De-Repression of PDGFRβ Transcription Promotes Acquired Resistance to EGFR Tyrosine Kinase Inhibitors in Glioblastoma Patients


Précis: Transcriptional derepression of PDGFRβ in response to EGFR inhibition renders EGFR-mutant glioblastomas dependent on PDGFRβ for survival.

Coordinate Direct Input of Both KRAS and IGF1 Receptor to Activation of PI3 Kinase in KRAS-Mutant Lung Cancer

M. Molina-Arcas, D.C. Hancock, C. Sheridan, M.S. Kumar, and J. Downward

Précis: KRAS-mutant NSCLC cells are selectively sensitive to inhibition of IGF1R, which is required for KRAS-mediated activation of PI3K signaling.

See commentary, p. 491

TYK2–STAT1–BCL2 Pathway Dependence in T-cell Acute Lymphoblastic Leukemia


Précis: Activation of tyrosine kinase 2 (TYK2) by mutation or autocrine interleukin-10 signaling promotes T-ALL cell survival through activation of STAT1 and upregulation of BCL2.

See commentary, p. 494

Bone Marrow–Derived Gr1+ Cells Can Generate a Metastasis-Resistant Microenvironment Via Induced Secretion of Thrombospondin-1


Précis: Metastasis-incompetent tumors systemically reprogram bone marrow–derived myeloid cells in the premetastatic niche to produce TSP-1 to suppress metastatic outgrowth.

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