

Development of an Internet Biotechnology Learning Center for Public Schools. (A01-shaver222755-Oral)

Authors:

- J.M.Shaver* - *Oklahoma State University, Dept. of Plant and Soil Sciences*
- R.D.Geisert - *Oklahoma State University, Dept. of Animal Science*
- L.G.Burditt - *Oklahoma State University, Dept. of Animal Science*

Abstract:

Advances in biotechnology are impacting our culture as rapidly as the Internet has changed the way we communicate and obtain information. Funding limitations in schools have always greatly restricted the educational potential within the classroom. We have developed and provided internet-accessible educational material on biotechnology for students and teachers. The overall goal of the website is to establish and extend educational programs to improve scientific literacy in public schools in the areas of plant and animal biotechnology. The website brings together educational and entertaining animations with characters to which students can relate and which give students and teachers in science education a positive role model of scientists. The Internet site, which is directed at K-12 schools and the general public, is user friendly and utilizes a format that may be explored to a depth appropriate for the particular individual or audience. Four modules were developed within the website. The first, a tutorial of basic genetics and cell biology, provides text, illustrations and animations for students to learn topics ranging from basic cellular function to genetic segregation and heredity. Animated tutorials were developed for fundamental topics in mitosis, meiosis, inheritance, as well as DNA, RNA, and protein synthesis. A second section shows the application of biotechnology using videos which provide an educational as well as entertaining method for students to see biotechnology in action. The third section covers the basic laboratory techniques used in biotechnology research. Finally, in the teacher resource section, teachers can access and download individual illustrations, animations, and movies and text to be integrated into their own lesson plans. The information contained in this website has been utilized by teachers throughout the U.S. and the world.

Corresponding Author Information:

Jonathan Shaver

phone: 405-744-9579

Oklahoma State University
368 Agricultural Hall
Stillwater, OK 74078

fax: 405-744-5269
e-mail: jms@mail.pss.okstate.edu

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