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The Histone Demethylase JMJD2B Is Regulated by Estrogen Receptor α and Hypoxia, and Is a Key Mediator of Estrogen Induced Growth
Jun Yang, Adrian M. Jubb, Luke Pike, Francesca M. Buffa, Helen Turley, Dilair Baban, Russell Leek, Kevin C. Gatter, Jiannis Ragoussis, and Adrian L. Harris

Precis: Findings provide a biological rationale to therapeutically target histone demethylases for breast cancer treatment.

Immunologic Consequences of Signal Transducers and Activators of Transcription 3 Activation in Human Squamous Cell Carcinoma
Emilia Albesiano, Meghan Davis, Alfred P. See, James E. Han, Michael Lim, Drew M. Pardoll, and Young Kim

Precis: Findings highlight the nodal role of STAT3 in activating immune evasion mechanisms erected by tumors, reinforcing interest in STAT3 targeting for cancer therapy.

Steroid Receptor Coactivator-3 Expression in Lung Cancer and Its Role in the Regulation of Cancer Cell Survival and Proliferation
Di Cai, David S. Shames, Maria Gabriela Raso, Yang Xie, Young H. Kim, Jonathan R. Pollack, Luc Girard, James P. Sullivan, Bongin Gao, Michael Peyton, Meera Nanjundan, Lauren Byers, John Heymach, Gordon Mills, Adi F. Gazdar, and John D. Minna

Precis: A histone acetyltransferase and nuclear hormone receptor is implicated in lung cancer maintenance and resistance to EGFR inhibitors.

Interaction of TAp73 and Breast Cancer–Associated Gene 3 Enhances the Sensitivity of Cervical Cancer Cells in Response to Irradiation-Induced Apoptosis
Thomas Ho-Yin Leung and Hextan Yuen-Sheung Ngan

Precis: Findings define a mechanism through which transcriptionally active isoforms of the p53 homolog p73 promote cancer radiosensitivity.

Occupational Trichloroethylene Exposure and Renal Carcinoma Risk: Evidence of Genetic Susceptibility by Reductive Metabolism Gene Variants
Lee E. Moore, Paolo Boffetta, Sara Karami, Paul Brennan, Patricia S. Stewart, Rayjean Hung, David Zaridze, Vsevolod Matveev, Vladimir Janout, Helena Kollarova, Vladimir Bencko, Marie Navratilova, Neelima Szeszenia-Dabrowska, Dana Mates, Jan Gromiec, Ivana Holcatova, Maria Merino, Stephen Chanock, Wong-Ho Chow, and Nathaniel Rothman

Precis: Findings establish that renal cancer risk from exposure to a suspected carcinogen is particularly high in genetically susceptible individuals.
THERAPEUTICS, TARGETS, AND CHEMICAL BIOLOGY

6537  Anti–Placental Growth Factor Reduces Bone Metastasis by Blocking Tumor Cell Engraftment and Osteoclast Differentiation
Lieve Coenegrachts, Christa Maes, Sophie Torrekens, Riet Van Looveren, Massimiliano Mazzone, Theresa A. Guise, Roger Bouillon, Jean-Marie Stassen, Peter Carmeliet, and Geert Carmeliet

Précis: Preclinical findings indicate a key role for placental growth factor in promoting bone metastasis, suggesting an opportunity for antibody-based adjuvant therapy.

6548  The Human WRN and BLM RecQ Helicases Differentially Regulate Cell Proliferation and Survival after Chemotherapeutic DNA Damage
Frances J. Mao, Julia M. Sidorova, Julia M. Lauper, Mary J. Emond, and Raymond J. Monnat

Précis: Study reveals how different RecQ DNA helicases modulate the response to distinct chemotherapeutic agents, and may have potential to serve as biomarkers of tumor-specific chemotherapeutic sensitivity.

6556  Antitumor Effect after Radiofrequency Ablation of Murine Hepatoma Is Augmented by an Active Variant of CC Chemokine Ligand 3/Macrophage Inflammatory Protein-1a
Noriho Iida, Yasunari Nakamoto, Tomohisa Baba, Hitoshi Nakagawa, Eishiro Mizukoshi, Makoto Naito, Naofumi Mukaida, and Shuichi Kaneko

Précis: Findings illustrate the potential of chemokine-based immunotherapy to cooperate with radioablative therapies in clinic.

6566  Metastasis-Associated Protein 1 Short Form Stimulates Wnt1 Pathway in Mammary Epithelial and Cancer Cells
Rakesh Kumar, Seetharaman Balasenthil, Suresh B. Pakala, Suresh K. Rayala, Aysegul A. Sahin, and Kazufumi Ohshiro

Précis: An important metastasis driver acts as an upstream regulator of WNT signaling.

6577  Mitochondrial Chaperone Trap1 and the Calcium Binding Protein Sorcin Interact and Protect Cells against Apoptosis Induced by Antibiologic Agents
Matteo Landriscina, Gabriella Laudiero, Francesca Maddalena, Maria Rosaria Amoroso, Annamaria Piscazii, Flora Cozzolino, Maria Monti, Corrado Garbi, Alberto Fersini, Piero Pucci, and Franca Esposito

Précis: A novel mechanism of apoptosis resistance is described that may contribute to chemoresistance in colorectal carcinoma cells.

