. An invertase with unusual properties secreted by sucrose-grown cells of *Corynebacterium murisepticum. INDIAN J. BIOCHEM. BIOPHYS. 30(3):* 156-159 (1992).

62. M.A. Nadkarni, C.K.K. Nair, **V.N. Pandey** and D.S. Pradhan. Raffinose metabolism and a novel mode of sucrose synthesis in Corynebacterium murisepticum. *J. GEN. APPL. MICROBIOL.* 38(: 533-539 (1992).

63. M.A. Nadkarni, C.K.K. Nair, **V.N. Pandey** and D.S. Pradhan. Characterization of alpha-galactosidase from Corynebacterium murisepticum and mechanism of induction. *J. GEN. APPL. MICROBIOL.* 38(: 23-34 (1992).

64. V. P. Dave, M. J. Modak and **V. N. Pandey.** Nuclear matrix bound V (D) J recombination activity in rat thymus nuclei: An *in vitro* system. *BIOCHEMISTRY 30*: 4763-4767 (1991).

65. **V. N. Pandey,** V. P. Dave, S. B. Amrute, K. Rosenbach and M. J. Modak. Thymic nuclear matrix associated activity is not V (D) J recombinase. *BIOCHEM. BIOPHYS. RES. COMMUN. 181*: 95-99 (1991).

66. V. P. Dave, M. S. Patil, **V. N. Pandey** and D. S. Pradhan. DNA synthesis in nuclei and nuclear matrices of regenerating rat liver: Effect of whole body gamma irradiation. *RADIATION & ENVIRON. BIOPHYS. 30*: 267-276 (1991).

67. **V. N. Pandey**, V. P. Dave, M. S. Patil, D, S. Pradhan, S. B. Amrute and M. J. Modak. Terminal deoxynucleotidyl transferase containing megadalton complex from young rat thymus nuclei: Identification and characterization. *BIOCHEMISTRY 29*: 4037-4041 (1990).

68. **V. N. Pandey**, N. A. Kaushik, D. S. Pradhan and M. J. Modak. Template-primer dependent binding of 5'-fluorosulfonyl benzoyl deoxyadenosine by *E. coli* DNA polymerase I: Identification of Arg #682 as the binding site and its implication in catalysis. *J. BIOL. CHEM*. *265*: 3679-3684 (1990).

69. J. K. Kohli, M. S. Patil, **V. N. Pandey** and D. S. Pradhan. A sensitive assay for *Staphylococcal aureus* nucleases. *IND. J. BIOCHEM. BIOPHYS. 26*: 296-300, (1989).

70. J. K. Kohli, M. S. Patil, **V. N. Pandey** and D. S. Pradhan. Studies on extracellular and intracellular nucleases in *Staphylococcus aureus*. *J. GEN. APPL. MICROBIOL. 35*: 429-439 (1989).

71. **V. N. Pandey** and M. J. Modak. Biochemistry of terminal deoxynucleotidyl transferase: Identification and unity of ribo- and deoxyribonucleoside triphosphate binding site in TdT. *J. BIOL. CHEM. 264*: 867-871 (1989).

72. **V. N. Pandey** and M. J. Modak. Purification of nucleotide-linked peptide. *J. CHROMAT*. *444*: 133-139, (1988).

73. **V. N. Pandey** and M. J. Modak. Affinity labeling of *E. coli* DNA polymerase I by fluorosulfonyl benzoyl adenosine: Identification of domain essential for polymerization and Arg #682 as the site of reactivity. *J. BIOL. CHEM. 263*: 6068-6073, (1988).

74. **V. N. Pandey** and M. J. Modak. Biochemistry of terminal deoxynucleotidyl transferase: Affinity labeling and identification of dNTP binding domain. *J. BIOL. CHEMISTRY. 263*: 3744-3751, (1988).

75. V. P. Dave, M. S. Patil and **V. N. Pandey**. Nuclear matrix bound terminal deoxynucleotidyl transferase in rat thymus nuclei: Effect of ATP on matrix bound and matrix dissociated TdT. *MOL. BIOL. REP. 13*: 185-190, (1988).

