

## CURRICULUM VITAE

### TANMOY MONDAL, PhD

Postdoctoral Fellow | Adjunct Lecturer

Department of Biology, Howard University

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[Howard University Profile](#)

[NCBI Bibliography](#)

### CAREER OBJECTIVE

As a dedicated biomedical researcher, my goal is to advance the understanding of complex human diseases, particularly type 2 diabetes, liver diseases and neurodegenerative disorders, through multi-omics approaches. I am passionate about integrating transcriptomics, bioinformatics, and molecular biology techniques to identify early diagnostic markers and therapeutic targets. My aim is to contribute significantly to translational medicine, focusing on health disparities in underrepresented populations.

### ACADEMIC QUALIFICATION

Degree	Board/University	Year
Ph.D. Biotechnology	Maulana Abul Kalam Azad University of Technology	2022
M.Sc. Microbiology	West Bengal University of Technology	2013
B.Sc. Biotechnology	Berhampur University	2010

### RESEARCH EXPERIENCE

#### POSTDOCTORAL FELLOW

Howard University, Washington, DC, USA (2022 – Present)

- Investigating *Molecular and Genetic Signatures of Perturbed Diabetic Pathways with Hepatitis C Virus Infection and Fatty Liver Disease in African Americans* under Dr. Somiranjana Ghosh's supervision.
- Multi-omics integration of transcriptomics and pathway analysis for disease progression.

#### MOLECULAR BIOLOGIST

Murshidabad Medical College & Hospital, India (2020 – 2022)

- Led molecular diagnostics, including COVID-19 RT-PCR testing, viral load quantification, and disease biomarker research.

#### SENIOR RESEARCH FELLOW

Maulana Abul Kalam University of Technology, India (2018 – 2020)

- Conducted radiation-induced genomic instability studies and explored risk factors for medical diagnosis using radionuclide imaging.

#### GRADUATE RESEARCH ASSISTANT

Maulana Abul Kalam University of Technology, India (2016 – 2018)

- Studied radiation-induced DNA damage, cellular toxicity, and genomic instability in mammalian cells.

## **JUNIOR RESEARCH FELLOW**

Maulana Abul Kalam University of Technology, India (2013 – 2015)

- Investigated *Heavy Ion Radiation Effects on Human Cord Blood Hematopoietic Stem Cells*.

## **TEACHING EXPERIENCE**

### **ADJUNCT LECTURER**

Department of Biology, Howard University, USA (2023 – Present)

- *General Biology (3 Credits)- Class strength 50*
- *Evolutionary Medicine (Advanced, 4 Credits)- Class strength 40*

### **GUEST FACULTY**

Department of Environmental Science, Maulana Abul Kalam Azad University of Technology, India (2021 – 2022)

- *Environmental & Sustainable Development (32 Class Hours/Month)- Class strength 50*
- *Environmental Science (32 Class Hours/Month)- Class strength 50*

## **HONORS & AWARDS**

**Senior Research Fellowship (CSIR, India) (2018 – 2020)**

**Junior Research Fellowship (IUAC, India) (2013 – 2015)**

**GATE (Graduate Aptitude Test in Engineering, India) (2012, 2013)**

**Best Poster Award – Nano Bio Con 2016 (International Conference on Nanotechnology & Biotechnology, Kolkata)**

## **PATENT**

Subrata Kumar Dey, **Tanmoy Mondal**, Gourkanti Chandra, Sandip Pal (2019). **A Synergistic Herbal Composition from Fermented Black Tea Having Radioprotection and Process of Preparing the Same.** (Indian Patent No. 365840).

## **BOOK CHAPTER**

1. Biswas TK, Chakrabarti S, Auddy B, **Tanmoy Mondal**, Pandit S, Seal T (2021.) **Pterocarpus santalinus: A Wonder Gift of Nature.** In: Mandal S.C., Chakraborty R., Sen S. (eds) Evidence Based Validation of Traditional Medicines. Springer, Singapore. [https://doi.org/10.1007/978-981-15-8127-4\\_44](https://doi.org/10.1007/978-981-15-8127-4_44)

