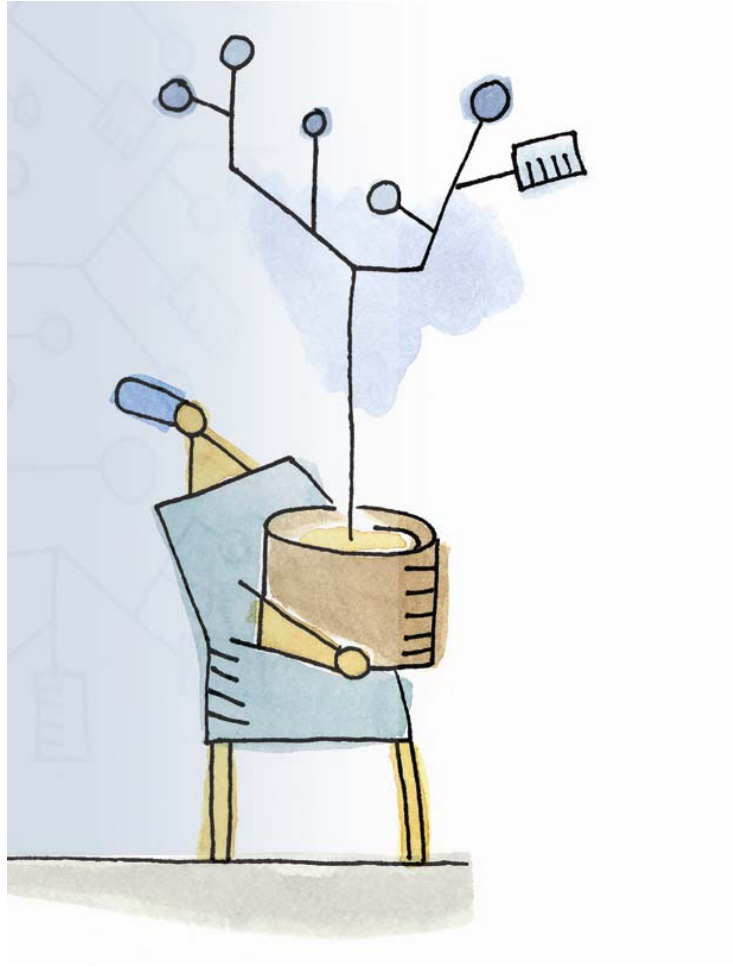


# *National Institutes of Health Office of Technology Transfer*



## ***Medical Imaging Technologies Available for Licensing***

*National Institutes of Health (NIH) Office of Technology Transfer  
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## INTRODUCTION

NIH has an extensive intellectual property portfolio of early-stage technologies<sup>1</sup> and also invests substantially in their development. Roughly 10 percent of the annual NIH budget is dedicated to intramural research and development activities -- resulting in inventions that form the basis of a variety of new medical technology and therapies in the areas of medical devices, software, vaccines, diagnostics, and reagents. Similar to university research, commercial partners are needed to make sure that the long hours at the lab bench and the public investment pay off in the end in marketed products.

NIH believes that the future development of its innovative, early stage research lies largely with innovative, early stage companies. While the increasingly consolidated pharmaceutical industry remains a steady customer of research reagents and clinical collaborations with NIH, the more exciting therapeutic developments increasingly seem to come from NIH licenses signed with small and medium-sized life science companies early in their growth phase.

To further attract such early-stage concerns and start-ups, NIH affords favorable treatment to small firms and tries to provide IP agreements that facilitate new areas of product development based upon NIH research. For example, financially-burdened smaller companies can benefit from flexibility on patent costs and license execution fees in license agreements. Of particular note for venture-backed firms is that companies do not give up equity or management control nor are their future development or marketing rights compromised by signing NIH license agreements. Finally, once the product is in development, NIH is often able to assist with clinical trials, follow-on research collaborations, and even eventual purchase of the product as a customer.

We have collected some medical technologies your company might be interested in for further discussion with our licensing specialists.

Once you have picked the technology of interest, we urge you to apply for a License. A copy of the License Application template can be found at the NIH OTT website at:  
[http://www.ott.nih.gov/forms\\_model\\_agreements/forms\\_model\\_agreements.html#LAP](http://www.ott.nih.gov/forms_model_agreements/forms_model_agreements.html#LAP)

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<sup>1</sup> *The NIH Office of Technology Transfer cannot guarantee that the listed technologies are still available for licensing. Please contact the Technology Licensing Specialist (listed under each technology) for the current status and for other complementary technologies.*

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## MRI: Software and Enhancements

