# BACKGROUND INFORMATION

The National Library of Medicine at the National Institutes of Health supports innovative research and development in biomedical informatics and data science. Through the R25 program, NLM is developing a new generation of scientists capable of leading biomedical informatics and data science research into the future. The program's goal is to encourage talented undergraduate and master's students, including those from groups underrepresented in the biomedical and behavioral sciences, to pursue further training and careers in these important fields. Through foundational skills-building and mentorship, the NLM R25 program is strengthening a diverse NIH-supported workforce that will foster scientific innovation, enhance global competitiveness, and improve the quality of research.

**The Training and Experiential Learning in Biomedical Informatics (*TExBioMed*) Summer Institute** is intentionally designed to provide research opportunities to all students, with a focus on underrepresented groups in biomedical

informatics, health informatics, public health informatics, and related fields and strengthen, expand, and diversify the nation's capable workforce to meet the advances of the 21st Century. The next generation of multidisciplinary investigators will require foundational training and experience in life and physical sciences and computational, mathematical, and engineering disciplines to tackle increasingly complex problems that impact our health.

*TExBioMed*, a research education initiative led by Dr. Gabriela Wilson, the Director of the Louisiana Center for Health Innovation, will recruit and immerse talented undergraduate students in a training environment that will expose them to the current state-of-the-art in biomedical informatics, health and public health informatics, and data science. *TEXBioMed* faculty members span multiple participating colleges and have complementary expertise in genomics, bioinformatics, health informatics, public health informatics, bioengineering, biology, chemistry, physics, mathematics, and computer science.

The program is focused on increasingly important and various approaches that foster data-driven discovery in the biomedical and clinical health sciences to predict and diagnose disease, develop targeted therapies, and personalize health and wellness plans more equitably and efficiently. *TExBioMed* program emphasizes the importance of multidisciplinary research as an increasingly critical approach to answering biological questions while addressing health equity.

The ultimate goal is to motivate student participants to pursue careers in bioinformatics, health informatics, public health informatics, data science, and other STEM disciplines and increase the talent pool to fulfill the nation's current and future workforce needs.