A01  **Metabolic requirements of breast cancer cells undergoing epithelial-mesenchymal transition.** Alexander Muir. Massachusetts Institute of Technology, Cambridge, MA.

A02  **Elevated glucose metabolism inhibits DNA repair to promote genomic instability.** Alexandra Ciminera. City of Hope, Duarte, CA.

A03  **Integrative cross-platform analyses identify enhanced heterotrophy as a metabolic hallmark in glioblastoma.** Antony Prabhu. Beaumont Health, Royal Oak, MI.

A04  **Mapping heterogeneity in glucose uptake in metastatic melanoma using quantitative ¹⁸F-FDG PET/CT analysis.** Ellen de Heer. University Medical Center Groningen, Groningen, The Netherlands.

A05  **Molecular targeting CD206+ tumor associated macrophages in early stage of metastasis.** Hyewon Chung. Department of Microbiology and Immunology, Institute of Endemic Disease, College of Medicine, Seoul National University, Seoul, Republic of Korea.

A06  **Impairment of maturation and activation of the hepatocytes growth factor receptor upon glucose depletion.** Irina Titkova. German Cancer Research Center (DKFZ), Heidelberg, Germany.

A07  **Glutamine metabolic vulnerabilities define triple-negative from luminal A breast cancer subsets.** Jeff Holst. University of New South Wales, Sydney, NSW, Australia.

A08  **Prostate cancer stem cells exhibit altered glucose and pyruvate metabolism: A novel target for differentiation therapy.** Jena Walczyk. Roswell Park Comprehensive Cancer Center, Buffalo, NY.

A09  **Mechanical regulation of glycolysis.** Jin Suk Park. UT Southwestern Medical Center, Dallas, TX.

A10  **LSR contributes to the metabolic plasticity and behavior of mammary epithelial and breast cancer cells by regulating lipid uptake and cellular metabolism.** Jodie Fleming. North Carolina Central University, Durham, NC.

A11  **Novel correlation-based network analysis of breast tumor metabolism identifies the glycerol channel protein Aquaporin-7 as a regulator of breast cancer progression.** Laurie Littlepage. University of Notre Dame, Notre Dame, IN.

A12  **Acid suspends the circadian clock in hypoxia through inhibition of mTOR.** Zandra Walton. University of Pennsylvania, Philadelphia, PA.

A14  Tumor-intrinsic metabolic changes in Keap1 mutant lung cancer drive immune evasion. Anastasia Maria Zavitsanou. NYU School of Medicine, New York, NY.

A15  Human CLYBL “knockouts” provide new insights into host-pathogen metabolic interaction. Hongying Shen. Massachusetts General Hospital, Boston, MA.

A16  Epstein-Barr virus induces mitochondrial one-carbon metabolism to support B-cell transformation. Liang Wei. Harvard Medical School, Boston, MA.

A17  PD-L1 is upregulated in the adipose tissue of tumor-bearing mice. Max Heckler. Dana Farber Cancer Institute, Boston, MA.

A19  Mutant p53 regulates LPA signaling through lysophosphatidic acid phosphatase type 6. Agnieszka Chryplewicz. The University of Chicago, Chicago, IL.

A20  Metabolic regulation of oxidative stress in metastasizing melanoma cells. Arin Aurora. UT Southwestern, Dallas, TX.

A21  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.

A22  Chronic nutrient stress increases cancer cell invasion and metastasis through ATF4-dependent induction of Slug. Bryan King. Memorial Sloan Kettering Cancer Center, New York, NY.

A23  Chromosomal instability drives metastasis through a cytosolic DNA response. Bryan Ngo. Weill Cornell Medical College, New York, NY.

A24  Expression of glycolytic-related proteins in locally advanced breast carcinoma submitted to neoadjuvant chemotherapy. Céline Pinheiro. Barretos Cancer Hospital, Barretos, SP, Brazil.


A26  Metabolic requirements for cell migration in confined 3D environments. Emily Bell. Pennsylvania State University, University Park, PA.

A27  FBP1 deficiency accelerates liver tumorigenesis via a hepatic stellate cell secretome targeted by senolytics. Fuming Li. Abramson Family Cancer Research Institute, Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA.

