## WHAT WE'RE READING

1463  A Sampling of Highlights from the Literature

## IN THE SPOTLIGHT

1464  TGFβ: Protecting PD-1 from mRNA Decay
Stephanie K. Dougan
See related article, p. 1470

## CANCER IMMUNOLOGY AT THE CROSSROADS

1465  Personal Neoantigen Cancer Vaccines: A Road Not Fully Paved
Edward F. Fritsch, Ute E. Burkhardt, Nir Hacohen, and Catherine J. Wu

## RESEARCH ARTICLES

1470  Tumor Cell–Derived TGFβ1 Attenuates Antitumor Immune Activity of T Cells via Regulation of PD-1 mRNA
Pengfei Wu, Bo Beng, Qun Chen, Enyang Zhao, Jiang Liu, Chen Sun, Caijun Zha, Yong Shao, Bosen You, Wenfu Zhang, Lulu Li, Xiangqi Meng, Jinquan Cai, and Xuedong Li

TGFβ1 is shown to regulate PD-1 expression, thereby modulating CD8+ T-cell responses in clear-cell renal cell carcinoma (ccRCC). By targeting this regulatory mechanism, antitumor responses are boosted. The data highlight an immune evasion strategy used by ccRCC.

See related Spotlight, p. 1464

1485  Treatment of Multiple Myeloma Using Chimeric Antigen Receptor T Cells with Dual Specificity

CAR T cells mostly induce nondurable and nonspecific responses in multiple myeloma (MM). The creation of a dual CAR with split configuration targeting two MM-associated antigens has better specificity and superior antitumor activity than single target CAR T cells.

1496  Long-term Sculpting of the B-cell Repertoire following Cancer Immunotherapy in Patients Treated with Sipuleucel-T
Li Zhang, Harini Kandadi, Hai Yang, Jason Cham, Tao He, David Y. Oh, Nadeem A. Sheikh, and Lawrence Fong

Sipuleucel-T, an autologous cell-based immunotherapy, improves survival in castration-resistant prostate cancer patients, yet how this therapy induces antitumor B-cell immunity remains unclear. Sipuleucel-T induces long-term immune memory and lasting changes to the B-cell repertoire.

1508  Prognostic Integrated Image-Based Immune and Molecular Profiling in Early-Stage Endometrial Cancer
Nanda Horeweg, Marco de Bruyn, Remi A. Nout, Ellen Stellicio, Katarzyna Kedzierska, Alicia León-Castillo, Annechien Plat, Kirsten D. Mertz, Michelle Osse, Ina M. Jürgenlenk-Schulz, Lady C.H.W. Lutgens, Jan J. Jonsen, Elebieta M. van der Steen-Banadik, Vincent T. Smit, Carin L. Creutzberg, Tjalling Bosse, Hans W. Nijman, Viktor H. Koelzer, and David N. Church

Risk stratification in endometrial cancer (EC) incorporates molecular factors but not tumor-infiltrating lymphocytes. In this study, machine learning–based quantification of intraepithelial CD8+ T cells improves EC risk stratification beyond molecular factors.

1520  Immune Remodeling of the Extracellular Matrix Drives Loss of Cancer Stem Cells and Tumor Rejection

Antitumor immune responses shape the tumor microenvironment (TME). There is an inverse relationship between the extracellular matrix (ECM) and T-cell infiltration, whereby effective antitumor T-cell responses reduce ECM and cancer stem cells in the TME.
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1532</td>
<td>Idelalisib Rescues Natural Killer Cells from Monocyte-Induced Immunosuppression by Inhibiting NOX2-Derived Reactive Oxygen Species</td>
<td>Ali A. Akhiani, Alexander Hallner, Roberta Kiffin, Ebru Aydin, Olle Werlenius, Johan Aurelius, Anna Martner, Fredrik B. Thorén, and Kristoffer Hellstrand</td>
</tr>
<tr>
<td>1542</td>
<td>Pharmacologic Inhibition of FGFR Modulates the Metastatic Immune Microenvironment and Promotes Response to Immune Checkpoint Blockade</td>
<td>Saeed S. Akhand, Zian Liu, Stephen C. Purdy, Ammara Abdullah, Hang Lin, Gregory M. Cresswell, Timothy L. Ratliff, and Michael Wendt</td>
</tr>
<tr>
<td>1554</td>
<td>Dysregulated NF-κB-Dependent ICOSL Expression in Human Dendritic Cell Vaccines Impairs T-cell Responses in Patients with Melanoma</td>
<td>Deena M. Maurer, Juraj Adamik, Patricia M. Santos, Jian Shi, Michael R. Shurin, John M. Kirkwood, Walter J. Storkus, and Lisa H. Butterfield</td>
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<tr>
<td>1583</td>
<td>Correction: Targeting the YB-1/PD-L1 Axis to Enhance Chemotherapy and Antitumor Immunity</td>
<td>AC icon indicates AuthorChoice, For more information please visit <a href="http://www.aacrjournals.org">www.aacrjournals.org</a></td>
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Immune-suppressive mechanisms in the tumor microenvironment (TME) are still being defined. By comparing tumors that respond to regulatory T-cell depletion with those that do not, Pires and colleagues find that responding tumors are T-cell enriched and exhibit loss of extracellular matrix (ECM) components. These ECM changes in responding tumors correlate with increased T-cell infiltration and the formation of new lymphatic and vasculature networks. Non-responding tumors have a significant enrichment of stem cell–like gene signatures compared with responding tumors. The data highlight a role of adaptive immunity in reshaping the TME by altering the ECM and further driving antitumor responses. Read more in this issue on page 1520. Original image from Fig. 5D. Artwork by Lewis Long.
# Cancer Immunology Research

## 8 (12)


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