Ref No.	Title
E-164-2006	<a href="#">Tomographic Reconstruction Of The 3-D "average Propagator" From Diffusion Weighted MR Data Using An Iterative Scheme</a>
E-237-2003	<a href="#">Fisptrain: A High Signal Magnetic Resonance Imaging (MRI) Sequence With Steady-state Free Precession And Intrinsic Fat Suppression</a>
E-079-2003	<a href="#">DT-MRI And Considerations Of Water Diffusion</a>
E-079-2002	<a href="#">Suppressing unencoded MRI signal contributions via RF inversion pulses in multi-phase myocardial tagging and multi-phase phase-contrast</a>
E-077-2002	<a href="#">Methods for Improving Sensitivity and Reducing False Positive Detections in Colonography Computer Aided Detection</a>
E-082-2001	<a href="#">Real-Time, Interactive Volumetric Magnetic Resonance Imaging</a>
E-200-2000	<a href="#">Accelerated Magnetic Resonance Imaging</a>
E-198-2000	<a href="#">Ghost Artifact Cancellation Using Phased Array Processing</a>
E-234-1999	<a href="#">Fast Displacement Encoding With Stimulated Magnetic Resonance Echoes By Sampling Both Components Of A Stimulated Echo</a>
E-229-1999	<a href="#">Vessel Delineation in Magnetic Resonance Angiographic Images</a>

E-192-1999	<a href="#"><u>System for Analyzing Diffusion Tensor Magnetic Resonance Images</u></a>
E-240-1998	<a href="#"><u>Method for Enhancing Contrast in Images Produced by Magnetic Resonance Imaging</u></a>
E-120-1999	<a href="#"><u>Integrated Low Field MRI/RF EPRI For Co-Registering Imaging Of In Vivo Physiology And Anatomy In Living Objects</u></a>
E-013-1999	<a href="#"><u>Magnetic Resonance Tracking of Magnetically Labeled Cells</u></a>
E-085-2006	<a href="#"><u>Real-time Correction Of Magnetic Field Fluctuations In MRI</u></a>
E-134-2005	<a href="#"><u>Method For Imaging And Reconstruction Of Partial Field Of View Phase Contrast MRI</u></a>
E-073-2005	<a href="#"><u>Method For Specifically Selective B1 Insensitive T2 Preparation Contrast Enhancement For High Field Magnetic Resonance Imaging</u></a>
E-164-2002	<a href="#"><u>MRI NAVIGATOR METHODS AND SYSTEMS</u></a>
E-361-2001	<a href="#"><u>A Method and Apparatus to improve an MRI Image</u></a>
E-231-2005	<a href="#"><u>In Vivo Magnetic Resonance Spectroscopy Of Transaminase Activities</u></a>
E-073-2005	<a href="#"><u>Method For Specifically Selective B1 Insensitive T2 Preparation Contrast Enhancement For High Field Magnetic Resonance Imaging</u></a>

## MRI: Hardware and Instrumentation

E-099-2006	<a href="#">Inductive Decoupling Of Multiple RF Coils Using Passive Transformers</a>
E-298-2005	<a href="#">Active MRI Compatible And Visible IMRI Catheter With A Wireless Solution</a>
E-243-2005	<a href="#">Susceptibility-matched Plates For High-throughput Screening By Magnetic Resonance Imaging And Spectroscopy</a>
E-134-2001	<a href="#">Lever-Coil Sensor For Respiratory And Cardiac Motion</a>

## Ultrasound Imaging: Methods; Hardware; and Therapeutic Agents

Ref No.	Title
E-311-2004	<a href="#">Glucopyranoside Molecules With Surface Active Properties Completely Protect Cells From Ultrasound Induced Cytolysis Over A Broad Range Of Ultrasound Frequency And Intensity Conditions</a>
E-091-2004	<a href="#">Ultrasonic Waves With Nanovessels Or Tethered Nanotube/monoclonal Antibody Composites For Cancer Therapy</a>
E-186-2000	<a href="#">Radio-Frequency Probes For Tissue Treatment and Methods of Use</a>
E-017-1998	<a href="#">SHIELDED ULTRASOUND PROBE</a>
E-067-1996	<a href="#">ULTRASOUND-HALL EFFECT IMAGING SYSTEM AND METHOD</a>
E-241-1998	<a href="#">Electroacoustic Imaging Methods and Apparatus</a>

E-107-2005

[A Hybrid Gadolinium-labeled Dendrimer Nano-particle For Sentinel Node Imaging And Therapy Of Cancer Metastasis](#)