Year 2025

1. **Tanmoy Mondal**, J Johnson, TK Sur, CA. Loffredo, ST Cotin, J Sahota, BE Korba, G Nunlee-Blnad, S Ghosh. 2025. **Metabolic Dysfunction and Alzheimer's Disease Risks in African Americans.** *Alzheimer's & Dementia.* e086476. 20(S2). <https://doi.org/10.1002/alz.086476>
2. T Sur, **Tanmoy Mondal**, J Johnson, ST Cotin, A Neupane, G Nunlee-Bland, CA Loffredo, Z Noreen, B Korba, V Chandra, SS Jana, B Kwabi-Addo, S Sarkar, S Ghosh. **Developing Non-Invasive Molecular Markers for Early Risk Assessment of Alzheimer's Disease.** *Biomarkers in Neuropsychiatry.* 12, 2025, 100120.
3. Z Noreen, **Tanmoy Mondal**, J Johnson, J Sahota, CA Loffredo, G Nunlee-Bland, B Korba, A Bhatti, V Chandra, S Ghosh. **Exploring Shared Molecular Pathways and gene signatures in Type 2 Diabetes Mellitus and Alzheimer's Disease: from a Pakistani Cohort.** ALR-24-2024. *Journal of Alzheimer's Disease Reports.* (Accepted).
4. **Tanmoy Mondal**, Brent Korba, Christopher A. Loffredo, Coleman I Smith, Ruth Quartey, Gemeyel Moses, et. al. (2025) **Transcriptomic Profiling MicroRNA and Non-Coding RNA Expression from Whole Blood in African Americans with MASLD.** (IJMS under Review)
5. Ditipriya Mallick, Indranil Ghosh, **Tanmoy Mondal**, Sourav Mondal, Rupa Mukhopadhyay, Jomon Joseph, Somiranjana Ghosh, Siddhartha S Jana. (2025). **Non-muscle myosin II regulates cellular elasticity in response to fluid shear stress.** *PNAS.* (Under Review).
6. Amara Saleem, Andrew Volz, **Tanmoy Mondal**, Christopher A. Loffredo, Tomas Trnovec, Lubica Palkovicova Murinova, Kamil Conka, Beata Drobna, Somiranjana Ghosh. (2025) **Exploring the associations between prenatal PCB exposures and gene expression: observations from a cohort of newborn Slovak infants.** *Environmental International.* (Under Review).

Year 2024

7. S Haider, **Tanmoy Mondal**, CA Loffredo, B Korba, I Nawaz, M Azam, T Sur, S Ghosh. **Epidemiological Investigation on the Clinical Status of the Developmental Dyslexia and ADHD comorbidity among school-age children in Pakistan.** *Open Journal of Epidemiology.* 1890796.
8. **Tanmoy Mondal**, Noreen Z, Loffredo CA, Johnson J, Bhatti A, Nunlee-Bland G, Quartey R, Howell CD, Moses G, Nnanabu T, Cotin ST, Clark M, Chandra V, Jana SS, Kwabi-Addo B, Korba BE, Shahzad S, Bhatti MF, Ghosh S. **Transcriptomic Analysis of Alzheimer's Disease Pathways in a Pakistani Population.** *J Alzheimers Dis Rep.* 2024 Mar 19;8(1):479-493.
9. S Haider, **Tanmoy Mondal**, I Nawaz, M Azam, S Ghosh. **Genetic Variants Linked to Dyslexia Co-Morbid ADHD: A Case Study of a Pakistani Outpatient.** (2024). *Journal of Population Therapeutics and Clinical Pharmacology*, 31(9), 2698-2711. <https://doi.org/10.53555/rd5d9s46>

Year 2023

10. **Tanmoy Mondal**, Smith CI, Loffredo CA, Quartey R, Moses G, Howell CD, Korba B, Kwabi-Addo B, Nunlee-Bland G, R. Rucker L, et al. **Transcriptomics of MASLD Pathobiology in African American Patients in the Washington DC Area**. *International Journal of Molecular Sciences*. 2023; 24(23):16654.
11. Noreen Z, **Tanmoy Mondal**, Loffredo CA, Nunlee-Blnad G, et al. **Similarities in Pathobiology of Alzheimer's Disease and Type 2 Diabetes Mellitus: A Proof of Concept by a Case Study**. *Alzheimers Dement*. 2023; 19(Suppl.1): e062039.
12. Cagle, E., Lake, B., Banerjee, A., Cuffee, J., Banerjee, N., Gilmartin, D., Liverman, M., Brown, S., Armstrong, E., Bhattacharya, S., Ghosh, S., **Tanmoy Mondal**. and Banerjee, H. (2023) **Analysis of Differential Gene Expression and Core Canonical Pathways Involved in the Epithelial to Mesenchymal Transition of Triple Negative Breast Cancer Cells by Ingenuity Pathway Analysis**. *Computational Molecular Bioscience*, 13, 21-34.

