Fall 2015

Jared Rutter Receives Esteemed HHMI Grant

In May 2015, Nuclear Control Program member and co-leader Jared Rutter, PhD, received the highly prestigious honor of being selected as 1 of the 26 scientists to be appointed as a new investigator with the Howard Hughes Medical Institute (HHMI). His research focuses on the crucial roles of mitochondria in metabolism and cell biology. Rutter's work has impacted our understanding of human metabolism and its connection to potentially fatal illnesses, including cancer. His collaborative work with Carl Thummel, PhD, Professor with the Department of Human Genetics and also a Nuclear Control program member, has identified the Mpc1 and Mpc2 proteins, which together determine the metabolic fate of carbohydrates, by enabling mitochondrial import of pyruvate. They continue to define the role of the Mpc1/Mpc2 complex, particularly in the metabolic defects in cancer and heart disease, and the roles Mpc1 and Mpc2 play in impairing tumorigenic potential of cancer cells. With his five-year HHMI award, Rutter will continue researching metabolism and its relationship to cancer and diabetes, among other illnesses. Rutter is a Professor of Biochemistry and the Dee Glen and Ida Smith Endowed Chair for Cancer Research at the University of Utah.

2015 Awards
Renewed HHMI Grant

Brad Cairns has been awarded a renewal of his HHMI grant, which will mark his fourth HHMI award cycle. With this renewal, Brad will continue to research regulation of chromatin remodeling; chromatin of germ cells and early development in zebrafish and humans; and DNA and RNA methylation dynamics.

Jay Gertz and Nicki Camp Awarded Pilot Project

Jay Gertz and Nicki Camp were awarded a pilot project that was jointly funded by the Nuclear Control of Cell Growth and Differentiation program and the Cancer Control and Population Sciences program. The goal of the project is to functionally fine map non-coding SNPs within a haplotype associated with increased breast cancer risk.

NC Program Members

Melinda Angus-Hill, PhD
Donald Ayer, PhD
Brenda Bass, PhD
Srividya Bhaskara, PhD
Andrea Bild, PhD
Cynthia Burrows, PhD
Bradley Cairns, PhD
Mario Capecchi, PhD
Dana Carroll, PhD
Demián Cazalla, PhD
Mahesh Chandrasekharan, PhD
Michael Engel, MD, PhD
Timothy Formosa, PhD
Jason Gertz, PhD
Kent Golic, PhD
Barbara Graves, PhD
David Grunwald, PhD
Christopher Hill, PhD
L. Eric Huang, MD, PhD
Kevin Jones, MD
Elizabeth Leibold, PhD
Rodney Miles, MD, PhD
Ryan O’Connell, PhD
Josef Prchal, MD
Jared Rutter, PhD
Joshua Schiffman, MD
Eric Snyder, MD, PhD
Sankar Swaminathan, MD
Dean Tantin, PhD
Carl Thummel, PhD
Katherine Varley, PhD
Li Wang, PhD
Dennis Winge, PhD
New NC Program Members

**Eric Snyder, MD, PhD**

Eric Snyder joined Huntsman Cancer Institute as an Investigator and the Department of Pathology (University of Utah) as an Assistant Professor in August 2015. His lab’s research works to determine how the loss of cellular identity and acquisition of alternative differentiation states contributes to cancer progression and alters therapeutic response.

**Demián Cazalla, PhD**

Demián Cazalla is an Investigator with Huntsman Cancer Institute and an Assistant Professor with the Department of Biochemistry (University of Utah). His lab focuses on regulation of gene expression and functions of viral and cellular non-coding RNAs.

### 2015 Winter Symposium: Cancer Metabolism

**Held:** December 14, 2015, 3:00pm – 7:30pm  
**Jewish Community Center**

The symposium will be used as a platform for NC Investigators to listen to one another’s expertise and experiences in order to brainstorm the next actions and direction Investigators should take their NC program research in cancer metabolism. Dinner will be provided.

### Thursday Laboratory Event

**Held:** Thursdays, HCI 3 South, 12 Noon

PIs can give and receive feedback from HCI colleagues about upcoming grant submissions. Nuclear Control and Cell Response and Regulation members are invited to attend. To schedule your grant review, contact Jessica Chapman at 5-2887 or Jessica.chapman@hci.utah.edu.

### Selected 2015 Publications

Trends Endocrinol Metab 26:59

Rutter J (2015) Yeast genetics applied to the powerhouse of the cell.