## Computer Aided Detection: Software; Methods; and Applications

Ref No.	Title
E-164-2006	<a href="#">Tomographic Reconstruction Of The 3-D "average Propagator" From Diffusion Weighted MR Data Using An Iterative Scheme</a>
E-078-2002	<a href="#">Refinement of Isointensity Surfaces</a>
E-077-2002	<a href="#">Methods for Improving Sensitivity and Reducing False Positive Detections in Colonography Computer Aided Detection</a>
E-229-1999	<a href="#">Vessel Delineation in Magnetic Resonance Angiographic Images</a>
E-351-2003	<a href="#">Automatic Colonic Polyp Segmentation Using Deformable Models For CT Colonography Computer-Aided Detection</a>
E-174-2003	<a href="#">Automated Recognition Of The Ileocecal Valve For CT Colonography Computer-Aided Detection</a>

## Electron Paramagnetic Resonance Imaging: Methods and Hardware

Ref No.	Title
E-221-2005	<a href="#">Fast Electron Paramagnetic Resonance Imaging (EPRI) Using CW CPR Spectrometer With Sinusoidal Rapid-scan And Digital Signal Processing</a>
E-120-1999	<a href="#">Integrated Low Field MRI/RF EPRI For Co-Registering Imaging Of In Vivo Physiology And Anatomy In Living Objects</a>
E-166-1997	<a href="#">RESONANT STRUCTURE FOR SPATIAL AND SPECTRAL-SPATIAL IMAGING OF FREE RADICAL SPIN PROBES USING RADIOFREQUENCY TIME DOMAIN ELECTRON...</a>

## Optical Imaging: Methods; Hardware; and Therapeutic Agents

Ref No.	Title
E-015-2006	<a href="#">All-hollow-waveguide Laser Delivery System For Digital Particle Image Velocimetry</a>



E-335-2005	<a href="#">Targeted Detection, Fluorescence Imaging, And Photo-Dynamic Therapy Of Disseminated Intrapetioneal Cancer Metastases</a>
E-257-2005	<a href="#">Wide-area Fluorescence Detection System For Two-photon Microscopy</a>
E-223-2005	<a href="#">A Spatially Selective, Fixed Optics Multicolor Fluorescence Detection System For A Multichannel Plastic Microfluidic Device</a>
E-098-2005	<a href="#">Image Guided Method And Device For Assessment Of Viability Of The Donor Organs During Resuscitation</a>

## Imaging Contrast Agents: PET/SPECT; MRI; and Optical

Ref No.	Title
<b>PET/SPECT</b>	
E-194-2007	<a href="#">Tri-functional Imaging Agent for Monoclonal Antibody Tumor-Targeted Imaging</a>
E-156-2006	<a href="#">Beta-amyloid PET Imaging Agents Based On Thioether Derivatives</a>
E-317-2004	<a href="#">Synthetic Metal Ion Chelating Amino Acid Suitable For Use In Solid Phase Peptide Synthesis</a>
E-078-1995	<a href="#">4' AND 4',4'-SUBSTITUTED-3ALPHA-(DIPHENYLMETHOXY) TROPANE ANALOGS AS COCAINE THERAPEUTICS</a>
E-046-2006	<a href="#">Small Molecules For Imaging Protein-protein Interactions In Alzheimer's Disease</a>
<b>MRI</b>	
E-258-2005	<a href="#">Nitroxide Based Functional MRI Contrast Agents For Diagnosis And Therapy In Cancer And Other Pathologies Associated With Oxidative Stress</a>
E-291-2004	<a href="#">Charge Neutralized Complexes Of Paramagnetic Metals As An Intracellular MAR Contrast Media For Imaging Tumor Angiogenesis And Vascular Plaques</a>

E-338-2003	<a href="#">Lymphatic Draining Imaging Of Breast Cancer In Mice By Micro-Magnetic Resonance Mammo-Lymphangiography Using A Dendrimer-based Contrast Agent</a>
E-035-2002	<a href="#">Backbone Substituted Bifunctional DOTA Ligands And Complexes thereof</a>
E-240-2001	<a href="#">Macromolecular Imaging Agents For Liver Imaging</a>
E-176-2001	<a href="#">Compositions And Methods For Magnetically Labeling Cells</a>
E-151-2002	<a href="#">METHOD FOR FUNCTIONAL KIDNEY IMAGING USING SMALL DENDRIMER CONTRACT AGENTS</a>
E-258-2005	<a href="#">Nitroxide Based Functional MRI Contrast Agents For Diagnosis And Therapy In Cancer And Other Pathologies Associated With Oxidative Stress</a>
E-202-2002	<a href="#">METHOD FOR CONVECTION ENHANCED DELIVERY OF THERAPEUTIC AGENTS</a>
<b>Optical</b>	-
E-255-2006	<a href="#">Optical Imaging Compounds</a>
E-157-2007	<a href="#">Nanoparticles For Imaging: Targeted Nanoparticles That Can Be Imaged Through Magnetic Resonance, Optical, And Radioisotope Imaging</a>