NAME	Dr. Dibyakanti Mandal	
DESIGNATION	Assistant Professor III	
EMAIL ID	dmandal1@amity.edu	
CONTACT NUMBER	8584000652	
RESEARCH INTERESTS	Virology/Infectious Diseases/Gene Therapy	

EDUCATIONAL QUALIFICATIONS: Ph.D.

Name of College / University	Degree	Year
Calcutta University	BSc (Chemistry Hons)	1993
Calcutta University	MSc (Biochemistry)	1995
Calcutta University	PhD (Biochemistry)	2003

Title of Ph.D. thesis: : Genomic Characterization of Human Immunodeficiency virus Type-1 Circulating in Eastern and Northeastern Regions of India

EXPERIENCE (in chronological order): Total 20 Years Research & Teaching

Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Associate Professor	Teaching/Research	PDM University 2021-2022	2021-2022
Assistant Professor	Teaching/Research	PDM University	2019-2021
Sr. Program Officer	Research/ Administration	INCLEN Trust International	2017-2018
Sr. Program Officer	Research	THSTI	2016-2017
Scientist B	Research	AIIMS, New Delhi	2015-2016
Research Scientist	Research	University of Iowa, USA	2011-2013
Postdoctoral Scientist	Research	University of Iowa, USA	2006-2011
Postdoctoral Scientist	Research	Albert Einstein College of Medicine, NY, USA	2002-2006

No. of Ph.D. students supervised	2 students (Ongoing)
No. of Post-Doc	
No. of M.Tech. Students supervised:	
No. of B.Tech. Students supervised:	

PUBLICATIONS
(mention total no. here)

A. Peer Reviewed Publications:

1. **Dibyakanti Mandal*,** Deeksha Pandey, Debi P. Sarkar and Manish Kumar. 2024.

   Nucleoside and Non-nucleoside Reverse Transcriptase inhibitor drugs (NRTIs and NNRTIs) are capable of binding Chandipura virus polymerase protein (L) and inhibit virus replication. VirusDisease, 8th July 2024.

2. Arpita Adhikari **, Dibyakanti Mandal** , Jyotishka Nath , Sriparna De , Dipak Rana, Dipankar Chattopadhyay [1,]*. 2023. COVID-19 mitigation: Nanotechnological intervention, perspective, and future scope. Materials Advances (Royal Society of Chemistry); 4, 52. **IF-5.2**

3. **Dibyakanti Mandal*, D. Pandey, Debi P Sarkar and Manish Kumar**. **2022.** Remdesivir, Zidovudine (AZT) and Nevirapine inhibit Chandipura virus through high energy interactions with the RdRp domain of the polymerase protein L. BioRvix.**doi:** https://doi.org/10.1101/2022.03.02.482698. (as Corresponding author).

4. **Dibyakanti Mandal***, Desai D, Sinha S. **2021.** High prevalence of plasma EBV among the HIV positive individuals, with or without malignancies, attending the clinic at AIIMS, New Delhi. (Accepted in VirusDisease ; *corresponding author).

5. ***Dibyakanti Mandal. 2020.** Coronavirus threat to Indian population : risk factors, transmission dynamics and preparedness to prevent the spread of the virus. VirusDiseases. April 20; 1-4.

6. **Dibyakanti Mandal***. 2019. Association of vitamin D and VDR in leprosy disease progression : implication of new strategies for treatment and clinical management (*As corresponding author, Invited book chapter in *'Leprosy: from diagnosis to treatment'*, Nova Publisher, New York, USA).

7. Sinha S, Agarwal A, Gupta K, **Mandal D**, Jain M, Detels R, Nandy K, DeVos MA, Sharma SK, Manoharan N, Julka PK, Rath GK, Ambinder RF, Mitsuyasu RT. **2018.** Prevalence of HIV in patients with malignancy and of malignancy in HIV patients in a tertiary care center from North India. ***Curr HIV Res***. 2018 Oct 18.

8. Sinha S, Gupta K, Nawaid Khan, **Mandal D**, *et al*. **2018.** Higher frequency of HIV-1 drug resistance and increased NRTI mutations among the HIV-1 positive ART naive individuals co-infected with Mycobacterium Tuberculosis compared to only HIV infection in India. ***Infectious Disease: Research and***

Treatment.

9. Sinha S, Gupta K, Mandal D, Das BK, Pandey RM. 2018. Serum and Bronchoalveolar Lavage Fluid 25(OH) Vitamin D3 Levels in HIV-1 and Tuberculosis: A Cross-Sectional Study from a Tertiary Care Center in North India.*Curr HIV Res.* 27.

