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<td>Tumor Promotion by Intratumoral Plasmacytoid Dendritic Cells Is Reversed by TLR7 Ligand Treatment</td>
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<td>Isabelle Le Mercier, Dominique Poujol, Amélie Sanlaville, Vanja Sisirak, Michael Gobert, Isabelle Durand, Bertrand Dubois, Isabelle Treilleux, Jacqueline Marvel, Jaromir Vlach, Jean-Yves Blay, Nathalie Bendriss-Vermare, Christophe Caux, Isabelle Puisieux, and Nadège Goutagny</td>
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<td>Précis: This study suggests a new use in breast cancer treatment for synthetic ligands of TLR7 like imiquimod that are used widely as immunomodulators in clinic.</td>
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<td>Vaccine-Instructed Intratumoral IFN-γ Enables Regression of Autochthonous Mouse Prostate Cancer in Allogeneic T-Cell Transplantation</td>
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<td>Rodrigo Hess Michelini, Teresa Manzo, Tabea Sturmheit, Veronica Basso, Martina Rocchi, Massimo Freschi, Joanna Listopad, Thomas Blankenstein, Matteo Bellone, and Anna Mondo</td>
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<td>Précis: Findings argue that cancer vaccines that improve antitumor T-cell responses can cooperate strongly with allogeneic bone marrow transplants to convert them into effective treatments for solid tumors.</td>
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<td>IL-18–Primed Helper NK Cells Collaborate with Dendritic Cells to Promote Recruitment of Effector CD8+ T Cells to the Tumor Microenvironment</td>
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<td>Jeffrey L. Wong, Erik Berk, Robert P. Edwards, and Pawel Kalinski</td>
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<td>Précis: Results advance understanding of how NK cells can provide an initial stimulus to orchestrate the attraction of dendritic cells and additional effector cells into the cancer microenvironment.</td>
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<td>Potent Immunomodulatory Effects of the Trifunctional Antibody Catumaxomab</td>
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<td>Diane Goërè, Caroline Flament, Sylvie Busakiewicz, Vichnou Poirier-Colame, Oliver Kepp, Isabelle Martins, Julien Pesquet, Alexander Eggermont, Dominique Elias, Nathalie Chaput, and Laurence Zitvogel</td>
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<td>Précis: This study reports a comprehensive dissection of the immunomodulatory effects of a bispecific mAb specific for a widely expressed tumor cell adhesion molecule and the T-cell molecule CD3, which is one of the first bispecific mAbs to be explored in clinic.</td>
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Histone Demethylase RBP2 Promotes Lung Tumorigenesis and Cancer Metastasis
Yu-Ching Teng, Cheng-Feng Lee, Ying-Shiuan Li, Yi-Ren Chen, Pei-Wen Hsiiao, Meng-Yu Chan, Feng-Mao Lin, Hsien-Da Huang, Ying He, Chih-Hung Hsu, Qin Yan, Ming-Daw Tsai, and Li-Jung Juan

Precis: Findings establish an oncogenic function in lungs for an Rb binding protein that modifies chromatin, with implications for malignant progression in this tissue.

Proteomic and Lipidomic Signatures of Lipid Metabolism in NASH-Associated Hepatocellular Carcinoma
Kyle Muir, Antonina Hazim, Ying He, Marion Peyressatre, Do-Young Kim, Xiaolong Song, and Laura Beretta

Precis: This study reveals a role for lipid-modifying enzymes in liver cancer, identifying in particular a specific type of long-chain polyunsaturated fatty acid participating in nonalcoholic steatohepatitis and liver cancer risk.

Histone Demethylase RBP2 Promotes Progesterone Receptor Signaling in PLZF Confers Effector Functions to Intravital FLIM-FRET Imaging Reveals Src in Pancreatic Cancer

Precis: Defining the spatial and temporal factors that limit drug targeting in live tumors could help optimize the preclinical development of new therapeutic agents.

PLZF Confers Effector Functions to Donor T Cells That Preserve Graft-versus-Tumor Effects while Attenuating GVHD
Arnab Ghosh, Amanda M. Holland, Yildirim Dogan, Nuzy L. Yim, Uttaran K. Rao, Lauren E. Young, Mallory L. West, Natalie V. Singer, Hae Lee, Il-Kang Na, Jennifer J. Tsai, Robert R. Jeng, Olaf Penack, Alan M. Hanash, Cecilia Lezcano, George F. Murphy, Chen Liu, Michel Sadelain, Martin G. Sauer, Derek San'tAngelo, and Marcel R.M. van den Brink

Precis: This study describes a strategy to improve the qualities of adoptive cell therapies that use alloreactive T cells for immune treatment of cancer, focusing particularly on the reduction of undesirable graft-versus-host side effects.

Progesterone Receptor Signaling in the Microenvironment of Endometrial Cancer Influences Its Response to Hormonal Therapy
Deanna M. Janzen, Miguel A. Rosales, Daniel Y. Paik, Daniel S. Lee, Daniel A. Smith, Owen N. Witte, M. Luisa Iruela-Arispe, and Sanaz Memarzadeh

Precis: Striking findings show that the efficacy of hormonal therapy in endometrial cancer is not related to effects on cancer cells, but rather to effects on stromal cells where the progesterone receptor is necessary and sufficient to mediate antitumor effects in the microenvironment.

