

# From DNA to Data: Training the Next Generation of Scientists

## Celebrating National DNA Day

Advances in DNA sequencing are transforming science and medicine. At BioMMed - LSU, we turn sequences into solutions through research, data and people.



### FROM SEQUENCING TO INSIGHT

DNA research fuels discoveries across many frontiers:



Genetic drivers of cancer and complex diseases



Viral genomics and host-pathogen interactions



Microbiome dynamics and environmental DNA (eDNA)



Precision medicine and targeted therapeutics



### BUILDING THE NEXT GENERATION

The Louisiana Training Platform (LTP) is creating a pipeline of skilled scientists equipped to lead in the era of genomics and data science.



**5,000+**  
High School Students introduced to genomics and data science concepts



**2,000+**  
Undergraduate & Graduate Students engaged in hands-on bioinformatics training



Training in real-world datasets, computational tools, and emerging AI/ML approaches

### BRIDGING RESEARCH AND INNOVATION

LBRN and BioMMed research turns DNA-driven discovery into real-world solutions:



Computational modeling of protein structures and interactions



Viral genomics and oncolytic virotherapy strategies



AI-driven approaches for drug discovery and natural product identification



Translational impact from bench to breakthrough



As DNA research continues to evolve, BioMMed - LSU remains committed to empowering **discovery** through genomics, data science, and collaborative training—ensuring that the next generation is equipped to lead in the era of precision medicine.

DISCOVERY | INNOVATION | IMPACT