Keck School of Medicine of the University of Southern California CURRICULUM VITAE

Name: Eric J. Kezirian, MD, MPH

Position: Vice Chair, USC Caruso Department of Otolaryngology – Head and Neck Surgery

Professor of Otolaryngology - Head and Neck Surgery

Keck School of Medicine of USC

EDUCATION

| 1988 - 1992 | Harvard College | A.B. | Economics |
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| 1992 - 1993 | University of Oxford | M.Sc. | Economics |
| 1993 - 1997 | University of Pennsylvania | M.D. | Medicine |
| 1997 - 1998 | University of Washington School of Medicine | Intern | General Surgery |
| 1998 - 2000 | University of Washington School of Public Health and Community Medicine | M.P.H. | Health Services |
| 1999 - 2003 | University of Washington School of Medicine | Resident | Otolaryngology - Head and Neck Surgery |
| 2003 - 2004 | Stanford University School of Medicine | Fellow | Sleep Surgery |

LICENSES, CERTIFICATION

| 2003 | Medical Board of California |
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| 2004 | Otolaryngology |
| 2009 | Fluoroscopy Supervisor and Operator |
| 2010 | Sleep Medicine |

PRINCIPAL POSITIONS HELD

| 2003 - 2004 | Stanford University School of Medicine | Clinical Instructor |
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| 2004 - 2010 | University of California, San Francisco School of Medicine | Assistant Professor |
| 2010 - 2013 | University of California, San Francisco School of Medicine | Associate Professor |
| 2013 - present | Keck School of Medicine of the University of Southern California | Professor |

OTHER POSITIONS HELD CONCURRENTLY

| 2004 - 2013 | UCSF | Director, Division of Sleep Surgery, Dept. of Otolaryngology - Head and Neck Surgery |
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| 2007 - 2013 | UCSF | Director of Resident Research, Dept. of Otolaryngology |

Head and Neck Surgery

| 2013 – present | KSOM | Director of Resident Research, Otolaryngology – Head and Neck Surgery |
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| 2017 – present | KSOM | Vice Chair, Otolaryngology – Head and Neck Surgery |

HONORS AND AWARDS

| 1989 | Harvard College Scholarship | |
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| 1992 | Magna cum laude | |
| 1992 | Rotary Foundation Ambassadorial Scholarship | |
| 1995 | Charles A. Lauffer Foundation Scholarship | |
| 1996 | Alpha Omega Alpha | |
| 1997 | Joel Gordon Miller Award | University of Pennsylvania School of Medicine |
| 2008 | Honor Award | American Academy of Otolaryngology–Head and Neck Surgery |
| 2013 | Distinguished Service Award | American Academy of Otolaryngology–Head and Neck Surgery |
| 2014 | Fellow | American Academy of Sleep Medicine |

PROFESSIONAL ACTIVITIES

PROFESSIONAL ORGANIZATIONS

Memberships

| 1997 – present | Alpha Omega Alpha |
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| 1997 – present | American Academy of Otolaryngology – Head and Neck Surgery |
| 2001 - present | American Academy of Sleep Medicine |
| 2004 - present | Sleep Research Society |
| 2006 – present | American College of Surgeons |
| 2007 - present | International Surgical Sleep Society |
| 2010 - present | Society of University Otolaryngologists – Head and Neck Surgeons |
| 2011 - present | Fellow, The Triological Society |
| 2013 – present | Society of Anesthesia and Sleep Medicine |

Service to Professional Organizations

| 2004 – present | Sleep Disorders Committee, American Academy of Otolaryngology – Head and Neck Surgery |
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| 2006 – 2010 | Centralized Otolaryngology Research Efforts Study Section, American Academy of Otolaryngology – Head and Neck Surgery |
| 2008 – 2013 | BEST ENT Steering Committee, American Academy of Otolaryngology – Head and Neck Surgery |
| 2009 – 2017 | Outcomes Research and Evidence Based Medicine Subcommittee, American Academy of Otolaryngology – Head and Neck Surgery |
| 2010 – 2014 | Board of Governors Socioeconomic and Grassroots Committee, American Academy of Otolaryngology – Head and Neck Surgery |
| 2011 – 2014 | Item Writer Task Force, American Board of Otolaryngology—Head and Neck Surgery |
| 2012 – 2015 | Program Advisory Committee, American Academy of Otolaryngology – Head and Neck Surgery |
| 2012 – 2013 | Milestones Committee, Residency Review Committee, Accreditation Council for Graduate Medical Education (Otolaryngology—Head and Neck Surgery) |
| 2013 | Milestones Committee, Accreditation Council for Graduate Medical Education (Sleep Medicine) |
| 2014 | Program Advisory Committee, Combined Otolaryngology Spring Meeting and Combined Sections Meeting |
| 2014 - present | Clinical Committee, Society of Anesthesia and Sleep Medicine |
| 2014 - present | President, International Surgical Sleep Society |
| 2017 | Guest Examiner, American Board of Otolaryngology—Head and Neck Surgery |

SERVICE TO PROFESSIONAL PUBLICATIONS

| 2006 — present | Otolaryngology—Head and Neck Surgery. Eighty papers in twelve years. Associate Editor, General Otolaryngology and Clinical Photographs (2010-2012). Associate Editor, Sleep Medicine and Surgery (2012-2015). |
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| 2006 — present | Archives of Otolaryngology—Head and Neck Surgery. Twenty papers in twelve years. |
| 2006 — present | The Laryngoscope. Twenty papers in twelve years. Sleep Medicine and General Otolaryngology, Triological Society Best Practices (2012-14) |
| 2009 — present | Sleep. Twelve papers in nine years. |
| 2009 — present | Journal of Clinical Sleep Medicine. Five papers in nine years. |
| 2010 — present | Annals of Otology, Rhinology, and Laryngology. Two papers in eight years. |

2011 — Chest. Three papers in seven years.
 2012 — Thorax. Three papers in six years.
 2014 Otology & Neurotology. One paper in one year.
 2015 Neuromodulation. One paper in one year.

INVITED PRESENTATIONS

Mexico City, Mexico

| INVITE | D PRESENTATIONS |
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| INTERN | NATIONAL |
| 2005 | Surgical Evaluation of Obstructive Sleep Apnea, Mahidol University, Bangkok, Thailand |
| 2005 | Surgical Treatment of Obstructive Sleep Apnea, Mahidol University, Bangkok, Thailand |
| 2007 | Evaluation of the Patient with Snoring, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2007 | Perioperative Management in OSA Surgery, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2007 | Surgical Treatment of OSA, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2007 | Treatment of Palatal Obstruction in OSA, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2007 | Treatment of Hypopharyngeal Obstruction in OSA, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2007 | A Protocol for Evaluation of Patients with Snoring or Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2007 | Critical Evaluation of Surgical Treatments—The American Experience, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2007 | Complications of Surgical Treatment of Sleep Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2008 | Nasal Obstruction and Sleep Disordered Breathing in Adults, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2008 | Surgical Treatment of Obstructive Sleep Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2008 | Uvulopalatopharyngoplasty: Still Indicated in the Treatment of Sleep Apnea?, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2008 | Avoiding Complications in Sleep Apnea Surgery, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2009 | Evaluation of the Patient with Snoring, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2009 | Nasal Obstruction in Snoring and Obstructive Sleep Apnea: Importance and |

