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Précis: Non-V600E BRAF mutations that are sensitive to MEK inhibition occur in 8% of “BRAF–wild-type” melanomas.

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Précis: Small cell lung cancer cells express significantly higher levels of PARP1 than non-small cell lung cancer cells and are highly sensitive to PARP inhibition.
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Cancer-Stimulated Mesenchymal Stem Cells Create a Carcinoma Stem Cell Niche via Prostaglandin E2 Signaling ................. 840
H-J. Li, F. Reinhardt, H.R. Herschman, and R.A. Weinberg
Précis: Bidirectional signaling between tumor cells and associated mesenchymal stem cells promotes EMT and enhances cancer stem cell formation.

Correction
Correction: Gene Signatures Associated with Mouse Postnatal Hindbrain Neural Stem Cells and Medulloblastoma Cancer Stem Cells Identify Novel Molecular Mediators and Predict Human Medulloblastoma Molecular Classification ................. 856

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ON THE COVER
Dahlman and colleagues identified a BRAF1597R mutation in an aggressive BRAFV600E-negative melanoma, and found that as many as 8% of melanomas classified clinically as “BRAF wild type” may actually harbor other less common BRAF exon 15 mutations. Importantly, these mutants led to increased MEK/ERK signaling that was readily suppressed by MEK inhibitors, suggesting that patients with these less common BRAF mutations may also benefit from MEK inhibitor therapy. Indeed, one such patient with metastatic melanoma enrolled in a phase I trial of an allosteric MEK inhibitor experienced a sustained partial response, indicating that expanded BRAF mutational testing may benefit additional patients. For details, please see the article by Dahlman and colleagues on page 791.