CURRICULUM VITAE

NAME AND TITLE **UMANG KHETARPAL, MD**

EDUCATION

1979, ISC	St. Columba's School, New Delhi, India (Pre-Med)
1983, M.B.B.S. (M.D.)	Armed Forces Medical College, Pune, India
1985-1987, MS	Resident in Otolaryngology, All India Institute of Medical Sciences, New Delhi, India

POSTDOCTORAL FELLOWSHIPS/TRAINING

1988-89	**Research Fellow, Massachusetts Eye and Ear Infirmary and Harvard Medical School, Boston**
1990-92	**Clinical Fellow in Otolaryngology, Massachusetts Eye and Ear Infirmary and Harvard Medical School, Boston**
1991-1993	**Research Associate, Department of Otolaryngology, Massachusetts Eye and Ear Infirmary, Boston**
1990-1993	**Research Fellow in Molecular Biology of Hearing and Deafness, Department of Pathology, Brigham and Women's Hospital, Boston**
1993--1998	**Internship/Residency in Otolaryngology, SUNY Health Science Center, Syracuse, New York**

HONORS

1983	Best Outgoing Medical Student Award (**President's Gold Medal**)
1987	Best Thesis Award
2007	Listed in Best Doctors in USA (Best Doctors Company)

LICENSURE

2000-	Texas
2013-	New York

CERTIFICATION

1983	M.B.B.S examination - with honors.
1987	ECFMG examination (414-209-7)
1993	FLEX examination (ID # 611026017)
1999	Board Certification In Otolaryngology-Head and Neck Facial Plastic Surgery(5/10/99)
2012	Board Certification in Sleep Medicine (1/2012)

MEMBERSHIPS

1994-present	American Academy of Otolaryngology Head and Neck Surgery
1998-present	American Academy of Facial Plastics and Reconstructive Surgery
2005-present	American Rhinology Society

2007-2010 Pan American Allergy Society

SPECIFIC PRACTICE INTERESTS

In Office Comprehensive sinus surgery with Balloon sinuplasty with image guidance.
Comprehensive management of chronic sinusitis
Allergic rhinitis
Rhinoplasty and facial plastic surgery including nose and eyelid surgery
Meniere's disease and sudden hearing loss
Sleep Medicine
Thyroid and parathyroid disorders
Hearing loss and balance disorders

RESEARCH FUNDING INFORMATION

1992-1993 NIH grant T32 HL07627

CURRENT MANUSCRIPTS IN PREPARATION

1. In-office comprehensive balloon sinuplasty with subtotal ethmoidectomy (CBSSE) for stage III and IV CRSwNP and CRSsNP: feasibility, short term clinical and CT outcomes, challenges and pitfalls.

2. Allergic fungal sinusitis (1-10 yr follow up): characteristics and intermediate to long term outcomes. Abstract for poster presentation, American Rhinology Society, Vancouver, Canada

3. Allergy profile in chronic rhinosinusitis.

4. A new comprehensive descriptive staging and scoring system for comparing outcomes of treatment in chronic rhinosinusitis.

CURRENT RESEARCH

WESTERN INSTITUTIONAL REVIEW BOARD APPROVAL FOR "INVESTIGATIONS INTO CHRONIC RHINOSINUSITIS, ALLERGIC RHINITIS AND SINUS HEADACHES- CLINICAL AND MOLECULAR CORRELATES".

PREVIOUS PUBLICATIONS

Khetarpal U: DFNA9 is a progressive audiovestibular dysfunction with a microfibrillar deposit in the inner ear. Laryngoscope 2000;110:1379-1384.

Gacek RR, **Khetarpal U**: Neurotrophin 3, not Brain-Derived Neurotrophic factor or Neurotrophin 4, knockout mice have delay in vestibular compensation after unilateral labyrinthectomy. Laryngoscope 1998; 108: 671-678.

Gacek RR, Schoonmaker J, **Khetarpal U**: Morphological and neurochemical correlates of vestibular compensation. Auris Nasus Larynx 1998.

Khetarpal U, Morton CC: Inner ridge cells may be the source of type II collagen in human fetal tectorial membrane: a quantitative *in situ* hybridization study. Acta Otolaryngol, 1998.

Halpin C, **Khetarpal U**, McKenna MM: Autosomal dominant progressive audio-vestibular dysfunction in a large North American family. Am J Audiol, 1996; 5: 105.

Manolis E, ..., **Khetarpal U**, et al: A gene for non-syndromic autosomal dominant progressive postlingual sensorineural hearing loss maps to chromosome 14q12-13. Hum Mol Genet 1996; 5: 1047-1050.

Rehm HL, ..., **Khetarpal U,** et al.: Norrie disease gene mutation in a large Costa Rican kindred with a novel phenotype including venous insufficiency. Human Mutation 1996; 9: 402-408.