#### Year 2022

13. **Tanmoy Mondal**, Loffredo CA, Simhadri J, Nunlee-Bland G, et al. **Insights on the pathogenesis of type 2 diabetes as revealed by signature genomic classifiers in an African American population in the Washington, DC area**. *Diabetes Metab Res Rev*. 2022 Nov 4:e3589.
14. Simhadri, J., Loffredo, C., **Tanmoy Mondal**, Noreen, Z., Nnanabu, T., et al. (2022) **Correlates and Covariates of Type 2 Diabetes in an African American Population in the Washington DC Area**. *Open Journal of Epidemiology*, 12, 431-448. doi: 10.4236/ojepi.2022.124035.
15. Arif, M.; **Tanmoy Mondal**; Majeed, A.; Loffredo, C.A.; et al. **Peroxisome Proliferator-Activated Receptor- $\alpha$  (PPAR $\alpha$ ) Expression in a Clinical Population of Pakistani Patients with Type 2 Diabetes and Dyslipidemia**. *Int. J. Mol. Sci*. 2022, 23, 10847.
16. **Tanmoy Mondal**, Loffredo CA, Trnovec T, Palkovicova Murinova L, et al. **Gene expression signatures in PCB-exposed Slovak children in relation to their environmental exposures and socio-physical characteristics**. *Environ Sci Pollut Res Int*. 2022 Aug;29(40):60531-60541.

#### Year 2021

17. **Tanmoy Mondal**, Nautiyal A, Ghosh S, Loffredo CA, Saha C, Mitra D, Dey SK. (2021) **An evaluation of DNA double strand break formation and excreted guanine species post whole-body PET/CT procedure**. *J Radiat Res*; 62(4): 590–599. doi: 10.1093/jrr/rrab025.
18. Nautiyal A, **Tanmoy Mondal**, Goel A, Dey SK, Mitra D. (2021) **Biological Effects Associated with Internal and External Contamination of Diagnostic Nuclear Medicine Sources: An *In vitro* Study**. *Indian J Nucl Med*; 36(3): 288–292.
19. Nautiyal A, **Tanmoy Mondal**, Manu, Kaushik A, Goel A, Dey SK, Mitra D (2021). **Significant reduction of radiation dose and DNA damage in Whole-Body PET/CT study without compromising diagnostic image quality**. *Journal of Radiation Research and Applied Sciences*. 14(1):358-368.
20. Nautiyal A, **Tanmoy Mondal**, Mitra D, Goel A, Dey SK, Kaushik A (2021). **A simple and novel approach to estimate organ cumulative activities and internal absorbed doses using external measurement for  $^{18}\text{F}$ -FDG positron emission tomography**. *Radiat Prot Dosimetry*. 196(3-4):141-152.

### Year 2020

21. Seal T, Chaudhuri K, Pillai B, Chakrabarti S, Auddy B, **Tanmoy Mondal** (2020). **Wild edible plants of Meghalaya State in India: Nutritional, minerals, anti-nutritional, vitamin content and toxicity studies.** *Phcog Mag.* 16:S142-51.
22. Seal T, Chaudhuri K, Pillai B, Chakrabarti S, **Tanmoy Mondal**, Auddy B (2020). **Evaluation of antioxidant activities of various solvent extracts of Litsea cubeba fruits, toxicity studies and its DNA damage protective effects.** *Heliyon.* 6 e03637.

### Year 2019

23. **Tanmoy Mondal**, Nautiyal A, Agrawal M, Mitra D, Goel A, Dey SK. (2019) **<sup>18</sup>F-FDG induced DNA damage, chromosomal aberration, and toxicity in V79 lung fibroblast cells.** *Mutat Res Gen Tox En* 847 503105.
24. Nautiyal A, **Tanmoy Mondal**, Mukherjee A, Mitra D, Kaushik A, Goel HC, Goel A, Dey SK. (2019) **Quantification of DNA damage in patients undergoing non-contrast & contrast enhanced whole body PET/CT investigations using comet assay and micronucleus assay.** *Int J Radiat Biol*; 95(6):710-719.

