

# Your Voice

NEWSLETTER OF THE VOICE HEALTH INSTITUTE

# Mission

The Voice Health Institute is an independent 501(c)(3) nonprofit public charity founded in 2003. The VHI is dedicated to advancing laryngology and voice restoration through sponsoring innovative basic and translational research as well as promoting education and outreach programs.

# Raise Your Voice IN NEW YORK CITY









**Julie Andrews** 

Sam Smith

Roger Daltrey

Keith Urban

#### VHI Board Meets in Boston

The Voice Health Institute's Board of Directors had their annual meeting in Boston on September 5th, 2017. The Board is comprised of patients (or relatives of patients) who have been treated for voice and/or airway problems. Board members volunteer their time to ensure that the mission of the VHI is maintained - to advance the standard of care for treating voice and airway disorders by sponsoring innovative research and promoting education and outreach programs.

## Voice Health Institute Raises Its Voice with Special Guest Honoree Julie Andrews

On March 5th 2018 the Voice Health Institute will mark its 15th Anniversary by hosting a gala fundraiser at Lincoln Center's Alice Tully Hall in the heart of New York City. The event celebrates VHI's support of medical-surgical breakthroughs and educational programs that have preserved or restored thousands of voices, and will help ensure that research, education, and outreach continues to advance the standard of care for individuals suffering the devastation of voice loss.

The gala in New York City will build on the success of the previous *Raise Your Voice* event held five years ago at the Beverly Hills Hotel in Los Angeles. Prominent personalities whose voices have already been saved by the VHI-funded medical-surgical innovations of Dr. Steven Zeitels and his research team will be participating to share their stories and talents. Renowned star of stage and screen Julie Andrews will be our special Guest Honoree for her long-standing support of the VHI, serving as Honorary Board Chair since VHI's

inception. Vocalists currently committed to perform include Roger Daltrey, legendary lead singer of the iconic rock band 'The Who', Sam Smith, Grammy Award and Oscar-winning singer with a new release currently topping the pop charts, and Keith Urban, Grammy Award winning singer, songwriter and virtuoso guitarist having just received the 2017 CMA Single of the Year.

Formal invitations to *Raise Your Voice in New York City* will be sent in early December. Proceeds associated with the event will go to the VHI's 15th Anniversary Fund. The goal is to raise 15 million dollars so the VHI can continue to support research, education and outreach programs that can restore speaking and singing capability to millions of individuals whose voices have been lost or damaged by disease or trauma. Those interested in getting more information about the event and/or want to contribute to the VHI 15th Anniversary Fund can go to the website, voicehealth.org/raiseyourvoice, or call 844-864-2315.

### MGH Voice Center Research Update

Much of the research that is supported by the Voice Health Institute takes place at the Center for Laryngeal Surgery and Voice Rehabilitation at the Massachusetts General Hospital (MGH Voice Center) under the direction of Dr. Steven Zeitels (Center Director) and Dr. Robert Hillman (Center Research Director), with major projects being led by Dr. James Kobler and Dr. James Heaton. VHI-supported research has already produced many new surgical techniques and instruments including new laser-based surgical approaches and targeted drug therapies for effectively treating vocal cord disease and trauma while preserving or restoring the voice.

One major ongoing project at the MGH Voice Center is the development of an injectable synthetic material that is biocompatible in the human body (does not cause an adverse reaction) and has the right mechanical properties to restore vibration to delicate vocal cord tissue that has been permanently damaged by disease or trauma – the leading cause of chronic voice loss. Patents have already been awarded based on this work (see article on Patents in this newsletter) and promising candidate materials have been developed and are currently being evaluated.

Another major research focus has been the development of new approaches for restoring respiration and voice to patients with vocal cord paralysis or laryngeal stenosis. The MGH research team has also been developing a new implantable device for electrically stimulating (pacing: similar to a heart) movement in paralyzed vocal cords to restore more normal breathing and voice production.

Initial funding from the VHI has also helped to support pilot studies that led to the establishment of an interdisciplinary Clinical Research Center for the Improved Prevention, Diagnosis and Treatment of Vocal Hyperfunction. Vocal hyperfunction is associated with the most commonly occurring types of voice disorders. Dr. Hillman is the Director of the new center which involves clinicians and scientists from multiple institutions nationally and internationally (Harvard, MIT, Boston University, Northeastern University, Michigan State University, University of Kentucky, University of Utah, Clarkson University, University of Waterloo-Canada, Universidad Tecnica Federico Santa Maria-Chile), in addition to the research team at MGH which includes Dr. Daryush Mehta, Dr. Jarrad Van Stan, Andrew Ortiz, Laura Toles and Katie Marks. A major focus of the center is the development of ambulatory (wearable) voice monitoring and biofeedback technology for improved diagnosis and treatment of vocal hyperfunction.



Left to Right: Robert Hillman, James Burns, Steven Zeitels, James Kobler, James Heaton

#### Awards of the MGH Voice Center

MGH Voice Center Team received the 2017 Annual Broyles Maloney Award of the American Broncho-Esophagological Association for outstanding manuscript, thesis or accomplishment: 'Vocal Fold Injection of Absorbable Materials: A Histological Analysis with Clinical Ramifications' by Steven Zeitels, Patrick Lombardo, Jamie Botelho, William Faquin, Robert Hillman, James Heaton, and James Kobler. This is the third time the MGH group has won the award in the last 7 years.

