Determining the Associations between Neonatal Salivary *FOXP2* levels, Oral Feeding and Early Vocalizations.

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Premature infants are at-risk for both oral feeding and speech delays. Our understanding of the molecular complexities of both these developmental delays is limited. Therefore, the goals of this study were to examine if neonatal *FOXP2 (*speech-language gene*)* expression levels in saliva correlate with infant oral feeding skills while in the NICU and predict infant vocalizations at 9 months corrected age. Fifty-one premature infants (gestational ages: 30-34 6/7 weeks) have had their saliva samples analyzed for *FOXP2* gene. We measured oral feeding by documenting the number of days required for each infant to reach full oral feeds. These infants will be followed at 9 months corrected-age—where they will have their vocalizations recorded using the Language Environment Analysis System and will be given the Receptive-Expressive Emergent Language Test. Preliminary data (*n*=8) show that child vocalization count is significantly correlated (*r* -.731, *p*=.-039) with days to full oral feed, indicating that the more vocal the child, the less time it took to learn to feed. Follow-up on these infant is ongoing. The ultimate goal of this research is to determine if salivary *FOXP2* could serve noninvasive, objective measure to identify infants that are at-risk for feeding difficulties and future speech delays.