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| December 21, 2018 | <a href="#">Gadolinium Doping Enhances the Photoacoustic Signal of Synthetic Melanin Nanoparticles: A Dual Modality Contrast Agent for Stem Cell Imaging</a>                | ABSTRACT: In this paper, we show that gadolinium-loaded synthetic melanin nanoparticles (Gd(III)-SMNPs) exhibit up to a 40-fold enhanced photoacoustic |
| April 30, 2018    | <a href="#">Intraoperative Resection Guidance with Photoacoustic and Fluorescence Molecular Imaging Using an Anti-B7-H3 Antibody-Indocyanine Green Dual Contrast Agent</a>  | Breast cancer often requires surgical treatment including breast-conserving surgical resection.  |
| January 01, 2016  | <a href="#">Spectroscopic photoacoustic molecular imaging of breast cancer using a B7-H3-targeted ICG contrast agent</a>  | Purpose: Breast cancer imaging methods lack diagnostic accuracy, in particular for patients with dense breast tissue, and improved techniques are crit |
| June 01, 2019     | <a href="#">A near-infrared turn-on probe for in vivo chemoselective photoacoustic detection of fluoride ion</a>  | The detection of fluoride ion (F <sup>-</sup> ) in living subjects is of value for healthcare and environmental fields.                                |
| March 01, 2019    | <a href="#">Multifunctional nanoplatform for photoacoustic imaging-guided combined therapy enhanced by CO induced ferroptosis</a>   | A multifunctional CO/thermo/chemotherapy nanoplatform is here reported, which is composed of mesoporous carbon nanoparticles (MCN) as near infrared (N |
| February 01, 2019 | <a href="#">Functionalized polymer microbubbles as new molecular ultrasound contrast agent to target P-selectin in thrombus</a>   | Thrombotic diseases rarely cause symptoms until advanced stage and sudden death.   |
| February 01, 2019 | <a href="#">Erythrocyte-cancer hybrid membrane-camouflaged melanin nanoparticles for enhancing photothermal therapy efficacy in tumors</a>                                  | Cell membrane coating has emerged as an intriguing biomimetic strategy to endow nanomaterials with functions and properties inherent to source cells f |
| February 01, 2019 | <a href="#">Recent strategies on targeted delivery of thrombolytics</a>   | Thrombus formed in blood vessel is a progressive process, which would lead to life-threatening thrombotic diseases such as ischemic stroke.            |
| January 01, 2019  | <a href="#">SDF-1-loaded PLGA nanoparticles for the targeted photoacoustic imaging and photothermal therapy of metastatic lymph nodes in tongue squamous cell carcinoma</a> | The combination of photothermal therapy and targeted chemotherapy can produce much greater cytotoxicity than chemotherapy.                             |

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| January 01, 2019  | <a href="#">pH/NIR-responsive semiconducting polymer nanoparticles for highly effective photoacoustic image guided chemo-photothermal synergistic therapy</a>                           | ABSTRACT Multifunctional drug delivery nanoplatform (PDPP3T@PSNiAA NPs) based on NIR absorbing semiconducting polymer nanoparticles for pH/NIR light-  |
| January 01, 2019  | <a href="#">Polyethyleneimine-assisted one-pot synthesis of quasi-fractal plasmonic gold nanocompo-sites as a photothermal theranostic agent</a>  | Gold nanoparticles have been thoroughly used in designing thermal ablative therapies and photoacoustic imaging for cancer owing to their unique and tu |
| December 21, 2018 | <a href="#">Ratiometric Photoacoustic Nanoprobe for Bioimaging of Cu<sup>2+</sup></a>   | Aberrant copper content implicates numerous diseases including Alzheimer's disease and Wilson's disease.   |
| December 16, 2018 | <a href="#">Improving Stem Cell Delivery to the Trabecular Meshwork Using Magnetic Nanoparticles</a>  | Glaucoma is a major cause of blindness and is frequently associated with elevated intraocular pressure.  |
| December 12, 2018 | <a href="#">Chemodrug-Gated Biodegradable Hollow Mesoporous Organosilica Nanotheranostics for Multimodal Imaging-Guided Low-Temperature Photothermal Therapy/Chemotherapy of Cancer</a> | Noninvasive physical treatment with relatively low intensity stimulation and the development of highly efficient anticancer medical strategy are still |
