**Poster Session B**
Monday, June 27, 2016
5:00 p.m.–7:00 p.m.
Galleria Hall

**B01** Autocrine fibronectin supports metastatic latency in the bone marrow extracellular matrix. Lauren Barney, University of Massachusetts, Amherst, MA, United States.

**B02** Open multi-microwell array for the study of paracrine signaling in tumors. Maribella Domenech, Universidad de Puerto Rico, Mayaguez, PR, United States.


**B04** From modeling to *in vivo* tracking: A new platform for the design of delivery vectors that exploit tumor microfluidics. Sara Nizzero, Houston Methodist Research Institute, Houston, TX, United States.

**B05** Engineered biomaterials as essential tools to determine the mechanisms of resistance to tyrosine kinase inhibitors in glioblastoma. Sara Pedron, University of Illinois at Urbana-Champaign, Urbana, IL, United States.

**B06** Circulatory shear flow alters the viability and proliferation of circulating colon cancer cells. Jiandi Wan, Rochester Institute of Technology, Rochester, NY, United States.

**B07** Visualization of the mechanisms of metastasis within a biomimetic engineered tumor microenvironment encompassing a perfusable cylindrical 3D microvessel. Andrew Wong, Johns Hopkins University, Baltimore, MD, United States.

**B08** Biomimetic culture platform for *ex vivo* preservation of patient-derived multiple myeloma cells. Jenny Zilberberg, Hackensack University Medical Center, Hackensack, NJ, United States.

**B09** The Greater Genomic Landscape: Chromatin heterogeneity during tumor formation and chemoevasion. Luay Almassalha, Northwestern University, Evanston, IL, United States.

**B10** Improved survival through high-resolution tumor detection using real-time fluorescence image-guided surgery in ovarian cancer. Neelkanth Bardhan, Massachusetts Institute of Technology, Cambridge, MA, United States.

**B11** Label-free hyperspectral microscopy detects alterations in nanoscale cellular structure with high temporal resolution. John Chandler, Northwestern University, Evanston, IL, United States.

**B12** Adding angiotensin-system inhibitors to anti-angiogenic therapy reduces vasogenic edema in newly diagnosed glioblastomas but not in recurrent disease. Kyrre Emblem, Oslo University Hospital, Oslo, Norway.

**B13** High-content imaging to quantitate colorectal cancer associated fibroblast heterogeneity. Colleen Garvey, University of Southern California, Los Angeles, CA, United States.
B14 The effect of sunitinib treatment in human melanoma xenografts: Associations with angiogenic profiles. Jon-Vidar Gaustad, Oslo University Hospital, Oslo, Norway.

B15 Computed tomography for quantitative imaging of live cancer cells with isotropic 3D spatial resolution. Laimonas Kelbauskas, Arizona State University, Tempe, AZ, United States.

B16 The detection of ductal carcinoma using noninvasive hyperspectral imaging. Yasser Khouj, West Virginia University, Morgantown, WV, United States.

B17 Quantification of three-dimensional collagen fiber organization as a sensitive indicator of cancerous changes. Zhiyi Liu, Tufts University, Medford, MA, United States.

B18 A label-free, high content, moderate throughput analytical platform for quantitative kinetic analysis of cell behavior upon drug activation in cell-culture models based on the Kolmogorov-Smirnov test. Ed Luther, Northeastern University, Boston, MA, United States.

B19 Multimodal contrast agents for integrated preoperative and intraoperative imaging of cancer. William Payne, University of Nebraska Medical Center, Omaha, NE, United States.

B20 Non-invasive, label-free monitoring of mitochondrial organization within three dimensional human epithelial tissues. Dimitra Pouli, Tufts University, Medford, MA, United States.

B21 Apparent diffusion coefficient measurements predict tumor stromal effects of Smoothened inhibitor of sonic hedgehog signaling. Tista Roy Chaudhuri, State University of NY at Buffalo, Buffalo, NY, United States.

B22 Quantitative tumor imaging using magnetic nanoparticles. Srinivas Sridhar, Northeastern University and Harvard Medical School, Boston, MA, United States.

B23, PR07 A biosensor mouse to predict the dissociation and spread of pancreatic cancer. Paul Timpson, The Garvan Institute of Medical Research, Sydney, Australia.

B24 De-clotting tumor to improve the perfusion, distribution and efficacy of chemotherapy and nanotherapeutics. Taslim Al-Hilal, Texas Tech University Health Science Center, Amarillo, TX, United States.

B25 Experimental and numerical assessment of anticancer agent pharmacokinetics in brain metastases from breast cancer after focused ultrasound-induced blood-brain/blood-tumor barrier disruption. Costas Arvanitis, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, United States.

B27, PR06  VEGF-targeted therapy induces extracellular matrix remodeling and increases mechanical barriers to therapy in colorectal cancer liver metastases. Dai Fukumura, Massachusetts General Hospital and Harvard Medical School, Boston, MA, United States.

B28 Engineering of biocompatible hydrogels for sequential and sustained release of anticancer drugs for combination cancer therapy. Avinash Bajaj, Regional Centre for Biotechnology, Faridabad, India.

B29 Nanoformulations and sustained delivery systems for the PARP inhibitors Olaparib and Talazoparib. Paige Baldwin, Northeastern University, Boston, MA, United States.

B30 Sustained release of PARP inhibitor Talazoparib and chemotherapeutic Docetaxel from modified brachytherapy spacers for treatment of breast and prostate cancer. Jodi Belz, Northeastern University, Boston, MA, United States.

B31 Development of an implanted pump for metronomic delivery of chemotherapy and biological compounds: The virtue of local delivery. Thomas Chen, University of Southern California, Los Angeles, CA, United States.