Treatment, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello,

| 2009 | Perioperative Management in OSA, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
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| 2009 | Hypopharyngeal Surgery for Snoring and Obstructive Sleep Apnea, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2009 | Palatal Surgery for Snoring and Obstructive Sleep Apnea, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2009 | Obstructive Sleep Apnea in the Elderly: Should We Treat It?, Sociedad Mexicana de Otorrinolaringologia y Cirugia de Cabeza y Cuello, Mexico City, Mexico |
| 2009 | Geriatric OSA: Should We Treat and How?, International Sleep Surgical Society, Amsterdam, The Netherlands |
| 2009 | Geriatric OSA: Should We Treat It?, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2009 | OSA Surgery: Approaches that Serve Us Well, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2010 | Identifying the Sites of Obstruction in OSA, Egyptian International Otolaryngology Congress, Sharm El-Shaikh, Egypt |
| 2010 | Hypopharyngeal Surgery in OSA, Egyptian International Otolaryngology Congress, Sharm El-Shaikh, Egypt |
| 2010 | Avoiding Complications in OSA Surgery, Egyptian International Otolaryngology Congress, Sharm El-Shaikh, Egypt |
| 2010 | Snoring Surgery: What Are the Best Treatment Options?, Egyptian International Otolaryngology Congress, Sharm El-Shaikh, Egypt |
| 2010 | Nasal Obstruction in Snoring and OSA, Egyptian International Otolaryngology Congress, Sharm El-Shaikh, Egypt |
| 2010 | Hypopharyngeal Surgery, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2010 | Managing Complications of Hypopharyngeal Surgery in Obstructive Sleep Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2010 | Minimally Invasive Surgery in the Treatment of Snoring and Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2010 | New Technologies in Snoring and Obstructive Sleep Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2010 | Protocol for the Evaluation of Patients with Sleep Disordered Breathing, Brazilian Association of Otorhinolaryngology and Cervico-Facial Surgery, Natal, Brazil |
| 2010 | Palate Procedures: How I Do It, Brazilian Association of Otorhinolaryngology and Cervico-Facial Surgery, Natal, Brazil |
| 2010 | Ambulatory Procedures for Snoring and OSA, Brazilian Association of Otorhinolaryngology and Cervico-Facial Surgery, Natal, Brazil |
| 2010 | Novel Options for Treatment of OSA, Brazilian Association of Otorhinolaryngology and Cervico-Facial Surgery, Natal, Brazil |
| 2010 | Critical Analysis of the Surgical Treatment of OSA, Brazilian Association of Otorhinolaryngology and Cervico-Facial Surgery, Natal, Brazil |
| 2011 | Geriatric OSA: Should We Treat and How?. International Surgical Sleep Society. |

| | Taipei, Taiwan |
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| 2011 | Drug-Induced Sleep Endoscopy, International Surgical Sleep Society, Taipei, Taiwan |
| 2011 | Hypopharyngeal Surgery for OSAS: an Overview, 13 th International Symposium on Sleep Related Breathing Disorders, Antwerp, Belgium |
| 2011 | Recent Advances in the Surgical Treatment of Sleep Apnea and Snoring, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2011 | The Fundamentals of Apnea Surgery, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2011 | Epiglottis: Saint or Sinner in OSA?, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2011 | Applications and Surgical Techniques with Different Radiofrequency Technologies in Snoring and OSA, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2012 | Reporting Results of OSAS Surgery Trials, International Surgical Sleep Society, Venice, Italy |
| 2012 | Pharyngeal Surgery Failure: Insights from DISE, International Surgical Sleep Society, Venice, Italy |
| 2012 | Hypopharyngeal Techniques Overview, International Surgical Sleep Society, Venice, Italy |
| 2012 | Upper Airway Stimulation: Apnex Data, International Surgical Sleep Society, Venice, Italy |
| 2012 | Surgical Treatment of Obstructive Sleep Apnea, Department of Otolaryngology, University of Bologna, Bologna, Italy |
| 2012 | Risks of Untreated Snoring without Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2012 | Sleep Endoscopy: What Is the Real Value for Patients?, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2012 | Selecting Procedures for the Treatment of Hypopharyngeal Obstruction, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2012 | Hypoglossal Nerve Stimulation in the Treatment of Obstructive Sleep Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2012 | Drug-Induced Sleep Endoscopy in OSA, World Congress on Sleep Apnea, Rome, Italy |
| 2012 | Selecting a Hypopharyngeal Surgery in OSA, World Congress on Sleep Apnea, Rome, Italy |
| 2012 | Surgical Treatment Protocol for Obstructive Sleep Apnea, Kyung Hee International Rhinologic Symposium, Seoul, South Korea |
| 2012 | Advances in Surgical Techniques in Sleep Disordered Breathing, Kyung Hee International Rhinologic Symposium, Seoul, South Korea |
| 2012 | Sleep Surgery: How I Do It, Kyung Hee International Rhinologic Symposium, Seoul, South Korea |

Hypopharyngeal Surgery for Obstructive Sleep Apnea, International Rhinologic Symposium, Pusan, South Korea

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| 2012 | Hypopharyngeal Surgery for Obstructive Sleep Apnea, International Rhinologic Symposium, Daejeon, South Korea |
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| 2012 | Surgical Treatment of Obstructive Sleep Apnea, Department of Otorhinolaryngology—Head and Neck Surgery, Jikei University School of Medicine, Tokyo, Japan |
| 2012 | Novel Options in the Treatment of Obstructive Sleep Apnea, 5 th Remote Ota Sleep Forum, Ota General Hospital, Tokyo, Japan |
| 2013 | The Role of CPAP Compared to Surgery in the United States, 94 th Academic Meeting, Taiwan Otolaryngological Society, Tainan, Taiwan |
| 2013 | New Frontiers in Sleep Surgery, 94th Academic Meeting, Taiwan Otolaryngological Society, Tainan, Taiwan |
| 2013 | Evaluation of Obstructive Sleep Apnea: Drug-Induced Sleep Endoscopy, 94 th Academic Meeting, Taiwan Otolaryngological Society, Tainan, Taiwan |
| 2013 | Avoiding and Treating Surgical Complications, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2013 | Selecting Patients for Hypopharyngeal Surgery, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2013 | Sleep Endoscopy: How I Do It, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2013 | Treatment of the Geriatric Patient, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2013 | New Technologies and Techniques: Coblation and Expansion Sphincter Pharyngoplasty, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2015 | Sleep Endoscopy: Indications and Results, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2015 | Relationship between Body Mass Index and the Base of Tongue, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2015 | Stimulation of the Hypoglossal Nerve for Apnea, Sao Paulo, Brazil |
| 2015 | New Technologies and Surgical Approaches for Treatment of Snoring and Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2015 | Indications and Contraindications of Maxillomandibular Advancement, Hospital Israelita Albert Einstein, Sao Paulo, Brazil |
| 2016 | Procedure Selection: What Should I Do?, 7 th International Surgical Sleep Society Symposium, Sao Paulo, Brazil |
| 2016 | Novel Therapies in OSA and Snoring, 13 th Annual Middle East Update in Otolaryngology, Dubai, United Arab Emirates |
| 2016 | Identifying the Site of Obstruction in OSA, 13 th Annual Middle East Update in Otolaryngology , Dubai, United Arab Emirates |
| 2016 | Uvula Lovers or Uvula Haters: What to Do with the Uvula in OSA Patients?, 13 th Annual Middle East Update in Otolaryngology , Dubai, United Arab Emirates |
| 2016 | Palatoplasty: Different Methods and Why, 13 th Annual Middle East Update in Otolaryngology, Dubai, United Arab Emirates |
| 2016 | Role of Tongue Surgery in OSA, 13 th Annual Middle East Update in Otolaryngology , Dubai, United Arab Emirates |