76. **V. N. Pandey,** V. P. Dave and M. S. Patil. Nuclear matrix bound terminal deoxynucleotidyl transferase in rat thymus nuclei: A possible site for TdT mediated function. *MOL. BIOL. REP. 13*: 179-184, (1988).

77. **V. N. Pandey**, K. R. William, K. L. Stone and M. J. Modak. Affinity labeling identification and amino acid sequence of dTTP binding domain in *E. coli* DNA polymerase I: Identification of His #881 as a binding site. *BIOCHEMISTRY 26*: 7744-7748 (1987).

78. **V. N. Pandey** and M. J. Modak. Biochemistry of terminal deoxynucleotidyl transferase: Characterization and mechanism of inhibition of TdT by p'-5'-bis (adenosine-5') pentaphosphate. *BIOCHEMISTRY 26*: 2033-2038 (1987).

79. **V. N. Pandey**, S. B. Amrute, J. G. Satav and M. J. Modak. Inhibition of terminal deoxynucleotidyl transferase by adenine dinucleotides. *FEBS LETT. 213*: 204-208 (1987).

80. **V. N. Pandey** and M. J. Modak. Purification of high molecular weight species of calf thymus terminal deoxynucleotidyl transferase. *PREP. BIOCHEMISTRY. 17*: 359-377 (1987).

81. **V. N. Pandey.** Preparation of ^{14}C labeled AMP, ADP and ATP from adenine-8- ^{14}C by using *Brevibacterium ammoniagenes*. *J. LABELED COMP RADIOPHARMACEUTICALS. 22*: 383-387 (1985).

82. **V. N. Pandey**, C. K. K. Nair and D. S. Pradhan. A novel method for the preparation of adenosine 3'5' cyclic phosphate labeled with ^{14}C or ^{3}H. *J. LABELED COMP RADIOPHARMACEUTICALS. 20*: 385-390 (1983).

83. **V. N. Pandey** and D. S. Pradhan. Reverse and forward reactions of carbamyl phosphokinase from *Streptococcus faecalis*: Participation of nucleotides and reaction mechanism. *BIOCHIM. BIOPHYS. ACTA 660*: 284-291 (1981).

84. **V. N. Pandey**. Interdependence of arginine and glucose metabolism in *Streptococcus faecalis*. *BIOCHEM. BIOPHYS. RES. COMMUN. 94*: 1480-1490 (1980).

85. **V. N. Pandey**, P. S. Rao, K. M. Patel and N. G. S. Gopal. Antimicrobial activity of chloromerodrin. J. *PHARM. SC. USA 68*: 256-260 (1979).

86. D. K. Saha, L. B. Jain, **V. N. Pandey** and O. D. Tomar. An improved technique for the maintenance of *Streptomyces rimosus* and *S. grysius* for the production of oxytetracycline and streptomycin. *IND. J. MICROBIOL. 17*: 73-75 (1977).

87. **V. N. Pandey** and P. S. Rao. Determination of cyanocobalamine in radioactive cyanocobalamine sample by reverse isotope dilution analysis. *RADIOCHEM. RADIOANAL. LETT. 23 (3)*: 175-180 (1975).

B. Books, Monographs and Chapters

1. **V. N. Pandey** and D. S. Pradhan. Regulation of cyclic AMP biosynthesis as a function of adenylate energy charge in *Corrnebacterium murisepticum*. Proceedings of International Congress of Biochemistry, Perth, West Australia, 1982.

2. **V. N. Pandey** and D. S. Pradhan. Production of radiolabeled compounds using microbial cells. Proceedings of DAE Symposium on "Newer Approaches to Biological Applications" M. S. University of Baroda, pp. 207, 1984.

3. N. A. Kaushik and **V. N. Pandey**. Affinity labeling of *E. coli* DNA polymerase I with 5'fluorosulfonyl benzoyl deoxyadenosine: Identification of catalytic domain in pol I. Proceedings of DAE Symposium on Advances in Molecular Biology, BARC, Bombay, p. 443, 1990.