Posttranscriptional Regulation of PER1 Underlies the Oncogenic Function of IRE1α

Precis: Circadian rhythms that may affect chemotherapeutic efficacy are linked here for the first time to the unfolded protein response, a signaling pathway widely activated in cancer that plays an important role in tumor aggressiveness.

Peroxiredoxin-2 Represses Melanoma Metastasis by Increasing E-Cadherin/β-Catenin Complexes in Adherens Junctions
Doo Jae Lee, Dong Hoon Kang, Mina Choi, Yang Ji Choi, Joo Young Lee, Joo Hyun Park, Yoon Jung Park, Kyung Wha Lee, and Sang Won Kang

Precis: In discovering a specific antioxidant enzyme that can repress melanoma metastasis, this study also suggests a tractable new direction to treat this deadly disease.

TR3 Modulates Platinum Resistance in Ovarian Cancer
Andrew J. Wilson, Annie Y. Liu, Joseph Roland, Oluwafunmilayo B. Adebayo, Sarah A. Fletcher, James C. Slaughter, Jeannette Saskowsky, Marta A. Crispens, Howard W. Jones III, Samuel James, Oluwafe Fadare, and Dineo Khabele

Precis: There remains great interest in determining general strategies to overcome resistance to platinum compounds that are used very widely to treat cancer, including ovarian cancer.
Genetic Ablation of the Fatty Acid–Binding Protein FABP5 Suppresses HER2-Induced Mammary Tumorigenesis
Liraz Levi, Glenn Lobo, Mary Kathryn Doud, Johannes vonLintig, Darcie Seachrist, Gregory P. Tochtrup, andNoa Noy

PanIN-Specific Regulation of Wnt Pathway-Based Serum microRNA Pancreatic Tumorigenesis
Andrea Criscimanna, Li-Juan Duan, Julie A. Rhodes, VolkerFendrich, Emily Wickline, Douglas J. Hartman, Satendarshans P.S. Monga, Michael T. Lotze, George K. Gittes, Guo-Hua Fong, andFarrazad Esni

Enhanced Radiation Sensitivity in HPV-Positive Head and Neck Cancer

Pathway-Based Serum microRNA Profiling and Survival in Patients with Advanced Stage Non–Small Cell Lung Cancer
Yan Wang, Jian Gu, Jack A. Roth, Michelle A. T. Hildebrandt, Scott M. Lippman, Yuanqing Ye, John D. Minna, and Xifeng Wu

A 20-Year Prospective Study of Plasma Prolactin as a Risk Marker of Breast Cancer Development
Shelley S. Tworoger, A. Heather Eliassen, Xuehong Zhang, Jing Qian, Patrick M. Slass, Bernard A. Rosner, and Susan E. Hankinson

Novel Recombinant Human B7–H4 Antibodies Overcome Tumor Immune Escape to Potentiate T-Cell Antitumor Responses
Denarda Dangaj, Evripidis Lanitis, Aizhi Zhao, Shree Joshi, Yi Cheng, Raphael Sandaltzopoulos, Hyun-Jeong Ra, Gwenn Danet-Denoyers, Daniel J. Powell, Jr, and Nathalie Scholler

Transcription Poisioning by Topoisomerase I Is Controlled by Gene Length, Splice Sites, and miR-142-3p
Stéphanie Solier, Michael C. Ryan, Scott E. Martin, Sudhir Varma, Kurt W. Kohn, Hongfang Liu, Barry R. Zeeberg, andYves Pommier

C-RAF Mutations Confer Resistance to RAF Inhibitors
Rajee Antony, Caroline M. Emery, Allison M. Sawyer, andLevi A. Garraway

Pivotal Role of the Lipid Raft SK3–Orai1 Complex in Human Cancer Cell Migration and Bone Metastases
Aurélie Chantôme, Marie Potier-Cartereau, Lucie Clarysse, Gaelle Fromont, Séverine Marionneau-Lambot, Maxime Guéguinou, Jean-Christophe Pages, Christine Collin, Thibaud Oullier, Alban Girault, Flavie Arbion, Jean-Pierre Haelters, Paul-Alain Jaffrès, Michelle Pinault, Pierre Besson, Virginie Joulin, Philippe Bougnoux, and Christophe Vandier

Docetaxel Conjugate Nanoparticles That Target α-Smooth Muscle Actin–Expressing Stromal Cells Suppress Breast Cancer Metastasis
Mami Murakami, Mark J. Ernsting, Elijus Undzys, Nathan Holwell, Warren D. Foltz, and Shyl-Dar Li

Precise: Blockade of inhibitory T-cell receptor signals in the same general family as the CTLa-4 molecule targeted by ipilimumab (Yervoy) may offer a paradigm for simultaneous targeting of not only tumor cells, but also tumor-associated macrophages that drive immune escape.

Precise: These findings may provide a rationale for the future development of allosteric or pan-RAF inhibitors that disrupt the RAF dimerization interface.

