CONTENTS
AUGUST 2012 ▪ VOLUME 2 ▪ NUMBER 8

IN THIS ISSUE

Highlighted research articles ......................... 653

NEWS IN BRIEF

Important news stories affecting the community .................... 656

NEWS IN DEPTH

Q&A: Stephen Friend on a Bioinformation Commons .......... 658
PARP Inhibitors Refocus for Rebound ...................... 659
A Deeper Look at Tumor Heterogeneity .................. 660

RESEARCH WATCH

Selected highlights of recent articles of exceptional significance from the cancer literature ................... 661

ONLINE

For more News and Research Watch, visit Cancer Discovery online at http://CDnews.aacrjournals.org.

VIEWS

In The Spotlight

RAF/MEK Dependence of KRAS-Mutant Pancreatic Ductal Adenocarcinomas ........ 666
A.J. Hanrahan and D.B. Solit
Commentary on Collisson et al, p. 685

STATe-of-the-Art Approach: Using Oligonucleotide Decoys to Target the "Undruggable" ............ 670
P. Koppikar and J. Bromberg
Commentary on Sen et al, p. 694

Turn Off the IDO: Will Clinical Trials Be Successful? ........ 673
S.V. Novitskiy and H.L. Moses
Commentary on Smith et al, p. 722

DISCOVERY IN CONTEXT

Discovery in Context: Leveraging Multidimensional Glioblastoma Datasets to Identify Targetable Regulatory Networks .......... 676
I. Babic and P.S. Mischel
Commentary on Genovese et al, p. 736

REVIEW

Mechanisms of BRCA1 Tumor Suppression .................. 679
D.P. Silver and D.M. Livingston

RESEARCH BRIEF

A Central Role for RAF→MEK→ERK Signaling in the Genesis of Pancreatic Ductal Adenocarcinoma .......... 685
Précis: Pancreatic ductal adenocarcinomas harboring KRAS mutations are dependent on RAF signaling and are sensitive to MEK inhibition.

RESEARCH ARTICLES

First-in-Human Trial of a STAT3 Decoy Oligonucleotide in Head and Neck Tumors: Implications for Cancer Therapy ............ 694
Précis: Intratumoral injection of a STAT3 decoy oligonucleotide safely reduced target gene expression in a phase 0 clinical trial, and chemical modification may enable systemic delivery.
The Outgrowth of Micrometastases Is Enabled by the Formation of Filopodium-like Protrusions ............... 706
T. Shibue, M.W. Brooks, M.F. Inan, F. Reinhardt, and R.A. Weinberg

Précis: The formation of integrin β1-containing protrusions mediates FAK signaling to promote metastatic cell proliferation and colonization.

IDO Is a Nodal Pathogenic Driver of Lung Cancer and Metastasis Development ............... 722

Précis: IDO orchestrates inflammation, vascularization, and immunosuppression to establish a protumorigenic environment in lung cancer and metastasis models.

microRNA Regulatory Network Inference Identifies miR-34a as a Novel Regulator of TGF-β Signaling in Glioblastoma ............... 736

Précis: miR-34a functions as a subtype-specific tumor suppressor in glioblastoma through targeted inhibition of SMAD4-regulated transcription.

Correction
Correction: High Frequency of PIK3R1 and PIK3R2 Mutations in Endometrial Cancer Elucidates a Novel Mechanism for Regulation of PTEN Protein Stability ......................... 750

Sen and colleagues conducted an exploratory, first-in-human phase 0 trial that showed that intratumoral injection of a STAT3 decoy oligonucleotide during tumor resection surgery could safely reduce STAT3 target gene expression in head and neck squamous cell carcinomas (HNSCC). Modification of the STAT3 decoy by linkage or circularization of the 2 strands increased its stability in vitro, which facilitated systemic administration of the STAT3 decoy in vivo. Intravenous injection of a cyclic STAT3 decoy, but not the parental decoy, decreased STAT3 target gene expression in HNSCC xenografts and significantly suppressed tumor growth. For details, please see the article by Sen and colleagues on page 694.