Selecting Hypopharyngeal Procedures in OSA, 13th Annual Middle East Update in 2016 Otolaryngology, Dubai, United Arab Emirates 2016 Update in Surgical Evaluation and Treatment of Obstructive Sleep Apnea, Hospital Israelita Albert Einstein, Sao Paulo, Brazil 2017 Evidence-Based Evaluation Techniques for Procedure Selection, 8th International Surgical Sleep Society Symposium, Los Angeles, CA 2017 What is the place for non-surgical treatments for OSAS?, ENT World Congress, Paris, France 2017 Can surgery be a first-line OSAS treatment?, ENT World Congress, Paris, France Drug-induced sleep explorations, ENT World Congress, Paris, France 2017 2017 Should Drug-Induced Sleep Endoscopy Be a Standard Examination in Snoring and Obstructive Sleep Apnea?, Hospital Israelita Albert Einstein, Sao Paulo, Brazil Update in the Surgical Treatment of Obstructive Sleep Apnea, Hospital Israelita 2017 Albert Einstein, Sao Paulo, Brazil NATIONAL 2003 Evaluation of the Snoring Patient, American Academy of Facial Plastic and Reconstructive Surgery, New York, NY 2004 Hypoharyngeal Surgery 2005: an Evidence-Based Medicine Review, Surgery, Sleep, and Breathing, Milwaukee, WI 2005 Obstructive Sleep Apnea: Clinical Aspects and Implications for Surgery, Federated Ambulatory Surgery Association, San Francisco, CA 2005 The Untold Truth about Sleep Surgery: Hypopharyngeal Surgery, AAO-HNS, Los Angeles, CA 2005 Sutures, Plates, RF, and the Tonque, University of California, San Francisco, San Francisco, CA 2005 Identifying the Sites of Airway Obstruction in OSA, University of California, San Francisco, San Francisco, CA 2005 Obstructive Sleep Apnea: The Evidence on Perioperative Surgical Complications, AAO-HNS, Los Angeles, CA 2006 Evolving Methods & Metrics of Disease Measurement, Surgery, Sleep, and Breathing II, Chicago, IL 2006 Role of the Nasal Airway in the Pathophysiology of OSA, Surgery, Sleep, and Breathing II, Chicago, IL Methods of Palatal Surgery & Airway Evaluation — Future Directions, Surgery, 2006 Sleep, and Breathing II, Chicago, IL 2006 Sleep Disorders and the Sleep Study, Otolaryngology Update, Honolulu, HI 2006 Evaluation of the Snoring Patient, Otolaryngology Update, Honolulu, HI 2006 Identifying Obstruction Sites in OSA, Otolaryngology Update, Honolulu, HI 2006 Treating Palatal Obstruction in OSA, Otolaryngology Update, Honolulu, HI

Treating Hypopharyngeal Obstruction in OSA, Otolaryngology Update, Honolulu, HI

2006

| 2006 | Perioperative Management in OSA, Otolaryngology Update, Honolulu, HI |
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| 2006 | Contemporary Techniques for Sleep Apnea, Columbia University College of Physicians & Surgeons, New York, NY |
| 2006 | The Septum and Turbinates — What I Do Now, University of California, San Francisco, San Francisco, CA |
| 2006 | Surgical Management of OSA, American Academy of Sleep Medicine, Oak Brook, IL |
| 2006 | Management of Sleep-Disordered Breathing in the Vocal Professional, UCSF Voice Conference, San Francisco, CA |
| 2006 | Rhinology and nasal disease: a course for the sleep physician, American Academy of Sleep Medicine, Salt Lake City, UT |
| 2007 | Physical Examination, Cephalometrics, and Endoscopy for OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2007 | Identifying Sites of Obstruction in Patients with OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2007 | New Technologies for Sleep Disordered Breathing, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2007 | Dental Imaging and the Surgical Treatment of Obstructive Sleep Apnea, American Association of Dental and Maxillofacial Radiographic Technicians, Oakland, CA |
| 2007 | The Untold Truth about Sleep Surgery: Hypopharyngeal Surgery, AASM, Minneapolis, MN |
| 2007 | Surgical Treatment of Obstructive Sleep Apnea, American Association of Sleep Technologists, Minneapolis, MN |
| 2007 | Evidence-Based Management of Sleep Apnea in 2007: Hypopharyngeal Surgery, American Academy of Otolaryngology—Head and Neck Surgery, Washington, DC |
| 2007 | Evolution or Revolution in Health Care, UCSF Department of Otolaryngology—Head and Neck Surgery, San Francisco, CA |
| 2007 | The Big Picture—What You Need to Know About Sleep Apnea Surgery, UCSF Department of Otolaryngology—Head and Neck Surgery, San Francisco, CA |
| 2008 | Identifying Sites of Obstruction in OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2008 | Avoiding Complications in the Sleep Apnea Patient, Advances in Otolaryngology Head and Neck Surgery 2008, Las Vegas, NV |
| 2008 | New and Old Technologies in the Treatment of Snoring and Sleep Apnea, Advances in Otolaryngology Head and Neck Surgery 2008, Las Vegas, NV |
| 2008 | Management of Snoring and Sleep Apnea, Advances in Otolaryngology Head and Neck Surgery 2008, Las Vegas, NV |
| 2008 | Surgery Is Indicated for OSA, American Thoracic Society, Toronto, Canada |
| 2008 | When Should I Refer OSA Patients for Surgery: The Effectiveness of Sleep Surgery Associated Professional Sleep Societies, Baltimore, MD |
| 2008 | Who Should (Not) Have Surgery for OSA: Older Adults, AAO-HNS, Chicago, IL |
| 2009 | Physical Exam, Cephalometrics, and Endoscopy for OSA, Advances in Diagnosis |

| | and Treatment of Sleep Apnea and Snoring, Orlando, FL |
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| 2009 | Identifying Sites of Obstruction in Patients with OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2009 | What Are the Best Treatment Options for Snoring?, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2009 | Upper Airway Surgery: Some Gain for the Pain?, American Thoracic Society, San Diego, CA |
| 2009 | Sleep-Disordered Breathing and Daytime Functioning in Older Men, American Thoracic Society, San Diego, CA |
| 2009 | Treatment of Geriatric Sleep Apnea: Con, Associated Professional Sleep Societies, Seattle, WA |
| 2009 | What to Do After Unsuccessful Sleep Apnea Surgery: Drug-Induced Sleep Endoscopy, AAO-HNS, San Diego, CA |
| 2009 | Contemporary Snoring Management, UCSF Department of Otolaryngology—Head and Neck Surgery, San Francisco, CA |
| 2010 | Physical Examination and Identifying the Sites of Obstruction in OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2010 | Geriatric OSA — Should We Treat It?, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2010 | Novel Options for Treating OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2010 | Surgical Approach to Obstructive Sleep Apnea 2010, Pacific Rim Otolaryngology- Head and Neck Surgery Update, Honolulu, HI |
| 2010 | Snoring: What Works?, Pacific Rim Otolaryngology-Head and Neck Surgery Update Honolulu, HI |
| 2011 | Managing the Large Tongue in OSA, Triological Society Combined Section Meeting Scottsdale, AZ |
| 2011 | Upper Airway Physical Examination and Identifying the Sites of Obstruction in Patients with OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2011 | Selecting Hypopharyngeal Surgery in OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2011 | Novel Options for Treating OSA in 2011 and Beyond, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2011 | Novel Options for Treating OSA, American Osteopathic College of Ophthalmology & Otolaryngology-Head and Neck Surgery Annual Meeting, Tucson, AZ |
| 2011 | OSA Surgery: Reviewing the Reviews and Their Implications, AAO-HNS, San Francisco, CA |
| 2011 | Epiglottis: Saint or Sinner in OSA?, UCSF Department of Otolaryngology—Head and Neck Surgery, San Francisco, CA |
| 2012 | Physical Examination and Identifying the Sites of Obstruction in Patients with OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, |