4. V. P. Dave, M. S. Patil, M. J. Modak and **V. N. Pandey**. Nuclear matrix bound terminal deoxynucleotidyl transferase in rat thymus nuclei: Existence of megadalton multiprotein TdT complex in solubilized matrix extract. Proceedings of DAE Symposium on Advances in Molecular Biology, BARC, Bombay, p. 433, 1990.

5. N. A. Kaushik, M. S. Patil and **V. N. Pandey**. Nuclear matrix bound DNA synthesis in Saccharomyces cerevisiae: Identification of 130S replisome complex from the matrix extract. Proceedings of DAE Symposium on Molecular Biology of Microorganisms, NCL, Pune, p. 131, 1992.

6. **V. N. Pandey.** Cloning and site-directed mutagenesis of large fragment of *E. coli* DNA polymerase I: Identification of residues essential for polymerase activity. Proceedings of DAE Symposium on Molecular Biology of Microorganisms, NCL, Pune, p. 253, 1992.

C. **Patents Held:**

1. J-L. Decout, V N Pandey, E Riguet. PNA-neamine conjugates and methods for producing and using the **United States Patent Number**: WO2005060573 A2 dated 07/07/2005
2. V. N. Pandey et al. Preparation of PNA-6-aminoglucosamine conjugates as anti-viral agents US20140371137 A1 dated December 18, 2014

D. Other Articles (Reviews, Editorials, etc.) In Journals; Chapters; Books; other Professional Communications

1. M. J. Modak and **V. N. Pandey**. "Terminal Deoxynucleotidyl Transferase", In Study of Enzymes, vol. II, Mechanism of Enzyme Action (Kuby, S. A., ed.), CRC Press, Boca Raton, FL, pp. 391-402, 1990.

2. **Pandey VN**, Upadhyay A, Chaubey B. Prospects for antisense peptide nucleic acid (PNA) therapies for HIV. *EXPERT OPIN BIOL THER*. 9(8): 975-89, 2009

E. **Abstracts**

1. A. Upadhyay and **V.N. Pandey*.** Proteomics of Hepatitis C Virus - Host Cell Interaction: Identification of cellular/viral factors associated with HCV (+) strand RNA genome. **International Conference on "**Bridging Gaps in Discovery and Development: Chemical and Biological Sciences for Affordable Health, Wellness and Sustainability, Saurashtra University, Gujarat, India, Feb 4-7, 2011

2. **V.N.Pandey.** Prosepcts of PNA-CPP conjugate for anti-HIV-1 therapy. 36th Annual Meeting of Control Release Society, Copenhagen, Denmark, July 18-22, 2009

3. **V.N.Pandey.** Targeting HIV-1 RNA with peptide and non-peptide conjugates of Polyamide nucleic acids. INTERNATIONAL CONFERENCE ON THE INTERFACE OF CHEMISTRY-BIOLOGY IN BIOMEDICAL RESEARCH, 12th ISCB meeting held at BRITS, Pilani, India, Feb 22-24, 2008.

4. **V.N.Pandey**. PNA-peptide conjugates as novel anti-HIV-1 virucidal agents. 2008 International Drug Discovery Science and Technology, Beijing, China, October 18-22, 2008.

5. B. Chaubey, S. Tripathi, **V. N. Pandey**. Acute-dose and repeat-dose toxicity of PNA-penetratin conjugate after intraperitoneal administration to mice. 3rd Annual Meeting of the Oligonucleotide Therapeutics Society October 4-6, 2007, Berlin

6. S. Tripathi, B. Chaubey, **V. N. Pandey**. Virucidal activity of anti-HIV-1 polyamide nucleic acids conjugated with membrane transducing peptides. "International Conference on Drug discovery: Perspective and challenges" held at CDRI, Lucknow, India on (Jan 2006)