| November 24, 2018 | <a href="#">Indocyanine Green labeling for optical and photoacoustic imaging of Mesenchymal Stem Cells after in vivo transplantation</a>  | The transplantation of Mesenchymal Stem Cells (MSCs) holds great promise for the treatment of a plethora of human diseases, but new non-invasive proce |
| October 18, 2018  | <a href="#">In Vivo Molecular Ultrasound Assessment of Glioblastoma Neovasculature with Endoglin-Targeted Microbubbles</a>  | Objectives . Glioblastoma, as one of the most malignant cancer in the world, usually shows substantially increased angiogenesis.                       |
| October 17, 2018  | <a href="#">In vivo photoacoustic difference-spectra imaging of bacteria using photoswitchable chromoproteins</a>   | Photoacoustic (PA) imaging offers great promise for deep molecular imaging of optical reporters but has difficulties in imaging multiple molecular pro |

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| May 29, 2018     | <a href="#">Performances of a Pristine Graphene-Microbubble Hybrid Construct as Dual Imaging Contrast Agent and Assessment of Its Biodistribution by Photoacoustic Imaging</a> | Coupling near-infrared (NIR) nanoscale absorbing materials with microbubbles (MBs) can generate a multifunctional dual imaging contrast agent.         |
| May 01, 2018     | <a href="#">Histidine-rich glycoprotein-induced vascular normalization improves EPR-mediated drug targeting to and into tumors</a>   | Tumors are characterized by leaky blood vessels, and by an abnormal and heterogeneous vascular network.  |
| January 01, 2018 | <a href="#">Unfavorable effect of calcitriol and its low-calcemic analogs on metastasis of 4T1 mouse mammary gland cancer</a>  | Low vitamin D status is considered as a risk factor for breast cancer and has prognostic significance.   |
| January 01, 2018 | <a href="#">Multispectral Photoacoustic Imaging of Tumor Protease Activity with a Gold Nanocage-Based Activatable Probe</a>  | Tumor proteases have been recognized as significant regulators in the tumor microenvironment, but the current strategies for in vivo protease imaging  |
| January 01, 2018 | <a href="#">Endoglin-targeted contrast-enhanced ultrasound imaging in hepatoblastoma xenografts</a>  | Angiogenesis is required for the growth of hepa- toblastoma (HB).  |
| January 01, 2018 | <a href="#">Facile fabrication of highly photothermal-effective albumin-assisted gold nanoclusters for treating breast cancer</a>  | Gold nanoclusters (AuNCs) have been considered to be a promising candidate for hyperthermia-based anticancer therapy.                                  |
| January 01, 2018 | <a href="#">Development and evaluation of a CEACAM6-targeting theranostic nanomedicine for photoacoustic-based diagnosis and chemotherapy of metastatic cancer</a>             | Metastasis is the leading cause of cancer-related deaths.  |
| January 01, 2018 | <a href="#">A Spectral Fiedler Field-based Contrast Platform for Imaging of Nanoparticles in Colon Tumor</a>   | In efforts to improve solid tumor imaging, and enable image-guided drug delivery (IGDD), multiple types of clinical imaging modalities have been combi |
| January 01, 2018 | <a href="#">[ASAP] Gadolinium Metallofullerene-Polypyrrole Nanoparticles for Activatable Dual-Modal Imaging-Guided Photothermal Therapy</a>                                    | Accurate diagnosis of tumor is promising to guide photothermal therapy (PTT) for efficacious tumor ablation with minimal damage to healthy tissues.    |

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| January 01, 2018  | <a href="#">Photoacoustic imaging of integrin-overexpressing tumors using a novel ICG-based contrast agent in mice</a>   | PhotoAcoustic Imaging (PAI) is a biomedical imaging modality currently under evaluation in preclinical and clinical settings.                          |
| January 01, 2018  | <a href="#">A catalase-loaded hierarchical zeolite as an implantable nanocapsule for ultrasound-guided oxygen self-sufficient photodynamic therapy against pancreatic cancer</a> | Photodynamic therapy (PDT) is an alternative strategy for treating pancreatic cancer (PC) in clinics.  |
| January 01, 2018  | <a href="#">Wulff in a cage gold nanoparticles as contrast agents for computed tomography and photoacoustic imaging</a>  | A core–shell nanostructure yields balanced contrast production for both CT and photoacoustics.   |
| January 01, 2018  | <a href="#">Thy1-Targeted Microbubbles for Ultrasound Molecular Imaging of Pancreatic Ductal Adenocarcinoma</a>  | Purpose: To engineer a dual human and murine Thy1-binding single-chain-antibody ligand (Thy1-scFv) for contrast microbubble-enhanced ultrasound mole   |
