



August 24, 2022

Revati Puranik
Board Chair
NextGen Global Leadership Academies
3773 Richmond Avenue
Houston, Texas 77046

Dear Ms. Puranik,

InnovATEBIO, the National Biotechnology Education Center is pleased to provide this letter of support and collaboration for NextGen Global Leadership Academies (NGLA) and their application to the Texas Education Agency (TEA) for a 6 to 12 grade open enrollment public charter school. Based on your past achievements, your proposal for this school builds upon your work and prior programs with your local school districts around innovation, design thinking, global outreach, mentorship and leadership opportunities for students and teachers in Houston. InnovATEBIO commit to biotechnology educators from 7th grade through college across the nation for the purpose of preparing the biotechnology workforce is in line with the mission of the NextGen Global Leadership Academies (NGLA). The center provides professional development training, curriculum, equipment, and connections to industry across the country. Starting in Texas over 20 years ago, the original center known as Bio-Link, and now known as InnovATEBIO developed a TEA recognized Biotechnology Pathway that has now morphed into a dual credit, entry level certificate in Biotechnology that targets a high school population who want to go into industry whether right away or several years after attending a community college biotechnology program or a 4-year program.

Examples of Texas high schools that have adopted this dual credit program are part of the Early College Start Program at Austin Community College. LASA Science Academy graduates over 100 students earning this certificate and with the Center's and Austin Community College (ACC) Biotechnology Program's help, ACC was awarded an Advanced Technological Education (ATE) grant establishing a Sanger Sequencing Center at the high school enabling students to do real world, project based undergraduate research while being mentored by local industry. The National Center encourages educational partners to involve students in project-based education that is modeled on what occurs in industry. This student-centered approach produces students that are engaged and in charge of their education –just what they need to be to succeed in today's world. Navarro HS Biotechnology Program is at a title one school and provides mentored education to students many of whom have not considered jobs in Biotechnology nor transferring to a 2- or 4-year school. We also work with Texas high schools in Dallas, El Paso, and the Rio Grande Valley. For the past 20 years, we have offered a one-to-two-week Summer Workshop for biotechnology teachers. We look forward to including NGLA middle and high school teachers in this workshop.

A snapshot of the high school entry level certificate is as follows: (Freshman year) Starts with 9th grade biology that includes biotechnology career explorations, (Sophomore year) Chemistry and BIOL 1414 or BITC 1411 Introduction to Biotechnology that introduces basic biotechnology laboratory and upstream bioprocessing in a regulated environment; (Junior year) BIOL 1415 or BITC 1402 Biotechnology Methods that expands on basic biotechnology laboratory techniques and introduces downstream bioprocessing in a regulated environment; and (Senior year) BITC 1340, an online regulatory course and BITC 2486 internship or a high school research course. Since the high school is going to focus on biotechnology, additional courses could be cell culture, molecular techniques, advanced manufacturing, or instrumentation. We encourage high schools to add more training options if they have the time to offer additional biotechnology courses or modules.



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DUE # 1901984

As part of the center's commitment, we are willing to host an InnovATEBIO meeting in Houston and invite potential 2-year community college partners in addition to your 4-year supporters to ensure that your program interfaces with a variety of biotechnology educational opportunities in the area. Your application to TEA represents an important new opportunity to increase Houston students' access to the cutting-edge careers in biotechnology. We look forward to working with you in the coming months.

Best regards,

A handwritten signature in black ink that reads "Linnea Fletcher".

Linnea Fletcher Ph.D.
Department Chair, Biotechnology
Executive Director, InnovATEBIO