7. D. Harris and **V. N. Pandey**. Identification of Cellular factors associated with the 3'NTR of the HCV genome by RNA affinity capture and mass spectrometry. *Hepatitis Single Topic Conference* held as Chicago (March 2005) p89, 2005

8. **V. N. Pandey** and Jean-Luc Decout. A Peptide Nucleic Acid-Neamine Conjugate that Targets and Cleaves

HIV-1 TAR RNA Inhibits Viral Replication. *International Symposium on Recent Trends in Drug Discovery* held in Jan 2005, at Rajkot, India

9. A. Upadhyay and **V. N. Pandey**. Polymerase activity of the p51 subunit and RNA cleavage activity of the RNase H fragment of HIV-1 RT are stimulated in the presence of each other. *Cold Spring Harbor Laboratory (Retroviral Meeting) 2003*

10. A. Upadhyay, T. T. Talele, N Kaushik, B. Sharma[1], R.A. Casale[2] and **V.N. Pandey**. Anti –HIV--1 TAR peptide nucleic acid –transportan conjugate permeates across both HIV-1 virions and lymphocytes and inactivates viral infectivity. *Cold Spring Harbor Laboratory (Retroviral Meeting) 2003*

11. B Sharma, N. Kaushik, K. Singh, and **V. N. Pandey.** Hydrophobic residues in motifs b and c in the palm subdomain of HIV-1 RT stabilize the geometry of the catalytic pocket. *Cold Spring Harbor Laboratory (Retroviral Meeting) p 271, 2002.*

12. P. K. Pandey, N. Kaushik, K. Singh, A. Upadhyay, B Sharma, and **V. N. Pandey**. Insertion in the β7-β8 loop of the p51 subunit of heterodimeric (p66/p51) hiv-1 reverse transcriptase prevents dimerization and disrupts enzymatic activities. . *Cold Spring Harbor Laboratory (Retroviral Meeting) p229, 2002.*

13. N. Kaushik, A. Basu, P. Palumbo, Rene L. Myers and **V. N. Pandey**. Anti-TAR PNA conjugated with a membrane permeable peptide inhibits HIV-1 production. . *Cold Spring Harbor Laboratory (Retroviral Meeting) p.168, 2002.*N. Kaushik and V. N. Pandey. PNA targeted to the primer binding sequence of hiv-1 genome destabilizes packaged $trna_3^{lys}$ in the virions and inhibits hiv-1 replication. . *Cold Spring Harbor Laboratory (Retroviral Meeting) p.167, 2002.*

14. N. Kaushik, T. T. Talele, T. Mayhood, P. K. Pandey, P. N. S. Yadav and **V. N. Pandey**. Co-ordination among Residues Lys65, Glu151 and Met184 of HIV-1 RT in Substrate Recognition and Fidelity. *Cold Spring Harbor Laboratory (Retroviral Meeting)*, p. 238, 2001.

15. T. T. Talele, N. Kaushik, P. K. Pandey and **V. N. Pandey**. Influence of RNase-H domain on the substrate selection and metal specificity of polymerase domain of retroviral reverse transcriptases. *Cold Spring Harbor Laboratory (Retroviral Meeting)*, p. 257, 2001.

16. P. K. Pandey, N. Kaushik and **V. N. Pandey**. The β7-β8 loop of the p51 subunit of Human Immunodeficiency Virus Type 1 Reverse Transcriptase is Essential for Catalytic Function of the p66 Subunit. Nucleic Acid. *Cold Spring Harbor Laboratory (Retroviral Meeting)*, p. 237, 2001.

17. N. Kaushik, T. T. Talele, R. Monel, P. Palumbo and **V. N. Pandey**. Destabilization of $tRNA_3^{Lys}$ from the Primer Binding Site of HIV-1 genome by Anti-A Loop Polyamide Nucleic Acid. *Cold Spring Harbor Laboratory (Retroviral Meeting)*, p. 268, 2001

18. P. K. Pandey, N. Kaushik and **V. N. Pandey.** A motif missing in the connection subdomain of human immunodeficiency virus type 1 reverse transcriptase necessitates dimerization of the enzyme. *Cold Spring Harbor Laboratory (Retroviral Meeting)*, p. 203, 2000

19. P.N.S. Yadav and **V. N. Pandey**. Mutational hot spots in AIDS virus are related to the architecture of its genomic RNA. XII International Biophysics Congress, New Delhi, September 19-24, 1999. Abstract #P482.