| January 01, 2018  | <a href="#">Ultrasound molecular imaging as a non-invasive companion diagnostic for netrin-1 interference therapy in breast cancer</a>   | In ultrasound molecular imaging (USMI), ligand-functionalized microbubbles (MBs) are used to visualize vascular endothelial targets.                   |
| January 01, 2018  | <a href="#">Mesopore-Induced Aggregation of Cobalt Protoporphyrin for Photoacoustic Imaging and Antioxidant Protection of Stem Cells</a>   | With the ever-accelerating development of functional materials design and fabrication, various nanomaterial-based molecular imaging platforms with imp |
| December 01, 2017 | <a href="#">Contrast enhanced ultrasound imaging can predict vascular-targeted photodynamic therapy induced tumor necrosis in small animals</a>                                  | Aims To evaluate the accuracy of contrast-enhanced ultrasound (CEUS) for monitoring tumor necrosis following WST-11 vascular targeted photodynamic the |
| August 01, 2017   | <a href="#">Measuring Absolute Blood Perfusion in Mice Using Dynamic Contrast-Enhanced Ultrasound</a>  | We investigated the feasibility of estimating absolute tissue blood perfusion using dynamic contrast-enhanced ultrasound (CEUS) imaging in mice.       |
| May 30, 2017      | <a href="#">Preparation and characterization of a novel silicon-modified nanobubble</a>  | Nanobubbles (NBs) opened a new field of ultrasound imaging. There is still no practical method to control the diameter of bubbles.                     |

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| May 04, 2017      | <a href="#">Development of prostate specific membrane antigen targeted ultrasound microbubbles using bioorthogonal chemistry</a>   | Prostate specific membrane antigen (PSMA) targeted microbubbles (MBs) were developed using bioorthogonal chemistry.                                      |
| March 01, 2017    | <a href="#">Molecular Contrast-Enhanced Ultrasound Imaging of Radiation-Induced P-Selectin Expression in Healthy Mice Colon</a>  | Purpose To evaluate the feasibility of using molecular contrast-enhanced ultrasound (mCEUS) to image radiation (XRT)-induced expression of cell adhesion |
| February 28, 2017 | <a href="#">Magnetic Nanoliposomes as in Situ Microbubble Bombers for Multimodality Image-Guided Cancer Theranostics</a>   | Nanosized drug delivery systems have offered promising approaches for cancer theranostics.   |
| January 20, 2017  | <a href="#">Core-shell and co-doped nanoscale metal-organic particles (NMOPs) obtained via post-synthesis cation exchange for multimodal imaging and synergistic thermo-radiotherapy</a> | Nanoscale metal-organic particles (NMOPs) have recently shown great promise in the area of nanomedicine owing to their tunable compositions, highly en   |
| January 01, 2016  | <a href="#">Photoacoustic imaging of lymphatic pumping</a>   | The lymphatic system is crucial for maintaining fluid balance in tissues and for immune cell trafficking; however, there are only a few methods for im   |
| January 01, 2016  | <a href="#">Image-Guided Hydrogen Gas Delivery for Protection from Myocardial Ischemia-Reperfusion Injury via Microbubbles</a>   | Cardiomyocyte death induced by ischemia-reperfusion is a major cause of morbidity and mortality worldwide.   |
| January 01, 2016  | <a href="#">PBCA-based polymeric microbubbles for molecular imaging and drug delivery</a>  | Microbubbles (MB) are routinely used as contrast agents for ultrasound (US) imaging.   |
| January 01, 2016  | <a href="#">A Theranostic Nanoplatfrom: Triple-Model Imaging Guided Synergistic Cancer Therapy Based on Liposomes Conjugated Mesoporous Silica Nanoparticles</a>                         | Mesoporous silica nanoparticles (MSNs) have long since been investigated to provide a versatile drug-delivery platform due to their multitudinous meri   |
| January 01, 2016  | <a href="#">Nanoscale covalent organic polymers as a biodegradable nanomedicine for chemotherapy-enhanced photodynamic therapy of cancer</a>   | Recently, covalent-organic polymers (COPs), which covalently cross-link different types of organic molecules to form organic network structures, have    |

