RESEARCH HIGHLIGHTS

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IN BRIEF

COLORECTAL CANCER

Screening provides long-term benefits

The findings of a randomized phase III clinical trial reveal the long-term benefits of screening, involving a single flexible sigmoidoscopy examination. In a cohort of 170,034 individuals, sigmoidoscopy was found to confer a 26% reduction in the risk of colorectal cancer (CRC), in addition to a 30% reduction in the risk of CRC-related mortality at a median follow-up duration of 17.1 years. These findings demonstrate the prolonged long-term benefits of a one-off sigmoidoscopy examination.

ORIGINAL ARTICLE Atkin, W. et al. Long term effects of once-only flexible sigmoidoscopy screening after 17 years of follow-up: the UK Flexible Sigmoidoscopy Screening randomised controlled trial. Lancet <u>http://dx.doi.org/10.1016/S0140-6736(17)30396-3</u> (2017)

PANCREATIC CANCER

New biomarkers improve standard screening

Data from three cohorts of patients with early stage pancreatic ductal adenocarcinoma (PDAC) indicate that a two-protein biomarker panel, consisting of plasma tissue factor pathway inhibitor (TFPI) and tenascin-C (TNC-FN-III-C), as measured in plasma samples using an ELISA improves the prognostic value of CA 19-9. This biomarker panel enabled accurate discrimination between patients with, and those without early stage PDAC, and was also effective in discriminating between patients with diabetes or pancreatitis and those with PDAC. These findings improve upon the prognostic effectiveness of CA 19-9, the previous gold-standard biomarker.

ORIGINAL ARTICLE Balasenthil, S. et al. A plasma biomarker panel to identify surgically resectable early-stage pancreatic cancer. J. Natl. Cancer Inst. 109, djw341 (2017)

HAEMATOLOGICAL CANCER

T_{res} predict responsiveness to blinatumomab

Newly published data indicate that patients with blinatumomabsensitive B-precursor acute lymphoblastic leukaemia (B-ALL) have significantly fewer regulatory T cells (T_{reg}) than those with blinatumomab-refractory B-ALL. This observation is attributed to IL-10 production by blinatumomab-activated T_{reg} cells, resulting in suppression of T-cell proliferation, and highlights that T_{reg} enumeration prior to treatment has the potential to identify 70% of nonresponders and thus might spare these patients from receiving an ineffective treatment.

ORIGINAL ARTICLE Duell, J. *et al.* Frequency of regulatory T cells determines the outcome of the T-cell-engaging antibody blinatumomab in patients with B-precursor ALL. *Leukemia* <u>http://dx.doi.org/10.1038/leu.2017.41</u> (2017)

OVARIAN CANCER

Algorithm enables early detection

An observational study of the performance of serum cancer antigen 125 (CA-125), interpreted using the risk of ovarian cancer algorithm, reveals the sensitivity of this approach in women with a high risk of ovarian cancer. In the study cohort consisting of 4,348 women, 19 were diagnosed with ovarian cancer, with a modelled sensitivity of 94%. Six of these diagnoses were of occult disease on follow-up transvaginal sonography, as used in women with a >10% lifetime risk detected during initial screening. 18 of the 19 women diagnosed within 1 year of commencing screening had no residual disease, highlighting the value of early diagnosis.

ORIGINAL ARTICLE Rosenthal, A. N. et al. Evidence of stage shift in women diagnosed with ovarian cancer during phase II of the United Kingdom Familial Ovarian Cancer Screening Study. J. Clin. Oncol. http://dx.doi.org/10.1200/ICO.2016.69.9330 (2017)