Barbara Bielec

**Award:** Aerospace Outreach Program K12; $3000.00

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

**Project:** Biotechnology Teacher Academy Summer Courses --Biotechnology:   
The Basics & Biotechnology: Beyond the Basics

**Abstract:** (First Paragraph of Proposal) The Biotechnology Technology Center Institute plans to offer two week‐long intensive courses, Biotechnology: The Basics and Biotechnology: Beyond the Basics. 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. Both courses are designed to provide teachers with the background information, lab‐based training and curriculum materials required to successfully include hands‐on biotechnology content in their classes. Specific to space science, teachers will learn about NASA resources and projects that utilize biotechnology and how to share that information with their students. This addresses a specific goal of the 2017‐2018 Aerospace Outreach Program to: “raise the level of exposure and interest of K‐12 teachers, students and the general public in space, aerospace, and space‐related science, design, or technology and its potential benefits; and/or increase interest, recruitment, experience and training of pre‐college students in the pursuit of space‐ or aerospace‐ related science, design, or technology”. Every year, course content is reviewed and revised to include state‐of‐ the‐art information and corresponding techniques. The courses will be offered for graduate education credit through Viterbo University and Edgewood College. Funds are requested to provide stipends for participating teachers, prioritizing providing financial support to those who teach underserved and/or underrepresented students, and to assist with staff costs and purchase supplies.

**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