

## In The Spotlight: Randall Duncan, Ph.D.

September 2005 -- With the Fall semester comes thousands of new people eagerly sitting at desks and tables for lectures, but in the Department of Biological Sciences there is someone new who is happy to be standing in the front of the room to conduct those lectures again. The Department of Biological Sciences is pleased to welcome [Dr. Randall Duncan](#) as a new member of the faculty this semester. Dr. Duncan comes to UD from his previous position in the Department of Orthopedic Surgery at the Indiana University School of Medicine.

"Dr. Duncan brings an internationally recognized and well-funded research program in bone physiology and the effects of mechanical strain on the skeleton," said Dr. Daniel Carson, Chairperson of the Department of Biological Sciences.

"He has brought a core of highly experienced researchers with him and will rapidly attract the interest of new graduate, undergraduate and postdoctoral researchers. He's a real catch and we're delighted to have him join our faculty."

When asked why he decided to come to the UD, Dr. Duncan expressed the desire to be able to teach undergraduate students again. "I taught labs as an undergrad, got a Ph.D. to teach at an academic campus, but I've been associated with a medical campus since 1980. I always wanted to get back to a true academic campus to mentor and teach undergrads." He also feels there are a great group of scientists to work with here that compliment his research.

Dr. Duncan's research focuses on how bone and musculoskeletal cells respond to mechanical stimulus. "Cells have a very fast response to being poked, prodded, and electrically stimulated," he explained. This response can change the behavior of the tissue. "For example, bone strength is dependent on exercise. If we can understand that, maybe we could do it independently." The application of this research covers a wide variety of issues, from bone fractures, osteoporosis, and paraplegia to bone loss in space due to weightlessness. In fact, one of Dr. Duncan's first research grants came from NASA.

In his free time, Dr. Duncan enjoys outdoor activities like gardening, home remodeling projects, and woodworking. He particularly likes building his own furniture. "There's no instant gratification in science," he said. "Woodworking gives me that."



Randall Duncan