Clinical Response to a Lapatinib-Based Therapy for a Li-Fraumeni Syndrome Patient with a Novel HER2 V659E Mutation ............ 1238


Précis: Tumors of a patient with a germline TP53 mutation were found to harbor alterations in either EGFR or HER2 and were responsive to targeted therapy with lapatinib.

Androgen Receptor Signaling Regulates DNA Repair in Prostate Cancers ............ 1245


Précis: Antiandrogen therapy suppresses androgen receptor–mediated induction of DNA repair genes, resulting in increased DNA damage and enhanced radiosensitivity of prostate cancer cells.

See commentary, p. 1222

A Hormone–DNA Repair Circuit Governs the Response to Genotoxic Insult ............ 1254

J.F. Goodwin, M.J. Schiewer, J.L. Dean, R.S. Schrecengost, R. de Leeuw, S. Han, T. Ma, R.B. Den, A.P. Dicker, F.Y. Feng, and K.E. Knudsen

Précis: Androgen receptor activation in response to DNA damage promotes double-strand break repair via DNAPKcs and confers resistance to genotoxic insult in advanced prostate cancer.

See commentary, p. 1222
Autophagy Sustains Mitochondrial Glutamine Metabolism and Growth of \textit{Braf}\textsuperscript{V600E}-Driven Lung Tumors \ldots \ldots \ldots \ldots \ldots 1272


Précis: Autophagy ablation suppresses the growth of \textit{Braf}\textsuperscript{V600E}-driven lung tumors by limiting glutamine availability and impairing mitochondrial function.

See commentary, p. 1225

Targeting the Wnt Pathway in Synovial Sarcoma Models \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots 1286


Précis: Constitutive activation of WNT/\beta\textsuperscript{-}catenin signaling by the SYT-SSX oncogene is required for the initiation and progression of synovial sarcoma.

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- Institute of Medicine Calls for Improved Evidence Base

ON THE COVER

Strohecker and colleagues found that deletion of the essential autophagy gene \textit{Atg7} initially induced oxidative stress and accelerated the formation of \textit{Braf}\textsuperscript{V600E}-driven lung tumors but eventually slowed tumor growth and prolonged survival. \textit{Atg7} deficiency led to an accumulation of morphologically and functionally defective mitochondria in \textit{Braf}\textsuperscript{V600E}-driven lung tumors and rendered tumor cells dependent on exogenously supplied glutamine for survival. \textit{Braf}\textsuperscript{V600E}-driven tumors may therefore become addicted to autophagy to sustain cell survival and proper mitochondrial function through the clearance of damaged organelles and recycling of metabolites for biosynthesis, and may thus be sensitive to autophagy inhibitors. For details, please see the article by Strohecker and colleagues on page 1272.