### Year 2018

25. **Tanmoy Mondal**, Nautiya A, Patwari A, Amenti, Mitra D, Goel A, Dey SK. (2018) **DNA double strand breaks, repair and apoptosis following 511 keV  $\gamma$  -rays exposure using 18 Fluorine positron emitter: An *in-vitro* study.** *Biomed. Phys. Eng. Express* 4 065023.

### Year 2017

26. **Tanmoy Mondal**, Pal S, Dey SK. (2017) **Quercetin Mediated Inhibition of Hydrogen Peroxide-induced Genomic DNA Damage and Toxicity.** *Journal of Biologically Active Products from Nature.* 7:3, 200-213.
27. Chigurupati H, Auddy B, Biyani M, Chakrabarti S, Pandit S, Biswas TK, **Tanmoy Mondal**, Sidney J. Stohs. (2017) **Antioxidant and DNA protective effects of NTX, a proprietary glycyrrhizin/D-mannitol product, in association with alcohol consumption: A randomized, placebo-controlled, double-blind, crossover study.** *Journal of Functional Foods* 34 28-35.

### Year 2015

28. **Tanmoy Mondal**, Pal S, Dey SK. (2015) **Fermented black tea ameliorates gamma radiation induced cellular and DNA damage in human blood lymphocytes.** *International Journal of Biotechnology Research.* 3(4), 055-064.

## **ABSTRACTS AND PRESENTATION**

- **Tanmoy Mondal**, Jheannelle Johnson, Tapas K. Sur, Christopher A. Loffredo, Sharleine Cotin, Jasneet Sahota, Charles D. Howell, Brent Korba, Gail Nunlee-Bland, Somiranjan Ghosh. **Metabolic Dysfunction and Alzheimer's Disease Risks in African Americans.** AAIC 2024, Philadelphia, USA

- **Tanmoy Mondal**, Smith CI, Loffredo CA, Quartey R, et al. **Key gene validation in hepatic fibrosis and hepatocellular carcinoma in African Americans with NAFLD**. The Liver Meeting - AASLD 2023, Boston, MA, USA, October 2023, DOI: 10.1097/HEP.0000000000000580
- **Tanmoy Mondal**, Christopher A. Loffredo, Coleman I Smith, Ruth Quartey. et al. **Key Biological Pathways of Non-Alcoholic Fatty Liver Disease in African Americans**. CUHDRI Inaugural Conference April 3 - 4, 2023 Morgan State University, Baltimore, MD
- **Tanmoy Mondal**, CD Howell, B Korba, G Nunlee-Bland, et al. **TGF- $\beta$ 1 Signaling Pathways in Progression Non-Alcoholic Fatty Liver Disease in African Americans**. RCMI Consortium National Conference 2023. Bethesda MD, US.
- **Tanmoy Mondal**, CI Smith, C A Loffredo, B Korba, CD Howell, G Nunlee-Bland, J Johnson, J Sahota, G Moses, S Ghosh. **TGF- $\beta$ 1 & E2F1 Signaling Pathways in MASLD African Americans**. XULA Health Disparities Conference 2024. New Orleans, Louisiana.
- **Tanmoy Mondal**, Loffredo CA, Smith CI, Quartey R, S Ghosh et al. **NAFLD Pathobiology in African American Patents in The Washington Dc Area**. AASLD The Liver Meeting, Washington, DC, USA. 2022
- **Tanmoy Mondal**, Nautiyal A, Kaushik A, Mitra D, Goel A, Dey SK. **Repeated irradiation of Fluorine-18 enhances biological and biochemical changes in cells: an *in-vitro* prospect study**. SNMICON 2018. Indian Journal of Nuclear Medicine. Volume 33. Abstract Supplement Issue. December 2018. ESCI indexed.
- **Tanmoy Mondal**, Nautiyal A, Kaushik A, Mitra D, Goel HC, Goel A, Dey SK. (2018). **Comparative study of DNA damage in V79 cell line after prolong Fluorine-18 exposure with comet assay and  $\gamma$ H2AX assay**. ICRB 2018. NUJHS vol. 8, Special Issue, October 2018, ISSN 2249-7110.
- **Tanmoy Mondal**, Nautiyal A, Mitra D, Dey SK. **Influence of non-ionic Computed Tomography (CT) contrast agent in DNA double strand breaks (DSBs) formation using Fluorine-18 ( $^{18}\text{F}$ ) gamma ray exposure on V79 cancer cell line**. (February 2018) Conference: 2nd Annual Conference of Nuclear Medicine Physicists Association of India. At: Mumbai.
- **Tanmoy Mondal**. Nautiyal A, Saha C and Dey SK **Study of DNA Damage and Cellular Toxicity at Diagnostic Level of Radiation by  $^{18}\text{F}$ -FDG** 4th Regional Science & Technology Congress, 2019 Medical Science 282.
- **Tanmoy Mondal**, Nautiyal A, Patwari A, Amenti, Dey SK, Mitra D. (February 2017). **Study of genotoxicity factors associated with  $^{18}\text{F}$  mediated diagnosis, an *in-vitro* approach**. Conference: 1st Annual Conference of Nuclear Medicine Physicists Association of India (NMPAICON 2017). Kolkata.
- **Tanmoy Mondal**, Dey SK (2016). **Green tea kombucha, a good source of natural antioxidant and a probable radioprotector**. Conference: 1st International Conference on Nano Technology and Biotechnology (Nano Bio Con 2016), Kolkata.
- Saimoen Anderson, Miranda Newheart, **Tanmoy Mondal**, Tapas Kumar Sur, Somiranjana Ghosh. **Decoding Latent Autoimmune Disease (LADA) in African American Adults: A Comprehensive Study on the Role of PFKFB3 Gene and Pathway's T2DM Patient**. 18<sup>th</sup> Annual Undergraduate Research Conference 2024. Virginia State University.