CA

- 2012 Selecting Hypopharyngeal Surgery in OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA
- Novel Options for Treating Obstructive Sleep Apnea, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA
- 2012 Sleep and the Nose, American Rhinologic Society Annual Meeting, San Diego, CA
- 2012 Novel Sleep Apnea Surgical Treatments: Hypoglossal Nerve Stimulators, AAO-HNS, Washington, DC
- 2012 Take It to Trial: Beyond Testing Your Hypothesis, AAO-HNS, Washington, DC
- 2013 Upper Airway Physical Examination and Identifying the Sites of Obstruction in Patients with OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL
- 2013 Selecting Hypopharyngeal Surgery in OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL
- Novel Surgical Options for Treating OSA in 2013 and Beyond, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL
- 2013 Palate Surgery in OSA: How to Choose Among the Options?, AAO-HNS Annual Meeting, Vancouver, BC, Canada
- 2013 Sleep Apnea Physical Exam and Sleep Endoscopy, UCSF Department of Otolaryngology—Head and Neck Surgery, San Francisco, CA
- 2014 Physical Examination and Identifying the Pattern of Obstruction, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA
- 2014 Selecting Hypopharyngeal Surgery in OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA
- Novel Options for Treating Snoring and OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA
- 2014 Physical Examination and Endoscopy for OSA, OSAS Surgery International Course, Orlando, FL
- New Technologies for the Treatment of Snoring and OSA, OSAS Surgery International Course. Orlando. FL
- 2014 Issues You Cannot Ignore in Your Older Patients: Sleep Surgery Con, Triological Society Annual Meeting, Las Vegas, NV
- 2014 Procedure Selection with Drug-Induced Sleep Endoscopy, AAO-HNS Annual Meeting, Orlando, FL
- 2014 Sleep Surgery Potpourri: Ask the Experts, AAO-HNS Annual Meeting, Orlando, FL
- 2014 Palate Surgery in OSA: How to Choose Among the Options?, AAO-HNS Annual Meeting, Orlando, FL
- 2014 Hypoglossal Nerve Stimulation in OSA: Apnex Medical, AAO-HNS Annual Meeting, Orlando, FL
- 2015 Drug-Induced Sleep Endoscopy to Identify the Sites of Obstruction, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL

| 2015 | Hypopharyngeal Surgery and Maxillomandibular Advancement, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
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| 2015 | Novel Options for Treating Snoring and OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2015 | Personalized Medicine for Sleep Apnea: Selecting Patients for Site-Specific Surgery, American Thoracic Society Annual Meeting, Denver, CO |
| 2015 | Surgical Treatment of Obstructive Sleep Apnea, American Thoracic Society Annual Meeting, Denver, CO |
| 2015 | Palate Surgery in OSA: How to Choose Among the Options?, AAO-HNS Annual Meeting, Dallas, TX |
| 2015 | Sleep Surgery Potpourri: Ask the Experts, AAO-HNS Annual Meeting, Dallas, TX |
| 2015 | Take the DISE Challenge!, AAO-HNS Annual Meeting, Dallas, TX |
| 2015 | State of the Art: Drug-Induced Sedated Endoscopy for OSA, AAO-HNS Annual Meeting, Dallas, TX |
| 2015 | Plenary Presentation, Outpatient Upper Airway Surgery for OSA: Is It Suitable?, Society of Anesthesia and Sleep Medicine Annual Meeting, San Diego, CA |
| 2016 | Does Treatment of Nasal of Nasal Obstruction Matter in Sleep Apnea?, University of Southern California Advanced Sinus Course, Los Angeles, CA |
| 2016 | Drug-Induced Sleep Endoscopy, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2016 | Surgery of the Hypopharynx: So Many Choices, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2016 | Hypoglossal Nerve Stimulation – Has Its Time Come?, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, San Francisco, CA |
| 2016 | Surgical Treatment of Obstructive Sleep Apnea, American Academy of Sleep Medicine Sleep Fellowship Directors Council Lecture Series, Los Angeles, CA |
| 2016 | Assessment and Treatment of Hypopharyngeal Obstruction, AAO-HNS Annual Meeting, San Diego, CA |
| 2016 | Lessons Learned in Sleep Apnea Surgery, AAO-HNS Annual Meeting, San Diego, CA |
| 2017 | Drug-Induced Sleep Endoscopy to Identify Sites of Obstruction in Patients with OSA, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2017 | Selecting Hypopharyngeal Surgery in OSA, including Maxillomandibular Advancement, Advances in Diagnosis and Treatment of Sleep Apnea and Snoring, Orlando, FL |
| 2017 | Year in Review: Surgical Evaluation and Treatment of Obstructive Sleep Apnea, Sleep 2017, Boston, MA |
| 2017 | Drug-Induced Sleep Endoscopy in Obstructive Sleep Apnea, AAO-HNS Annual Meeting, Chicago, IL |
| 2017 | Hypopharyngeal Surgery in Obstructive Sleep Apnea, AAO-HNS Annual Meeting, Chicago, IL |

- 2017 Alternatives to Upper Airway Surgery for Obstructive Sleep Apnea: Expiratory Positive Airway Pressure, Oral Pressure Therapy, and Exercises, AAO-HNS Annual Meeting, Chicago, IL
- 2017 Ask the Experts: Sleep Apnea Decisions in 2017, AAO-HNS Annual Meeting, Chicago, IL
- 2017 Drug-Induced Sleep Apnea in Obstructive Sleep Apnea, AAO-HNS Annual Meeting, Chicago, IL

REGIONAL AND OTHER INVITED PRESENTATIONS

- 2004 Hypopharyngeal Surgery in Obstructive Sleep Apnea, UCSF Dept of Otolaryngology Head and Neck Surgery, San Francisco, CA
- 2005 Drug-Induced Sleep Endoscopy in Obstructive Sleep Apnea, UCSF Dept of Otolaryngology Head and Neck Surgery, San Francisco, CA
- 2005 Surgical Evaluation and Treatment of Snoring and Obstructive Sleep Apnea, UCSF Sleep Disorders Center, San Francisco, CA
- Evaluation Techniques and Hypopharyngeal Surgery in Obstructive Sleep Apnea, UC Davis Dept of Otolaryngology Head and Neck Surgery, Sacramento, CA
- 2005 Surgical Evaluation and Treatment of Obstructive Sleep Apnea, UCSF Sleep Disorders Center, San Francisco, CA
- 2006 Workup of Sleep Apnea I History, Physical Exam, Sleep Endoscopy, Current Concepts in Obstructive Sleep Apnea, Los Angeles, CA
- 2006 Perioperative Risks and Management in OSA, Current Concepts in Obstructive Sleep Apnea, Los Angeles, CA
- 2006 Treating Hypopharyngeal Obstruction in OSA An Evidence-Based Medicine Review, Current Concepts in Obstructive Sleep Apnea, Los Angeles, CA
- 2006 Evaluation and Surgical Management of Obstructive Sleep Apnea, Kaiser-Permanente Medical Foundation, Oakland, CA
- 2006 Evaluation and Management of Snoring, Kaiser-Permanente Medical Foundation, Oakland, CA
- 2006 The Nose and OSA, UCSF Sleep Disorders Center, San Francisco, CA
- 2006 Surgical Management of OSA, Sonoma Valley Hospital, Sonoma, CA
- 2006 Measuring the Effectiveness of Sleep Apnea Surgery, UCSF Department of Otolaryngology—Head and Neck Surgery
- 2007 Office Procedures for Sleep Apnea and Snoring, Pacific Coast Oto-Ophthalmological Society, Oahu, HI
- 2007 Surgical Treatment of Obstructive Sleep Apnea, Marin General Hospital/Marin Medical Society, Greenbrae, CA
- 2007 Surgical Treatment of Obstructive Sleep Apnea, UCSF Sleep Disorders Center, San Francisco, CA
- 2008 New and Old Technologies in the Treatment of Snoring and Obstructive Sleep Apnea, UCSF Department of Otolaryngology—Head Neck Surgery, San Francisco, CA

