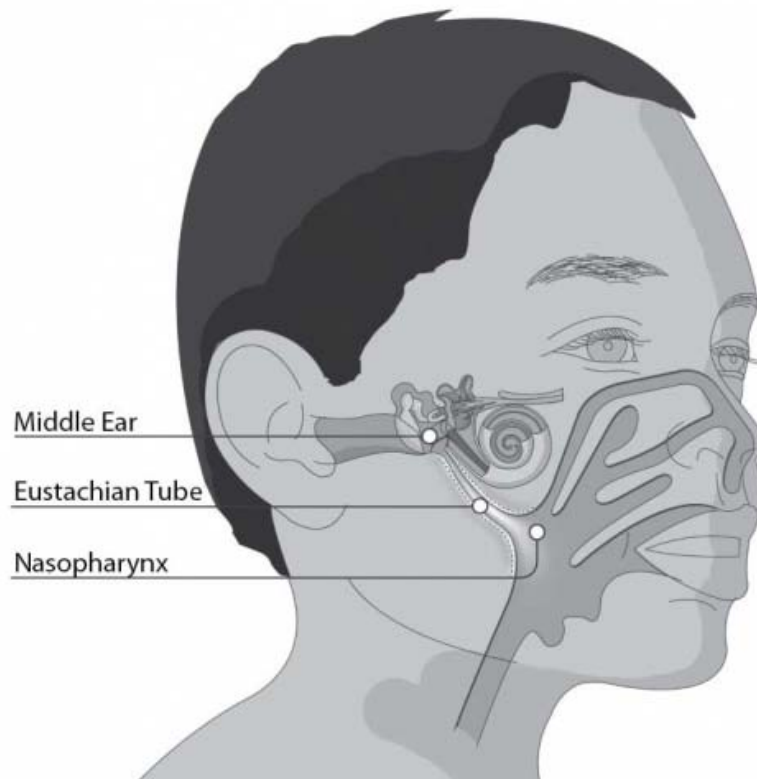


NIH Awards Grant to Dr. Timothy Murphy's Group to Develop a New Class of Antimicrobial Agents to Prevent Otitis Media

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Dr. Murphy's group is developing antisense molecules as a new class of selective antimicrobial agents to prevent otitis media.

The National Institute for Deafness and Communications Disorders (NIDCD) has awarded a 2 year grant of \$448,000 entitled "Selective eradication of nasopharyngeal colonization to prevent otitis media" to SUNY Distinguished Professor Timothy Murphy. The work proposes an entirely new approach to preventing recurrent otitis media.

Up to 10% of children in the US are otitis prone and experience recurrent episodes of otitis media. Otitis media is the most common reason for children to:

- * Require office visits (other than well child visits)
- * Receive antibiotics
- * Undergo general anesthesia (for insertion of drainage tubes)

Children who suffer recurrent or chronic otitis media experience hearing impairment at a time that is critical for speech and language development. So these children may have delays in speech and language development and learning problems in school. Preventing otitis media would be the best way to prevent these sequelae.

Prophylactic antibiotic therapy to prevent recurrent otitis media has been studied extensively and invariably fails because antibiotics eradicate the normal flora and thus cause intolerable side effects that force discontinuation.

The novel approach that Dr. Murphy's laboratory will use is selective eradication of the

pathogens that cause otitis media while leaving the normal flora undisturbed. To accomplish this, antisense molecules that target specific genes required for bacterial growth are being developed and assessed.

Antisense molecules, which are promising therapy for some genetic disorders, would represent an entirely new class of antimicrobial agents. The long term vision is that otitis prone children could use nose drops or nose spray that would eradicate pathogens and prevent otitis media.
