

# CONFERENCE PROGRAM

## Thursday, October 27

- 6:00 p.m.-7:00 p.m.**      **Opening Keynote Session**  
Grand Ballroom
- 6:00 p.m.-6:05 p.m.      Welcome and Keynote Introduction
- Davide Ruggero, University of California, San Francisco Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
- Nahum Sonenberg, McGill University, Montreal, QC, Canada
- 6:05 p.m.-7:00 p.m.      The unfolded protein response in health and disease  
Peter Walter, University of California, San Francisco, San Francisco, CA
- 7:00 p.m.-9:00 p.m.**      **Opening Reception**  
Pacific A-G

## Friday, October 28

- 7:30 a.m.-8:30 a.m.**      **Continental Breakfast**  
Pacific H-O
- 8:30 a.m.-10:00 a.m.**      **Plenary Session 1: Oncogenic Signals Translate the Cancer Genome I**  
Grand Ballroom
- Session Chairperson: John Blenis**, Weill Cornell Medical College, New York, NY
- 8:30 a.m.-9:00 a.m.      Regulation of growth by the mTOR pathway  
David M. Sabatini, Whitehead Institute for Biomedical Research, Cambridge, MA
- 9:00 a.m.-9:30 a.m.      mTORC1/S6K1: Regulation of RNA biogenesis, protein synthesis, and cell metabolism  
John Blenis
- 9:30 a.m.-9:45 a.m.      mTORC1 and CK2 coordinate ternary and eIF4F complex assembly\*  
Marie Cargnello, Lady Davis Institute/McGill University, Montreal, QC, Canada
- 9:45 a.m.-10:00 a.m.      A novel 40S complex involved in the regulation of 5' TOP mRNA stability: A role in mTOR hyperactivated tumors?\*  
Antonio Gentilella, Bellvitge Institute for Biomedical Research, Barcelona, Spain

*\*Short talks from proffered abstracts*

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- 10:00 a.m.-10:30 a.m.**      **Break**  
Grand Ballroom Foyer
- 10:30 a.m.-12:00 p.m.**      **Plenary Session 2: Oncogenic Signals Translate the Cancer Genome II**  
Grand Ballroom
- Session Chairperson: Frank McCormick**, University of California, San Francisco, Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
- 10:30 a.m.-11:00 a.m.      Control of cell senescence by cancer-associated protein HuR and target noncoding RNAs  
Myriam Gorospe, National Institute on Aging, National Institutes of Health, Baltimore, MD
- 11:00 a.m.-11:30 a.m.      Regulation of Ras proteins and their effectors  
Frank McCormick
- 11:30 a.m.-11:45 a.m.      NRF2 promotes tumor maintenance by modulating mRNA translation in pancreatic cancer\*  
Iok In Christine Chio, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
- 11:45 a.m.-12:00 p.m.      Translational control of human colon tumor cell survival\*  
Eyerusalem M. Lemma, University of Nebraska Medical Center, Omaha, NE
- 12:00 p.m.-2:00 p.m.**      **Poster Session A/Lunch**  
Pacific A-G
- 2:00 p.m.-4:00 p.m.**      **Plenary Session 3: RNA Regulons – The Hidden Codes of the Cancer Genome**  
Grand Ballroom
- Session Chairperson: Fatima Gebauer**, Centre for Genomic Regulation, Barcelona Institute of Technology, Barcelona, Spain
- 2:00 p.m.-2:30 p.m.      Oncogenic translation programs  
Hans-Guido Wendel, Memorial Sloan Kettering Cancer Center, New York, NY
- 2:30 p.m.-3:00 p.m.      Translating the cancer genome one codon at a time and its therapeutic implications  
Davide Ruggero, University of California, San Francisco, Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
- 3:00 p.m.-3:30 p.m.      Role of the RNA binding protein UNR/CSDE1 in cancer progression  
Fatima Gebauer
- 3:30 p.m.-4:00 p.m.      Translational control of the tumor microenvironment  
Nahum Sonenberg, McGill University, Montreal, QC, Canada
- 4:00 p.m.-4:30 p.m.**      **Break**  
Grand Ballroom Foyer

