

END2CANCER: EMERGING NANOTECHNOLOGY AND DRUG DELIVERY APPLICATIONS FOR CANCER

DECEMBER 4 & 5, 2025

SAMIS EDUCATION CENTER – OU HEALTH CAMPUS

PRE-CONFERENCE

DECEMBER 3, 2025

DINNER FOR SPEAKERS AND INVITED GUESTS

OU HEALTH STEPHENSON CANCER CENTER 1ST FLOOR LOBBY

6:30 – 6:40 pm Opening Comments

6:40 – 9:00 pm Plated Dinner

CONFERENCE

DECEMBER 4, 2025

Poster Display – All day (Level 1)

7:00 am – 8:00 am

Breakfast

SAMIS AUDITORIUM, LEVEL 2

INAUGURATION AND WELCOME ADDRESS

SAMIS CONFERENCE ROOM (LEVEL 2)

8:00 am – 8:05 am

Introduction – Dr. Rajagopal Ramesh

Professor, Department of Pathology, University of Oklahoma
Health Campus

8:05 am – 8:10 am

Welcome - Dr. Gary Raskob

Provost, University of Oklahoma Health Campus

8:10 am – 8:20 am

State of the Cancer Center Address - Dr. Robert Mannel

Director, OU Health Stephenson Cancer Center

SESSION I – GENE, mRNA & DRUG DELIVERY

SAMIS CONFERENCE ROOM (LEVEL 2)

Moderators: John Clegg, Bulent Ozpolat, Handan Acar

8:25 am – 8:30 am

Session Introduction by Moderators

8:30 am – 9:00 am

Plenary Speaker – Szu-Wen Wang, Ph.D.Professor, Department of Chemical and Biomolecular Engineering,
University of California, Irvine*"Molecular Engineering of Protein Nanoparticles for Cancer Immunotherapy "*

9:00 am – 9:20 am

Idris Raji, Ph.D.

Assistant Professor, Department of Chemistry and Biochemistry,
University of Oklahoma*"Combinatorial development of lipid nanoparticles for mRNA delivery to the lungs."*

9:20 am – 9:40 am

Michael J. Mitchell, Ph.D.

Associate Professor, Department of Bioengineering, University of
Pennsylvania*"Lipid nanoparticles for overcoming biological barriers to mRNA delivery"*

9:40 am – 10:00 am

Jyothi Menon, Ph.D.

Associate Professor, Department of Biomedical Engineering, Texas A&M
University*"Target, Treat and Prevent: Advanced Drug Delivery Strategies for Cancer and Chronic Inflammation"*

10:00 am -10:20 am

Chang Wang, Ph.D.

Assistant Professor, School of Biomedical Engineering, OU Norman

"Intravenous administration of blood-brain barrier crossing conjugates facilitate oligonucleotides transport into central nervous system"

COFFEE BREAK

SAMIS AUDITORIUM (LEVEL 1)

10:20 am – 10:40 am

SESSION II – CANCER BIOLOGY AND THERAPY

SAMIS CONFERENCE ROOM (LEVEL 2)

Moderators: Xin Zhang, Anupama Munshi, Geeta Rao

10:40 am – 10:45 am

Session Introduction by Moderators

10:45 am – 11:15 am

Plenary Speaker – Rajgopal Govindarajan, DVM, Ph.D.Professor and Chair, Department of Pharmaceutical Sciences, Ohio
State University*"Targeting De Novo and Salvage Pyrimidine Synthesis in Pancreatic Cancer"*

11:15 am – 11:35 am Min Yu, Ph.D.
 Professor, Department of Pharmacology and Physiology, University of Maryland School of Medicine
“Tumor cell and microenvironmental niche co-regulate brain metastasis dormancy features”

11:35 am – 11:55 am Devanand Sarkar, MBBS, Ph.D.
 Professor, Department of Cellular, Molecular and Genetic Medicine, Virginia Commonwealth University
“Cooperation of co-amplified oncogenes in hepatocellular carcinoma (HCC)”

11:55 am – 12:15 pm Ralf Janknecht, M.S., Ph.D.
 Professor, Department of Cell Biology, University of Oklahoma Health Campus
“Oncogenic Enigma and Potential Drug Target: The Nucleotide Hydrolase DNPH1”

LUNCH & POSTER SESSION COMPETITION FOR GRADUATE, UNDERGRADUATE, POST-BACCALAUREATE STUDENTS, AND POST-DOCTORAL FELLOWS
 SAMIS AUDITORIUM (LEVEL 1)
 12:15 pm – 2:00 pm