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| January 01, 2016 | <a href="#">Detection and characterization of murine colitis and carcinogenesis by molecularly targeted contrast-enhanced ultrasound</a>                                     | AIM To study mucosal addressin cellular adhesion molecule-1 (MAdCAM-1) and vascular endothelial growth factor (VEGF)-targeted contrast enhanced ultras |
| January 01, 2016 | <a href="#">Molecularly Engineered Theranostic Nanoparticles for Thrombosed Vessels: H2O2-Activatable Contrast-Enhanced Photoacoustic Imaging and Antithrombotic Therapy</a> | A thrombus (blood clot), composed mainly of activated platelets and fibrin, obstructs arteries or veins, leading to various life-threatening diseases. |
| January 01, 2016 | <a href="#">Tumor vasculature normalization by orally fed erlotinib to modulate the tumor microenvironment for enhanced cancer nanomedicine and immunotherapy</a>            | The abnormal tumor vasculature is one of key reasons that lead to the limited tumor perfusion as well as hypoxic and immunosuppressive tumor microenvi |
| January 01, 2016 | <a href="#">Highly versatile SPION encapsulated PLGA nanoparticles as photothermal ablaters of cancer cells and as multimodal imaging agents</a>                             | We have designed versatile polymeric nanoparticles with cancer cell specific targeting capabilities via aptamer conjugation after the successful encap |
| January 01, 2016 | <a href="#">Tumor Microenvironment Modulation by Cyclopamine Improved Photothermal Therapy of Biomimetic Gold Nanorods for Pancreatic Ductal Adenocarcinomas</a>             | Due to the rich stroma content and poor blood perfusion, pancreatic ductal adenocarcinoma (PDA) is a tough cancer that can hardly be effectively treat |
| January 01, 2016 | <a href="#">Photoacoustic Imaging of Human Mesenchymal Stem Cells Labeled with Prussian Blue–Poly(L-lysine) Nanocomplexes</a>  | Acoustic imaging is affordable and accessible without ionizing radiation.  |
| January 01, 2016 | <a href="#">Proteoglycan-targeting applied to hypoxia-activated prodrug therapy in chondrosarcoma: first proof-of-concept</a>  | Due to its abundant chondrogenic matrix and hypoxic tissue, chondrosarcoma is chemo- and radio-resistant.  |
| January 01, 2016 | <a href="#">Exosome-like silica nanoparticles: a novel ultrasound contrast agent for stem cell imaging</a>   | Ultrasound is critical in many areas of medicine including obstetrics, oncology, and cardiology with emerging applications in regenerative medicine.   |

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| January 01, 2016   | <a href="#">Cationic microbubbles and antibiotic-free miniplasmid for sustained ultrasound – mediated transgene expression in liver</a>                                      | Despite the increasing number of clinical trials in gene therapy, no ideal methods still allow non-viral gene transfer in deep tissues such as the liv |
| January 01, 2016   | <a href="#">Nilotinib Enhances Tumor Angiogenesis and Counteracts VEGFR2 Blockade in an Orthotopic Breast Cancer Xenograft Model with Desmoplastic Response</a>              | Vascular endothelial growth factor (VEGF)/VEGF receptor (VEGFR)-targeted therapies predominantly affect nascent, immature tumor vessels.               |
| September 01, 2016 | <a href="#">Quantification of Endothelial <math>\alpha v\beta 3</math> Expression with High-Frequency Ultrasound and Targeted Microbubbles: In Vitro and In Vivo Studies</a> | Angiogenesis is a critical feature of plaque development in atherosclerosis and might play a key role in both the initiation and later rupture of plaq |
| June 29, 2016      | <a href="#">Graphene Meets Microbubbles: A Superior Contrast Agent for Photoacoustic Imaging</a>   | Coupling graphene with a soft polymer surface offers the possibility to build hybrid constructs with new electrical, optical, and mechanical propertie |
| June 08, 2016      | <a href="#">Gold Nanoparticle Coated Carbon Nanotube Ring with Enhanced Raman Scattering and Photothermal Conversion Property for Theranostic Applications</a>               | We report a new type of carbon nanotube ring (CNTR) coated with gold nanoparticles (CNTR@AuNPs) using CNTR as a template and surface attached redox-ac |
| June 01, 2016      | <a href="#">High-resolution renal perfusion mapping using contrast-enhanced ultrasonography in ischemia-reperfusion injury monitors changes in renal microperfusion</a>      | Alterations in renal microperfusion play an important role in the development of acute kidney injury with long- term consequences.                     |
