MINI REVIEW
TRKing Down an Old Oncogene in a New Era of Targeted Therapy
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RESEARCH BRIEFS
Real-Time Intravital Imaging Establishes Tumor-Associated Macrophages as the Extraskeletal Target of Bisphosphonate Action in Cancer

Précis: Bisphosphonates bind granular microcalcifications and are internalized by tumor-associated macrophages in breast tumors. See commentary, p. 14

The Vigorous Immune Microenvironment of Microsatellite Instable Colon Cancer Is Balanced by Multiple Counter-Inhibitory Checkpoints

Précis: Mismatch repair–deficient colorectal cancers counteract Th1/CTL immune responses by upregulating immune checkpoint proteins, including PD-1 and PD-L1. See commentary, p. 16

Mutant KRAS–Induced Expression of ICAM-1 in Pancreatic Acinar Cells Causes Attraction of Macrophages to Expedite the Formation of Precancerous Lesions

Précis: Crosstalk between pancreatic acinar cells and proinflammatory macrophages promotes initiation of acinar-to-ductal metaplasia via KRAS(G12D)-induced expression of the macrophage chemoattractant ICAM1.
Prospective Blinded Study of \( \text{BRAF}^{\text{V600E}} \) Mutation Detection in Cell-Free DNA of Patients with Systemic Histiocytic Disorders


Précis: Cell-free DNA testing using plasma and urine samples may be a reliable, noninvasive method to identify mutations and monitor treatment response in histiocytic disorders.

Induction of Telomere Dysfunction Mediated by the Telomerase Substrate Precursor 6-Thio-\( \text{2}^{\prime} \)-Deoxyguanosine

I. Mender, S. Gryaznov, Z.G. Dikmen, W.E. Wright, and J.W. Shay

Précis: 6-thio-\( \text{2}^{\prime} \)-deoxyguanosine is a precursor of a telomerase substrate that is incorporated into newly synthesized telomeres, leading to telomere dysfunction and death in telomerase-expressing cells.

See commentary, p. 19