

## **UNDERGRADUATES PURSUING RESEARCH IN SCIENCE AND ENGINEERING (UPRISE)**

## BIOMEDICAL ENGINEERING COLLEGE OF ENGINEERING

## SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

FOR APPLICATION YEAR: 2024

PROJECT TITLE: Modeling of respiratory and speech disorders

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## Project Description

We study disorders that are related to upper airway respiratory and speech by marrying advanced knowledge in engineering with medical and surgical expertise. Our goal is to acquire new knowledge to help prevent, detect, diagnose, and treat disease and disability. The student will help with experiments using animal models and with performing computer-based simulations. The student will gain skills in experimental design, instruments controls, programming, and 3D printing of anatomical models.