| January 01, 2015   | <a href="#">Stable J-aggregation enabled dual photoacoustic and fluorescence nanoparticles for intraoperative cancer imaging</a>   | J-aggregates display nanoscale optical properties which enable their use in fluorescence and photo-acoustic imaging applications.                      |
| January 01, 2015   | <a href="#">Re-assessing the enhanced permeability and retention effect in peripheral arterial disease using radiolabeled long circulating nanoparticles</a>                 | Abstract As peripheral arterial disease (PAD) results in muscle ischemia and neovascularization, it has been claimed that nanoparticles can passively  |
| January 01, 2015   | <a href="#">Chlorosome-Inspired Synthesis of Templated Metallochlorin-Lipid Nanoassemblies for Biomedical Applications</a>   | Chlorosomes are vesicular light-harvesting organelles found in photosynthetic green sulfur bacteria.   |

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| January 01, 2015 | <a href="#">Plasmonic fluorescent CdSe/Cu<sub>2</sub>S hybrid nanocrystals for multichannel imaging and cancer directed photo-thermal therapy</a>                           | A simple, crude Jatropha curcas (JC) oil-based synthesis approach, devoid of any toxic phosphine and pyrophoric ligands, to produce size and shape tun        |
| January 01, 2015 | <a href="#">Long circulating reduced graphene oxide–iron oxide nanoparticles for efficient tumor targeting and multimodality imaging</a>                                    | Polyethylene glycol (PEG) surface modification is one of the most widely used approaches to improve the solubility of inorganic nanoparticles, prevent        |
| January 01, 2015 | <a href="#">Porphyrin Nanodroplets: Sub-micrometer Ultrasound and Photoacoustic Contrast Imaging Agents</a>   | Ultrasound offers significant potential as a molecular imaging modality when imaging microbubble agents owing to single-bubble sensitivity.                   |
| January 01, 2015 | <a href="#">Dual-enhanced photothermal conversion properties of reduced graphene oxide-coated gold superparticles for light-triggered acoustic and thermal theranostics</a> | A rational design of highly efficient photothermal agents that possess excellent light-to-heat conversion properties is a fascinating topic in nanotechnology |
| January 01, 2015 | <a href="#">Ultrasound-guided photoacoustic imaging for the selective detection of EGFR-expressing breast cancer and lymph node metastases</a>                              | We assessed the use of ultrasound (US)-guided photoacoustic imaging (PAI) and anti-EGFR antibody-conjugated gold nanorods (anti-EGFR-GNs) to non-invasive     |
| January 01, 2015 | <a href="#">Exploring Targeted Contrast-Enhanced Ultrasound to Detect Neural Inflammation: An Example of Standard Nomenclature</a>  | Targeted contrast-enhanced ultrasound (TCEUS) is an innovative method of molecular imaging used for detection of inflammatory biomarkers in vivo.             |
| January 01, 2015 | <a href="#">Accelerated Blood Clearance Phenomenon Reduces the Passive Targeting of PEGylated Nanoparticles in Peripheral Arterial Disease</a>                              | Peripheral arterial disease (PAD) is a leading global health concern.   |
| October 21, 2015 | <a href="#">Validating tyrosinase homologue melA as a photoacoustic reporter gene for imaging Escherichia coli</a>  | To understand the pathogenic processes for infectious bacteria, appropriate research tools are required for replicating and characterizing infections.        |



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| September 22, 2015 | <a href="#">Sequential Drug Release and Enhanced Photothermal and Photoacoustic Effect of Hybrid Reduced Graphene Oxide-Loaded Ultrasmall Gold Nanorod Vesicles for Cancer Therapy</a>                        | We report a hybrid reduced graphene oxide (rGO)-loaded ultrasmall plasmonic gold nanorod vesicle (rGO-AuNRVe) (~65 nm in size) with remarkably amplified |
| June 23, 2015      | <a href="#">Determination of biodistribution of ultrasmall, near-infrared emitting gold nanoparticles by photoacoustic and fluorescence imaging</a>   | This study compares fluorescence and photoacoustic (PA) imaging of ex vivo tumors and organs from tumor-bearing mice injected intravenously with ultra   |
| June 15, 2015      | <a href="#">Breast Cancer Detection by B7-H3-Targeted Ultrasound Molecular Imaging</a>  | Ultrasound is a complementary imaging modality to mammography in breast cancer detection in particular in patients with dense breast tissue, but is li   |
