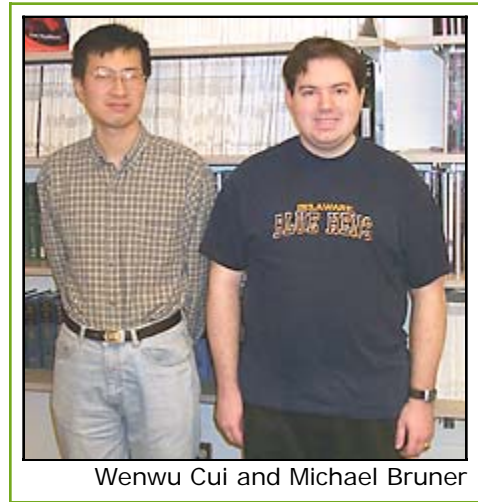


In The Spotlight: Competitive Fellowship Winners

April 2002 -- Each year a select number of University of Delaware graduate students contend for Competitive Fellowships. These awards are based on evidence of previous scholarship and research productivity during their time with the university, and winners receive a large stipend that covers their tuition for the following year. It also allows them to focus their efforts on scholarship and research.

The application process involves compiling years of work: students submit information about their publications and presentations as well as academic transcripts, performance evaluations, and letters of recommendation. Dr. Norman Karin, Graduate Program Director for the Department of Biological Sciences, explains that, "the process is important because it also prepares applicants for seeking research grants." The members of the Faculty Senate Committee on Graduate Studies, who are the judges for the fellowships, are only allowed to consider two candidates from each department or unit. Usually a department is happy to have just one of their nominees win, but this year both nominees from Biological Sciences, Michael Bruner and Wenwu Cui, have been declared winners. Dr. Karin remarks, "this is unprecedented for our department, and we are very proud of these students and their advisors."



Wenwu Cui and Michael Bruner

Michael Bruner, M.S.

Michael Bruner began working in Dr. Eric Kmiec's research lab in the fall of 1999 while he was pursuing an M.S. in Microbiology at Thomas Jefferson University. He graduated in 2001, and has continued his work in the Kmiec lab as a Ph.D. candidate here at the University of Delaware. Michael's research focuses on a DNA repair protein called Rad52. In using this and other repair proteins in conjunction with a process known as oligonucleotide-mediated gene repair, it may be possible to change mutated DNA back to regular DNA. It is hoped that this gene repair process could be used to combat various diseases, such as Parkinson's disease. The ability to manipulate DNA would also be an extremely valuable research tool. "My efforts have, I feel, made useful contributions," he says. "It is my hope that I will continue to assist in answering the questions my lab has put forth in this area."



Michael, who has lived in Delaware since he was six years old, says that this work has been a lifelong goal. "Very early on, I became convinced that I wished to pursue a career in research in this area," he explains. He credits his parents as always being supportive towards this field of study. Coincidentally, his mother and father have also received degrees from the University of Delaware; his father earned a B.S. and his mother an M.S. "We've joked that me getting a Ph.D. from Delaware would complete the whole set," he says. In his free time, Michael enjoys using computers and the Internet. He also spends a lot of time reading; science fiction books are his favorite.





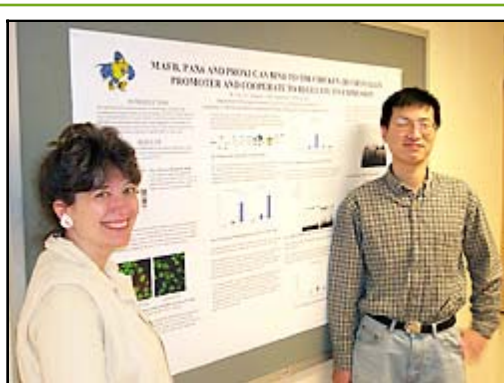
Michael and his advisor, Dr. Eric Kmiec

Wenwu Cui, B.S.

In 1997, Wenwu Cui left his home in the Hubei province of China and came to the United States to study Molecular Biology and Genetics as a Ph.D. candidate. As a member of Dr. Melinda Duncan's lab, Wenwu's research within the Department of Biological Sciences involves studying the development of the lens in the eye. More specifically, he is looking at how and where certain proteins, known as transcription factors, interact with DNA to bring about lens development as an embryo and continue to maintain the eye as an adult. Mutations in these transcription factors are linked with multiple eye diseases like Cataracts and Aniridia (a rare disease in which a child is born with complete loss of the iris).

Wenwu also does research in Bioinformatics with the Department of Electrical and Computer Engineering. In this field, he is working to develop software that compares entire genomes of different species more accurately and efficiently. "You cannot do this conventionally, there's too much data," Wenwu explains. Tools like this allow biologists to compare how different species have evolved over time, study genetic differences between the species, and discover genetic modifications that have led to various diseases.

Looking towards the future, Wenwu would like to continue his work in both areas of research. He hopes to obtain a postdoctoral position after graduating, and eventually become a faculty member of a research institute. When he is not working, he enjoys watching movies and playing "Go", an ancient Chinese game similar to chess. He likes playing the game so much that he joined a Go club that meets weekly at a local bookstore.



Wenwu and his advisor, Dr. Melinda Duncan