HUTCH NEWS

Bielas wins $2.6 million environmental award

Early career grant funds studies of environmental exposures, DNA damage

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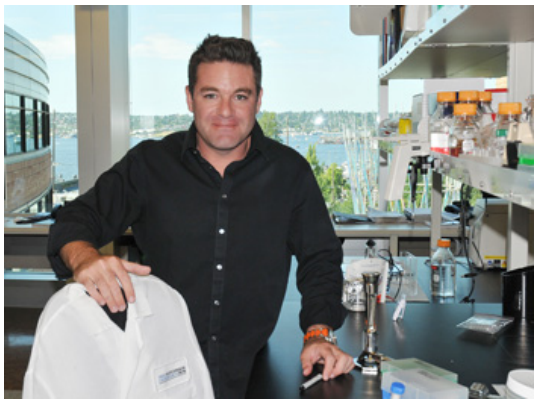
The Public Health Sciences Division's Dr. Jason Bielas was recently granted an Outstanding New Environmental Scientist Award by the National Institute of Environmental Health Sciences. The five-year funding, given to only six early career scientists nationally each year, is worth $2.6 million and will help Bielas study the rate and prevention of environmental damage to DNA.



Dr. Jason Bielas will use the award—given to only six early career scientists nationally each year—to study the rate and prevention of environmental damage to DNA.
Photo by Nolan Ericson

Established in 2006, the ONES program assists cross-disciplinary researchers in focusing on problems of environmental exposures and human biology, human pathophysiology and human disease.

Bielas studies mitochondria, small structures within cells that work as power stations for the cell. They carry their own DNA, and scientists suspect that accumulated mutations in this mitochondrial DNA give rise to age-related disorders such as cancer, Parkinson's disease and Alzheimer's disease.

Bielas has developed a novel way to monitor the rate at which mitochondrial DNA mutates in human cells and tissues.

"Current knowledge of the impact of environmental mutagens on disease is sorely lacking," Bielas said. "With this powerful new tool and given the critical role of mitochondria in aging and cancer, a mechanistic understanding of the environmental factors that accelerate DNA mutations should aid in the identification of risk factors and methods that prevent or delay age-related debilitation and disease."

TAGS: environmental exposure, fred hutchinson cancer research center, Jason Bielas, mitochondrial DNA, Public Health Sciences, research, scientific award

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