Clinical Cancer Research
Highlights
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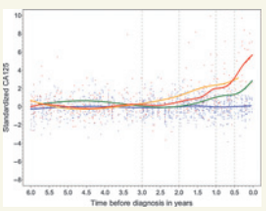
Early Detection Biomarkers for Ovarian Cancer



Approximately 60% of ovarian cancers are diagnosed at late stage when 5-year survival is less than 30%. Biomarkers for early detection are urgently needed to improve survival. Using blood samples of ovarian cancer cases and cancer-free control subjects from the European EPIC study, Terry and colleagues examined the prospective diagnostic capacity of four serum biomarkers. CA125 was the single best marker for the early detection of invasive epithelial ovarian cancer, rising on average 3 years prior to detection. Combining CA125 with HE4 and other markers further improved discrimination. ■

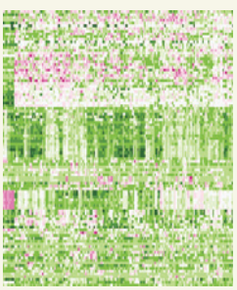
See article by Terry et al. p. 4664

Blood Test for Colorectal Cancer Detection

Today, physicians face a challenge in convincing average-risk individuals to be screened for colorectal cancer (CRC) because of the unpleasant nature of existing methods. Ciarloni and colleagues developed, and clinically validated, a novel blood test for CRC and large adenoma detection based on a 29-gene panel expressed in peripheral blood mononuclear cells in combination with two circulating tumor markers. The test showed sensitivities of 78.1% and 52.3% for CRC and large adenoma detection, respectively, at a specificity of 92.2%. These findings demonstrate the potential of this blood test as an effective option to increase compliance to CRC screening. ■

See article by Ciarloni et al. p. 4604

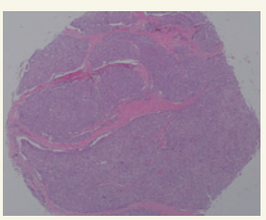
Molecular Characterization of Salivary Duct Carcinoma



Salivary duct carcinoma (SDC) is an aggressive, often lethal, cancer that responds poorly to chemotherapy. To investigate the molecular alterations and potential therapeutic targets in SDC, Dalin and colleagues performed exome and RNA sequencing, or targeted sequencing, in 31 tumors. The majority of tumors had targetable alterations, including androgen receptor (AR) expression, *ERBB2* amplification, and *PIK3CA* and MAP kinase pathway mutations. Many AR^{+} tumors harbored alterations likely to confer resistance to androgen-deprivation therapy. Gene expression analyses revealed close similarities between SDC and molecular apocrine breast cancer. These results provide a framework for future trials of targeted therapy in SDC. ■

See article by Dalin et al. p. 4623

PD-L1 and PD-1 Expression in Thymic Carcinoma



Programmed death ligand 1 (PD-L1) and programmed death 1 (PD-1) expression in thymic carcinoma are insufficiently characterized. Yokoyama and colleagues assessed PD-L1 expression in thymic carcinoma, including copy number alterations of *PD-L1* gene, immune-related protein expression in tumor infiltrating lymphocytes (TIL), and patient prognosis. High PD-L1 expression was associated with copy number gains of *PD-L1*, and also correlated with the number of infiltrating cytotoxic T lymphocytes and better survival. In contrast, abundant $PD\text{-}1^{+}$ TILs were associated with poor prognosis. These results may provide a rationale for potential efficacy of targeting the PD-1/PD-L1 pathway in thymic carcinoma *via* immunotherapy. ■

See article by Yokoyama et al. p. 4727