A28  Metabolic adaptations reveal epigenetic vulnerabilities in chemotherapy-resistant breast cancer. Genevieve Deblois. Princess Margaret Hospital Cancer Research Centre, Toronto, ON, Canada.
A29 Metabolism reprogramming in hexavalent chromium-induced human lung carcinogenesis. 
James Wise. University of Kentucky, Lexington, KY.

A30 Undruggable catabolic flexibility enhances oxidative phosphorylation activity and drug resistance but induces higher mitochondrial dependency and vulnerability in IDH1 mutant leukemia. 
Jean-Emmanuel Sarry. INSERM, Cancer Research Center of Toulouse, Toulouse, France.

A31 HAT1 drives a gene-metabolite circuit that links nutrient metabolism to histone production. 
Joshua Gruber. Stanford University, Stanford, CA.

A32 Alpha-ketoglutarate contributes to p53-mediated cell fate changes during tumor suppression. 
Jossie J. Yashinskie. Memorial Sloan Kettering Cancer Center, New York, NY.


A34 Unraveling the linkage between solute carriers and chromatin remodeling. Kai-Chun Li. CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, Austria.

A35 Nicotinamide N-methyltransferase (NNMT) metabolically reprograms the epigenome of the ovarian cancer microenvironment. Mark Eckert. The University of Chicago, Chicago, IL.

A36 Pan-HDAC inhibition reverses the Warburg effect and leads to metabolic vulnerabilities in glioblastoma model systems. Markus Siegelin. Columbia University, New York, NY.

A37 Loss of promoter methylation in glycolytic genes is associated with aggressiveness in IDH1-mutant lower grade gliomas. Mioara Larion. National Institutes of Health, Bethesda, MD.

A38 Serine hydroxymethyltransferase (SHMT2) is a metabolic driver of lymphomagenesis. Sara Parsa. Memorial Sloan Kettering Cancer Center, New York, NY.


A40 Gastric cancer differs in the degree of utilization of various carbon sources attributing to the aggressiveness. Bo Kyung Yoon. Yonsei University College of Medicine, Seoul, Republic of Korea.

A41 The pentose phosphate pathway is sufficient to maintain serine synthesis independently of glycolysis. Chendong Yang. UT Southwestern Medical Center at Dallas, Dallas, TX.

A42 Iron sulfur cluster deficiency directly activates IRP2 via increased stability and RNA binding. Erdem Terzi. New York University School of Medicine, New York, NY.

A43 Microenvironmental inhibition of triglyceride hydrolysis by HILPDA supports tumor growth. Ioanna Papandreou. The Ohio State University, Columbus, OH.

A44 Phosphatidylinositol-5-phosphate 4-kinases regulate cellular lipid metabolism by facilitating autophagy. Mark Lundquist. Meyer Cancer Center, New York, NY.
A45  Deficiency of tumor suppressor Merlin facilitates metabolic adaptation by co-operative engagement of SMAD-Hippo signaling in breast cancer. Mateus Mota. University of Alabama at Birmingham, Birmingham, AL.

A46  A GCN2-mediated translational program induces lysosome biogenesis in amino acid-deprived cells. Michel Nofal. Princeton University, Princeton, NJ.

A47  Identification of an oncogenic transcription factor promoting liposarcoma oxphos metabolism through a natriuretic peptide/NPRA autocrine pathway. Norifumi Tsubokawa, Memorial Sloan Kettering Cancer Center, New York, NY.

A48  Regulation of cancer cell metabolism via the thyroid hormone analogue receptor on integrin alphavbeta3: Actions of P-bi-TAT (tetrac-PEG) at the receptor. Paul Davis. Department of Medicine, Albany Medical College; Pharmaceutical Research Institute, Albany College of Pharmacy and Health Sciences, Albany, NY.

A49  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.

A50  Targeting of mitochondrial bioenergetics by shikonin as a treatment for acute myeloid leukemia. Alessia Roma. University of Guelph, Guelph, ON, Canada.


A52  mTORC1 couples nucleotide synthesis to nucleotide demand resulting in a targetable metabolic vulnerability. Alexander Valvezan. Harvard School of Public Health, Boston, MA.