| 2008 | Identifying the Sites of Obstruction in Sleep Apnea, Georgia Society of Otolaryngology/Head & Neck Surgery, Ponte Vedra, FL |
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| 2008 | Palatal Surgery for Snoring and Obstructive Sleep Apnea, Georgia Society of Otolaryngology/Head & Neck Surgery, Ponte Vedra, FL |
| 2008 | Hypopharyngeal Surgery for Snoring and Obstructive Sleep Apnea, Georgia Society of Otolaryngology/Head & Neck Surgery, Ponte Vedra, FL |
| 2009 | Evaluating Patients with Obstructive Sleep Apnea and OSA in the Elderly: Should We Treat Them?, Kaiser Permanente, Redondo Beach, CA |
| 2009 | Operative Techniques and Outcomes in Obstructive Sleep Apnea, Kaiser Permanente, Redondo Beach, CA |
| 2009 | Surgical Treatment of Obstructive Sleep Apnea, UCSF Sleep Disorders Center, San Francisco, CA |
| 2010 | Sleep Medicine 2010, UCSF Department of Medicine, San Francisco, CA |
| 2010 | Identifying the Sites of Obstruction in OSA, Pacific Coast Oto-Ophthalmological Society, Monterey, CA |
| 2010 | New Technologies in the Treatment of Sleep Apnea, Pacific Coast Oto- Ophthalmological Society, Monterey, CA |
| 2010 | Snoring and OSA in Older Adults: Should We Treat It and How?, Fromm Institute, University of San Francisco, San Francisco, CA |
| 2011 | Surgical Treatment of Obstructive Sleep Apnea, University of California, Los Angeles Head and Neck Surgery, Los Angeles, CA |
| 2011 | Surgical Treatment of Obstructive Sleep Apnea, UCSF Sleep Disorders Center, San Francisco, CA |
| 2011 | Surgical Treatment of Obstructive Sleep Apnea, Stanford Otolaryngology—Head and Neck Surgery, Palo Alto, CA |
| 2013 | Drug-Induced Sleep Endoscopy: Identifying the Site of Obstruction, School of Medicine of Loma Linda University, Loma Linda, CA |
| 2013 | Selecting Hypopharyngeal Surgery in OSA, School of Medicine of Loma Linda University, Loma Linda, CA |
| 2013 | Neuromuscular Stimulation for Sleep Apnea, School of Medicine of Loma Linda University, Loma Linda, CA |
| 2013 | Geriatric Sleep Apnea: Should We Treat It?, School of Medicine of Loma Linda University, Loma Linda, CA |
| 2013 | Novel Treatment Options for Obstructive Sleep Apnea, Armenian American Medical Society, Los Angeles, CA |
| 2013 | Surgical Evaluation and Treatment of Obstructive Sleep Apnea, Los Angeles Society of Otolaryngology, Los Angeles, CA |
| 2014 | Update on Hypopharyngeal and Base of Tongue Management in OSA, Research Study Club, Los Angeles, CA |
| 2014 | Identifying the Site of Obstruction in OSA, University of Utah Division of Otolaryngology – Head & Neck Surgery, Salt Lake City, UT |
| 2014 | Soft Palate Surgery in OSA, University of Utah Division of Otolaryngology – Head & |

| | Neck Surgery, Salt Lake City, UT |
|-------|--|
| 2014 | Novel Treatment Options for Snoring and OSA, University of Utah Division of Otolaryngology – Head & Neck Surgery, Salt Lake City, UT |
| 2014 | Surgical Treatment of Obstructive Sleep Apnea, University of California, Irvine Department of Otolaryngology—Head and Neck Surgery, Irvine, CA |
| 2014 | Surgical Treatment of Obstructive Sleep Apnea, Keck School of Medicine of USC Department of Neurology, Los Angeles, CA |
| 2015 | Surgical Treatment of Obstructive Sleep Apnea, New York Eye and Ear Infirmary of Mount Sinai, New York, NY |
| 2015 | Updates and Future Trends in the Surgical Treatment of OSA, Rush University Medical Center, Chicago, IL |
| 2016 | Drug-Induced Sleep Endoscopy and Surgical Treatment of OSA, Cedars-Sinai Medical Center, Los Angeles, CA |
| 2016 | Surgical Evaluation and Treatment of Obstructive Sleep Apnea and Snoring, Western Los Angeles Dental Society, Los Angeles, CA |
| 2016 | Personalized Medicine in Sleep Apnea Surgery, California Thoracic Society, San Diego, CA |
| 2016 | Advances in OSA Surgery and Hypoglossal Nerve Stimulation, California Sleep Society, Anaheim, CA |
| 2017 | Office Management of Sleep Apnea and Snoring, Research Study Club, Los Angeles, CA |
| 2017 | Sleep Endoscopy: How I Do It, Cedars-Sinai Medical Center, Los Angeles, CA |
| 2017 | Hypopharyngeal Surgery, The Permanente Medical Group, TPMG Sleep Surgery Symposium, Oakland, CA |
| 2017 | Surgical Evaluation and Treatment of Obstructive Sleep Apnea, School of Medicine of Loma Linda University, Loma Linda, CA |
| CONTI | NUING EDUCATION COURSES ATTENDED |
| 2003 | Contemporary Surgical Concepts and Techniques in Snoring and Sleep-Disordered Breathing, Burlingame, CA |
| 2003 | AO/ASIF Advanced Symposium on Craniomaxillofacial Trauma and Reconstruction Scottsdale, AZ |
| 2004 | UCSF Training in Clinical Research Summer Workshop, San Francisco, CA |
| 2004 | NIH Funding Opportunities, Peer Review, and Grant Writing, Palo Alto, CA |
| 2005 | Conference on Research Education and Training in Otolaryngology, Alexandria, VA |
| 2008 | CTSA KL2, K12, and K30 Clinical Research Scholars and Association for Clinical Research Training, Washington, DC |
| 2008 | Techniques in Sleep Apnea Surgery: Advanced Palatopharyngoplasty and Glossectomy, Chicago, IL |
| 2010 | Developing a Leadership Profile: Self-Awareness & Working Across Personality Differences, San Francisco, CA |

also

UNIVERSITY AND PUBLIC SERVICE

UNIVERSITY SERVICE

| SCHOOL OF | MEDICINE TO SERVICE OF THE PROPERTY OF THE PRO |
|-------------|--|
| 1995 – 1997 | Committee on Admissions, University of Pennsylvania School of Medicine |
| 1998 – 1999 | Committee for Graduate Medical Education, University of Washington School of Medicine |
| 2005 – 2013 | Student Research Committee/Resource Allocation Program for Trainees Review Committee, UCSF |
| 2009 – 2013 | CTST for Residents Committee, UCSF |
| 2014 | Member, Chair Search Committee, Department of Emergency Medicine, Keck School of Medicine of USC |
| 2015 – 2017 | Member, Clinical Appointments and Promotions Committee, Keck School of Medicine of USC |

DEPARTMENTAL SERVICE

| DEI AITTMEN | TAL OLIVIOL |
|----------------|--|
| 2004 – 2013 | Director, Resident Research, UCSF Department of Otolaryngology— Head and Neck Surgery |
| 2007 – 2013 | Finance Committee, UCSF Department of Otolaryngology—Head and Neck Surgery |
| 2013 – present | Director, Resident Research, USC Department of Otolaryngology— Head & Neck Surgery |

TEACHING AND MENTORING

TEACHING

POSTGRADUATE AND OTHER COURSES

| 2005 – present | Otolaryngology – Head and Neck Surgery residency sleep surgery education curriculum, UCSF | Developed module including didactics and surgical skills workshop. Responsibilities als include teaching. |
|-------------------|---|---|
| 2005 – present | CME Course; Drug-induced sleep endoscopy in snoring and obstructive sleep apnea, AAO-HNS | Course Director |
| 2006 | CME Course; Surgery, Sleep, and Breathing II, Medical College of Wisconsin | Organizing Committee |
| 2007 – present | CME Course; Advances in Diagnosis and Treatment of Sleep Apnea, UC San Francisco/University of Pennsylvania | Course Co-Director |

| 2010 – present | CME Course; Selecting a Hypopharyngeal Surgery in OSA, AAO- HNS | Course Director |
|-------------------|--|----------------------|
| 2014 – present | Introduction to Clinical and Translational Research Study Design, Keck School of Medicine of USC | Co-Director |
| 2014 | CME Course; Surgery, Sleep, and Breathing VI, Henry Ford Health System | Organizing Committee |
| 2015-2016 | CME Course; Surgery, Sleep, and Breathing VII, University of Sao Paulo, Brazil | Co-Chair |
| 2016 | International Surgical Sleep Society Meeting | Co-Director |
| 2017 | International Surgical Sleep Society Meeting | Director |

