## 1. Dr. Priyadarshi Basu, Associate Professor

<u>Research interest:</u> Deciphering genotype-environmental interactions in common diseases. Currently, my laboratory is studying the genomic and transcriptomic causes of Non-alcoholic fatty liver disease (NAFLD) in Indian populations.

Full profile: https://www.nibmg.ac.in/p/people?id=8

## 2. Dr. Samsiddhi Bhattacharjee, Associate Professor

Research interest: Our group is primarily involved in Statistical Genomics with applications to identification of genetic variants which confer susceptibility to complex diseases in humans. We use data from GWAS, transcriptomics, epigenomics, e-QTL studies, and develop techniques to accelerate discovery of variants, genes and pathways from high-throughput genomics data. For this, we apply analytic approaches such as multiple-testing, meta-analysis, pathway/enrichment analysis and integrative genomics. We are also interested in understanding the causal mechanisms underlying these variants driving disease pathogenesis and in developing ways to understand gene-gene and gene-environment interactions that is crucial for effective genomics driven personalized medicine. Full profile: https://www.nibmg.ac.in/p/people?id=9

## 3. Dr. Nidhan K. Biswas, Associate Professor

<u>Research interest:</u> My laboratory has developed expertise in genomescale analysis of cancer and healthy population datasets. Our research in cancer is centered around detailed characterization of all genomic, epigenomic events that impacts on transcriptional landscape of the tumor and normal tissue samples of an individual patient. We aim to identify molecular alterations in genes and pathways that are associated with various clinical phenotypes of the cancer. Currently our studies are focused : [1] to understand multi-omics landscape of Oral Cancer and other Oral Precancers progression, recurrence and metastasis [2] understanding baseline DNA variation in contemporary normal human populations, and [3] development of flexible dataanalytics pipelines for rapid processing of genomics bigdata.

Full profile: https://www.nibmg.ac.in/p/people?id=10

## 4. Prof. Kartiki Desai, Professor

<u>Research interest:</u> Breast Cancer Genomics and Epigenomics; biology of selected cancer related coding and non-coding RNAs; Extracellular Vesicle Biology.

Full profile: https://www.nibmg.ac.in/p/people?id=13









# 5. Dr. Srikanta Goswami, Associate Professor

<u>Research interest:</u> Gastrointestinal Cancers constitute a major part of the total cancer burden and significantly contribute to the mortality and morbidity of the disease. Among them, pancreatic ductal adenocarcinoma (PDAC) and young onset sporadic colorectal cancers (YOSCRC) are of major interest of our laboratory and understanding of the genomic and epigenomic changes leading to the development of the diseases is the main research question being addressed through multiple projects. Additionally, our laboratory has special interest in exploring the mechanistic role of noncoding RNAs in the progression of both PDAC and YOSCRC.

Full profile: https://www.nibmg.ac.in/p/people?id=22

 Prof. Arindam Maitra, Associate Director <u>Research interest:</u> Human disease genomics and platform technologies

Full profile: https://www.nibmg.ac.in/p/people?id=23

7. Dr. Souvik Mukherjee, Assistant Professor

<u>Research interest:</u> Host-Metagenome Interactions in Human Health and Disease, Genetics of Innate Immunity Genes, Population Genetics and Molecular Evolution.

Full profile: https://www.nibmg.ac.in/p/people?id=24

# 8. Dr. Bhaswati Pandit, Associate Professor

<u>Research interest:</u> My research is to understand genetic basis of disease that includes infectious and complex disease. Tuberculosis (TB) is potentially a serious infectious disease usually caused by a virulent bacteria *Mycobacterium tuberculosis*. The outcome of infection is manyfold. Only a minor group of people develop active tuberculosis upon exposure to *Mycobacterium tuberculosis*. A handful of individuals are able to clear the infection, whereas majority of infected individuals harbor the infection in latent condition. The ability to effectively restrict M.tb infection depends on the immune status of the individual. We are interested in deep mining of host genetic factors determining susceptibility to infection and understand pathogen and host interface using multiomics approach. The other aspect of my research is to understand genetic basis of congenital heart disease.

Full profile: https://www.nibmg.ac.in/p/people?id=18









<u>Research interest:</u> Human Disease Models (Genetic & Infectious Models), Simulation Studies (Modeling & Immunoinformatics), Stem Cell / CAR-T Cell Translational Therapies.

Full profile: https://www.nibmg.ac.in/p/people?id=31

# 10. Dr. Sagar Sengupta, Director

<u>Research interest:</u> Understanding the mechanisms of genome integrity in nucleus and mitochondria

Full profile: https://www.nibmg.ac.in/p/people?id=34

