



PROJECT UPDATE

Note: This form is for **APPROVED GRANTS** only! Periodic updates are a requirement for the grants. The information provided will be posted on the Learning College website.

Directions: Fill out the form and email it to anne.holte@montgomerycollege.edu.

Project Name: Enhancing Learning through Biological Research

Project Director: Dr. Cyrus MacFoy

Project Update: In the Spring 2007 semester, a number of activities were conducted as an integral part of my Make It Happen Grant. These were all aimed at using biological research to enhance learning.

At the beginning of the semester, a lecture was given to each of my two BIO101 classes by Kathy Swanson, librarian at the TPSS campus, in the Biology Department, on the use of the library resources to conduct biological research. Both were very well received, and they gave the students an excellent introduction into library research methodologies, followed by lively question and answer sessions.

Next, all BIO101 Instructors teaching the eight sections of this course gave an introductory lecture to their students on the use of the scientific method in biological research. This was followed by an inquiry-based laboratory research assignment I designed on the scientific method of inquiry, and each student wrote a detailed report on the laboratory research findings (~160 in all). The Instructors graded this report with suggestions for improvements.

Later on in the semester, all sections of the BIO 101 used this scientific method of inquiry to research various aspects of natural dyes in the laboratory followed by a detailed scientific report by each student of the findings. This turned out to be a very successfully scientific exercise in which the students learnt a lot about natural dyes and biodiversity conservation.

With my BIO 205, Anatomy and Physiology class, after a brief lecture on research methodology, an inquiry-based research was conducted in the laboratory on various factors affecting blood pressure, and a detailed report written and graded.

Finally, towards the end of the semester, an invited speaker from the Walter Reed Army Institute of Research, Dr Edgar Rowton, Section Chief, Sand Fly Biology, Division of Entomology, gave a

presentation at the Biology Department, TPSS on his research on Leishmaniasis. The title of his research presentation was: Leishmaniasis from Iraq to the USA. Dr Rowton is a renowned expert on Leishmaniasis, a disease that most of the students had never heard about, and which afflicted a number of the US soldiers in Iraq. Caused by a protozoan parasite called Leishmania, this disease is transmitted by sand flies. Several biology students attended this seminar and found it very stimulating and educative. Dr. Rowton covered all aspects of the disease, and the scientific methods used to research its ecology, pathology, treatment, and control of the Sand flies.