## Relationship between Relative Fundamental Frequency and Parkinson's Disease C. Stepp, S. Pradhan

The relative fundamental frequency (RFF) surrounding production of a voiceless consonant has previously been shown to be decreased in speakers with hypokinetic dysarthria and PD relative to age/sex matched controls and to be increased during medication. We examined RFF in 32 speakers with PD without overt hypokinetic dysarthria and 32 age/sex matched controls to better understand the relationship between PD progression and RFF. Individuals with increased PD progression showed more disordered RFF relative to healthy controls. Contrary to previous work, we did not see an effect of medication on RFF. Effects of medication on RFF in speakers with PD could be more related to compensatory laryngeal tension concurrent with dysarthria than with PD-induced laryngeal tension. Our future work will examine these and future data as a function of intelligibility ratings to better understand these relationships with the goal of developing objective measures of voice and speech in PD.