10. **Mandal D***, Reja AH, Biswas N, Bhattacharya P, Patra P, Bhattacharya B. **2015.** Vitamin D receptor expression levels determine the severity and complexity of disease progression among leprosy reaction patients. ***New Microbes and Ne Infections.*** July, Vol 6: 35-39. (* As corresponding author). **IF-4.0**

11. **Mandal D**, Feng Z, Stoltzfus CM. **2010.** Excessive Human Immunodeficiency Virus Type-1 RNA splicing and inhibition of virus replication induced by modified U1 snRNAs ***Journal of Virology***: December **2010,** Vol. 84, No. 24, p. 12790-12800. **IF-6.4**

12. **Mandal D**, Exline C, Feng Z and Stoltzfus CM. **2009.** Regulation of *vif* mRNA splicing by human immunodeficiency virus type 1 requires 5' splice site D2 and an exonic splicing enhancer to counteract cellular restriction factor APOBEC3G. ***Journal of Virology***. Jun. 83(12): 6067-78. **IF-6.4**

13. **Mandal, D**, Feng Z and Stoltzfus CM. **2008.** Gag-Processing defect of human immunodeficiency virus type 1 integrase E246 and G247 mutants is caused by activation of an overlapping 5' splice site. ***Journal of Virology***. Feb. 82(3): 1600-1604. **IF-6.4**

14. **Mandal D**, Das C, Le Grice S, Prasad VR. **2006.** Analysis of HIV-1 replication
    block due to substitutions at F61 residue of reverse transcriptase reveals additional defects involving the RNase H function. ***Nucleic Acids Research***. 34 (10): 2853-2863. **IF-16.9**
15. Bhattacharya B, Karak K, Ghosal A, Roy A, Das S, Dandapat P, Khetawat D, **Mandal D**, Bhattacharya S and Chakrabarti S. **2003**. Development of a new sensitive and efficient multiplex polymerase chain reaction (PCR) for identification and differentiation of different mycobacterial species. ***Trop Med Int Health.*** Feb; 8(2):150-7.
16. Bhanja P, **Mandal D**, Jana S, Bhattacharya SK and Chakrabarti S. **2004.** Detection and characterization of HIV type 2 in Calcutta, India. ***AIDS Res Hum Retroviruses***. Jan; 20(1):101-4.
17. **Mandal D**, Jana S, Bhattacharya S, Bhattacharya SK and Chakrabarti S. **2002.** HIV-1 type-1 subtypes circulating in eastern and north-eastern regions of

India. ***AIDS Res Hum Retroviruses***. Nov; 18(16):1219-27.

18. Saha S, **Mandal D,** Khetawat D, Roy A, Chakrabarti S and Bhattacharya B. 2002. A molecular approach (multiplex polymerase chain reaction) for diagnosis of rhinosporidiosis.**.** ***Indian Journal of Otolaryngology and Head & Neck Surgery.*** **Oct; 54 (4): 264-67.**
19. **Mandal D**, Jana S, Panda S, Bhattacharya S, Ghosh TC, Bhattacharya SK and Chakrabarti S. **2000**. Distribution of HIV-1 subtypes in female sex workers of Calcutta, India. ***Ind. J. Med. Res***. 112: 165 -172.
20. **Mandal D** and Prasad VR. **2009.** Analysis of 2-LTR circle junctions of viral DNA in infected cell. ***Methods in Molecular Biology***. 485: 73-85.

B. Publications under review/revision:

1. Dibyakanti Mandal et. al. Remdesivir Inhibits Chansipura Virus replication throught interaction with the polymerase protein L. (As corresponding author)
2. Dibyakanti Mandal. Chandipura virus replication in Vero cells is inhibited by host restriction factors APOBEC3G and IFITM3. (As corresponding author)
3. Dibyakanti Mandal et al. Maternal Immunization in India: Addressing Opportunities and Challenges for Preventing Respiratory Viral Infections and Improving Maternal and Newborn Health Outcomes. (As cooresponding author).
4. Dibyakanti Mandal. Chandipura Virus Infection in Vero Cells Induces Altered Expressions of Serine and Arginine-Rich (SR) Splicing Factor Protein Genes. (As corresponding author).
5. Soumi Chakraborty*[1], Komal Goel[3], Vaibhavi Rasal, Kaninika[3] Paul and Dibyakanti Mandal*[2.] 2024. A comprehensive review: Exploring bioactive compounds of citrus fruit peels for therapeutic and Industrial Applications (Under revision). Food Science and Engineering. (As corresponding author)

C. List of published abstracts (Conference presentation):

1. **Mandal D**, Khetawat D and Chakrabarti S. 1999. Construction of chimeric envelope genes between HIV-1 and HIV-2. 67th Annual Meeting of Society of Biological Chemists. (INDIA). 18-21 December. New Delhi. India.
2. **Mandal D,** Duclair S and Prasad VR. 2005. Replication defect of F61 mutants are due to enzyme function, processivity and strand displacement synthesis. Cold spring harbor laboratory, *Retrovirus* meeting, Cold spring harbor. NY, USA. (Poster).
3. **Mandal D**, Duclair S and Prasad VR. 2006. Analysis of

