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## REVIEW

### 859 State of the Science: An Update on Renal Cell Carcinoma
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## ANGIOGENESIS, METASTASIS, AND THE CELLULAR MICROENVIRONMENT

### 881 FES Kinase Promotes Mast Cell Recruitment to Mammary Tumors via the Stem Cell Factor/KIT Receptor Signaling Axis
Ester Kwok, Stephanie Everingham, Shengnan Zhang, Peter A. Greer, John S. Allingham, and Andrew W.B. Craig

### 892 α-Catulin Marks the Invasion Front of Squamous Cell Carcinoma and Is Important for Tumor Cell Metastasis
Christine Cao, Yibu Chen, Rizwan Masood, Uttam K. Sinha, and Agnieszka Kobielak

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Marta Llauradó, Blanca Majem, Josep Castellví, Silvia Cabrera, Antonio Gil-Moreno, Jaume Reventós, and Anna Ruiz

## CELL CYCLE, CELL DEATH, AND SENESCENCE

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### 945 Akt Promotes Post-Irradiation Survival of Human Tumor Cells through Initiation, Progression, and Termination of DNA-PKcs–Dependent DNA Double-Strand Break Repair
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Inhibition of Akt Potentiates 2-DG–Induced Apoptosis via Downregulation of UPR in Acute Lymphoblastic Leukemia
Joanna DeSalvo, Jeffim N. Kuznetsov, Jianfeng Du, Gilles M. Leclerc, Guy J. Leclerc, Theodore J. Lampidis, and Julio C. Barredo

Human ESC Self-renewal Promoting microRNAs Induce Epithelial–Mesenchymal Transition in Hepatocytes by Controlling the PTEN and TGFβ Tumor Suppressor Signaling Pathways
Christine J. Jung, Sushma Iyengar, Kimberly R. Blahnik, Joy X. Jiang, Candice Tahimic, Natalie J. Torok, Ralph W. de vere White, Peggy J. Farnham, and Mark Zern

ABOUT THE COVER
KIT receptor signaling in mast cells is linked to the recruitment of these immune cells to a variety of solid tumors that express Stem cell factor (SCF). Within tumors, mast cell-derived mediators can enhance growth of the tumor vasculature and promote metastasis. Thus, inhibitors of KIT receptor, or downstream signaling pathways linked to mast cell chemotaxis, may be useful to limit tumor progression. Using a time lapse chemotaxis assay, FES kinase-deficient mast cells (red) were found to migrate less than control mast cells (green) under an agarose drop containing SCF. Interestingly, in FES-deficient mice, mammary tumors expressing SCF also failed to attract comparable mast cells to wild-type control mice, and tumor progression was suppressed. For details, see article by Kwok and colleagues on page 881.