Steven M. Zeitels, M.D., Director of the MGH Voice Center, has also been awarded the DeRoaldes Medal from the American Laryngological Association (ALA) in 2016. The medal was established in 1907; the ALA awards it annually to an individual who has made outstanding lifetime academic contributions in the field of Laryngology and Laryngeal Surgery. He has previously received the Casselberry and Newcomb Awards from the ALA for academic achievements in Laryngology and became the 4th surgeon in the organization's history to receive all three awards. The ALA was established in 1878 and was the first organization of its kind to advance the study and treatment of throat and voice diseases/disorders. Zeitels also received Chevalier Jackson Award of the American Broncho-Esophagological Association in 2015.

**Robert E. Hillman, Ph.D.,** Research Director of the MGH Voice Center, received Distinguished Alumni Award – The Pennsylvania State University in 2015. It is the highest award given to an individual alumnus by the Board of Trustees of the Pennsylvania State University.

# Three Patents Awarded to MGH Voice Center & MIT Researchers Resulting From VHI Funding

The VHI has funded major research initiatives at the MGH Voice Center since it incorporated as a non-profit foundation in 2003. All three patents were awarded in 2016. Two patents described the creation of a tunable vocal-cord injectable biogel that would be designed to restore voices of millions of patients who have permanent hoarseness due to lost pliability and vibration. These patents were the result of a close collaboration by Drs. Zeitels, Hillman, and Karajanagi with Dr. Robert Langer, the David H. Koch Institute Professor at the Massachusetts Institute of Technology. Dr. Zeitels also received a patent for initiating the revolutionary use of antiangiogenesis agents such as Avastin (Bevacizumab) to treat Recurrent Respiratory Papillomatosis (RRP) of the larynx. RRP is a devastating disease incapacitating approximately 20,000 children and 20,000 adults and caused by the Human Papilloma Virus (HPV).

- 1. "Hydrogels for Vocal Cord and Soft Tissue Augmentation and Repair'
- 'Methods and Systems of Matching Voice Deficits with a Tunable Mucosal Implant to Restore and Enhance Individualized Human Sound and Voice Production'
- 3. 'Methods of Treating Vascular Lesions'

### Zeitels Honored Lectureships in Paris, France, Cairns, Australia and the USA

In 2017, Zeitels was invited to provide a unique keynote lecture for the Quadrennial International Federation for Otolaryngological Societies in Paris: The Art and Craft of Phonomicrosurgery in Elite Performing Vocalists. This is the largest ENT surgical meeting in the world and this remarkable presentation discussed his unique experience having restored the voice of 17 Grammy Award Performers. In 2016, he also served as honored guest lecturer for the Boston Symphony Orchestra Chorus and was the First John Bascom Lecturer: Innovations in Laryngeal Surgery for the University of Wisconsin in Madison. In 2015 he provided the Presidential Keynote Address for the American Broncho-Esophagological Association and was an honored guest and keynote lecturer for the Third World Congress on Laryngeal Cancer in Cairns, Australia.

### James Burns: 101st President of the ABEA

James Burns, Associate Professor at Surgery at Harvard Medical School and a critical member of the MGH Voice Center Team for over a decade was inducted as the 101st president of the American Broncho-Esophagological Association (ABEA). The renowned surgeon, Chevalier Jackson, founded the ABEA in 1917 to advance study and technique of endoscopy of the upper aero-digestive tract: larynx, pharynx, trachea, bronchi, esophagus, and stomach. This a great honor and a national tribute to Dr. Burns' commitment and achievements to diseases of the airway and digestive tract.

# Media Coverage of VHI-Funded Research & Zeitels' Clinical Care

- 1. Music's Top Throat Doctors: Dr. Steven M Zeitels in Boston. Billboard October 23, 2015 http://www.billboard.com/biz/articles/magazine/6738312/musics-top-throat-doctors-dr-steven-m-zeitels-in-boston
- 2. Adele can make full recovery says renowned surgeon who has previously treated the 'Hello' singer. Daily News September 17, 2017 http://www.nydailynews.com/entertainment/gossip/confidential/adele- overcome-voice-problems-article-1.3502283
- 3. Meet Dr. Steven Zeitels, the man who saved Adele's voice. Maclean's November 20, 2015 http://www.macleans.ca/society/science/qa-dr-steven-zeitels-the-man-who-saved-adeles-voice/
- **4.** Here's the science behind singing. Public Radio International, October **1**, 2016 https://www.pri.org/ stories/2016-10-01/here-s-science-behind-singing
- **5.** Why do stars like Adele keep losing their voice? The Guardian. August 10, 2017 https://www.theguardian.com/news/2017/aug/10/adele-vocal-cord-surgery-why-stars-keep-losing-their-voices
- **6. Sam Smith has successful cord surgery. USA Today. May 19, 2015** https://www.usatoday.com/story/life/ music/2015/05/19/sam-smith-has-successful-vocal-cord-surgery/27577587/
- 7. Why Are So Many Singers Suffering From Vocal-Cord Injuries? A Leading Surgeon Explains. Vulture August 8, 2015 http://www.vulture.com/2015/08/surgeon-explains-vocal-cord-injuries.html



# Save The Date MARCH 5, 2018 ALICE TULLY HALL AT LINCOLN CENTER

Please mark your calendar for a special evening to celebrate the achievements of Drs. Steven Zeitels and Robert Hillman and to ensure future advancements.

FOR MORE INFORMATION PLEASE VISIT

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