SESSION III – EXTRACELLULAR VESICLES AND CANCER
 SAMIS CONFERENCE ROOM (LEVEL 2)
 Moderators: Kaiping Burrows, Murali Ragothaman, Rajagopal Ramesh

2:00 pm – 2:05 pm Session Introduction by Moderators

2:05 pm – 2:35 pm **Plenary Speaker** – Raghu Kalluri, M.D., Ph.D.
 Professor and Chairman, Department of Cancer Biology, MD Anderson Cancer Center
“Cancer without disease: Combining the concept of healthy living and aging with strategies to prevent malignant disease of cancer”

2:35 pm – 2:55 pm Devika Soundara Manickam, Ph.D.
 Associate Professor, Department of Neurology, UT Health, Houston
“Delivery of mitochondria using large extracellular vesicles”

2:55 pm – 3:15 pm Aijun Wang, Ph.D.
 Professor, Department of Biomedical Engineering and Surgery, University of California Davis
“Engineering stem cell derived extracellular vesicles for targeted delivery”

3:15 pm – 3:35 pm Sunila Pradeep, Ph.D.
 Associate Professor, Department of Obstetrics and Gynecology, Medical College of Wisconsin
“Extracellular Vesicles Steer Immune Responses in the Tumor Microenvironment”

3:35 pm – 3:55 pm Shailendra Dwivedi, Ph.D.

Assistant Professor, Department of Obstetrics and Gynecology,
University of Oklahoma Health Campus

"EV-Mediated Sarcoma-Carcinoma Crosstalk in Uterine Carcinosarcoma"

COFFEE BREAK

SAMIS AUDITORIUM (LEVEL 1)

3:55 pm – 4:15 pm

SESSION IV – TRANSCRIPTOMICS AND DATA SCIENCE

SAMIS CONFERENCE ROOM (LEVEL 2)

Moderators: Pankaj Singh, Takemi Tanaka, Marmar Moussa

4:15 pm – 4:20 pm

Session Introduction by Moderators

4:20 pm – 4:50 pm

Plenary Speaker – Denis Wirtz, Ph.D.

Professor, Department of Chemical and Biomolecular Engineering, Johns
Hopkins University

"3D multi-omic mapping of precancerous lesions and tumors"

4:50 pm – 5:10 pm

Jun Li, Ph.D.

Professor and Chairman, Department of Molecular Genetics and
Genome Sciences, University of Oklahoma Health Campus

"Mechanism or Prediction - have we delivered?"

5:10 pm – 5:30 pm

Sooryanarayana Varambally, Ph.D., MBA

Professor, Department of Pathology, University of Alabama Birmingham

*"From Big Data to Discoveries: Comprehensive Cancer Proteogenomic Platforms for Data Analysis and
Target Discovery"*

5:30 pm – 5:50 pm

Tae Gyu Oh, Ph.D.

Assistant Professor, Department of Oncology Science, University of
Oklahoma Health Campus

"Uncovering the Molecular Landscape of Rare Diseases through Spatial Technologies"

DINNER

OKLAHOMA CONTEMPORARY ARTS CENTER

6:30 pm – 10:00 pm

6:30 pm – 7:30 pm

Networking and Passed Hors d'oeuvres

7:30 pm – 10:00 pm

Dinner

DECEMBER 5, 2025

Poster Display – All day (Level 1)

7:00 am – 8:00 am

Breakfast

SAMIS AUDITORIUM, LEVEL 2

SESSION I – DRUG DISCOVERY, DEVELOPMENT AND RESISTANCE

SAMIS CONFERENCE ROOM (LEVEL 2)

Moderators: C.V. Rao, Dongin Kim, Raid Aljumaily

8:00 am – 8:05 am

Session Introduction by Moderators

8:05 am – 8:35 am

Plenary Speaker – Trever Bivona, M.D., Ph.D.

Professor, Department of Medicine, University of California San Francisco

“New insights into lung cancer pathogenesis and therapy resistance”

8:35 am – 8:55 am

Naoko Takebe, M.D., Ph.D.

Professor, Department of Medicine, University of Oklahoma Health Campus

“Evolutionary-Revolutionary: Berathomics for Early Cancer Detection”

8:55 am – 9:15 am

Shwetal Mehta, Ph.D.