6587  Responses in Mantle Cell Lymphoma Cells to SNS-032 Depend on the Biological Context of Each Cell Line
Rong Chen, Sherri Chubb, Tiewei Cheng, Rachael E. Hauvin, Arsha Gandhi, and William Plunkett

Précis: Findings emphasize the challenges of applying targeted therapeutics to consistent effect in heterogeneous human tumors without full knowledge of their biological context.

TUMOR AND STEM CELL BIOLOGY

6598  Metastasis-Associated Protein 1 Short Form Stimulates Wnt1 Pathway in Mammary Epithelial and Cancer Cells
Rakesh Kumar, Seetharaman Balasenthil, Suresh B. Pakala, Suresh K. Rayala, Aysegul A. Sahin, and Kazufumi Ohshiro

Précis: An important metastasis driver acts as an upstream regulator of WNT signaling.

6609  Epigenetic Silencing of miR-137 Is an Early Event in Colorectal Carcinogenesis
Frances Balagué, Alexander Link, Juan Jose Lozano, Miriam Cuatrecasas, Takeshi Nagasaki, C. Richard Boland, and Ajay Goel

Précis: Findings identify a tumor suppressive microRNA with potential applications as a disease biomarker in colorectal cancer.

6619  Bcl9/Bcl9l Are Critical for Wnt-Mediated Regulation of Stem Cell Traits in Colon Epithelium and Adenocarcinomas
Jürgen Deka, Norbert Wiedermann, Pascale Andrieu, Fabienne Murphy-Seiler, Jennyfer Bultinck, Sven Eyckerman, Jean-Christophe Stehle, Sylvie André, Nathalie Vilain, Olav Žiliis, Sylvie Robine, Mauro Delorenzi, Konrad Basler, and Michel Aguet

Précis: A Wnt effectors homologous to a developmental segment polarity gene in flies specifically mediates EMT and stem cell properties controlled by Wnt in cancer.
6629  Dvl2 Promotes Intestinal Length and Neoplasia in the Apc<sup>Min</sup> Mouse Model for Colorectal Cancer
Ciara Metcalf, Ashraf E.K. Ibrahim, Michael Graeb, Marc de la Roche, Thomas Schwarz-Romond, Marc Fiedler, Douglas J. Winton, Anthony Corfield, and Mariann Bienz
Précis: A potential positive modifier of colorectal cancer may act to coordinately promote beta-catenin and mTOR signaling.

6639  Presence of a Putative Tumor-Initiating Progenitor Cell Population Predicts Poor Prognosis in Smokers with Non–Small Cell Lung Cancer
Aik T. Ooi, Vei Mah, Derek W. Nickerson, Jennifer L. Gilbert, Vi Luan Ha, Ahmed E. Hegab, Steve Horvath, Mohammad Alavi, Erin L. Maresh, David Chia, Adam C. Gower, Marc E. Lenburg, Avrum Spira, Luisa M. Solis, Ignacio I. Wistuba, Tonya C. Walser, William D. Wallace, Steven M. Dubinett, Lee Goodglick, and Brigitte N. Gomperts
Précis: A reparative progenitor airway epithelial cell that undergoes dysregulated repair in precancerous lesions is associated with poor prognosis in lung cancer.

6649  Metastasis-Associated Protein 1 and Its Short Form Variant Stimulates Wnt1 Transcription through Promoting Its Derepression from Six3 Corepressor
Rakesh Kumar, Seetharaman Balasenthil, Bramanandam Manavathi, Suresh K. Rayala, and Suresh B. Pakala
Précis: Findings define the transcriptional mechanism through which an important metastatic driver regulates Wnt expression.

6659  Intratumoral Localization of Aromatase and Interaction between Stromal and Parenchymal Cells in the Non–Small Cell Lung Carcinoma Microenvironment
Yasuhiro Miki, Takashi Suzuki, Keiko Abe, Satoshi Suzuki, Hiromichi Nihikawa, Shinya Iida, Shuko Hata, Jun-ichi Akahira, Kazushige Mori, Dean B. Evans, Takashi Kondo, Hisaomi Yamada-Okabe, and Hironobu Sasano
Précis: Findings reveal regulation of aromatase expression in the lung carcinoma microenvironment that contributes to carcinogenesis.

6670  Akt3-Mediated Resistance to Apoptosis in B-RAF–Targeted Melanoma Cells
Yongping Shao and Andrew E. Aplin
Précis: Resistance mechanisms that arise to B-RAF inhibitors need to be elucidated to optimize the clinical application of this class of experimental agents.

6682  Retraction: Spontaneous Human Adult Stem Cell Transformation
Ricardo de la Fuente, Antonio Bernad, Javier Garcia-Castro, Maria C. Martin, and Juan C. Cigudosa

6683  Correction: Effective Immunotherapy against Murine Gliomas Using Type 1 Polarizing Dendritic Cells—Significant Roles of CXCL10
Correction: Cell Surface Tetraspanin Tspan8 Contributes to Molecular Pathways of Exosome-Induced Endothelial Cell Activation
ABOUT THE COVER

Representative images from an immunohistochemical analysis of Six3 (upper panels) and β-catenin (lower panels) in virgin mammary glands from 12-week-old wild-type and MTA1/MTA1s −/− mice. Genetic depletion of MTA1/MTA1s leads to increased expression of Six3, a corepressor of Wnt1 transcription, and consequently, to downregulation of β-catenin in mammary glands. For details, see the article by Kumar and colleagues on page 6649 of this issue.