*\*Short talks from proffered abstracts*

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- 4:30 p.m.-6:30 p.m.**      **Plenary Session 4: The Cancer Translational Machinery – Core Yet Specific**  
Grand Ballroom
- Session Chairperson: Maria Barna**, Stanford University, Stanford, CA
- 4:30 p.m.-5:00 p.m.      Drugging the ribosome at the level of synthesis and translation to treat solid and hematologic cancers  
Ross D. Hannan, John Curtin School of Medical Research, Australian National University, Canberra City, Australia
- 5:00 p.m.-5:30 p.m.      Ribosome heterogeneity in translating the genetic code  
Maria Barna
- 5:30 p.m.-6:00 p.m.      Low rates of protein synthesis in hematopoietic stem cells are determined partly by relatively high levels of hypophosphorylated eIF4E-BP  
Sean J. Morrison, University of Texas Southwestern Medical Center, Dallas, TX
- 6:00 p.m.-6:15 p.m.      Heterogeneity in ribosomal RNA base modifications modulate lipid metabolic flux to maintain a tumor suppressive program\*  
Adrian Contreras, University of California, San Francisco, San Francisco, CA
- 6:15 p.m.-6:30 p.m.      PTEN-mTOR pathway serves as a guardian of ribosomal DNA\*  
Jennifer L. Gerton, The Stowers Institute for Medical Research, Kansas City, MO

## Saturday, October 29

- 7:30 a.m.-8:30 a.m.**      **Continental Breakfast**  
Pacific H-O
- 8:30 a.m.-10:30 a.m.**      **Plenary Session 5: Codon Usage – A New Program in the Coding Sequence of Cancer vs. Normal Cells**  
Grand Ballroom
- Session Chairperson: Susan L. Ackerman**, University of California, San Diego, La Jolla, CA
- 8:30 a.m.-9:00 a.m.      Ribosome stalling and disease  
Susan L. Ackerman
- 9:00 a.m.-9:30 a.m.      Rare codons capacitate Kras-driven de novo tumorigenesis  
Christopher M. Counter, Duke University Medical Center, Durham, NC
- 9:30 a.m.-10:00 a.m.      Multi-tRNA synthetase complex as a molecular hub for the control of protein synthesis and tumorigenesis  
Sunghoon Kim, Seoul National University, Seoul, Republic of Korea

*\*Short talks from proffered abstracts*

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- 10:00 a.m.-10:15 a.m. A programmed ribosomal frameshifting defect potentiates the transforming activity of the JAK2-V617F mutation\*  
Jonathan D. Dinman, University of Maryland, College Park, MD
- 10:15 a.m.-10:30 a.m. SynMICdb: The database for synonymous mutations in cancer identifies recurrent changes in conserved loci paralleling missense mutations\*  
Karine Boulay, DKFZ, Heidelberg, Germany
- 10:30 a.m.-11:00 a.m. Break**  
Grand Ballroom Foyer
- 11:00 a.m.-1:00 p.m. Plenary Session 6: Translation Control – An Adaptive Response to Oncogenic Cellular Stress**  
Grand Ballroom
- Session Chairperson: Anne Willis**, MRC Toxicology Unit, University of Leicester, Leicester, UK
- 11:00 a.m.-11:30 a.m. Balancing cell growth with homeostasis in the tumor microenvironment  
M. Celeste Simon, Abramson Family Cancer Research Institute, University of Pennsylvania, Philadelphia, PA
- 11:30 a.m.-12:00 p.m. Translational regulation of breast cancer metastasis by miR183 and the eIF2B-Integrated Stress Response pathway  
Robert J. Schneider, New York University School of Medicine, New York, NY
- 12:00 p.m.-12:30 p.m. The post-transcriptional response to bulky-adduct DNA damage  
Anne Willis
- 12:30 p.m.-1:00 p.m. Stress-mediated translational control of tumor metastasis  
Poul H. B. Sorensen, British Columbia Cancer Agency, Vancouver, BC, Canada
- 1:00 p.m.-3:00 p.m. Free Time/Lunch on Own**
- 3:00 p.m.-5:00 p.m. Plenary Session 7: Innovating High-Throughput Technologies to Decode the Translational and RNA Structural Landscape of Cancer Cells**  
Grand Ballroom
- Session Chairperson: Matthias W. Hentze**, European Molecular Biology Laboratory, Heidelberg, Germany
- 3:00 p.m.-3:30 p.m. Monitoring translation in space and time with ribosome profiling  
Jonathan Weissman, University of California, San Francisco and Howard Hughes Medical Institute, San Francisco, CA
- 3:30 p.m.-4:00 p.m. New technologies to monitor and understand RNA-binding proteins in cancer cells  
Matthias W. Hentze