- Miracle Gabriels, **Tanmoy Mondal**, Somiranjan Ghosh. **Role of E2F1 Signaling Pathways in Progression of MASLD in African Americans: An Ethnicity Based Comparative Study**. 18<sup>th</sup> Annual Undergraduate Research Conference 2024. Virginia State University.
- Armani Clay, **Tanmoy Mondal**, Tapas Sur, Somiranjan Ghosh. **The Immerging Concept of Type 3 Diabetes: Why African Americas Matters**. 18<sup>th</sup> Annual Undergraduate Research Conference 2024. Virginia State University.
- Tapas Kumar Sur; **T Mondal**; Z Noreen; J Johnson; CA Loffredo; B Korba; ST Cotin; G Nunlee-Bland; S Sarkar; S Ghosh. **EARLY MARKERS IN ASSESSING THE RISK OF ALZHEIMER'S DISEASE**. RCMI Coordinating Center Conference 2024. Bethesda MD, US.
- Jasneet Sahota, Miracle S Gabriels, **Tanmoy Mondal**, Coleman I. Smith, Christopher A. Loffredo, Brent Korba, Charles D. Howell, Gail Nunlee-Bland, Leanna R. Rucker, Gemeyel Moses, Somiranjan Ghosh. **Ethnicity Based Similarities and Differences of Global Transcriptomic Profiles among MASLD Patients by Ingenuity Pathway Analysis (IPA)**. 18<sup>th</sup> Annual Undergraduate Research Conference 2024. Virginia State University.
- S. HAIDER; T. Mondal; CA Loffredo; B Korba; M. Azam; S. Ghosh. **Transcriptomes of Pakistani Children with Dyslexia And ADHD**. RCMI Coordinating Center Conference 2024. Bethesda MD, US.
- Jasneet Sahota; Miracle S Gabriels; **Tanmoy Mondal**, Coleman I. Smith, Christopher A. Loffredo, Brent Korba, Charles D. Howell, Gail Nunlee-Bland, Leanna R. Rucker, Gemeyel Moses, Somiranjan Ghosh. **SIGNALING PATHWAY DIFFERENCES IN MASLD AFRICAN AMERICANS**. RCMI Coordinating Center Conference 2024. Bethesda MD, US.