RESEARCH AND CREATIVE ACTIVITIES

RESEARCH AWARDS

PRESENT

| Autonomic Technologies, Inc. (Co-Investigator) | 2015-2019 |
|--|-----------------------------|
| Pathway CH2: Sphenopalatine Ganglion Stimulation for the Treatment of Chronic Cluster Headache | \$400,000 total |
| Inspire Medical Systems (PI) | 2016-2021 |
| Inspire Upper Airway Stimulation System Post Approval Study | \$305,000 total |
| NIH/NCATS (Consultant) | 2016-2021 |
| Southern California Clinical and Translational Science Institute | \$1.7 million direct/year 1 |
| | |
| | \$9.5 million total |
| <u>PAST</u> | \$9.5 million total |
| PAST NIH/NIA (Collaborator) | \$9.5 million total |
| | · |
| NIH/NIA (Collaborator) | <u> </u> |
| NIH/NIA (Collaborator) Study of Osteoporotic Fractures | 1986 - 2011 |

| VA Epidemiology Research and Information Center (Collaborator) Ouantifying and Predicting Risk of Serious Complications after | 2000 - 2003 |
|--|-------------------------|
| Quantifying and Predicting Risk of Serious Complications after Sleep Apnea Surgery in Veterans | |
| NIH/NHLBI (Collaborator) | 2003 - 2008 |
| Outcomes of Sleep Disorders in Older Men | \$406,992 total |
| AAO-HNS (Principal Investigator) | 2004 - 2005 |
| Earleen Elkins Research Training Award | \$13,500 direct/yr1 |
| Propofol Sleep Endoscopy in Obstructive Sleep Apnea | \$13,500 total |
| UCSF (Principal Investigator) | 2005 - 2007 |
| Measuring Effectiveness in Sleep Apnea Surgery | \$12,500 direct/yr1 |
| | \$24,842 total |
| Hearing Research International (Principal Investigator) | 2007 - 2009 |
| Foundation | \$7,500 direct/yr1 |
| Measuring the Effectiveness of Sleep Apnea Surgery | \$7,500 total |
| MESAS (Principal Investigator) | 2008 - 2010 |
| Foundation | \$18,181 direct/yr1 |
| Triological Society Career Development Award | \$36,363 total |
| KL2 RR024130 (Investigator) | 07/01/2007 - 06/30/2011 |
| NIH/NCRR | \$140,000 direct/yr1 |
| Clinical and Translational Science Institute | \$560,000 total |
| Apnex Medical (Principal Investigator) | 06/01/2010 - 03/15/2013 |
| Apnex Medical Hypoglossal Nerve Stimulation System Safety and Feasibility Trial | \$150,000 direct/yr1 |
| | \$350,000 total |
| Apnex Medical (Co-Principal Investigator) | 11/01/2011 - 03/15/2013 |
| Clinical Services Agreement | \$100,000 direct/yr1 |
| | \$250,000 total |
| Apnex Medical (Co-Investigator) | 03/31/2012 - 03/15/2013 |
| Apnex Medical Hypoglossal Nerve Stimulation System Pivotal Tria | \$80,000 direct/yr1 |

\$80,000 total

| 8UL1TR000130 (Principal Investigator) | 2014-2016 |
|--|----------------|
| NIH/NCRR/NCATS | |
| Drug-Induced Sleep Endoscopy and Magnetic Resonance Imaging in Obstructive Sleep Apnea | \$49,000 total |
| American Sleep Medicine Foundation (Principal Investigator) | 2015-2017 |
| Drug-Induced Sleep Endoscopy and Surgical Outcomes: an International, Multicenter Cohort Study | \$20,000 total |

PEER REVIEWED PUBLICATIONS

- 1. Kezirian EJ, Alsarraf R, Lykins C, Futran ND. Imaging quiz case 3. Cervical tuberculous lymphadenopathy (scrofula). Arch Otolaryngol Head Neck Surg 2000;126:1501,1504-5.
- 2. Tufano J, Conrad DA, Sales A, Maynard C, Noren J, Kezirian E, Schellhase KG, Liang SY. Effects of compensation method on physician behaviors. Am J Manag Care 2001;7:363-73.
- 3. Kezirian EJ, White KR, Yueh B, Sullivan SD. Cost and cost-effectiveness of universal screening for hearing loss in newborns. Otolaryngol Head Neck Surg 2001;124:359-67.
- 4. Kezirian EJ, Yueh B. Accuracy of terminology and methodology in economic analyses in otolaryngology. Otolaryngol Head Neck Surg 2001;124:496-502.
- 5. Kezirian EJ, Yueh B. Introduction to cost analysis in facial plastic surgery. Facial Plast Surg 2002;18:95-9.
- 6. Kezirian EJ, Weaver EM, Yueh B, Deyo RA, Khuri SF, Daley J, Henderson W. Incidence of serious complications after uvulopalatopharyngoplasty. Laryngoscope 2004;114:450-3.
- 7. Kamdar BB, Kaplan KA, Kezirian EJ, Dement WC. The impact of extended sleep on daytime alertness, vigilance, and mood. Sleep Med 2004;5:441-8.
- 8. Bowden MT, Kezirian EJ, Utley D, Goode RL. Outcomes of hyoid suspension for the treatment of obstructive sleep apnea. Arch Otolaryngol Head Neck Surg 2005;131:440-5.
- 9. Kezirian EJ, Powell NB, Riley RW, Hester JE. Incidence of complications in radiofrequency treatment of the upper airway. Laryngoscope 2005;115:1298-304.
- 10. Kezirian EJ, Goldberg AN. Hypopharyngeal surgery in obstructive sleep apnea: an evidence-based medicine review. Arch Otolaryngol Head Neck Surg 2006;132:206-13.
- 11. Farwell DG, Kezirian EJ, Heydt JL, Yueh B, Futran ND. Efficacy of small reconstruction plates in vascularized bone graft mandibular reconstruction. Head Neck 2006;28:573-9.
- 12. Kezirian EJ, Weaver EM, Yueh B, Khuri SF, Daley J, Henderson WG. Risk factors for serious complication after uvulopalatopharyngoplasty. Arch Otolaryngol Head Neck Surg 2006;132:1091-8.

