

CONFERENCE PROGRAM

FRIDAY, SEPTEMBER 28

5:00 p.m.-6:00 p.m.

WELCOME AND OPENING KEYNOTE LECTURE

Salons D & E

Lactate exchange promotes oxidative stress resistance and melanoma metastasis

Sean J. Morrison, UT Southwestern, Dallas, TX

6:00 p.m.-7:30 p.m.

PLENARY SESSION 1: INFLUENCE OF METABOLISM ON METASTASIS / PROGRESSION

Salons D & E

Session Chair: Eileen P. White, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ

6:00 p.m.-6:30 p.m.

Targeting cancer-specific vulnerabilities

Ronald A. DePinho, The University of Texas MD Anderson Cancer Center, Houston, TX

6:30 p.m.-7:00 p.m.

Autophagy and cancer

Eileen P. White

7:00 p.m.-7:15 p.m.

A new role for glycogen in metastasis*

Ernst Lengyel, University of Chicago, Chicago, IL

7:15 p.m.-7:30 p.m.

Using clear cell like-RenCa and papillary like-RenCa models of kidney cancer to study metabolic influences on the microenvironment and metastasis*

Bradley Reinfeld, Vanderbilt University School of Medicine, Nashville, TN

7:30 p.m.-9:30 p.m.

OPENING RECEPTION

D & E Foyer

SATURDAY, SEPTEMBER 29

7:00 a.m.-8:00 a.m.

BREAKFAST

Salons F, G, H, I

**Short talk from proffered abstract*

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8:00 a.m.-10:15 a.m.	PLENARY SESSION 2: THERAPEUTIC TARGETS Salons D & E Session Chair: M. Celeste Simon , University of Pennsylvania, Philadelphia, PA
8:00 a.m.-8:30 a.m.	Precision medicine in cancer metabolism Kevin Marks, Agios Pharmaceuticals, Cambridge, MA (not eligible for CME credit)
8:30 a.m.-9:00 a.m.	Linking oncogenic signaling to anabolic cell growth Brendan D. Manning, Harvard T.H. Chan School of Public Health, Boston, MA
9:00 a.m.-9:30 a.m.	Uncovering metabolic bottlenecks in genetic subtypes of lung cancer Thales Papagiannakopoulos, NYU School of Medicine, New York, NY
9:30 a.m.-9:45 a.m.	Therapeutic effects and metabolic rewiring upon glutaminase loss in T-ALL* Daniel Herranz, Rutgers Cancer Institute of New Jersey, New Brunswick, NJ
9:45 a.m.-10:00 a.m.	Inhibition of mitochondrial ferredoxin 1 (FDX1) prevents adaptation to proteotoxic stress* Peter Tsvetkov, Broad Institute of Harvard and MIT, Cambridge, MA
10:00 a.m.-10:15 a.m.	Characterization of a novel AICARFT inhibitor that potently elevates ZMP and has antitumor activity in murine models* Harold Brooks, Eli Lilly and Company, Indianapolis, IN
10:15 a.m.-10:45 a.m.	BREAK D & E Foyer
10:45 a.m.-1:00 p.m.	PLENARY SESSION 3: REDOX METABOLISM Salons D & E Session Chair: Karen H. Vousden , The Francis Crick Institute, London, United Kingdom
10:45 a.m.-11:15 a.m.	Oxygen and iron: Friends or foes Richard Possemato, NYU School of Medicine, New York, NY
11:15 a.m.-11:45 a.m.	Folate metabolism: Potential vulnerabilities in cancers Lewis C. Cantley, Weill Cornell Medical College, New York, NY
11:45 a.m.-12:15 p.m.	P53 pathways and cancer cell metabolism Karen H. Vousden
12:15 p.m.-12:30 p.m.	Understanding natural tolerance to cancer-causing mutations: Imaging homeostatic equilibrium of oncogenic mutant clones in phenotypically normal tissue of live mice* Anupama Hemalatha, Yale School of Medicine, New Haven, CT