## TECHNICAL SKILLS

### *Laboratory Skills*

- Ability to critically analyze transcriptomic gene expression (microarray) data in a multi-ethnic population cohort.
- Worked on development of early disease biomarkers in a using TaqMan™ Low Density Array (TLDA) data, through a population-based studies.
- Hands-on experience on viral load quantification (COVID-19), viral sample collection, patient sample management in a large scale.
- Conduct training and supervising laboratory people involved in COVID-19 testing.
- Collection, Isolation, and culture mononuclear cells from blood. Laboratory handling various cell lines (suspended and adherent) that is K562, V79, HeLa, HepG2.
- Handling radioisotopes like Fluorine-18, Technetium 99m, Iodine 131 and conducting experiments at low dose radiation.
- Chromosome preparation, staining, counting and detection of abnormal chromosome from karyogram. Handling of human patient sample (Blood, Urine etc.) and flexible to perform different type of assay techniques - cell viability (MTT), genotoxicity (micronuclei assay), DNA double strand breaks (Comet assay, Gamma H2AX assay).
- Analyzing low dose radiation induced toxicity by analyzing Cell cycle, DNA index, frequency of polyploidy, Cell apoptosis and necrosis. Immunofluorescence staining with Gamma H2AX, DAPI for nucleus, JC1 for mitochondria and other florescent stain like EtBr, PI, Hoechst 33342.

- Working with polyphenols, tea extract and measuring antioxidants, radio-protective property.
- Experienced various techniques e.g., Isolation of DNA, RNA, Protein, Gel Electrophoresis (SDS-PAGE), RFLP, RAPD, Western blotting, PCR, RT-PCR, FACS analysis.

### **Software Skills**

- Ikaros™ Karyotyping Platform for chromosome analysis, CaspLab & Opencomet for DNA damage quantification, ImageJ for image processing and analyzing. GrapPad Prism, SPSS, Patients based case control, Cross- Sectional and Cohort analysis. Significance of randomized Samples and power analysis.
- QIAGEN Ingenuity Pathway Analysis
- Transcriptome Analysis Console (TAC) by Thermo Fisher Scientific.

### **CONFERENCE / SEMINAR / WORKSHOPS**

<b>Conference / Seminar / Workshops</b>	<b>Date</b>
Trends in Electron Microscopy in Frontier Science	March 24, 2011
Workshop on Intellectual Property Rights. Organized by: Patent Information Centre, West Bengal State Council of Science & Technology (WBSCST), Technology Information, Forecasting and Assessment Council (TIFAC) and Ekta Incubation Centre, WBUT	August 17-18, 2010
“ANVESHAN”-Student Research Convention 2012-2013	January 28- 30, 2013
3 <sup>rd</sup> National School on Radiation Biology, Venue: Inter-University Accelerator Centre (IUAC), New Delhi	November 25-29, 2013
2 Day Workshop on Corporate Communication. Organized by: MAKAUT, Sponsored by: TEQIP-II	May 30-31, 2016
Sumer workshop n Bioprocess Engineering Lectures and Laboratory 2016, Organized by: Department of Biotechnology (IIT Madras)	June 27, 2016
National level workshop on “STATISTICS IN BIOLOGY”, Organized by: Department of Biotechnology (MAKAUT AND TEQIP II)	September 29, 2016
NANOBIOCON, TEQIP II WBUT SPONSORED 1 <sup>ST</sup> International Conference on Nanocomputing and Nanobiotechnology, Organized by: MAKAUT, WB	October 3-5, 2016
Short course on Writing Academic Publication, Organized by: (IIT Gandhinagar)	March 16-18, 2017
2 Day Seminar on Cancer Diagnosis and Therapy, organized by: MAKAUT, WB, Sponsored by: TEQIP II	March 30-31, 2017
AASLD The Liver Meeting, Washington, DC, USA	Nov 04-08, 2022
2023 RCMI Consortium National Conference, Bethesda, MD	April 12-14, 2023
AASLD The Liver Meeting, Washington, Boston, USA	Nov, 2023
2024 RCMI Consortium National Conference, Bethesda, MD	April, 2024
Alzheimer's Association International Conference (AAIC), Philadelphia, USA	July, 2024

### **SCIENTIFIC APPOINTMENTS AND PROFESSIONAL SOCIETY MEMBERSHIP**

- 2020 – 2022 Molecular Biologist, Murshidabad Medical College and Hospital, India
- 2016 – 2018 TEQIP Research Assistant, Maulana Abul Kalam Azad University of Technology, India
- 2020 – 2022 Member, State Molecular Biologist Association, India
- 2023 – Present Member, American Association for the Study of Liver Diseases
- 2023 – Present American Diabetes Association
- 2023 – Present Member, Alzheimer’s Association International Society to Advance Alzheimer’s Research and Treatment (ISTAART)