- 13. Kezirian EJ, Harrison SL, Ancoli-Israel S, Redline S, Ensrud K, Claman DM, Stone KL. Behavioral correlates of sleep-disordered breathing in older women. Sleep 2007;30:1181-8.
- 14. Kezirian EJ, Kirisoglu CE, Riley RW, Chang E, Guilleminault C, Powell NB. Resting energy expenditure in adults with sleep disordered breathing. Arch Otolaryngol Head Neck Surg 2008;134:1270-5.
- 15. Kezirian EJ, Harrison SL, Ancoli-Israel S, Redline S, Ensrud K, Goldberg AN, Claman DM, Spira AP, Stone KL. Behavioral correlates of sleep-disordered breathing in older men. Sleep 2009;32:253-61.
- 16. Rodriguez-Bruno K, Goldberg AN, McCulloch CE, Kezirian EJ. Test-retest reliability of drug-induced sleep endoscopy. Otolaryngol Head Neck Surg 2009;140:646-51.
- 17. Eskiizmir G, Kezirian E. Is there a vicious cycle between obstructive sleep apnea and laryngopharyngeal reflux disease? Med Hypotheses 2009;73:706-8.
- 18. Eastwood PR, Malhotra A, Palmer LJ, Kezirian EJ, Horner RL, Ip MS, Thurnheer R, Antic NA, Hillman DR. Obstructive Sleep Apnoea: From pathogenesis to treatment: Current controversies and future directions. Respirology 2010;15:587-95.
- 19. Kezirian EJ, White DP, Malhotra A, Ma W, McCulloch CE, Goldberg AN. Interrater reliability of drug-induced sleep endoscopy. Arch Otolaryngol Head Neck Surg 2010;136:393-7.
- 20. Kezirian EJ, Malhotra A, Goldberg AN, White DP. Changes in obstructive sleep apnea severity, biomarkers, and quality of life after multilevel surgery. Laryngoscope 2010;120:441-7.
- 21. Kezirian EJ, Boudewyns A, Eisele DW, Schwartz AR, Smith PL, Van de Heyning PH, De Backer WA. Electrical stimulation of the hypoglossal nerve in the treatment of obstructive sleep apnea. Sleep Med Rev 2010;14:299-305.
- 22. Kezirian EJ, Maselli J, Vittinghoff E, Goldberg AN, Auerbach AD. Obstructive sleep apnea surgery practice patterns in the United States: 2000 to 2006. Otolaryngol Head Neck Surg 2010;143:441-7.
- 23. Kezirian EJ, Weaver EM, Criswell MA, de Vries N, Woodson BT, Piccirillo JF. Reporting results of obstructive sleep apnea syndrome surgery trials. Otolaryngol Head Neck Surg 2011;144:496-9.
- 24. Kim EY, Eisele DW, Goldberg AN, Maselli J, Kezirian EJ. Neck dissections in the United States from 2000 to 2006: volume, indications, and regionalization. Head Neck 2011;33:768-73.
- 25. Kezirian EJ. Nonresponders to pharyngeal surgery for obstructive sleep apnea: insights from drug-induced sleep endoscopy. Otolaryngol Head Neck Surg 2011;121:1320-6.
- 26. Mah CD, Mah KE, Kezirian EJ, Dement WC. The effects of sleep extension on the athletic performance of collegiate basketball players. Sleep 2011;34:943-50.
- 27. Kezirian EJ, Hohenhorst W, de Vries N. Drug-induced sleep endoscopy: the VOTE classification. Eur Arch Otorhinolaryngol 2011;268:1233-6.

- 28. Kim EY, Courey MS, Kezirian EJ. Treatment of trigger-point hypersensitivity of gag reflex following surgical treatment of obstructive sleep apnea. Otolaryngol Head Neck Surg 2011;145:176-77.
- 29. Eastwood PR, Barnes M, Walsh JH, Maddison KJ, Hee G, Schwartz AR, Smith PL, Malhotra A, McEvoy RD, Wheatley JR, O'Donoghue FJ, Rochford PD, Churchward T, Campbell MC, Palme CE, Robinson S, Goding GS, Eckert DJ, Jordan AS, Catcheside PG, Tyler L, Antic NA, Worsnop CJ, Kezirian EJ, Hillman DR. Treating obstructive sleep apnea with hypoglossal nerve stimulation. Sleep 2011;34:1479-86.
- 30. Beaudreau SA, Spira AP, Stewart A, Kezirian EJ, Lui L-Y, Ensrud K, Redline S, Ancoli-Israel S, Stone KL, Study of Osteoporotic Fractures. Validation of the Pittsburgh Sleep Quality Index and Epworth Sleepiness Scale in older black and white women. Sleep Med 2012;13:36-42.
- 31. Schwartz AR, Barnes M, Hillman D, Malhotra A, Kezirian E, Smith PL, Hoegh T, Parrish D, Eastwood PR. Acute upper airway responses to hypoglossal nerve stimulation in obstructive sleep apnea. Am J Respir Crit Care Med 2012;185:420-6.
- 32. Rosenbluth KH, Kwiat DA, Harrison MR, Kezirian EJ. Hyoid bone advancement for improving airway patency: cadaver study of a magnet-based system. Otolaryngol Head Neck Surg 2012;146:491-6.
- 33. Spira AP, Beaudreau SA, Stone KL, Kezirian EJ, Lui L-Y, Redline S, Ancoli-Israel S, Ensrud K, Stewart A. Reliability and validity of the Pittsburgh Sleep Quality Index and Epworth Sleepiness Scale in older men. J Ger Med Sci 2012;67A:433-9.
- 34. Goding GS, Tesfayesus W, Kezirian EJ. Hypoglossal nerve stimulation and airway changes under fluoroscopy. Otolaryngol Head Neck Surg 2012;146:1017-22.
- 35. Kezirian EJ, Hussey HM, Brietzke SE, Cohen SM, Davis GE, Shin JJ, Weinberger DG, Cabana MD. Hypopharyngeal surgery in obstructive sleep apnea: practice patterns, perceptions, and attitudes. Otolaryngol Head Neck Surg 2012;147:964-71.
- 36. Durr ML, Meyer AK, Kezirian EJ, Rosbe KW. Drug-induced sleep endoscopy in persistent pediatric sleep disordered breathing after adenotonsillectomy. Arch Otolaryngol Head Neck Surg 2012;138:638-43.
- 37. George JR, Chung S, Nielsen I, Goldberg AN, Miller A, Kezirian EJ. Comparison of drug-induced sleep endoscopy and lateral cephalometry in obstructive sleep apnea. Laryngoscope 2012;122:2600-5.
- 38. Jauregui EJ, Calkins SM, Kezirian EJ. Heterotopic ossification and delayed foreign body reaction after hyoid suspension for obstructive sleep apnea. Otolaryngol Head Neck Surg 2013;148:527-8.
- 39. Khan A, Harrison SL, Kezirian EJ, Ancoli-Israel S, O'Hearn D, Orwoll E, Redline S, Ensrud K, Stone KL. Obstructive sleep apnea during rapid eye movement sleep, daytime sleepiness, and quality of life in older men in Osteoporotic Fractures in Men (MrOS) Sleep Study. J Clin Sleep Med 2013;9:191-198.
- 40. Kezirian EJ, Chang JL. Snoring without OSA and health consequences: the jury is still out. Sleep 2013;36:613.

- 41. Chang JL, Kezirian EJ. What are the health risks of snoring without obstructive sleep apnea? Laryngoscope 2013;123:1321-2.
- 42. Durr ML, van Zante A, Li D, Kezirian EJ, Wang SJ. Oral tongue squamous cell carcinoma and never-smokers: analysis of clinicopathologic characteristics and survival. Otolaryngol Head Neck Surg 2013; 149:89-96.
- 43. Kezirian EJ. SKUP3: a major step forward in sleep surgery research. Thorax 2013 Sep;68:801-2.
- 44. Vroegop AV, Vanderveken OM, Wouters K, Hamans E, Dieltjens M, Michels NR, Hohenhorst W, Kezirian EJ, Kotecha BT, de Vries N, Braem MJ, Van de Heyning PH. Observer variation in drug-induced sleep endoscopy: experienced versus nonexperienced ear, nose, and throat surgeons. Sleep 2013 Jun 1;36:947-53.
- 45. Heaton CM, Chazen JL, van Zante A, Glastonbury CM, Kezirian EJ, Eisele DW. Pleomorphic adenoma of the major salivary glands: diagnostic utility of FNAB and MRI. Laryngoscope 2013 Dec;123(12):3056-60.
- 46. Kezirian EJ, Goding GS Jr, Malhotra A, O'Donoghue FJ, Zammit G, Wheatley JR, Catcheside PG, Smith PL, Schwartz AR, Walsh JH, Maddison KJ, Claman DM, Huntley T, Park SY, Campbell MC, Palme CE, Iber C, Eastwood PR, Hillman DR, Barnes M. Hypoglossal nerve stimulation improves obstructive sleep apnoea: 12-month outcomes. J Sleep Res 2014 Feb;23(1):77-83.
- 47. Capasso R, Jacobowitz O, Kezirian EJ, Weaver EM. Management of obstructive sleep apnea in adults. Ann Int Med 2014 Mar;160(5):367.
- 48. Goepfert RP, Kezirian EJ, Wang SJ. Oral tongue squamous cell carcinoma in young women: a matched comparison—do outcomes justify treatment intensity? ISRN Otolaryngology 2014. doi:10.1155/2014/529395.
- 49. Kezirian EJ. Surgical evaluation in obstructive sleep apnea: climbing the steep part of the learning curve. JAMA Otolaryngol Head Neck Surg 2014; 140: 568.
- 50. Kezirian EJ. Does my tongue look fat? Sleep 2014:37: 1583-4.
- 51. Pietzsch JB, Liu S, Garner AM, Kezirian EJ, Strollo PJ. Long-Term Cost-Effectiveness of Upper Airway Stimulation for the Treatment of Obstructive Sleep Apnea: A Model-Based Projection Based on the STAR Trial. Sleep 2015:38: 735-44.
- 52. Li HY, Lee LA, Kezirian EJ. Coblation endoscopic lingual lightening (CELL) for obstructive sleep apnea. Eur Arch Otorhinolaryngol. 2016; 273: 231-6.
- 53. Friedman NR, Prager JD, Ruiz AG, Kezirian EJ. A pediatric grading scale for lingual tonsil hypertrophy. Otolaryngol Head Neck Surg 2016 Jan; 154: 171-4.
- 54. Li HY, Lee LA, Kezirian EJ. Efficacy of Coblation endoscopic lingual lightening in multilevel surgery for obstructive sleep apnea. JAMA Otolaryngol Head Neck Surg. 2016 May; 142: 438-43.

