

BOETTCHER FOUNDATION HELPS ADVANCE EARLY INVESTIGATORS' RESEARCH

THE BOETTCHER FOUNDATION LAUNCHED its Webb-Waring Biomedical Research Awards with the goal of helping early-career investigators advance their research to a point where they would qualify for their first major federal grants.

Since the first class was selected in 2010, recipients, known as Boettcher Investigators, have gone on to receive major funding from a variety of federal sources, including the National Institutes of Health (NIH) and U.S. Department of Defense. Now, a new form of funding from the NIH is giving both the Boettcher Foundation and its investigators another reason to celebrate.

Maximizing Investigators' Research Awards – or MIRA grants – are a new form of funding designed to allow researchers to take bigger risks and explore new ideas that may not have qualified for funding before.

The first round of MIRA grants were awarded in the fall of 2016 as part of a pilot program. Colorado researchers snagged seven of the awards, ranking the state fourth for the total number of MIRA grants received, just behind California, New York and Pennsylvania. Of the seven Colorado MIRA grants, five went to Boettcher Investigators.



“Our goal with the Webb-Waring Biomedical Research Awards is to keep Colorado’s top scientists in the state and allow them to develop their research to a point where they will bring in major grant funding,” said Katie Kramer, CEO of the Boettcher Foundation. “The fact that Boettcher Investigators have been so successful in securing MIRA

grants is an incredible validation of our selection process and of our funding model.”

MIRA grants, which are awarded by the National Institute of General Medical Sciences, differ from traditional NIH funding, which tends to fund more specific and well-developed research. An investigator is typically expected to have a very specific hypothesis, whereas MIRA is intended to fund more innovative projects that contribute to the general understanding of science rather than proving a specific outcome.

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– KATIE KRAMER

“People were making their applications extremely safe,” said Lucas Argueso, a 2013 Boettcher Investigator and an associate professor in the Department of Environmental and Radiological Health Sciences in the College of Veterinary Medicine and Biomedical Sciences at Colorado State University. “Scientists were becoming too conservative. It’s hard to predict which science is going to give you breakthroughs.”

Argueso was awarded MIRA funding for his research, which examines a form of genetic change known as copy number mutation. In addition to Argueso, CSU Boettcher Investigators Tai Montgomery, an assistant professor in the Department of Biology, and Tim Stasevich,

an assistant professor in the Department of Biochemistry and Molecular Biology, also received MIRA funds.

At the University of Colorado, Boettcher Investigators Loren Hough and Aaron Johnson were also MIRA recipients. Hough is an assistant professor of physics and Johnson is an assistant professor in the Department of Integrative Biology.

Hough is researching how a protein tail on microtubules might control different features of a cell.

“This research is, in all regards, very different,” Hough said, adding that receiving a Webb-Waring Award from the Boettcher Foundation gave him the confidence to continue pursuing new directions in his research. “It’s a risk to take on something new, especially as a professor,” he noted.

Lee Niswander, a professor and section head for developmental biology at CU, who serves on the CU selection committee for the Boettcher Foundation’s Webb-Waring Awards and MIRA are a natural combination.

“What’s so lovely about the Boettcher Foundation funding is they really do value original and creative thinking,” she said.

By helping to propel the research of Colorado’s top early career scientists, the Boettcher Foundation is helping the state of Colorado become a leader among scientific innovators and to support out-of-the-box-thinking among Colorado’s researchers.

For more information on the Boettcher Foundation’s Webb-Waring Biomedical Research Awards, visit boettcherfoundation.org/webb-waring-biomedical-research/.