	HIV-1 replication block due to substitutions at F61 residue of reverse transcriptase reveals additional defects involving the RNase H function. Cold spring harbor laboratory, *Retroviruses* meeting, Cold spring harbor. NY, USA. (Talk). 4. **Mandal D**, Mavinakere M, Ramalingam D, Shi X, Rao VR, Garforth S, Hanna- Luke E, Kalpana GV and Prasad VR. 2007. Viral replication defect and abnormal Gag processing due to a point mutation in the fingers subdomain of HIV-1 reverse transcriptase. *Retroviruses* Meeting. Cold Spring Harbor, NY, USA. (Talk). 5. **Mandal D**, Feng Z, Exline C and Stoltzfus CM. 2008. Regulation of vif mRNA splicing by human immunodeficiency virus type 1 5' splice site D2 is necessary to counteract cellular restriction factor APOBEC3G. *Retroviruses* meeting. Cold spring harbor. NY, USA. (Poster). 6. Exline C, Feng Z, **Mandal D** and Stoltzfus CM. ESEVif, an SRp75 dependent splice enhancer, is required for optimal replication of HIV1 in non- permissive cells. All Iowa Virology Symposium. September 19-20, 2008. Iowa State University, Ames, Iowa, USA. (Talk). 7. **Mandal D,** Feng Z, Exline C. and Stoltzfus CM. Regulation of vif mRNA splicing by human hmmunodeficiency virus type 1 5' plice site D2 is necessary to counteract cellular restriction factor APOBEC3G. All Iowa Virology Symposium. September 19-20, 2008. Iowa State University, Ames, Iowa, USA. (Talk). 8. **Mandal D,** Feng Z and Stoltzfus CM. 2009. Gag processing defect of an oversplicing HIV-1 mutant is rescued by WT virus. Retroviruses Meeting. Cold Spring harbor. New York. USA. (poster). 9. **Mandal D**, Feng Z and Stoltzfus CM. 2010. Excessive splicing of HIV-1 RNA results in defective Gag assembly which can be complemented by the expression of packagable viral RNA. Retroviruses Meeting. Cold Spring harbor. New York. USA. (poster). 10. **Mandal D** and Stoltzfus CM. 2010. Defective HIV-1 Gag localization and assembly under conditions of excessive viral RNA splicing. Centennial Retrovirus meeting. April 29-May 4. Prague. Czech Republic. (Talk). 11. **Mandal D** and Stoltzfus CM. 2013. Defective HIV-1 Gag localization and assembly under conditions of excessive viral RNA splicing. Centennial Retrovirus meeting. 5th Annual conference of Indian Association of Medical Microbiologists. October 26th, 2013. (Poster). 12. **Mandal D** and DJ Chattopadhaya. Interferon induced transmembrane protein (IFITM) restricts Chandipura and Respiratory Syncytial Virus. 5th Molecular Virology Meeting. Feb 11-12, 2017. THSTI, Faridabad.
PATENTS ***(total no.)***	***Details:***
RESEARCH PROJECTS Completed: ***(total no.) 2*** Ongoing: ***(total no.)***	***1. Effects of unspliced RNA levels in HIV-1 Gag Assembly*** ***2. Immune Response against HIV-1 subtype C envelope Proteins expressed by recombinant vaccinia virus***

AWARDS & HONOURS/ DISTINCTIONS	***Details:*** 1995 Qualified GATE (IIT) with 95.52 percentile score 1996 **Junior research fellowship** awarded by Department of Biotechnology, Govt. of India. 2001 **Senior research fellowship** awarded by Council of Scientific and Industrial research (CSIR), India. 2001 **UNESCO-IUMS-MIRSENS-SGM** international fellowship (UNESCO). From 2008: **Levitt center pilot grant** obtained from University of Iowa, Project title: 'Effects of unspliced RNA levels on HIV-1 Gag assembly'. 2020 Invited Reviewer member, VirusDiseases (Springer). 2022 Awarded ECCMID outreach grant (Travel award) for 2022 meeting at Lisbon, Portugal 2022: Reviewer Board Member, Archieves of Advanced Biomedical Research, Infact Publications, USA 2022 Reviewer Board Member, Annals of Pharmacology, Infact publications, USA 2022 Guest associate editor: *Frontiers in cellular and infection microbiology* (Impact factor 6.0). Current topic 'Past and present knowledge about the roles of provial and antiviral host factors in RNA virus pathogenesis'. 2024 Editorial Board member, Current HIV research (Bentham Science).
MEMBERSHIP with Professional/ Academic bodies	***Details: Former member, New York Academy of Sciences, New York, USA***