| June 01, 2015      | <a href="#">Quantification of bound microbubbles in ultrasound molecular imaging</a>  | Molecular markers associated with diseases can be visualized and quantified noninvasively with targeted ultrasound contrast agent (t-UCA) consisting o   |
| March 17, 2015     | <a href="#">2H,3H-Decafluoropentane-Based Nanodroplets: New Perspectives for Oxygen Delivery to Hypoxic Cutaneous Tissues</a>   | Perfluoropentane (PFP)-based oxygen-loaded nanobubbles (OLNBs) were previously proposed as adjuvant therapeutic tools for pathologies of different e     |
| March 01, 2015     | <a href="#">Vascular Endothelial Growth Factor Receptor Type 2-targeted Contrast-enhanced US of Pancreatic Cancer Neovasculature in a Genetically Engineered Mouse Model: Potential for Earlier Detection</a> | PURPOSE: To test ultrasonographic (US) imaging with vascular endothelial growth factor receptor type 2 (VEGFR2)-targeted microbubble contrast material   |
| January 01, 2015   | <a href="#">Protein-based photothermal theranostics for imaging-guided cancer therapy</a>   | The development of imageable photothermal theranostics has attracted considerable attention for imaging guided photothermal therapy (PTT) with high tu   |
| January 01, 2015   | <a href="#">Nanoparticle Probes for Structural and Functional Photoacoustic Molecular Tomography</a>  | Nowadays, nanoparticle probes have received extensive attention largely due to its potential biomedical applications in structural, functional, and mo   |

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| January 01, 2015   | <a href="#">Design of hybrid MnO<sub>2</sub>-polymer-lipid nanoparticles with tunable oxygen generation rates and tumor accumulation for cancer treatment</a>       | Manganese dioxide (MnO <sub>2</sub> ) nanoparticles (NPs) were discovered in previous work to be effective in improving tumor oxygenation (hypoxia) and reducing  |
| January 01, 2015   | <a href="#">Multi-stimuli responsive Cu<sub>2</sub>S nanocrystals as trimodal imaging and synergistic chemo-photothermal therapy agents</a>                         | A size and shape tuned, multifunctional metal chalcogenide, Cu <sub>2</sub> S-based nanotheranostic agent is developed for trimodal imaging and multimodal therap |
| January 01, 2015   | <a href="#">Subharmonic, non-linear fundamental and ultraharmonic imaging of microbubble contrast at high frequencies.</a>  | There is increasing use of ultrasound contrast agent in high-frequency ultrasound imaging.  |
| January 01, 2015   | <a href="#">Ultrasound Molecular Imaging of Vascular Endothelial Growth Factor Receptor 2 Expression for Endometrial Receptivity Evaluation</a>                     | Purpose: Ultrasound (US) molecular imaging by examining the expression\nof vascular endothelial growth factor receptor 2 (VEGFR2) on uterus\navascular            |
| January 01, 2015   | <a href="#">Phototheranostic Porphyrin Nanoparticles Enable Visualization and Targeted Treatment of Head and Neck Cancer in Clinically Relevant Models</a>          | Head and neck cancer is the fifth most common type of cancer worldwide and remains challenging for effective treatment due to the proximity to critica            |
| October 29, 2014   | <a href="#">Transferring Biomarker into Molecular Probe: Melanin Nanoparticle as a Naturally Active Platform for Multimodality Imaging</a>                          | Developing multifunctional and easily prepared nanoplatfoms with integrated different modalities is highly challenging for molecular imaging.                     |
| October 01, 2014   | <a href="#">Sentinel Lymph Node Biopsy Revisited: Ultrasound-Guided Photoacoustic Detection of Micrometastases Using Molecularly Targeted Plasmonic Nanosensors</a> | Metastases rather than primary tumors are responsible for killing most patients with cancer.  |
| October 01, 2014   | <a href="#">Dye-Loaded Ferritin Nanocages for Multimodal Imaging and Photothermal Therapy</a>   | Multimodal imaging-guided photothermal therapy (PTT), for the therapy of cancer, based on a ferritin (FRT) nanocage loaded with the near-infrared dye             |
| September 10, 2014 | <a href="#">A dual gold nanoparticle system for mesenchymal stem cell tracking</a>  | Stem cell-based therapies have demonstrated improved outcomes in preclinical and clinical trials for treating cardiovascular ischemic diseases.                   |