20. P.K. Pandey, N. Kaushik and **V. N. Pandey**. Construction of a functionally active monomeric human immunodeficiency virus reverse transcriptase. XII International Biophysics Congress, New Delhi, September 19-24, 1999. Abstract #P481.

21. D. Harris and **V. N. Pandey.** The p66 subunit of HIV-RT does not require the p51 subunit for catalysis but

for binding to TP. *Cold Spring Harbor Laboratory (Retroviral Meeting)*, p. 255, 1998.

22. K. Chowdhury, **V. N. Pandey** and M. J. Modak. Role of Arg 110 in the catalytic mechanism of murine leukemia virus reverse transcriptase. *FASEB J. 10*: abs # 1398, 1996.

23. **V. N. Pandey**, N. Kaushik, N. Rege, S. G. Sarafianos, P. N. S. Yadav and M. J. Modak. Role of M184 of HIV-1 RT in fidelity of DNA synthesis. *The Fidelity of DNA Replication Conference*, Wrightsville Beach, NC, September 11-14, 1995

24. **V. N. Pandey**, N. Kaushik, N. Rege, S. G. Sarafianos and M. J. Modak. Detection of a cryptic 3'-5' exonuclease activity associated with carboxylate mutant of human immunodeficiency virus type 1 reverse transcriptase and identification of D186 as the residue that coordinates through Mg^{2+} with -phosphate of dNTP substrate. *Cold Spring Harbor Laboratory*, New York, May 23-28, 1995.

25. S. G. Sarafianos, **V. N. Pandey**, N. Kaushik, P. N. S. Yadav and M. J. Modak. Amino acid residues at the dNTP-binding site of human immunodeficiency virus type 1 reverse transcriptase. *Cold Spring Harbor Laboratory*, New York, May 23-28, 1995.

26. N. Kaushik, **V. N. Pandey**, N. Rege, N. Jamdar, S. G. Sarafianos and M. J. Modak. Biochemical analysis of catalytically crucial aspartate mutant of human immunodeficiency virus type 1 reverse transcriptase. *Annual Workshop on Cancer Research in New Jersey*, March 4, 1995.

27. S. G. Sarafianos, **V. N. Pandey**, N. Kaushik and M. J. Modak, Arg 72 participates in the PPi release function in human immunodeficiency virus type 1 reverse transcriptase. *Annual Workshop on Cancer Research* in New Jersey, March 4, 1995.

F. **Reports**: None

PRESENTIONS:

A. **Scientific *(Basic Science)***:

1. **Role of FBp1 in facilitating HCV replication and associated pathogenesis**. College of Pharmacy and Health Sciences, St. Johns University, NY, April 13, 2015

2. **Staufen 1 as the modulator of HCV replication**. Banaras Hindu University, Varanasi, India. May 20, 2015

3. **'Role of RNaseH domain of HIV-1 RT in conferring dimer stability of the enzyme**". Khalsa College, University of Mumbai, July 14, 2014

4. **HCV-Host cell interaction: Role of FUSE binding protein in establishing chronic Hepatitis C.** Bhabha Atomic Research Center, Mumbai, July 7, 2014

5. **Fuse binding protein antagonizes p53 activity and facilitates persistent HCV replication in hepatoma cells.** National Meeting of ASIOA, University of North Texas, Denton, Jan 21, 2013

6. **Proteomics of Hepatitis C Virus - Host Cell Interaction: Identification of cellular/viral factors associated with HCV (+) strand RNA genome.** International conference on Virology, Baltimore, September 5-7, 2011