- 55. Chung F, Memtsoudis SG, Ramachandran SK, Nagappa M, Opperer M, Cozowicz C, Patrawala S, Lam D, Kumar A, Joshi GP, Fleetham J, Ayas N, Collop N, Doufas AG, Eikermann M, Englesakis M, Gali B, Gay P, Hernandez AV, Kaw R, Kezirian EJ, Malhotra A, Mokhlesi B, Parthasarathy S, Stierer T, Wappler F, Hillman DR, Auckley D. Anesth Analg. 2016 Aug; 123(2): 452-73. Society of Anesthesia and Sleep Medicine Guidelines on Preoperative Screening and Assessment of Adult Patients with Obstructive Sleep Apnea.
- 56. Kezirian EJ. Acclimation settings with identical or similar sensation and functional thresholds. Laryngoscope. 2016 Sep;126 Suppl 7:S20-1.
- 57. Charakorn N, Kezirian EJ. Drug-induced sleep endoscopy. Otolaryngol Clin North Am. 2016 Oct 6. pii: S0030-6665(16)30102-5. doi: 10.1016/j.otc.2016.06.002.
- 58. Durr ML, Meyer AK, Kezirian EJ, Mamlouk MD, Frieden IJ, Rosbe KW. **Sleep**-disordered breathing in pediatric head and neck vascular malformations. Laryngoscope. 2017 Jan 16. doi: 10.1002/lary.26468. [Epub ahead of print]
- 59. Brietzke SE, Ishman SL, Cohen S, Cyr DD, Shin JJ, Kezirian EJ. National database analysis of single-level versus multilevel sleep surgery. Otolaryngol Head Neck Surg. 2017 May; 156(5):955-961. doi: 10.1177/0194599817696503.
- 60. Genta PR, Sands SA, Butler JP, Loring SH, Katz ES, Demko BG, Kezirian EJ, White DP, Wellman A. Airflow shape is associated with the pharyngeal structure causing obstructive sleep apnea. Chest. 2017 Jun. pii: S0012-3692(17)31173-X. doi: 10.1016/j.chest.2017.06.017. [Epub ahead of print]
- 61. Ong AO, Ayers CM, Kezirian EJ, Woodson BT, de Vries N, Nguyen SA, Gillespie MB. Application of drug-induced sleep endoscopy in patients treated with upper airway stimulation therapy. World J Otorhinolaryngol Head Neck Surg. 2017 Mar. 92-96.
- 62. Ravesloot MJL, Benoist L, van Maanen P, Kezirian EJ, de Vries N. Advances in the diagnosis of obstructive sleep apnea: drug-induced sleep endoscopy. Adv Otorhinolaryngol. 2017;80:22-27.

Review Articles

1. Egan KK, Kezirian EJ, Kim DW. Nasal obstruction and sleep-disordered breathing. Operative Techniques Otolaryngology. 2016 December; 17: 268-72.

Books and Chapters

- 1. Kezirian EJ, Weaver EM. Obstructive sleep apnea epidemiology and patient-centered measures. Editors: Calhoun KH, Wax M. Geriatric Otolaryngology: Taylor & Francis, New York. 2006. (chapter)
- 2. Kezirian EJ. Radiofrequency of the Palate. Editors: Kountakis SE, Onerci M. Rhinologic and Sleep Apnea Surgical Techniques: Springer, Berlin. 2007. (chapter)
- 3. Kezirian EJ. Complications of Sleep Surgery. Editors: Eisele DE, Smith RV. Complications in Head and Neck Surgery, 2 Ed.: Mosby, 2008. (chapter)

- 4. Egan KK, Kim D, Kezirian EJ. Nasal Obstruction and Sleep Disordered Breathing. Editor: Friedman M. Sleep Apnea and Snoring: Surgical and Non-Surgical Therapy: Saunders, 2008. (chapter)
- 5. Kezirian EJ, Schwab R.J. Upper Airway Imaging and Endoscopy. Editor: Kushida CA. The Encyclopedia of Sleep, Vol. 3: Academic Press, Waltham. (chapter)
- 6. Kezirian EJ, Weaver EM. Hypopharyngeal and Skeletal Surgery for OSA. Editors: Johnson JT, Rosen CA. Bailey's Head and Neck Surgery—Otolaryngology, 5 Ed.: Lippincott Williams & Wilkins, 2014.

Other Publications

- 1. Kezirian EJ. How do increases in medical professional liability insurance premiums affect physicians' fees and income?. Harvard College, Cambridge, MA. 1992.
- 2. Kezirian EJ. Meeting basic needs: building human capital or a drag on growth?. University of Oxford, Oxford, England. 1993.
- 3. Kezirian EJ. Surgical Management of Sleep Apnea and Snoring (Terris DJ, Goode RL, editors). Resp Care J 51:1477, 12/2006.
- 4. Kezirian EJ. Drug-induced sleep endoscopy. Op Tech Otolaryngol 17: 230-2, 12/2006.
- 5. Ravesloot MJL, Hohenhorst W, Kezirian EJ, de Vries N. Drug-induced sleep endoscopy in adults with sleep-disordered breathing: technique and the VOTE classfication system. Op Tech Otolaryngol. 23: 11-18, 3/2012.

PATENTS ISSUED OR PENDING (ALLOWED)

- 1. Endoscopic Device and System. Kezirian EJ, Howard RA, Summers JP, Servaites JW, Durack M.
- 2. Device and Method for Correcting Obstructive Sleep Apnea. Harrison MR, Rosenbluth KH, Kwiat DA, Kezirian EJ, Fechter RJ, Christensen D.
- 3. Device and Method for Correcting Obstructive Sleep Apnea. Harrison MR, Rosenbluth KH, Kwiat DA, Kezirian EJ, Fechter RJ.
- 4. Head and Neck Exercise Apparatuses. Kezirian EJ, Hulme G, Christian J.
- 5. Head and Neck Exercise Methods. Kezirian EJ, Hulme G, Christian J.
- 6. Airway and Airflow Factors. Wellman DA, Kezirian EJ.

OTHER CREATIVE ACTIVITIES

1. Kezirian EJ. Sleep surgery website: Sleep-Doctor.com and Sleep-Doctor.com/blog.