Promising SINEs for Embargoing Nuclear–Cytoplasmic Export as an Anticancer Strategy


Efficacy of Intermittent Combined RAF and MEK Inhibition in a Patient with Concurrent BRAF- and NRAS-Mutant Malignancies


Précis: Intermittent combined use of the RAF inhibitor vemurafenib and the MEK inhibitor cobimetinib in a patient with BRAF-mutant melanoma and NRAS-mutant leukemia controlled both diseases.

See commentary, p. 510

Activating mTOR Mutations in a Patient with an Extraordinary Response on a Phase I Trial of Everolimus and Pazopanib


Précis: The identification of two activating MTOR mutations in a patient who experienced a complete response to everolimus and pazopanib suggests an underlying mechanism of mTOR inhibitor sensitivity.

See commentary, p. 513

A Diverse Array of Cancer-Associated MTOR Mutations Are Hyperactivating and Can Predict Rapamycin Sensitivity


Précis: Activating MTOR mutations are widespread in human cancers and correlate with hypersensitivity to mTOR pathway inhibition.

See commentary, p. 513

In Focus

T-Cell and NK-Cell Infiltration into Solid Tumors: A Key Limiting Factor for Efficacious Cancer Immunotherapy

I. Melero, A. Rouzaut, G.T. Motz, and G. Coukos

See article, p. 560

MTOR Mutations in the Crosshairs of Targeted Therapy

P.A. Rejto and R.T. Abraham

See article, p. 546

See article, p. 554

From Breaking Bad to Worse: Exploiting Homologous DNA Repair Deficiency in Cancer

M.T. Hemann

See article, p. 592

Paths of Resistance to EGFR Inhibitors: Is NF Enough?

O. Maertens and K. Cichowski

See article, p. 606

In The Spotlight

Finding the Right Balance of BRAF Inhibition in Melanoma

M.A. Davies

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Q&A: Mikala Egeblad on Tumor Microenvironment

Tracking CTCs May Improve Cancer Treatment

Selected highlights of recent articles of exceptional significance from the cancer literature

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RESEARCH WATCH

NEWS IN DEPTH

NEWS IN BRIEF

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NEWS IN BRIEF

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Vemurafenib treatment was previously shown to uncover an NRAS-mutant chronic myelomonocytic leukemia (CMML) in a patient with BRAF-mutant metastatic melanoma. Abdel-Wahab and colleagues report that the combination of vemurafenib and the MEK inhibitor cobimetinib blocked vemurafenib-induced CMML proliferation and restored normal white blood cell counts in this patient. Intermittent administration of vemurafenib and cobimetinib has durably maintained a near-complete melanoma response and has prevented CMML progression in association with decreased levels of CMML-derived circulating tumor DNA and reduced ERK activation in monocytes. Intermittent combination RAF and MEK inhibitor therapy may thus be useful for treatment of RAS-driven malignancies arising due to paradoxical activation of wild-type RAF by RAF inhibitors in RAS-mutant cells. For details, please see the article by Abdel-Wahab and colleagues on page 538.