

## **Workshop # 2: Technical Writing and Presentation**

Speaker: Dr. Ronald W. Millard, Professor, Pharmacology & Cell Biophysics, College of Medicine, University of Cincinnati

Date: June 26, 2008

Time: 8:00 a.m. to 12:00 Noon (4 hours)

This workshop was given by Dr. Ronald W. Millard, Professor, Pharmacology & Cell Biophysics, College of Medicine, University of Cincinnati on June 26, 2008 from 8:00 a.m. to noon (4 hours). Dr. Millard is the Director of two REU Sites: NSF REU Site Program in Membrane Science and ASPET SURF Program. He is also directing a NSF RET Supplement for two teachers who are participating in the professional development programs offered in our RET Site. His area of research is molecular dynamics in heart failure. The photograph in Figure 1 shows the interactive workshop session being conducted by Dr. Millard.



**Figure 1. Dr. Millard Lecturing the Workshop**

This seminar was jointly held for the 9 REU participants and 14 teachers participating in a concurrent NSF RET Site. The seminar addressed the topic of effective scientific communication, primarily as a written medium. Samples of creative, popular scientific and technical scientific writing were compared and contrasted to illustrate the difference in style, vocabulary, and intended audiences. At one end of the spectrum, creative writing utilizes many sensory words that describe opinions or feelings. In the middle was popular science, where the usage of very specific terms was generally followed by a simpler definition for a more general audience. At the opposite end of the spectrum is technical scientific writing. In such writing, the language is very specific because there should be no room for judgment; only an exact idea or solution is presented.

More importantly, the speaker presented some of the major components of technical writing: research abstracts; annotated bibliography; and slide and poster presentations. This was achieved by providing

templates, guidelines and the questions to ask one's self when developing these various aspects of technical writing. Common pitfalls in technical writing were identified in many samples and contrasted with current standards. Some of the key points included were:

- (1) The importance of being concise in regards to abstracts, slides and posters.
- (2) The need to present one's research in the broader context of the scientific field.
- (3) The ethical requirement to report all methods and models of research.
- (4) To emphasize not only the research's impact on further research, but also on the engineering field.
- (5) Some guidelines to compile an annotated bibliography.
- (6) Suggested templates for slide and poster presentations.