Precise: This study links a therapeutically targetable potassium channel to bone metastasis, a common feature of advanced breast and prostate cancers that is generally untreatable.

Precise: A novel cytotoxic nanoparticle that specifically degrades stromal elements in the tumor microenvironment exhibits potent antitumor activity.
TUMOR AND STEM CELL BIOLOGY

**LIY28 Expression in Malignant Germ Cell Tumors Downregulates let-7 and Increases Oncogene Levels**

Precis: This study defines a common oncogenic pathway in malignant germ cell tumors (GCT) and offers preclinical initial proof of concept for its targeting potential in this setting.

**A Renewable Tissue Resource of Phenotypically Stable, Biologically and Ethnically Diverse, Patient-Derived Human Breast Cancer Xenograft Models**
Xiaomei Zhang, Sofie Claerhout, Aleix Pratt, Lacey E. Dobrolecki, Ivana Petrovic, Qing Lai, Melissa D. Landis, Lisa Wiechmann, Rachel Chaff, Mario Giuliano, Helen Wong, Suzanne W. Fuqua, Alejandro Contreras, Carolina Gutierrez, Jian Huang, Sufeng Mao, Anne C. Pavlick, Amber M. Froehlich, and Ji-Long Chen

Precis: This well-characterized collection of human breast cancer xenografts will serve as a foundation for conduct of "animal clinical trials" to evaluate experimental therapeutics, as well as a resource for mechanistic studies of treatment resistance and metastasis.

**elf4B Phosphorylation by Pim Kinases Plays a Critical Role in Cellular Transformation by Abl Oncogenes**
Jianling Yang, Jun Wang, Ke Chen, Guijie Guo, Ruijiao Xi, Paul B. Rothman, Douglas Whitten, Lianfeng Zhang, Shile Huang, and Ji-Long Chen

Precis: Results identify the translation initiation factor elf4B as a critical substrate of Pim kinases, which mediate the activity of Ab oncogenes, suggesting this factor as a candidate therapeutic target in Ab-induced cancers.

**Canonical Wnt Signaling Is Required for Pancreatic Carcinogenesis**
Yaqing Zhang, John P. Morris IV, Wei Yan, Heather K. Schofield, Austin Gurney, Diane M. Simeone, Sarah E. Millar, Timothy Hoey, Matthias Hebrok, and Marina Pasca di Magliano

Precis: This study establishes a causal role for Wnt pathway signaling in the development and progression of K-ras-initiated pancreatic cancers, with therapeutic implications for the use of Wnt pathway antagonists in this deadly disease.

**TRAF6 Upregulates Expression of HIF-1α and Promotes Tumor Angiogenesis**
Heng Sun, Xue-Bing Li, Ya Meng, Li Fan, Min Li, and Jing Fang

Precis: A factor well studied in the TNF response and implicated in innate and adaptive immune control is established in this study to control tumor angiogenesis.

**Aptamer Identification of Brain Tumor–Initiating Cells**
Youngmi Kim, Qiulan Wu, Petra Hamerlik, Masahiro Hitomi, Andrew E. Sloan, Gene H. Barnett, Robert J. Weil, Patrick Leahy, Anita B. Hjelmeland, and Jeremy N. Rich

Precis: This work illustrates a general method to prospectively isolate tumor-initiating cells, the imaging and targeting of which may be important for improving therapeutic outcomes in individual patients.

**Loss of p120-Catenin Induces Metastatic Progression of Breast Cancer by Inducing Anoikis Resistance and Augmenting Growth Factor Receptor Signaling**
Ron C.J. Schackmann, Sjoerd Klarenbeek, Eva J. Vlug, Suzan Stelloo, Miranda van Amersfoort, Milou Tenhagen, Tanya M. Braumuller, Jeroen F. Vermeulen, Petra van der Groep, Ton Peeters, Elskon van der Waal, Patrick W.B. Derksen

Precis: Based on conditional mouse models of metastatic breast cancer that are immunocompetent and clinically relevant, the current study provides an alternate rationale for therapeutic intervention of p120-catenin negative invasive breast cancer.

**TRAF6**

Correction: IKK4a/ARF Inactivation with Activation of the NF-κB/IL-6 Pathway Is Sufficient to Drive the Development and Growth of Angiosarcoma

**Retraction:**

Retraction: Sp100 as a Potent Tumor Suppressor: Accelerated Senescence and Rapid Malignant Transformation of Human Fibroblasts through Modulation of an Embryonic Stem Cell Program

**Correction:**

Correction: IKK4a/ARF Inactivation with Activation of the NF-κB/IL-6 Pathway Is Sufficient to Drive the Development and Growth of Angiosarcoma
ABOUT THE COVER

Schematic representation of the IRE1α-dependent activation loop that controls tumor cell adaptation. Tumor cell is presented in light gray, stromal cells in dark gray. Proteins are represented by circles, with upregulation in green and downregulation in red. Connections following stress-mediated activation of IRE1α are presented in green for activation and red for inhibition. For details, see article by Pluquet and colleagues on page 4732.
Cancer Research

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