**Short talk from proffered abstract*

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- 12:30 p.m.-12:45 p.m. **Deubiquitinases maintain protein homeostasis and survival of cancer cells upon glutathione depletion***
Isaac Harris, Ludwig Cancer Center, Harvard Medical School, Boston, MA
- 12:45 p.m.-1:00 p.m. **Cystine-glutamate antiporter xCT deficiency suppresses tumor growth without impairing antitumor immunity***
Michael Arensman, Pfizer, Pearl River, NY
- 1:00 p.m.-3:30 p.m. LUNCH AND POSTER SESSION A**
Salons F, G, H, I
- 3:30 p.m.-5:00 p.m. PLENARY SESSION 4: CIRCADIAN AND ORGANISMAL METABOLISM**
Salons D & E
Session Chair: Joshua D. Rabinowitz, Princeton University, Princeton, NJ
- 3:30 p.m.-4:00 p.m. **Metabolic exchange between tissues (and tumors)**
Joshua D. Rabinowitz
- 4:00 p.m.-4:30 p.m. **Convergence of MYC, metabolism, the circadian clock, and immunity**
Chi Van Dang, Ludwig Institute for Cancer Research, New York, NY
- 4:30 p.m.-5:00 p.m. **Cellular mechanism of insulin resistance: Implications for obesity, type 2 diabetes, and cancer**
Gerald I. Shulman, Yale School of Medicine, New Haven, CT

DINNER ON OWN

SUNDAY, SEPTEMBER 30

- 7:00 a.m.-8:00 a.m. BREAKFAST**
Salons F, G, H, I
- 8:00 a.m.-10:15 a.m. PLENARY SESSION 5: CANCER HETEROGENEITY AND MICROENVIRONMENT**
Salons D & E
Session Chair: Trudy Oliver, Huntsman Cancer Institute, Salt Lake City, UT
- 8:00 a.m.-8:30 a.m. **Identifying metabolic dependencies in pancreatic cancer**
Alec C. Kimmelman, NYU Langone Health, New York, NY

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- 8:30 a.m.-9:00 a.m. **Metabolic complexity in cancer cells and tumors**
Ralph J. DeBerardinis, UT Southwestern Medical Center, Dallas, TX
- 9:00 a.m.-9:30 a.m. **MYC drives unique metabolic vulnerabilities in small-cell lung cancer**
Trudy Oliver
- 9:30 a.m.-9:45 a.m. **Regulation of nutrient stress-induced macropinocytosis in pancreatic cancer***
Cosimo Commisso, Sanford Burnham Prebys Medical Discovery Institute, La Jolla, CA
- 9:45 a.m.-10:00 a.m. **A stromal lysolipid-autotaxin signaling axis promotes pancreatic tumor progression***
Mara Sherman, Oregon Health and Science University, Portland, OR
- 10:00 a.m.-10:15 a.m. **A regulatory multienzyme complex for glucose metabolism and its contributions to the Warburg effect in single cancer cells***
Songon An, University of Maryland, Baltimore County, Baltimore, MD
- 10:15 a.m.-10:45 a.m. BREAK**
D & E Foyer
- 10:45 a.m.-12:30 p.m. PLENARY SESSION 6: METABOLISM AND DEVELOPMENT**
Salons D & E
- Session Chair: Aimee L. Edinger**, University of California, Irvine, Irvine, CA
- 10:45 a.m.-11:15 a.m. **Metabolic adaptation in hemopoietic malignancies**
Tak W. Mak, Princess Margaret Cancer Centre, Toronto, ON, Canada
- 11:15 a.m.-11:45 a.m. **Mitochondria, metabolism, and cellular decisions**
Jared P. Rutter, University of Utah, Salt Lake City, UT
- 11:45 a.m.-12:15 p.m. **Nutrient scavenging fuels tumor anabolism**
Aimee L. Edinger
- 12:15 p.m.-12:30 p.m. **The p53-p21 axis suppresses metabolic stress-induced ferroptosis***
Amy Tarangelo, Stanford University, Stanford, CA
- 12:30 p.m.-2:30 p.m. LUNCH ON OWN**
- 2:30 p.m.-4:30 p.m. PLENARY SESSION 7: IMMUNOMETABOLISM**
Salons D & E
- Session Chair: Janelle Ayres**, Salk Institute for Biological Studies, La Jolla, CA
- 2:30 p.m.-3:00 p.m. **Examining T-cell metabolic reprogramming in vivo**
Russell Jones, Center for Cancer and Cell Biology, Van Andel Institute, Grand Rapids, MI

