

INTRODUCTION TO BIOTECHNOLOGY SUMMER INSTITUTES 2004

RELATED AREAS INCLUDE: Agriculture, Biology, Life Science, Nutrition, Health Science, Family and Consumer Science, and Technology Engineering Education

GRADE LEVELS: Middle and High School Teachers

PARTNERSHIPS: Tennessee State University, the U.S. Department of Agriculture, and the Department of Vocational-Technical Education at the Tennessee State Department of Education



SESSION 1: June 14-18, 2004

SESSION 2: June 21-25, 2004

EACH ONE-WEEK SESSION INCLUDES THE FOLLOWING:

- 5 days of instruction, labs, and fieldtrips
- Travel reimbursement for all participants and lodging plus per-diem for out-of-town participants staying in a local hotel
- Up to \$200 in biotech lab supplies, including a CD-ROM with PowerPoint presentations from the workshop
- Continuing Education Credits (CEUs) jointly from TSU & the Tennessee State Department of Education

Do your students think that DNA looks like the multicolored pretty ladders drawn in most textbooks? Are they confused as to how DNA can be separated out of cells and manipulated in the lab? If so, perhaps this workshop will help you as you teach about the highly relevant, important topic of biotechnology. We will explore biotechnology with a focus on extracting DNA from cells. Teachers will extract DNA from plants as well as from their own cheek cells and analyze it by gel electrophoresis. Application of microorganisms will be demonstrated by making root beer. Teachers will receive two kits to do the cheek cell extraction with their students in the fall. We will also learn about the applications of biotechnology in the field of agriculture. This will include a tour of agricultural biotech labs at Tennessee State University and a chance to hear from the researchers themselves. Throughout the week, teachers will build on their understanding of biotechnology, become familiar with the best resources available for teaching about biotech, and learn how to meet the state learning expectations in this area.

ACCESS THE MOST UP-TO-DATE INFORMATION, INCLUDING THE APPLICATION AND A TENTATIVE SCHEDULE, ON THE WEB AT:

<http://www.dragonflyenterprises.org/clients/TSU/workshops/TSU/BiotechnologyWorkshop/>

TO REQUEST AN APPLICATION, TO SUBMIT YOUR FINISHED APPLICATION, OR FOR MORE INFORMATION:

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Tennessee State University's Introduction to Biology Summer Institutes are sponsored by the Institute of Agricultural and Environmental Research and the Institute for Understanding Biological Systems at Tennessee State University through a grant from the United States Department of Agriculture in partnership with the Tennessee State Department of Education.

Tennessee State University Professors for the U.S. Department of Agriculture Grant:

Dr. Fisseha Tegegne

Dr. Ahmad Naseer Aziz

Dr. Todd Gary