

WAYNE STATE UNIVERSITY

The WSU Program for Traumatic Brain Injury Research

presents a Special Topic Seminar

Anna Moore, Ph.D.

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Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Charlestown, MA

“MR Image-Guided siRNA and miRNA Therapies”

Abstract: RNA interference is an innate cellular mechanism for post-transcriptional regulation of gene expression in which double-stranded ribonucleic acid inhibits the expression of genes with complementary nucleotide sequences. Its therapeutic potential is indisputable, considering that one can use this mechanism to silence virtually any gene with single-nucleotide specificity. Recently described phenomenon of miRNA silencing has been attributed to targeting about 60% of mammalian genes and is an important modulator in various pathologies. We applied RNAi therapy in conjunction with imaging to studies in cancer and diabetes. Theranostic agents that we develop enable delivery of nucleic acid-based and combination therapies, optimization of targeted delivery, and assessment of efficacy through non-invasive imaging, which provides the necessary set of tools to accomplish this in authentic physiologic environments and across time. This presentation will focus on application of nucleic acid-based theranostics for cancer therapy and in diabetes.

Date: Thursday October 24, 2013

Time: 12:15pm – 1:15 pm

Location: 2268 Scott Hall

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