## INVITED GUEST SPEAKER

1. Diversity In Cancer Research Seminar: **Nonalcoholic Fatty Liver Disease (NAFLD) In African Americans: A Quick Look.** May 17, 2023. Organized by: American Cancer Society and Howard University. Washington DC, USA
2. IPA Pathway Hands on Training and Workshop: **Ingenuity Pathway Analysis (IPA): Tools to Discovery of Disease and Disorder Development.** October 23-25, 2024. Organized by Elizabeth City State University, Elizabeth City, NC, USA

## MENTORED GRADUATE AND UNDERGRADUATE STUDENTS

- **Independent Investigator Dissertation Work:** Total no.12
- **Federal Work Study Program:** Total no.3
- **Minority Science and Engineering Improvement Program:** Total no.2
- **International Graduate Students:** Total no. 1
- **High School Students for Summer Internship:** Total no.2
- **MS Dissertation Work:** Total No. 7

### Students Made Significant Impact and Positioned

#### *Undergraduate Students (Independent Investigator Program)*

**Ms. Jheannelle Johnson** Ms. Jheannelle Johnson Received NDCF fellowship at Stanford University School of Medicine, selected as the winner of the Rising Black Scientist Award for Cell Press 2025.

**Ms. Saimoen Anderson** Accepted into Stony Brook University BME M.S. Program; accepted for the GAANN Fellowship at Stony Brook University

**Ms. Jasneet Sahota** Received best presentation award at conference at Virginia State University 2024

**Ms. Ekbal Djibril** Received DOJO Grant 2024

**Ms. Miracle Gabriels** Received best presentation award at conference at Virginia State University 2024

#### *High School Students for Summer Internship Program*

**Ms. Marika Clark** Echols Scholar and College Science Scholar at the University of Virginia 2023

**Ms. Peyton Austin** Accepted into Northwestern University for Undergraduate Program 2024

## JOURNAL REVIEWER

1. **Diabetology** – Publisher MDPI

2. **Journal of Clinical Medicine** - Publisher MDPI
3. **Journal of Alzheimer's Disease** – IOS Press
4. **Journal of Alzheimer's Disease Reports** – IOS Press
5. **International Journal of Molecular Sciences** – Australian Society of Plant Scientists (ASPS), Epigenetics Society, European Calcium Society (ECS), European Chitin Society (EUCHIS), Spanish Society for Cell Biology (SEBC) affiliated Journal, Published by MDPI
6. **Nature Scientific Reports**- Springer Nature
7. **Healthcare** – Ocular Wellness & Nutrition Society (OWNS) affiliated Journal, Published by MDPI
8. **Biochemical Genetics** - Publisher Springer

## RESEARCH SUPPORT

### Applied Project

American Cancer Society (ACS) Postdoctoral Fellowships (PF) support

Title: **Predictive prognosis of NAFLD by blood transcriptome in type 2 diabetes African Americans**

Applicant: Dr. Tanmoy Mondal

Date: October 2023

RCMI Pilot Project 2023-2024 cycle:

Title: **Predictive Prognosis of NAFLD by Blood Transcriptome in Diabetic African Americans**

PI: Dr. Tanmoy Mondal (HU) and Dr. Pilhwa Lee (MSU)

Date: February 2023

RCMI Pilot Project Resubmission 2024-2025 cycle:

Title: **Predictive Prognosis of NAFLD by Blood Transcriptome in Diabetic African Americans**

PI: Dr. Tanmoy Mondal (HU) and Dr. Pilhwa Lee (MSU)

Date: January 2024

Howard University Investigator Development Program:

Application for HU-RCMI-Investigator Development Core (IDC) Research Grants-2024-2025

Title: **Predictive Prognosis of NAFLD by Blood Transcriptome in Diabetic African Americans**

PI: Dr. Tanmoy Mondal

Date: June 2024

### Pending (Under Review)

**NIMHD/R21-Type** (Exploratory Project)

2025-2027

Transcriptomic Regulation of E2F1 in MASLD Progression in African Americans.

The **goal of this research** is to investigate E2F1's role in MASLD progression among African Americans through transcriptomic profiling and validation via qRT-PCR, correlating molecular signatures with clinical data. Findings aim to uncover ethnic-specific mechanisms, identify biomarkers, and advance precision medicine to address health disparities in MASLD

Role: *Research Scientist/Co-investigator*

### Complete List of Published Work in My Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/dr.%20tanmoy.mondal.1/bibliography/public/>