**Background**

Obstructive sleep apnea (OSA) is a condition characterized by temporary diminutions or cessations of breathing caused by repetitive collapse of the upper airway (UA) during sleep. OSA is a common disorder associated with abnormalities in pharyngeal anatomy and physiology in which the muscles of the airway, which normally relax during sleep, fail to provide sufficient dilatory force to balance the contractive force from inspiratory activity, according to Fogel*.

**Invention Summary**

Training the GG muscle while awake can serve to dilate the pharyngeal pathway, restriction of which results in obstructive apnea during sleep. The tongue training device facilitates behavioral treatment for OSA. We anticipate it being an attractive alternative for OSA patients who are unable to acclimate to CPAP or adhere to its use for comfort or lifestyle reasons.

**Potential Applications**

- Obstructive sleep apnea (OSA) in Specific Sub-Populations
- Snoring
- Speech Pathology
- Dysphagia (difficulty swallowing)

**Upcoming Study**

Patients (N = 30) with previously documented moderate to severe OSA will be recruited. They will receive an all-night in-laboratory sleep study to document the severity of their OSA immediately before starting the training regimen. Scales and questionnaires measuring sleepiness, snoring, fatigue, and insomnia will be administered prior to starting the training and repeated after six weeks of training. The principal measure of the efficacy of the treatment will be the change in RDI, the number of abnormal breathing events per hour of sleep.