Barbara Bielec

**Award:** Aerospace Outreach K12 Program K12; $5000.00

**Title:** Program Director, BioPharmaceutical Technology Center

**Project:** Biotechnology Teacher Academy Summer Course - Biotechnology: The Basics for Middle School Teachers

**Abstract:** (First Paragraph of Proposal) The BTC Institute piloted Biotechnology: The Basics for Middle School Teachers June 14‐16, 2017. Our basic goals are to assist teachers in their efforts to engage and educate future Science, Technology, Engineering and Math (STEM) professionals, improving the STEM pipeline, as well as to provide information essential to fostering a scientifically literate population. The BTC Institute will build on the success of our 2017 pilot, doubling class size to 16 to teachers in 2018. Curriculum will be designed and refined to provide middle school teachers with the background information, lab‐based training and materials required to successfully include hands‐on biotechnology content with their students. Specific to space science, teachers will learn about NASA resources and projects that utilize biotechnology and how to share that information with the diverse student populations that they teach. This addresses the 2017‐2018 specific goal of the Aerospace Outreach Program (AOP) to: “Improve the STEM pipeline by including underserved and/or underrepresented students in the project; or including the teachers who specifically teach those populations”. The course will be offered for graduate education credit through Edgewood College. Funds are requested from the Wisconsin Space Grant Consortium (WSGC) to assist in the provision of stipends for participating teachers and to help develop, staff, and purchase supplies for this course.

**Biography:** Barbara Bielec received her B.S. in Genetics from UW-Madison and her M.S. in Genetics from Texas A&M University. She has secondary teaching certification in Biology, Chemistry, and Math; and has taught science to students of all ages, in many different settings for over twenty-five years. Currently she coordinates and teaches a variety of K-12 programs at the BTC Institute (www.btci.org ) including: the Youth Apprenticeship Program - Biotechnology, the Biotechnology Field Trip program, the African American Ethnic Academy (AAEA)/ BTC Institute science program "A Celebration of Life" and teacher courses and workshops through the Biotechnology Teacher Academy. This biotechnology outreach position includes grant writing and presenting at national and state conferences. Memberships include the National Association of Biology Teachers (NABT), the National Science Teachers Association (NSTA), and the Wisconsin Society of Science Teachers (WSST).

**Congressional District**: 2

**Congressional Representative**: Mark Pocan