7. **Modulation of HCV replication and associated pathogenesis by host cell factors**: **Role of Fuse Binding Protein**: Dept. of Microbiology, Saurashtra University, Feb 10, 2011

8. **FUSE Binding Protein as a possible target for anti-HCV drug development**. 15th International Conference, ISCB, Saurashtra University, India, Feb 5, 2011

9. **Prosepcts of PNA-CPP conjugate for anti-HIV-1 therapy**. 36th Annual Meeting of Control Release Society, Copenhagen, Denmark, July 21, 2009

10. **PNA-peptide conjugates as novel anti-HIV-1 virucidal agents**. 2008 International Drug Discovery Science and Technology, Beijing, China, October 20, 2008.

11. **Targeting HIV-1 RNA with peptide and non-peptide conjugates of Polyamide nucleic acids**. INTERNATIONAL CONFERENCE ON THE INTERFACE OF CHEMISTRY-BIOLOGY IN BIOMEDICAL RESEARCH, 12th ISCB meeting held at BRITS, Pilani, India, Feb 23, 2008.

12. **Anti-HIV-1 PNA-neamine conjugates: Toxicity and therapeutic potential.** 3rd Annual Meeting of the Oligonucleotide Therapeutics Society October 6, 2007, Berlin

13. **Drug design against HIV-1 RT dimerization.** Department of Chemistry, Saurashtra University, May 12, 2007

14. **The critical regions of HIV-1 RNA genome as potential target for drug development: PNA-neamine conjugate targeting transframe domain.** Department of Biochemistry, Babasaheb Ambedkar Marathawada University, India

15. **Anti-HIV-1 PNA-peptide conjugates as potent virucidal agents**. International Conference on Drug discovery: Perspective and challenges" CDRI, Lucknow, India Jan 2006

16. **Cellular factors associated with the HCV 3'NTR**. *Hepatitis Single Topic Conference* held as Chicago (March 2005)

17. **Structure-Function relationship in HIV-1 RT: Role of p51 in the catalysis**. National Institute of Immunology, July 7, 2005

18. **PNA-Neamine Conjugates as potent anti-HIV-1 agents**. *International Conference on Recent Trends in Drug Discovery* Jan 2005, Rajkot, India

19. **Dimerization site of HIV**-1 **RT: Role of beta7-beta8 loop of p51 in the dimerization process**. Biochemistry Division, BARC, Mumbai, April 26, 2004

20. **Polymerase activity of the p51 subunit and RNase H activity of the RNase H fragment of HIV-1 RT are stimulated in the presence of each other**. *Cold Spring Harbor Laboratory (Retroviral Meeting) May 2003*

21. **Targeting HIV-1 genome for combating HIV-1 infection**. Center for Cellular and Molecular Biology, Hydrabad, India October 3, 2003

22. **Influence of RNAse H fragment of HIV-1 RT on DNA binding and polymerase activity of the p51 subunit**. IAS conference, Paris, France, July 16, 2003

23. **Fidelity of DNA polymerase activity of HIV-1 RT.** International Biophysical Congress, New Delhi, September 20, 1999

24. **Structure-function relationship in HIV-1 RT: dNTP binding pocket residues and their influence on fidelity.** Department of Biochemistry, New York Medical College, Valhalla, May 4, 1999

25. **The p66 subunit of HIV-RT does not require the p51 subunit for catalysis but for binding to TP.** *Cold Spring Harbor Laboratory (Retroviral Meeting)*, May 1998.

26. **Dimerization domain of HIV-1 RT: Role of p51 subunit.** Molecular Biophysics Unit, Indian Institute of Science, Bangalore, December 12, 1996

27. **Role of M184 of HIV-1 RT in fidelity of DNA synthesis.** *The Fidelity of DNA Replication Conference*, Wrightsville Beach, NC, September 14, 1995

28. **Cryptic 3'-5' exonuclease activity associated with carboxylate mutant of human immunodeficiency virus type 1 reverse transcriptase**. *Cold Spring Harbor Laboratory*, New York, May 1995.

G. Professional *(Clinical)*: None