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| July 06, 2014    | <a href="#">Non-invasive multimodal functional imaging of the intestine with frozen micellar naphthalocyanines</a>  | There is a need for safer and improved methods for non-invasive imaging of the gastrointestinal tract.   |
| June 17, 2014    | <a href="#">Multi-wavelength photoacoustic imaging of inducible tyrosinase reporter gene expression in xenograft tumors</a>   | Photoacoustic imaging is an emerging hybrid imaging technology capable of breaking through resolution limits of pure optical imaging technologies impo                           |
| June 01, 2014    | <a href="#">Contrast-enhanced magneto-photo-acoustic imaging in vivo using dual-contrast nanoparticles</a>  | By mapping the distribution of targeted plasmonic nanoparticles (NPs), photoacoustic (PA) imaging offers the potential to detect the pathologies in th                           |
| June 01, 2014    | <a href="#">Comparison of dynamic contrast-enhanced MR, ultrasound and optical imaging modalities to evaluate the antiangiogenic effect of PF-03084014 and sunitinib</a>  | Noninvasive imaging has been widely applied for monitoring antiangiogenesis therapy in cancer drug discovery.  |
| April 22, 2014   | <a href="#">Multifunctional Albumin–MnO<sub>2</sub> Nanoparticles Modulate Solid Tumor Microenvironment by Attenuating Hypoxia, Acidosis, Vascular Endothelial Growth Factor and Enhance Radiation Response</a> | Insufficient oxygenation (hypoxia), acidic pH (acidosis), and elevated levels of reactive oxygen species (ROS), such as H <sub>2</sub> O <sub>2</sub> , are characteristic abnor |
| April 15, 2014   | <a href="#">Exercise performance and peripheral vascular insufficiency improve with AMPK activation in high-fat diet-fed mice</a>   | Intermittent claudication is a form of exercise intolerance characterized by muscle pain during walking in patients with peripheral artery disease (PA                           |
| March 01, 2014   | <a href="#">Ultrasound Molecular Imaging in a Human CD276 Expression-Modulated Murine Ovarian Cancer Model.</a>   | PURPOSE: To develop a mouse ovarian cancer model that allows modulating the expression levels of human vascular targets in mouse xenograft tumors and                            |
| January 26, 2014 | <a href="#">Semiconducting polymer nanoparticles as photoacoustic molecular imaging probes in living mice</a>   | Photoacoustic (PA) imaging holds great promise for the visualization of physiology and pathology at the molecular level with deep tissue penetration a                           |
| January 01, 2014 | <a href="#">Detection of Melanoma Metastases in Resected Human Lymph Nodes by Noninvasive Multispectral Photoacoustic Imaging</a>   | Objective .  |

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| January 01, 2014  | <a href="#">Dual In Vivo Photoacoustic and Fluorescence Imaging of Assessment , and Surgical Guidance</a>   | Biomarker-specific imaging probes offer ways to improve molecular diagnosis, intraoperative margin assessment, and tumor resection.                    |
| January 01, 2014  | <a href="#">Active curcumin nanoparticles formed from a volatile microemulsion template</a>   | Mitochondria targeted phototherapy, including photodynamic therapy (PDT) and photothermal therapy (PTT), has excelled as an effective approach among o |
| November 01, 2013 | <a href="#">In vitro and in vivo mapping of drug release after laser ablation thermal therapy with doxorubicin-loaded hollow gold nanoshells using fluorescence and photoacoustic imaging</a> | Doxorubicin-loaded hollow nanoshells (Dox@PEG-HAuNS) increases the efficacy of photothermal ablation (PTA) by not only mediating efficient PTA but als |
| November 01, 2013 | <a href="#">Development and optimization of near-IR contrast agents for immune cell tracking</a>  | Gold nanorods (NRs) are attractive for in vivo imaging due to their high optical cross-sections and tunable absorbance.                                |
| January 01, 2013  | <a href="#">VEGF-loaded graphene oxide as theranostics for multi-modality imaging-monitored targeting therapeutic angiogenesis of ischemic muscle</a>   | Herein we report the design and synthesis of multifunctional VEGF-loaded IR800-conjugated graphene oxide (GO-IR800-VEGF) for multi-modality imaging-mo |
