

# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## Autophagy: From Model Systems to Therapeutic Opportunities (B2)

February 17-21, 2019 • Eldorado Hotel & Spa • Santa Fe, New Mexico, USA

Scientific Organizers: Vojo Deretic, Li Yu and Leon O. Murphy

Supported by the Directors' Fund

Abstract & Scholarship Deadline: October 16, 2018 / Abstract Deadline: November 15, 2018 / Discounted Registration Deadline: December 13, 2018

### SUNDAY, FEBRUARY 17

#### Arrival and Registration

### MONDAY, FEBRUARY 18

#### Welcome and Keynote Address

**Beth Levine**, University of Texas Southwestern Medical Center, USA  
*Autophagy – A View from Mammalian and Metazoan Studies*

#### Autophagy Fundamentals

\***Anne Simonsen**, University of Oslo, Norway

\***Patrice Codogno**, INSERM, France

**David C. Rubinsztein**, Cambridge Institute for Medical Research, UK  
*SNAREs and Alternative Pathways of Autophagosome Biogenesis*

**Terje Johansen**, Arctic University of Norway, Norway  
*Sequestosome 1/p62-Like Receptors and Other Autophagy Receptors*

**J. Wade Harper**, Harvard Medical School, USA

*Mechanisms Underlying Selective Autophagy*

#### Short Talk(s) Chosen from Abstracts

#### Poster Session 1

#### Workshop 1: Structural Biology and Proteomics and Autophagy

\***Christian Behrends**, Ludwig Maximilians University München, Germany

*Proteomics Studies of Autophagy Systems*

\***James H. Hurley**, University of California, Berkeley, USA

*Structural Studies of Autophagy Systems*

#### Short Talks Chosen from Abstracts

#### mTOR, AMPK, TFEB – Relationship to Autophagy and Other Pathways

\***Patricia Boya**, Centro de Investigaciones Biológicas, CSIC, Spain

**Roberto Zoncu**, University of California, Berkeley, USA

*Lysosomal mTORC1 Signaling*

**Wei Liu**, Zhejiang University School of Medicine, China

*Regulation of Energy Deprivation-Induced Autophagy*

**Andrea Ballabio**, Telethon Institute of Genetics and Medicine, Italy

*Lysosome-to-Nucleus Signaling*

#### Short Talk Chosen from Abstracts

### TUESDAY, FEBRUARY 19

#### Membrane Trafficking and its Role in Autophagy

\***Fulvio Reggiori**, University Medical Centre Groningen, Netherlands

**Ivan Dikic**, Goethe University Medical School, Germany

*Crossovers between Ubiquitin-directed Autophagy and GTPase Regulated Trafficking*

**Noboru Mizushima**, University of Tokyo, Japan

*SNAREs and Other Processes in Autolysosomal Formation*

**Felix Randow**, Medical Research Council, UK

*Autophagy in Cell-Autonomous Immunity*

**Li Yu**, Tsinghua University, China

*Phase Transition in Autophagy*

#### Short Talk(s) Chosen from Abstracts

#### Autophagy Regulation and Processes

\***Maria Ines Vaccaro**, University of Buenos Aires, Argentina

\***Qing Zhong**, University of Texas Southwestern Medical Center, USA

**Sharon A. Tooze**, Francis Crick Institute, UK

*Trafficking and Effectors in Autophagy*

**Ana Maria Cuervo**, Albert Einstein College of Medicine, USA

*Different Forms of Autophagy*

**Vojo Deretic**, University of New Mexico Health Sciences Center, USA

*IRGM, a Unique Human GTPase Controlling Autophagy*

#### Short Talk Chosen from Abstracts

#### Poster Session 2

### WEDNESDAY, FEBRUARY 20

#### Autophagy, Proteostasis and Organellar Homeostasis

\***Eeva-Liisa Eskelinen**, University of Turku, Finland

**Kevin M. Ryan**, Beatson Institute for Cancer Research, UK

*Autophagy in Tissue Growth and Tumor Development*

**Jennifer A. Lippincott-Schwartz**, Howard Hughes Medical Institute -

Janelia Farm, USA

*Autophagy and Lipid Droplets*

**Tamotsu Yoshimori**, Osaka University, Japan

*Autophagy in Lysosomal, Endosomal and Phagosomal Homeostasis*

**Anastasia Henry**, Denali Therapeutics, USA

*The Role of Leucine-rich Repeat Kinase 2 (LRRK2) in Regulating*

*Endo-lysosomal Function*

#### Short Talk(s) Chosen from Abstracts

#### Panel: Women in Science at All Career Stages

#### Autophagy in Aging, Degenerative, and Inflammatory Disease

\***Jennifer Martinez**†, NIEHS, National Institutes of Health, USA

**Malene Hansen**, Sanford Burnham Prebys Medical Discovery

Institute, USA

*Regulation of Autophagy in Aging and Disease*

**Mondira Kundu**, St. Jude Children's Hospital, USA

*ULK/Atg1 Function: From Development to Disease*

**Herbert (Skip) W. Virgin**, Washington University School of Medicine,

USA

*Autophagy in Inflammation and Immunity*

#### Short Talk Chosen from Abstracts

#### Poster Session 3

### THURSDAY, FEBRUARY 21

#### Autophagy in Metabolism, Growth Control and Cancer

\***Devrim Gozuacik**, Sabanci University, Turkey

**Eileen P. White**, Rutgers University, USA

*Cancer Metabolism and Autophagy*

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**Tor Erik Rusten**, Oslo University Hospital, Norway

*Autophagy and Cancer: What Flies Tell Us*

**Beat Nyfeler**, Novartis Institutes for BioMedical Research, Switzerland

*VPS34 and Autolysosomal Regulation*

**Jayanta Debnath**, University of California, San Francisco, USA

*Autophagy and Unconventional Secretion*

**Short Talk(s) Chosen from Abstracts**

### Workshop 2: Current Controversies

\***Michael Lazarou**, Monash University, Australia

*Function of Mammalian Atg8s (LC3s and GABARAPs) in Autophagy:*

*New Insights and Controversies*

**Short Talks Chosen from Abstracts**

### Autophagy from Model Systems to Humans – Closing the Circle

\***Masaaki Komatsu**, School of Medicine Niigata University, Japan

\***Zvulun Elazar**, Weizmann Institute of Science, Israel

**Hong Zhang**, Chinese Academy of Sciences, China

*Autophagy in *C. elegans**

**Eric H. Baehrecke**, University of Massachusetts Medical School, USA

*Discovery of Novel Regulators of Autophagy in Animals*

**Andrew M. Thorburn**, University of Colorado AMC, USA

*Autophagy in Humans: Translational Oncology*

### Meeting Wrap-Up: Outcomes and Future Directions

### FRIDAY, FEBRUARY 22

#### Departure