Khetarpal U, Morton CC: Expression of COL1A2 and COL2A1 mRNA in a temporal bone of lethal osteogenesis imperfecta. Arch Otolaryngol Head Neck Surg, 1993; 119: 1305-1314.

Khetarpal U, Robertson NG, Yoo TJ, Morton CC: Expression and localization of COL2A1 mRNA and type II collagen in human fetal cochlea. Hear Res 1994; 79, 59-73.

Magovcevic I, **Khetarpal U**, Bieber FR, Morton CC: GNAZ in human fetal cochlea: expression, localization, and potential role in inner ear function. Hear Res 1995; 90: 55-64.

Robertson NG, **Khetarpal U**, Guiterrez-Espelela G, Bieber FR, Morton CC: Isolation of novel and known genes from a human fetal cochlear cDNA library using subtractive hybridization and differential screening. Genomics 23: 42-50, 1994.

Khetarpal U: Autosomal dominant sensorineural hearing loss - further temporal bone findings. Arch Otolaryngol Head Neck Surg 1993; 119: 106-108.

Khetarpal U: Investigations into the cause of vertigo in sudden sensorineural hearing loss. Otolaryngol Head Neck Surg. 1992; 105: 360-371.

Khetarpal U, Schuknecht HF, Gacek RR, Holmes LH: Autosomal dominant sensorineural hearing loss - Pedigrees, audiological and temporal bone findings in two kindreds. Arch Otolaryngol Head Neck Surg. 1991; 117: 1032-1042

Khetarpal U, Nadol JB, Glynn RJ: Idiopathic sensorineural hearing loss and postnatal viral labyrinthitis - a statistical comparison of temporal bone findings. Ann Otol Rhinol Laryngol 1990; 99: 969-976.

Khetarpal U, Schuknecht HF: In search of pathological correlate of hearing loss in Paget's disease. A study of 26 temporal bones. Ann Otol Rhinol Laryngol 1990; 145: 1-16.

Kumar L, **Khetarpal U**, et al. Intracranial Plasmacytoma. J Ind Med Assoc 1989; 20-24.

ABSTRACTS

Khetarpal U, Deka RC, Kacker SK: Brainstem auditory potentials in cerebello-pontine angle tumors. Abstract, Sixth Asia Oceania Congress of Otorhinolaryngological Societies, New Delhi, India, Nov. 9-13, 1987.

Morton CC, ..., **Khetarpal U,** et al: Isolation of novel and known genes from a human fetal cochlear cDNA library using subtractive hybridization and differential screening. Abstract, Association for Research in Otolaryngology Meeting, Feb. 5-9, 1995, Fla.

Khetarpal U, et al: Dystrophin, cochlea and hearing-hearing loss. Abstract #45, Molecular Biology of Hearing and Deafness Meeting, October 6-8, 1995, Bethesda, MD.

Khetarpal U, Morton CC: Tissue specific expression of type II procollagen mRNAs and their role in chondrogenesis and inner ear morphogenesis. Abstract #28, Molecular Biology of Hearing and Deafness Meeting, October 6-8, 1995, Bethesda, MD.

Khetarpal U, Morton CC: The role of aggrecan and its alternatively spliced products in human fetal morphogenesis and chondrogenesis. Abstract # 10, Association for Research in Otolaryngology Meeting, Feb. 2-6, 1997, St. Petersberg, Fla.

Khetarpal U, Morton CC: Aggrecan is expressed in noncartilaginous human fetal tissue. Variable alternative splicing of EGF-like domains during development and mRNA localization in human fetal tissues.

Khetarpal U: Genetic mechanisms that determine tissue specificity during human development in general and cochlear development in particular. Abstract, International Otopathological Society Meeting, Boston, June 15-17, 1997.

BOOK CHAPTERS

Krespi Y, **Khetarpal U**: Conservation Laryngeal Surgery. In *Complications of Head and Neck Surgery*, Eds. Krespi Y, Ossoff RJ. WB Saunders Co, Philadelphia, 1993, 215-232.

Khetarpal U, Lalwani A: Nonsyndromic hereditary hearing loss. In *Pediatric Otology and Neurotology*, Eds. Grundfast KG, Lalwani A. Lippincott-Raven Press, Philadelphia, 1998.

INVITED SPEAKER

1) X-linked hearing loss. Mapping Genes for Deafness Workshop, NIH sponsored, New Delhi, India, Jan. 1992

2) Autosomal dominant sensorineural hearing loss. Mapping Genes for Deafness Workshop, NIH sponsored, New Delhi, India, Jan. 1992

3) Molecular correlates of audiovestibular development and disease. Department of Otolaryngology, University of Pennsylvania Medical Center, Jan 28, 1998.