A53  Modulation of sodium-hydrogen exchangers improves chemotherapy response and suppresses invasion in osteosarcoma. Andrew Poon. Ontario Veterinary College, University of Guelph, Guelph, ON, Canada.

A54  Characterizing the metabolic effects of exogenous ketone supplementation—a—an alternative or adjuvant to the ketogenic diet. Angela Poff. University of South Florida, Tampa, FL.

A55  Role of glutathione in tumor growth and chemoresistance in clear-cell renal cell carcinoma. Ankita Bansal. Perelman School of Medicine, University of Pennsylvania, Abramson Family Cancer Research Institute, Philadelphia, PA.

A56  Differences in substrate oxidation of human glioma cells and their correlation to IDH mutation status and aggressiveness. Anna Sebestyén. 1st Department of Pathology and Experimental Cancer Research, Semmelweis University, Budapest, Hungary.


A59 Inhibitors identified by structure-based virtual screening target glucose uptake and selectively decrease glioblastoma cell growth. Catherine Libby. Department of Cell, Developmental and Integrative Biology, University of Alabama at Birmingham, Birmingham, AL.

A60 Elevated endogenous SDHA drives pathologic metabolism in highly metastatic uveal melanoma. Chandrani Chattopadhyay. University of Texas MD Anderson Cancer Center, Houston, TX.

A61 Inhibition of glutamine metabolism increases radiation sensitivity in an in vitro model of NSCLC. Christien Kluwe. Vanderbilt University Medical Center, Nashville, TN.

Nicotinamide phosphoribosyltransferase (NAMPT) as a target in Ewing sarcoma. Christine Heske. National Cancer Institute, Bethesda, MD.

Targeting glycolytic activity with dichloracetate sensitizes HNSCC to the anticancer activity of propranolol. Christopher Lucido. University of South Dakota Sanford School of Medicine, Sioux Falls, SD.

Therapeutic effects and metabolic rewiring upon glutaminase loss in T-ALL. Daniel Herranz. Rutgers Cancer Institute of New Jersey, New Brunswick, NJ.

Density-dependent cholesterol metabolism mediated by liver X receptors B (LXRB) in glioblastoma multiforme. Deven Patel. National Cancer Institute, NIH, Bethesda, MD.

Having opposite effects on insulin receptors in cancer- and non-cancer cells, β-pentagalloyl-glucose sabotages pancreatic cancer cells and cures cancer cachexia in mice carrying the cancer cells. Feng Wang. The Institute of Integrative Medicine for Acute Abdominal Diseases, Nankai Hospital, Tianjin, China.

NAD biosynthesis as a collateral lethality target in cancer. Florian Muller. University of Texas MD Anderson Cancer Center, Houston, Houston, TX.

Combined targeting mTOR and other metabolic enzymes effectively inhibit tumor growth in human glioma cells. Gábor Petóvári. 1st Department of Pathology and Experimental Cancer Research, Semmelweis University, Budapest, Hungary.


A73 Combined treatment of TRAIL and cystine deprivation overcomes resistance to hypoxia in MDA-MB-231 cells. In-Chul Park. Radiation Molecular Diagnosis Research Team, Division of Radiation Biomedical Research, Seoul, Republic of Korea.

A74 Glutamine is necessary for induction of cell death by metformin and lapatinib in breast cancer cells. In-Chul Park. Division of Basic Radiation Bioscience, Korea Institute of Radiological and Medical Sciences, Seoul, Republic of Korea.

A76 Copper trafficking as a novel target for chemosensitization to platinum therapy in osteosarcoma. Jordon Inkol. University of Guelph, Guelph, ON, Canada.

A77 Enhanced lipid uptake fuels the extensive transformation of the prostate cancer lipidome in response to androgen-targeted therapies. Kaylyn Tousignant. Queensland University of Technology, Brisbane, QL, Australia.

A78 Safety and efficacy of a novel class of GLUT inhibitors. Kellen Olszewski. Kadmon Corporation, LLC, New York, NY

A79 PIM kinases regulate mitochondrial respiration in cancer cells. Kwan Long Mung. Department of Biology, University of Turku, Turku, Finland

A80 Probing mitochondrial NADH sources upon respiration inhibition. Lifeng Yang. Princeton University, Princeton, NJ.