# Top Cancer Research Papers

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3D Tumor Imaging

- Vascular normalization by loss of Siah2 results in increased chemotherapeutic efficacy.
  *Cancer Res.* 2012 Apr 1;72(7):1694-704

- Gamma secretase inhibition promotes hypoxic necrosis in mouse pancreatic ductal adenocarcinoma.

- Modulation of the tumor microvasculature by phosphoinositide-3 kinase inhibition increases doxorubicin delivery in vivo.
  Qayum N, Im J, Stratford MR, Bernhard EJ, McKenna WG, Muschel RJ.

- Multimodal biomarker investigation on efficacy and mechanism of action for the mammalian target of rapamycin inhibitor, temsirolimus, in a preclinical mammary carcinoma OncoMouse model: a translational medicine study in support for early clinical development.

- Preclinical models for neuroblastoma: establishing a baseline for treatment.

- Molecular imaging of therapeutic response to epidermal growth factor receptor blockade in colorectal cancer.

- Volumetric high-frequency Doppler ultrasound enables the assessment of early antiangiogenic therapy effects on tumor xenografts in nude mice.

- Targeting Notch signaling in autoimmune and lymphoproliferative disease.

- Vitamin E analogues inhibit angiogenesis by selective induction of apoptosis in proliferating endothelial cells: the role of oxidative stress.

- Ovarian volume measurements in mice with high-resolution ultrasonography.
• A peptide conjugate of vitamin E succinate targets breast cancer cells with high ErbB2 expression.
  Cancer Res 2007 Apr 1;67(7):3337-44.

• Functional neoangiogenesis imaging of genetically engineered mouse prostate cancer using three-dimensional power Doppler ultrasound.

• Therapy-induced acute recruitment of circulating endothelial progenitor cells to tumors.

• Volume measurement variability in three-dimensional high-frequency ultrasound images of murine liver metastases.

• Nanosecond pulsed electric fields cause melanomas to self-destruct.
  Biochem Biophys Res Commun 2006 May 5;343(2):351-60.

• Targeted anti-vascular endothelial growth factor receptor-2 therapy leads to short-term and long-term impairment of vascular function and increase in tumor hypoxia.

• Establishment of a serum tumor marker for preclinical trials of mouse prostate cancer models.

**Angiogenesis**

• Imaging guided trials of the angiogenesis inhibitor sunitinib in mouse models predict efficacy in pancreatic neuroendocrine but not ductal carcinoma.
  Olson P, Chu GC, Perry SR, Nolan-Stevaux O, Hanahan D.

• Monitoring antivascular therapy in head and neck cancer xenografts using contrast-enhanced MR and US imaging.
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• A perspective on vascular disrupting agents that interact with tubulin: preclinical tumor imaging and biological assessment.
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- **Nonlinear contrast imaging with an array-based micro-ultrasound system.**
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- **Anti-αH integrin monoclonal antibody intetumumab enhances the efficacy of radiation therapy and reduces metastasis of human cancer xenografts in nude rats.**

- **Antiangiogenic cancer therapy: monitoring with molecular US and a clinically translatable contrast agent (BR55).**

- **Targeted contrast-enhanced ultrasound imaging of tumor angiogenesis with contrast microbubbles conjugated to integrin-binding knottin peptides.**

- **Correlation between 2- and 3-dimensional assessment of tumor volume and vascular density by ultrasonography in a transgenic mouse model of mammary carcinoma.**

- **Vessel fractions in tumor xenografts depicted by flow- or contrast-sensitive three-dimensional high-frequency Doppler ultrasound respond differently to antiangiogenic treatment.**

- **Volumetric high-frequency Doppler ultrasound enables the assessment of early antiangiogenic therapy effects on tumor xenografts in nude mice.**

- **US imaging of tumor angiogenesis with microbubbles targeted to vascular endothelial growth factor receptor type 2 in mice.**

- **Vitamin E analogues inhibit angiogenesis by selective induction of apoptosis in proliferating endothelial cells: the role of oxidative stress.**
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- Molecular imaging of vascular endothelial growth factor receptor 2 expression using targeted contrast-enhanced high-frequency ultrasonography.
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- Oncolytic viral therapy by bladder instillation using an E1A, E1B double-restricted adenovirus in an orthotopic bladder cancer model.
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**Breast Cancer**

- Vascular normalization by loss of Siah2 results in increased chemotherapeutic efficacy.
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- Fes tyrosine kinase expression in the tumor niche correlates with enhanced tumor growth, angiogenesis, circulating tumor cells, metastasis, and infiltrating macrophages.
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**Eye Imaging**

In Vivo High-frequency Contrast-enhanced Ultrasonography of Uveal Melanoma in Mice: Imaging Features and Histopathologic Correlations.  

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Power Doppler


Prostate Cancer


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Squamous Cell Carcinoma

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Subcutaneous Lung Cancer

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- **Vitamin E analogues inhibit angiogenesis by selective induction of apoptosis in proliferating endothelial cells: the role of oxidative stress.**

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- **HIF-1 dependent stromal adaptation to ischemia mediates in vivo tumor radiation resistance.**

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