B32 Feedback optimized gene electrotransfer for immunotherapy. Richard Connolly, OncoSec Medical Inc., San Diego, CA, United States.

B33 PEGylated squalenoyl-gemcitabine nanoparticles for the treatment of glioblastoma. Alice Gaudin, Yale University, New Haven, CT, United States.

B34 Resveratrol in transferrin-modified liposomes for eliminating both, bulk tumor cells and tumor-initiating cells in glioblastoma. Aditi Jhaveri, Northeastern University, Boston, MA, United States.


B36 Optimization of stromal modulation and drug-transporter interactions of a dovitinib/gemcitabine combination regimen in pancreatic cancer models. Sheryl Trueman, University at Buffalo, Buffalo, NY, United States.

B37 Photothermal therapy of glioblastoma multiforme using multiwalled carbon nanotubes optimized for diffusion in extracellular space. Brittany Eldridge, Wake Forest University, Winston Salem, NC, United States.

B38 Re-sensitization of GBM to alkylating agents via sustained local O6-BG in combination with systemic TMZ. Shiran Ferber, David H. Koch Institute for Integrative Cancer Research, Massachusetts Institute of Technology, Cambridge, MA, United States.

B39 Computational modeling of therapy using nanovectors altering macrophage subtypes to treat hypo-perfused tumor lesions. Hermann Frieboes, University of Louisville, Louisville, KY, United States.
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B40 P-selectin is a nanotherapeutic delivery target to the tumor microenvironment. Daniel Heller, Memorial Sloan Kettering Cancer Center, New York, NY, United States.

B41 Gold nanoparticles based platforms for localized radiosensitization in cancer radiation therapy. Rajiv Kumar, Northeastern University, Boston, MA, United States.

B42 Silencing of DNA repair proteins with ECO/siRNA nanoparticles for the enhancement of radiation response in glioblastoma. Jennifer Lee, National Cancer Institute, Bethesda, MD, United States.

B43, PR10 Significant improvements in therapeutic index for conjugated payloads using a nanoparticle-drug conjugate (NDC) platform to provide sustained drug release and potentially improved anticancer effects. Chester Metcalf, Cerulean, Waltham, MA, United States.

B44 Biological mechanisms involved in nanoparticle-enhanced radiation therapy for pancreatic cancer. Autumn Paro, Northeastern University, Boston, MA, United States.

B45 Silencing β3 Integrin by targeted ECO/siRNA nanoparticles inhibits EMT and metastasis of triple-negative breast cancer. Jenny Parvani, Case Western Reserve University, Cleveland, OH, United States.

B46 Surface chemistry governs cellular tropism of nanoparticles in the brain. Eric Song, Yale University, New Haven, CT, United States.

B47 Silver nanoparticles exhibit subtype specific cytotoxic and therapeutic effects in claudin low breast cancer in vitro and in vivo. Jessica Swanner, Wake Forest School of Medicine, Winston Salem, NC, United States.

B48 Prostate cancer pre-treatment with nanoformulated Olaparib overcomes radiation resistance. Anne van de Ven, Northeastern University, Boston, MA, United States.

B49 In vivo detection of an ovarian cancer biomarker via single-walled carbon nanotube optical bandgap modulation. Ryan Williams, Memorial Sloan Kettering Cancer Center, New York, NY, United States.

B50 CSF1-dependent control circuits regulate growth factor homeostasis in the melanoma tumor system. Jeremy Jacox, Yale University, New Haven, CT, United States.

B51 Tumor cell evolutionary strategies to overcome immune response. Kimberly Luddy, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL, United States.

B52 2-in-1 ‘sniper’ nanomedicines rescue dendritic cells by two pronged inhibition of JAK2/STAT-3 and p38 MAPK pathways. Siva Kumar Natarajan, Brigham and Women's Hospital, Boston, MA, United States.
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B53 T lymphocyte engineering with responsive cytokine nanogels for enhanced efficacy and safety of adoptive cell therapy for cancer. Li Tang, Massachusetts Institute of Technology, Boston, MA, United States.

B54 Microenvironment induced impairments of T-cell mechanosensing of melanoma antigens. Susan Thomas, Georgia Institute of Technology, Atlanta, GA, United States.

B55 Evasion of antiviral immune response and enhanced antitumor efficacy of oncolytic adenovirus in combination with hydrogel matrix. Chae-Ok Yun, Department of Bioengineering, College of Engineering, Hanyang University, Seoul, Korea, Republic Of.

B56 Breaching endosomal barriers for carried-mediated intracellular delivery of messenger RNA. Gaurav Sahay, Oregon State University, Portland, OR, United States.

B57 RNAi nanotechnology for cancer target validation and therapy. Jinjun Shi, Harvard Medical School, Brigham and Women's Hospital, Boston, MA, United States.

B58 Engineering periodic shRNA delivery systems with high silencing efficacy. Connie Wu, Massachusetts Institute of Technology, Cambridge, MA, United States.

B59 Mathematical model of oxygen transport in tuberculosis granulomas. Meenal Datta, Massachusetts General Hospital, Boston, MA, United States.

B60, PR02 Implantable microdevice for in-situ precision medicine. Oliver Jonas, Brigham & Women's Hospital, Boston, MA, United States.

B61 Intratumoral oxygen gradients mediate sarcoma cell invasion. Daniel Lewis, Johns Hopkins University, Baltimore, MD, United States.

B62 Role of the blood microenvironment in the upregulation of oncoproteins in circulating pancreatic cancer cells. Owen McCarty, Oregon Health & Science University, Portland, OR, United States.