Professor; Department of Translational Neuroscience; Barrow Neurological Institute

“Breaking the Barrier: PK/PD anchored Hybrid Early Phase Clinical Trials for CNS Cancers”

9:15 am – 9:35 am

Abdul Rafeh Naqash, M.D.

Associate Professor, Department of Medicine, OU Health Stephenson Cancer Center

“Integrated molecular and clinical characterization of pulmonary large cell neuroendocrine carcinoma”

9:35 am – 9:55 am

Jie Wu, Ph.D.

Professor, Department of Pathology, University of Oklahoma Health Campus

“Progress and challenge in RET-targeted cancer therapy”

COFFEE BREAK

SAMIS AUDITORIUM (LEVEL 1)

9:55 am – 10:10 am

SESSION II_– CANCER METABOLISM – BIOLOGY AND TARGETS

SAMIS CONFERENCE ROOM (LEVEL 2)

Moderators: Kamiya Mehla, Surendra Shukla, Min Li

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| 10:10 am – 10:15 am | Session Introduction by Moderators |
| 10:15 am – 10:45 am | Plenary Speaker – John Blenis, Ph.D.
Professor, Department of Pharmacology, Weill Cornell Medical College
<i>“Mechanisms linking diet and metabolism to cancer development & progression”</i> |
| 10:45 am – 11:05 am | Ramandeep Rattan, Ph.D.
Professor, Department of Pharmacology and Chemical Biology,
University of Pittsburgh
<i>“Feeding the Fight: Reprogramming Macrophages Through Diet in Ovarian Cancer”</i> |
| 11:05 am – 11:25 am | Todd W. Miller, Ph.D.
Professor, Department of Pharmacology and Toxicology, Medical College of
Wisconsin
<i>“Leveraging metabolic vulnerabilities in ER+ breast cancer.”</i> |
| 11:25 am – 11:45 am | Amber Vu, Ph.D.
Staff Scientist, Department of Radiation Oncology, University of
Oklahoma Health Campus
<i>“CMLD-2-mediated inhibition of HuR induces mitochondrial dysfunction and autophagy in cancer cells”</i> |
| 11:45 am – 12:05 pm | Srinivas Malladi, Ph.D.
Associate Professor, Department of Pathology, UT Southwestern Medical
Center
<i>“Targetable Metabolic Dependencies of Brain Metastatic Cells”</i> |
| 12:05 pm – 12:25 pm | Simon Grelet, Ph.D.
Assistant Professor, Department of Biochemistry and Molecular Biology,
University of South Alabama
<i>“Lineage Tracing and Fate Mapping of Nerve-to-Cancer Cell Transfer of Mitochondria During Metastasis”</i> |

LUNCH & POSTER SESSION COMPETITION FOR GRADUATE STUDENTS

SAMIS AUDITORIUM (LEVEL 1)

12:30 pm – 2:00 pm

SESSION III_– IMMUNO-ONCOLOGY

SAMIS CONFERENCE ROOM (LEVEL 2)

Moderators: Maureen Cox, Dinesh Thotala, Ram Mahato

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| 2:00 pm – 2:05pm | Session Introduction by Moderators |
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2:05 pm – 2:35 pm

Plenary Speaker – David A. Barbie, M.D.

Professor, Dana Farber Cancer Institute

“Unleashing cGAS-STING signaling to promote cancer immunogenicity”

2:35 pm – 2:55 pm

Sean Lawler, Ph.D.

Associate Professor, Department of Pathology and Laboratory Medicine,
Brown University

“Designing new approaches for glioblastoma: from drug delivery to antiviral therapies”

2:55 pm – 3:15 pm

Chih-Chi Andrew Hu, Ph.D.

Professor, Houston Methodist Neal Cancer Center

“Secretory IgM drives malignant progression of B cell leukemia”

3:15 pm – 3:35 pm

Rajagopal Ramesh, Ph.D

Professor, Department of Pathology, University of Oklahoma Health
Campus

“Rekindling the Innate Immunity Signaling Through HuR-Targeted Therapy in Medulloblastoma”

3:35 pm – 3:55 pm

Wei Chen, Ph.D.

Professor and Director, School of Biomedical Engineering, University of
Oklahoma

“Local Ablative Immunotherapy for Cancer”

AWARD CEREMONY & CLOSING REMARKS

SAMIS CONFERENCE ROOM (LEVEL 2)

4:15 pm – 4:30 pm