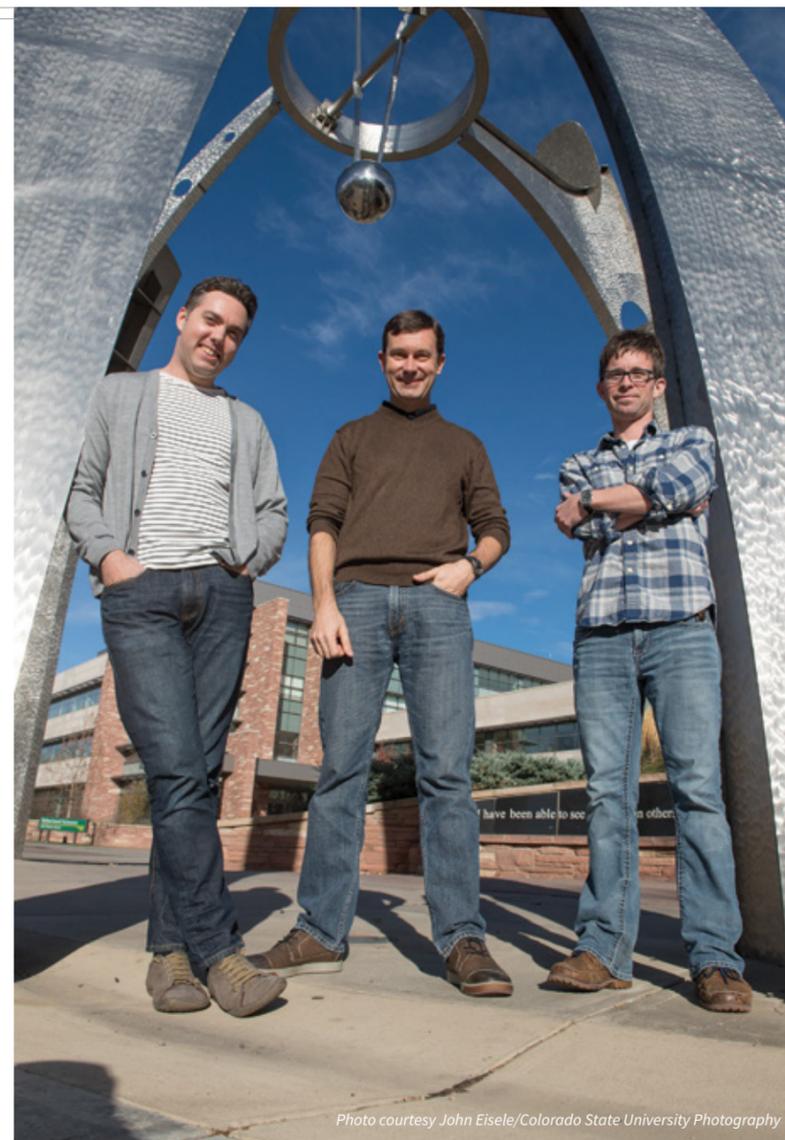


Photo courtesy John Eisele/Colorado State University Photography



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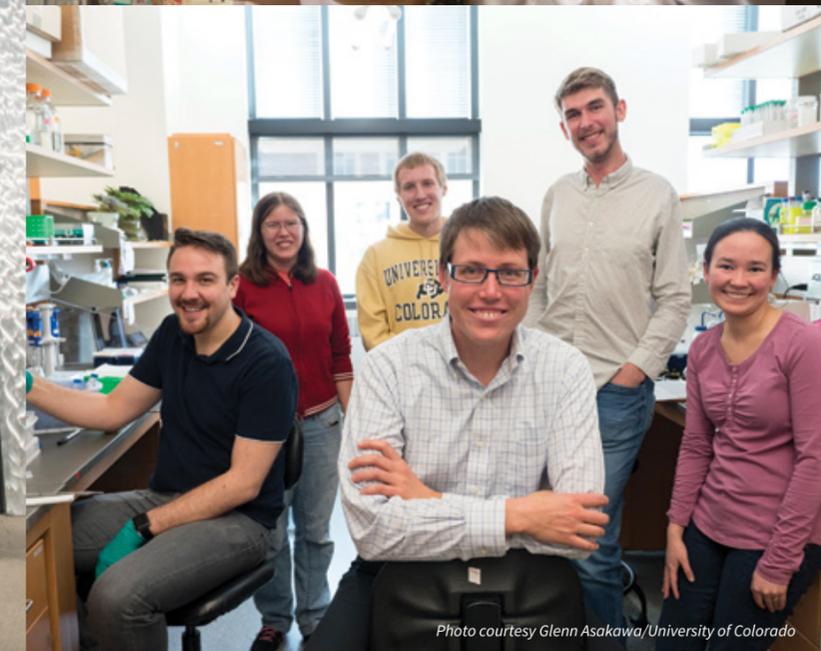
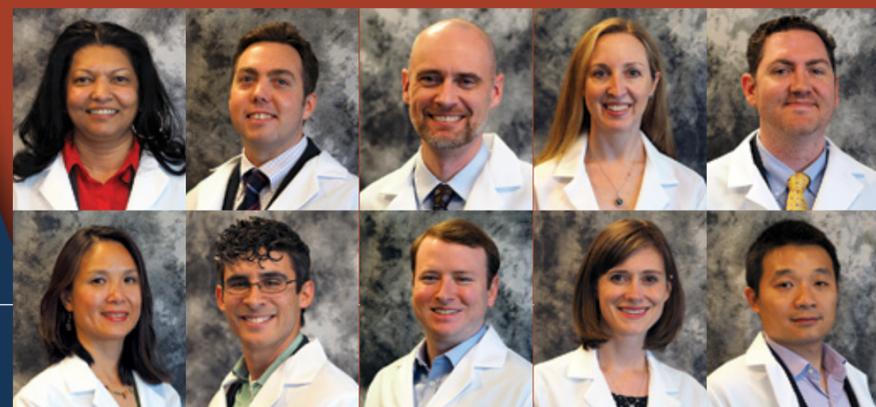


Photo courtesy Glenn Asakawa/University of Colorado

2016 CLASS OF BOETTCHER INVESTIGATORS



COLORADO STATE UNIVERSITY

Rushika Perera, Ph.D., Assistant Professor of RNA Virology. *Exploiting vulnerabilities in mosquito metabolism for prevention of human arboviral transmission.*

Timothy J. Stasevich, Ph.D., Assistant Professor of Biochemistry and Molecular Biology. *Imaging cancer epigenetics in living cells.*

NATIONAL JEWISH HEALTH

James L. Crooks, Ph.D., Assistant Professor of Biostatistics and Bioinformatics. *Wildfire smoke and pediatric asthma.*

UNIVERSITY OF COLORADO BOULDER

Sabrina Spencer, Ph.D., Assistant Professor of Chemistry and Biochemistry. *Elucidating the causes and consequences of slow-cycling cells within isogenic population.*

UNIVERSITY OF DENVER

Schuyler van Engelenburg, Ph.D., Assistant Professor of Natural Sciences and Mathematics, Department of Biological Sciences. *Site-specific targeting of engineered retroviruses to the Interleukin 2 Receptor locus for correction of genetic immunodeficiency.*

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

Wen-Yuan Elena Hsieh, M.D., Assistant Professor of Immunology & Microbiology and Assistant Professor of Pediatrics, Division of Allergy and Immunology. *Immune dysregulation in pediatric SLE pathogenesis.*

Ethan G. Hughes, Ph.D., Assistant Professor of Cell and Developmental Biology. *Intrinsic and extrinsic mechanisms regulating cortical remyelination.*

Bernard L. Jones, Ph.D., Assistant Professor of Medical Physics. *Achieving safe and effective dose escalation in pancreatic SBRT through tumor tracking and robust treatment planning.*

Cristin Welle, Ph.D., Assistant Professor of Neurosurgery and Bioengineering. *Development of high-density neural sensors for bioelectronics therapeutics.*

Hongjin Zheng, Ph.D., Assistant Professor of Biochemistry and Molecular Genetics. *Mechanical studies of disease-related substrates entering mitochondria via protein import machinery TOM-TIM.*