

Cancer Center Support Grant – CCSG 2014

“Prospective evaluation of restriction spectrum imaging in head and neck carcinoma”

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Diffusion-weighted imaging (DWI) is an MRI technique that delineates anatomic structures based on differential water diffusion through variable tissue types. Restriction spectrum imaging (RSI) is an advanced DWI modality that has been pioneered by Dr. Anders Dale for brain and prostate tumors. In these tumors, RSI shows improved differentiation between tumor and surrounding tissue compared to conventional imaging. Identification of tumor associated tissue changes such as edema is also improved. In this proposal, we aim to prospectively evaluate the sensitivity, specificity, positive predictive value, negative predictive value for RSI in patients with head and neck squamous cell carcinoma (HNSCC).