



The Western Scholar  
Office of Sponsored Programs  
Western Kentucky University  
1906 College Heights Blvd. #11026  
Bowling Green, KY 42101-1026  
ADDRESS SERVICE REQUESTED

NONPROFIT ORG.  
U.S. POSTAGE  
**PAID**  
PERMIT NO. 850  
LEXINGTON, KY

VOLUME 6, NUMBER 1 • FALL 2005  
ISSN 1550-5731 • eISSN 1550-5537



# *The Western* **SCHOLAR**

*THE SPIRIT OF SCHOLARSHIP AND RESEARCH AT WESTERN KENTUCKY UNIVERSITY*



Western Kentucky University recently developed a Quality Enhancement Plan with “an emphasis on engaging students for success in a global society.” The broader goal states “students will engage with communities other than their own in purposeful learning activities that explicitly address their capacity and responsibility to contribute to community and society.” This edition of *The Western Scholar* highlights the work of eight WKU faculty members who are engaging their students in research and/or sharing the procedures and results of their own scholarship through classroom instruction. In each case, the faculty member demonstrates ways in which individual disciplines expand knowledge, respond to global issues, and seek solutions to universal problems.

Dr. Eric Conte, associate professor of chemistry, focuses on the search for environmentally friendly methods of preconcentration, detection, and measurement of pollutants produced by combustion processes. While traditional procedures of preconcentration require the use of toxic solvents, Dr. Conte is working to develop a more effective method and one that is safer for the environment.

The passion for caves, which initially attracted Dr. Chris Groves, geography and geology professor, to WKU, has now taken him to more than thirteen countries. Dr. Groves addresses the relationship between basic and applied research and describes how his pursuit of basic research questions inspired him to use his knowledge of caves to seek solutions to problems related to water supplies, health, and the environment.

According to assistant biology professor Jeffrey Marcus, the patterns, shapes, and colors of a butterfly’s wings provide more than beauty; they also reveal the organism’s genetic makeup and cell communication. These genetic pathways play a role in human health as well. With the funding he receives from the National Institutes of Health, Dr. Marcus studies the role of cell communication in regulating cell divi-

sion in the human colon. His findings may someday help cancer researchers in providing better approaches to treatment for colon cancer.

Not all research takes place in the laboratory. When Dr. Tom Nicholson, professor of public health, found a lack of research literature and data on occasional illicit drug use by adults, he and his colleagues turned to the internet, using an online survey as a vehicle for gathering information on this “hidden population” and for identifying implications for American drug policy.



History professor Dr. Hugh Phillips was drawn to a study of Russian history following a study-abroad trip to the Soviet Union. After the fall of the Soviet Union, he gained access to archival data related to Tver, an ancient Russian city. As he studied the memoirs of the citizens, he gained insight into the social as well as political conditions affecting the population, and he began to focus on the impact of the Russian Revolution on the residents of Tver. He spent considerable time in Russia over a thirty-year period and has written extensively on topics related to the Revolution. His writings provide graphic descriptions of life in Russia during the period of the Revolution and the subsequent rise of Communism.

Assistant art professor Heather Pulliam also travels through time and distance to conduct her research. Her interests lie in the illuminated manu-

scripts created by monks and nuns during the Middle Ages, particularly the Book of Kells, housed at Trinity College in Dublin, Ireland. In 2004, Dr. Pulliam received a grant from the National Endowment for the Humanities, which supported her travel to Ireland to study the book more closely. Her work with the manuscript, which began as an honors thesis, evolved into a book, published in 2005.

Europe is also the source of the documents researched by Dr. Michael Seidler, professor of philosophy. An internationally known expert on modern German philosophy, he collaborated with European scholars on publication of the collected works of political theorist, Samuel Pufendorf. His major work is a large volume containing fifteen long essays written by Pufendorf over a sixteen-year period.

The research of physicist Dr. Phil Womble is unique because he actively seeks commercial application of his discoveries. Current projects include instruments used for homeland security and the application of wireless technology for medical purposes. A major component of Dr. Womble’s work is the involvement of students in the Applied Physics Institute (API). The API not only provides hands-on experience for WKU students to gain engineering and scientific skills, it also includes individualized teaching and the opportunity to work one-on-one with a professor on an exciting project.

The articles in this issue once again illustrate the wide range of expertise present among the WKU faculty. The level of scholarship they exhibit, the knowledge they transmit, and the degree to which individual faculty members encourage and engage their students in meaningful and exciting research contribute greatly to the WKU educational experience.

**Sherry Reid**, Interim Dean  
The Bowling Green Community College  
of Western Kentucky University