Resource Summary Report

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John Hopkins University, In-Vivo Cellular Molecular Imaging Center

RRID:SCR_013198
Type: Tool

Proper Citation

John Hopkins University, In-Vivo Cellular Molecular Imaging Center (RRID:SCR_013198)

Resource Information

URL: http://icmic.rad.jhmi.edu/

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Description: The vision of the JHU ICMIC is to combine state-of-the-art imaging capabilities with powerful molecular biology techniques to define strategies with intent to cure. It has drawn upon its human resources at JHU to create a center consisting of a multidisciplinary group of premier individuals with diverse skills focused on translating molecular capabilities into imaging possibilities with the single purpose of understanding and curing cancer. Nearly all of the investigators participating in this ICMIC have interactive collaborative projects with one or more of the other investigators. The synergism generated by the collective skills of this unique group of individuals will lead to significant advances in the understanding of cancer and its treatment. The JHU ICMIC structure consists of four interactive and closely related research components focused on hypoxia, HIF-1, and exploiting the hypoxia response element to target cancer cells through choline kinase inhibition. These research components are anchored by the participation of world renowned expertise in HIF-1. The research components utilize MR, PET and Optical Imaging technology to understand cancer vascularization, invasion and metastasis, to achieve effective cancer therapy. The center has selected developmental projects which are highly relevant to the goals of the ICMIC and interactive with the research components. Five resources devoted to adminstration, molecular biology, imaging, probes, and translational application provide the infrastructure to support the research activities of the ICMIC. Research Components in the JHU ICMIC: - Combining Anti-angiogenic therapy with siRNA targeting of choline kinase. - Imaging the Role of HIF-1 in Breast Cancer Progression - Imaging and Targeting Hypoxia in Solid Tumors - Molecular and Functional Imaging of the HER-2/neu Receptor The following are developmental projects currently taking place in ICMIC 1. Receptor imaging using

nonparamagnetic MRI contrast agents (2003) 2. New imaging agents for prostate cancer (2003) 3. Non-invasive monitoring of therapeutic effect of siRNA-mediated radiation sensitization in human prostate cancer xenografts (2003) 4. Imaging of the endothelin receptor in cancer (2003) 5. Imaging studies of c-myc regulation of tumor metabolism (2003) 6. Imaging studies of anti-tumorigenic effects of anti-oxidants in vivo (2005) 7. Molecular Imaging with Magnetic Resonance Microsystems (2005) 8. Endogenous angiogenesis inhibitors (2005) 9. MR imaging and spectroscopy in detection and localization of prostate cancer: a prospective trial in patients undergoing cystoprostatectomy and radical prostatectomy. (2005) 10. A versatile visualization system for the analysis of multi-modality and multidimensional cancer imaging (2007) 11. Non-invasive imaging of CXCR4 expression in breast cancer (2007)

Synonyms: JHU ICMIC

Resource Type: portal, organization portal, data or information resource, job resource

Keywords: endogenous, endothelin, anti-angiogenic, anti-oxidant, anti-tumorigenic, biology, breast, cancer, cell, choline kinase, c-mys, cystoprostatectomy, hif-1, human, hypoxia, inhibition, metabolism, microsystem, molecular, mr, mri, optical imaging, pet, prostate, prostatectomy, radial, receptor, sirna, spectroscopy, technique, technology, tumor, vascularization, xenograft

Funding:

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Alternate IDs: nif-0000-10273

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Ratings and Alerts

No rating or validation information has been found for John Hopkins University, In-Vivo Cellular Molecular Imaging Center.

No alerts have been found for John Hopkins University, In-Vivo Cellular Molecular Imaging Center.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.