

Sample Sentences for the Significance section 100401

Before: (Janet’s embryonic effort) A critical barrier in fully utilizing the information that comes from breast MRI studies is integrating this information with non-imaging prognosticators in high-risk women who are referred for breast imaging. The multivariate analysis tool we are developing will provide a key tool to overcome this barrier.

After: (Wendy’s super improved version) A critical barrier in accurately utilizing the information provided from breast MRI is integrating multiple predictive lesion imaging features with non-imaging patient characteristics.

Before (Janet’s embryonic effort): A critical barrier to using CT for perfusion studies is the radiation dose patients receive with CT. We hypothesize that image and data restoration and image reconstruction techniques developed in PET can be adapted to low-dose CT studies to produce high quality perfusion images, with doses to patients in the order of xx mSv per exam

After: (Adam’s approved version): A critical barrier limiting use of CT for dynamic perfusion studies is that these studies impart a large radiation dose to the patient. We hypothesize that data and image restoration techniques developed for dynamic PET imaging can be adapted to low-dose CT studies to produce high quality perfusion images, with radiation doses to patients on the order of other common cardiac imaging procedures that use ionizing-radiation (<10 mSv per exam).

The clinical treatment of infertile male patients with azoospermia could be dramatically improved if localized areas of sperm production in the testis could be identified by MRI or MRS to guide sampling or biopsy procedures

(David added: The significance of the proposed work is that) relief of pain during treatment of burn patients could be dramatically improved by better understanding of brain activation patterns in patients undergoing such treatment. The combination of analgesics and Snow World VR in burn patients treated at Harborview has proven successful in reducing pain, and **investigative** studies of brain function in individual patients using **Tc-99m ECD** SPECT offer **opportunities** to improve and individualize this treatment.