*\*Short talks from proffered abstracts*

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- 4:00 p.m.-4:30 p.m. (Dys)regulation of rRNA modifications: When an adaptive response goes awry  
Wendy V. Gilbert, Massachusetts Institute of Technology, Cambridge, MA
- 4:30 p.m.-4:45 p.m. Discovery of the mammalian ribo-interactome connects metabolism enzymes with specialized ER-ribosomes\*  
Deniz Simsek, Stanford University, Stanford, CA
- 4:45 p.m.- 5:00 p.m. Precise statistical algorithms reveal novel fusions and potential impacts of fusions on translational regulation\*  
Julia Salzman, Stanford University, Palo Alto, CA
- 5:00 p.m.-7:00 p.m. Poster Session B/Reception**  
Pacific A-G

## Sunday, October 30

- 7:00 a.m.-8:00 a.m. Continental Breakfast**  
Pacific H-O
- 8:00 a.m.-10:00 a.m. Plenary Session 8: Small Molecule Drugs Selectively Targeting Translation Specialized for the Cancer Cell**  
Grand Ballroom
- Session Chairperson: Kevan Shokat**, University of California, San Francisco and Howard Hughes Medical Institute, San Francisco, CA
- 8:00 a.m.-8:30 a.m. eIF4E as anti-cancer target  
Gerhard Wagner, Harvard Medical School, Boston, MA
- 8:30 a.m.-9:00 a.m. Title to be announced  
Neal Rosen, Memorial Sloan Kettering Cancer Center, New York, NY
- 9:00 a.m.-9:30 a.m. Third-generation inhibitors of mTOR  
Kevan Shokat
- 9:30 a.m.-9:45 a.m. eFT508: An oral, potent and highly selective inhibitor of MNK1 and MNK2, promotes anti-tumor immunity as a monotherapy and in combination with immune checkpoint blockade\*  
Kevin R. Webster, EFFECTOR Therapeutics, San Diego, CA
- 9:45 a.m.-10:00 a.m. Targeting eIF2 $\alpha$  phosphorylation for cancer therapy\*  
Bertal H. Aktas, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

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- 10:00 a.m.-10:15 a.m.**      **Break**  
Grand Ballroom Foyer
- 10:15 a.m.-11:00 a.m.**      **Closing Keynote Session**  
Grand Ballroom
- Session Chairperson: Frank McCormick**, University of California, San Francisco, Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
- RNA-guided translational control during development  
Jennifer A. Doudna, University of California, Berkeley, Berkeley, CA
- 11:00 a.m.-1:00 p.m.**      **Plenary Session 9: Understanding and Targeting Oncogenic Translation Control in Different Human Cancers**  
Grand Ballroom
- Session Chairperson: William A. Weiss**, University of California, San Francisco, San Francisco, CA
- 11:00 a.m.-11:30 a.m.      A kinase inhibitor targeted to mTORC1 drives regression in glioblastoma  
William A. Weiss
- 11:30 a.m.-12:00 p.m.      Studies to determine the function and regulation of the translational variant of PTEN, PTEN-L  
Ramon E. Parsons, Mount Sinai Icahn School of Medicine, New York, NY
- 12:00 p.m.-12:30 p.m.      Role of eIF4F in anticancer drug resistance  
Stéphan Vagner, Institut Curie – CNRS UMR3348, Paris, France
- 12:30 p.m.-1:00 p.m.      Human eIF3: The mediator of translation  
Jamie H. D. Cate, University of California, Berkeley, Berkeley, CA
- 1:00 p.m.-1:15 p.m.**      **Closing Remarks/Departure**  
Grand Ballroom