PROJECT RESUME

An interdisciplinary project which combines anatomical research and bioengineering techniques to develop a virtual equine upper airway. This 3D model will be used for computer simulations so that current theories of the functional anatomy of the upper airway of the horse can be validated. The guttural pouch, a large air-filled structure present in the Eustachian (auditory) tube of horses and some other mammals, will be examined by computer-simulated experiments. Data generated are to be used to develop a biomechanical hypothesis for guttural pouch function.