Clinical Cancer Research
Highlights
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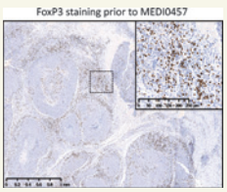
Selected Articles from This Issue

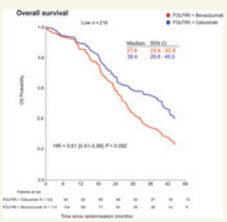
DNA Immunotherapy in HPV-Associated Head and Neck Cancer



Despite immense progress in immunotherapy, responses with available anti-PD-1 therapies remain low for patients with HPV-associated head and neck squamous cell cancer (HNSCCa). This clinical trial demonstrates that therapy with MEDI0457, a DNA immunotherapeutic agent targeting HPV 16/18 E6/E7 viral antigens, is safe and feasible. Aggarwal and colleagues demonstrate promising humoral immune activation, and elevated antigen-specific T-cell activity in a majority of the patients with HNSCCa. The findings suggest that HPV viral neoantigens can be targeted therapeutically as a complementary immune strategy to PD-1/PD-L1 inhibition in HPV-associated HNSCCa to improve patient outcomes. ■

See article by Aggarwal et al., p. 110

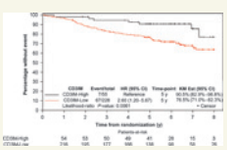
Analysis of miR-31-3p Expression for the FIRE-3 Trial



The current standard of care for first-line treatment in patients with RAS wild-type metastatic colorectal cancer (mCRC) is the combination of chemotherapy with either an anti-EGFR or anti-VEGF monoclonal antibody. To identify a potential biomarker that enables a more personalized therapeutic approach for this patient population, Laurent-Puig and colleagues analyzed miR-31-3p expression in tumors from the RAS wild-type population enrolled in the FIRE-3 trial. Their analysis demonstrated the expression level of miR-31-3p is predictive of cetuximab efficacy for patient survival and response-related outcomes as compared with bevacizumab when combined with chemotherapy for first-line treatment of mCRC. ■

See article by Laurent-Puig et al., p. 134

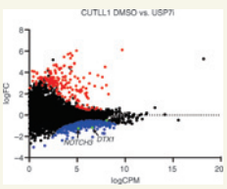
T-Cell Densities in Mismatch-Repair-Deficient Colon Cancer



Mismatch-repair-deficient (dMMR) tumors generally harbor abundant lymphocytic infiltrates, which are believed to contribute to their prognostic advantage and may underlie their enhanced responsiveness to immunotherapy. Yoon and colleagues examined $CD3^+$ and $CD8^+$ T-cell subtypes in stage III colon cancers from a large adjuvant trial. They found that the density of lymphocytic infiltrates in dMMR colon cancers exhibit greater intertumor heterogeneity than in MMR-proficient tumors. Lymphocyte densities also prognosticated within the dMMR group. This heterogeneity may be relevant for the efficacy of adjuvant immunotherapy, which is currently being studied in stage III colon cancers. ■

See article by Yoon et al., p. 125

Deubiquitination Is a Therapeutic Target in T-Cell Leukemia



T-cell acute lymphoblastic leukemia (T-ALL) is a fulminant blood cancer affecting children and adults. Despite improvements in patient survival on current therapy, frontline treatment will fail in up to 25% of children and 50% of adults, and prognosis for relapsed patients is poor. NOTCH1 is a main oncogene in T-ALL. Jin and colleagues demonstrate that the ubiquitin-specific protease 7 (USP7) interacts with the NOTCH1 complex and controls leukemia growth by stabilizing the levels of the complex and promoting oncogenic transcription. Ultimately, the group suggests a therapeutic modality in leukemia *via* targeting USP7. ■

See article by Jin et al., p. 222