

EMBARGOED UNTIL 12:01am, JUNE 14, 2012

**DR. DONALD FOX OF DUKE UNIVERSITY MEDICAL CENTER  
SELECTED AS 2012 PEW SCHOLAR IN THE BIOMEDICAL SCIENCES**

PHILADELPHIA —Twenty-two of the nation’s most innovative young researchers were named [Pew Scholars in the Biomedical Sciences](#) by The Pew Charitable Trusts today. The Scholars join a prestigious community that includes Nobel Prize winners, MacArthur Fellows, and recipients of the Albert Lasker Medical Research Award.

“During these challenging budgetary times when traditional sources of funding are becoming even harder for scientists to obtain, we are proud to back our country’s most promising scientists,” said Rebecca W. Rimel, president and CEO of The Pew Charitable Trusts. “This funding comes at points in the Scholars’ professional lives when they often are the most innovative. While this program is a bold investment for us, it has paid incalculable dividends due to our Scholars’ record of producing groundbreaking research.”

The new class of scholars is exploring a range of human health issues from antibiotic-resistant infections to liver disease and cancer. Launched in 1985, the Pew Scholars Program in the Biomedical Sciences identifies and invests in talented researchers in medicine or biomedical sciences. In that time, over 500 Pew Scholars have received more than \$130 million in funding. By backing them early in their careers, this program enables our most promising scientists to take calculated risks and follow unanticipated leads to advance human health.

**Biography:**

**Donald Fox, Ph.D.**, received a doctorate in biology from the University of North Carolina in Chapel Hill in 2006, where he worked with Dr. Mark Peifer. In 2006, he began his postdoctoral studies at the Carnegie Institution for Science with Dr. Allan Spradling, after which he accepted a position as an assistant professor of pharmacology and cancer biology at Duke University Medical Center in 2011. Dr. Fox will explore whether maintaining redundant copies of the genome, known as “polyploidy,” could give cells a competitive edge. Some cells in our body—those that give rise to blood platelets or drive liver regeneration—are polyploid: they contain more than one full set of genetic instructions. However, such polyploidy can be hazardous to a cell’s health: during cell division, chromosomes pair off so that each daughter cell will receive one full set. In polyploid cells, the extra genetic material can interrupt this choreography, causing chromosomes to be distributed incorrectly and potentially leading to cancer. Dr. Fox will investigate why polyploidy leads to these cell division errors. Previously, Dr. Fox discovered that some tissues in fruit flies repair injury by promoting polyploidy, something that also occurs in the livers of mice. Using recent advancements in genetics, genomics and molecular biology, Dr. Fox will research how cellular injury triggers polyploidy and examine whether this form of genetic adaptation preferentially targets specific genes that may help facilitate tissue renewal. His work will provide insights into the potential benefits of polyploidy and could lead to new approaches for repairing damaged tissues.

The new 2012 Pew Scholars can be found here: [directory.pewscholars.org](http://directory.pewscholars.org).