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- 3:00 p.m.-3:30 p.m. **Host-microbiota interactions and metabolism**
Janelle Ayres
- 3:30 p.m.-4:00 p.m. **Mitochondria control adaptive immunity**
Navdeep S. Chandel, Northwestern Medicine, Chicago, IL
- 4:00 p.m.-4:15 p.m. **Nutrient-dependent activation of mTORC1 by RRAGC mutations enhance germinal center activation and drive follicular lymphoma***
Ana Ortega-Molina, Spanish National Cancer Research Center, Madrid, Spain
- 4:15 p.m.-4:30 p.m. **PD-L1 is upregulated in the adipose tissue of tumor-bearing mice***
Max Heckler, Dana Farber Cancer Institute, Boston, MA
- 4:30 p.m.-7:00 p.m. POSTER SESSION B AND RECEPTION**
Salons F, G, H, I

MONDAY, OCTOBER 1

- 7:00 a.m.-8:00 a.m. BREAKFAST**
Salons F, G, H, I
- 8:00 a.m.-9:00 a.m. CLOSING KEYNOTE LECTURE**
Salons D & E
- The role of metabolites in regulating cellular differentiation**
Craig B. Thompson, Memorial Sloan Kettering Cancer Center, New York, NY
- 9:00 a.m.-10:45 a.m. PLENARY SESSION 8: NEW METABOLIC PATHWAYS**
Salons D & E
- Session Chair: Ayelet Erez**, Weizmann Institute of Science, Rehovot, Israel
- 9:00 a.m.-9:30 a.m. **Metabolic limitations of tumor growth**
Matthew G. Vander Heiden, Koch Institute for Integrative Cancer Research at MIT, Cambridge, MA
- 9:30 a.m.-10:00 a.m. **Dual functions of metabolic enzymes**
M. Celeste Simon, University of Pennsylvania, Philadelphia, PA
- 10:00 a.m.-10:30 a.m. **The role of amino acid metabolism in carcinogenesis**
Ayelet Erez

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10:30 a.m.-10:45 a.m.	PKM2-mediated upregulation of serine synthesis pathway enables leukemic cells to proliferate in fructose-rich culture conditions* Sangmoo Jeong, Memorial Sloan Kettering Cancer Center, New York, NY
10:45 a.m.-11:00 a.m.	BREAK D & E Foyer
11:00 a.m.-12:45 p.m.	PLENARY SESSION 9: METABOLISM AND EPIGENETICS Salons D & E Session Chair: Lydia Finley , Memorial Sloan Kettering Cancer Center, New York, NY
11:00 a.m.-11:30 a.m.	Metabolic coordination of tumor suppression Lydia Finley
11:30 a.m.-12:00 p.m.	Non-oncogene addiction of SIRT3 plays a critical role in lymphomagenesis Ari M. Melnick, Weill Cornell Medical College, New York, NY
12:00 p.m.-12:30 p.m.	Acetyl-CoA metabolism and gene regulation: Understanding mechanisms of specificity Kathryn E. Wellen, University of Pennsylvania, Philadelphia, PA
12:30 p.m.-12:45 p.m.	Alpha-ketoglutarate contributes to p53-mediated cell fate changes during tumor suppression* Jossie J. Yashinskie, Memorial Sloan Kettering Cancer Center, New York, NY
12:45 p.m.	CONCLUSION

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