| January 01, 2013  | <a href="#">Tyrosinase as a multifunctional reporter gene for Photoacoustic/MRI/PET triple modality molecular imaging.</a>  | Development of reporter genes for multimodality molecular imaging is highly important.   |
| January 01, 2013  | <a href="#">Bio-ink properties and printability for extrusion printing living cells</a>   | Angiogenesis is a common pathological characteristic of many solid tumors and vulnerable atherosclero- tic plaques.                                    |
| November 27, 2012 | <a href="#">Gold nanorods for ovarian cancer detection with photoacoustic imaging and resection guidance via Raman imaging in living mice.</a>  | Improved imaging approaches are needed for ovarian cancer screening, diagnosis, staging, and resection guidance.                                       |
| November 01, 2012 | <a href="#">Use of ultrasound to assess renal reperfusion and P-selectin expression following unilateral renal ischemia.</a>  | Renal ischemia-reperfusion injury is a major cause of acute kidney injury that carries a high mortality rate and increases the risk of later developme |
| July 24, 2012     | <a href="#">Photoacoustic Imaging of Mesenchymal Stem Cells in Living Mice via Silica-Coated Gold Nanorods</a>  | Improved imaging modalities are critically needed for optimizing stem cell therapy.  |

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| May 16, 2012      | <a href="#">In vivo Ultrasound and Photoacoustic Monitoring of Mesenchymal Stem Cells Labeled with Gold Nanotracers</a>   | Longitudinal monitoring of cells is required in order to understand the role of delivered stem cells in therapeutic neovascularization.                    |
| January 10, 2012  | <a href="#">Biomedical photoacoustics beyond thermal expansion using triggered nanodroplet vaporization for contrast-enhanced imaging</a>   | Since being discovered by Alexander Bell, photoacoustics may again be seeing major resurgence in biomedical imaging.                                       |
| January 01, 2011  | <a href="#">VCAM-1-targeting gold nanoshell probe for photoacoustic imaging of atherosclerotic plaque in mice</a>   | The development of molecular probes and novel imaging modalities, allowing better resolution and specificity, is associated with an increased potential    |
| June 01, 2011     | <a href="#">In Vivo Targeted Contrast Enhanced Micro-Ultrasound to Measure Intratumor Perfusion and Vascular Endothelial Growth Factor Receptor 2 Expression in a Mouse Orthotopic Bladder Cancer Model</a> | Purpose: We evaluated the feasibility of using targeted contrast enhanced micro-ultrasound imaging to assess intratumor perfusion and vascular endothelium |
| May 01, 2011      | <a href="#">Assessing vesicoureteral reflux in live inbred mice via ultrasound with a microbubble contrast agent</a>  | Vesicoureteral reflux (VUR) is a common pediatric anomaly linked to renal scarring and hypertension.   |
| March 01, 2011    | <a href="#">Tumor Angiogenic Marker Expression Levels during Tumor Growth: Longitudinal Assessment with Molecularly Targeted Microbubbles and US Imaging</a>  | PURPOSE: To evaluate the use of molecularly targeted microbubbles (MBs) and ultrasonography (US) in the noninvasive assessment of the level of expression  |
| November 27, 2010 | <a href="#">Ultrasound-assisted non-viral gene transfer to the salivary glands</a>  | We report a non-viral gene transfer method utilizing ultrasound induced microbubble destruction to allow the uptake of plasmid gene transfer vectors       |
| March 01, 2010    | <a href="#">Targeted contrast-enhanced ultrasound imaging of tumor angiogenesis with contrast microbubbles conjugated to integrin-binding knottin peptides.</a>   | UNLABELLED: Targeted contrast-enhanced ultrasound imaging is increasingly being recognized as a powerful imaging tool for the detection and quantification |
| January 01, 2009  | <a href="#">Nonlinear contrast imaging with an array-based micro-ultrasound system</a>  | The main goal of this study was to determine the optimal strategy for a real-time nonlinear contrast mode for small-animal imaging at high frequencies     |

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| January<br>01, 1990 | <a href="#">Biosynthesis of lipid A in Escherichia coli:<br/>Acyl carrier protein-dependent incorporation<br/>of laurate and myristate</a> | In previous studies we described enzyme(s) from Escherichia coli that transfer two 3-deoxy-D-manno-octulosonate (KDO) residues from two CMP-KDO molecu |