

4th annual

# SoCal Metabolism Symposium

Presented by  
Sanford Burnham Prebys,  
UCI & USC

March 20, 2026

- 8:30 am      **Registration** with breakfast and coffee
- 9:00 am      **Welcome address**  
Brooke Emerling, Sanford Burnham Prebys
- Session 1: Cancer metabolism**  
Moderated by Eric Wang, Sanford Burnham Prebys
- 9:05 am      **Christopher Murray**, Salk Institute  
A lipid metabolic checkpoint in the progression to lung adenocarcinoma
- 9:20 am      **Zander Esh**, University of California, Irvine  
Scd1 overexpression in cancer-associated adipocytes drives breast cancer development and metastasis
- 9:35 am      **Diala Alhousari**, University of Southern California  
Macrophage-secreted CD5L modulates lipid metabolism and inflammation in hepatocellular carcinoma
- 9:50 am      **Qi Fan**, University of California, Irvine  
DM-αKG enhances 5-FU efficacy in colorectal cancer via metabolic rewiring and ferroptosis-associated pathways
- 10:05 am     **Aaliyah Balagtas**, Sanford Burnham Prebys  
WNK kinases in pancreatic cancer: novel regulators of macropinocytosis and potentiators of glutamine-targeted therapy
- 10:20 am     **Coffee break**

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## Session 2: Metabolism in aging and cell fate

Moderated by William Tu, Altos Labs

- 10:45 am **Ross Steinberg**, University of California, Los Angeles  
The role of mitochondria-lipid droplet interaction in aged exercise metabolism
- 11:00 am **Leigh-Ana Rossitto**, University of California, San Diego  
Ketone body  $\beta$ -hydroxybutyrate restores neuronal Tau proteostasis via ketolysis-independent mechanism
- 11:15 am **Emeline Joulia**, Salk Institute  
Serine dehydratase role in amino acid homeostasis and skin repair
- 11:30 am **Melissa Campos**, University of California, Irvine  
PFKM governs metabolic shifts throughout skeletal muscle differentiation

## Session 3: Special guest presenter

Moderated by Brooke Emerling, Sanford Burnham Prebys

- 11:45 am **Brooke Emerling**, Sanford Burnham Prebys
- 11:50 am **Navdeep Chandel**, Northwestern University  
Mitochondria function in normal and cancer cells

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12:20 pm **Dante Bencivengo**, Thermo Fisher Scientific  
Thermo Scientific mass spec solutions

12:30 pm **Lunch** and poster viewing  
Sponsored by Thermo Fisher Scientific

## Session 4: Physiological metabolism and new techniques Moderated by Dequina Nicholas, University of California, Irvine

1:40 pm **Miranda E. Kelly**, University of California, Irvine  
Sexual dimorphism shapes renal metabolic adaptation to a ketogenic diet

1:55 pm **Rashel Jacobo**, University of California, Los Angeles  
Understanding in vivo cell specific metabolism using a multiplexed stable isotope tracing approach

2:10 pm **Vincent Charron-Lamoureux**, University of California, San Diego  
Pan-repository metabolomics reveals microbial transformation of therapeutic drugs

2:25 pm **Peter DePaola IV**, University of California, Los Angeles  
SESAMe1.0: Design and testing of a fluorescent biosensor for live-cell imaging of nuclear S-adenosylmethionine dynamics

2:40 pm **Coffee break**

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## Session 5: Immunometabolism

Moderated by Anthony Covarrubias, University of California, Los Angeles

- 3:05 pm **Samantha O’Keeffe**, University of California, Los Angeles  
High energy charge, antioxidant capacity, and amino acid contents are conserved features of T cell metabolism
- 3:20 pm **Melissa Heredia**, University of California, Los Angeles  
Defining the role of host mitochondrial ultrastructure remodeling during *Toxoplasma gondii* infection
- 3:35 pm **Kelly Kennewick**, University of Southern California  
Cholesterol metabolism licenses mitochondrial activation and shapes T cell fate
- 3:50 pm **Sebastian Zolog**, University of California, Los Angeles  
Nutrient control of dendritic cell composition and functions in solid tumors
- 4:05 pm **Group photo**

## Session 6: Gina Lee Memorial Keynote

Moderated by Peter James Mullen, University of Southern California

- 4:20 pm **Peter James Mullen**, University of Southern California
- 4:25 pm **Cosimo Commisso**, Sanford Burnham Prebys  
The aging microenvironment: From fibrosis-related metastasis to the metabolic reprogramming of pancreatic cancer

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- 4:55 pm      **Closing remarks**  
Cholsoon Jang, University of California, Irvine
- 5:00 pm      **Poster session** and reception
- 6:30 pm      **Depart**

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