



Your Voice

Newsletter of the Institute of Laryngology and Voice Restoration

MISSION

The Institute of Laryngology and Voice Restoration (ILVR) is an independent, 501(c)(3) nonprofit private foundation founded in 2003. The ILVR is dedicated to advancing laryngology and voice restoration through sponsoring innovative basic and translational research as well as promoting education and outreach programs.

The ILVR works in cooperation with Massachusetts General Hospital, Harvard University, Massachusetts Institute of Technology, and other institutions.

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INSIDE

Updates on clinical programs, activities, & research initiatives

New laser technologies advancing the treatment of cancer and other laryngeal diseases

Amy & Barry Baker Laryngeal Surgical Innovations Program

New treatment for Laryngeal Respiratory Papillomatosis (RRP)

MGH Voice Center Team receives awards, honors and grants

Peter Guber Hosts an Evening about Voice in Los Angeles for the ILVR with Julie Andrews, Roger Daltrey & Steven Tyler

Peter Guber, Chairman and CEO of Mandalay Entertainment, will host an evening at his home in Los Angeles on November 4, 2010 with the theme *Preserving & Protecting The Power Of The Human Voice*. The honored guests will include Julie Andrews, Honorary Chairwoman of the ILVR, Roger Daltrey of The Who, and Steven Tyler of Aerosmith. This evening

was initiated by Richard Neumann, a new ILVR Director who is president of baseball development at Mandalay Entertainment. The event is aimed at increasing awareness of the importance of human voice in society, and raise critical funding to accelerate the ground-breaking award-winning vocal-biogenel research that could restore millions of damaged voices. (See page 7.) □

Roger Daltrey & Dick Vitale Undergo Novel Laser Treatment for Precancerous Vocal Cord Dysplasia & Lend Support to ILVR & MGH Researchers



Roger Daltrey

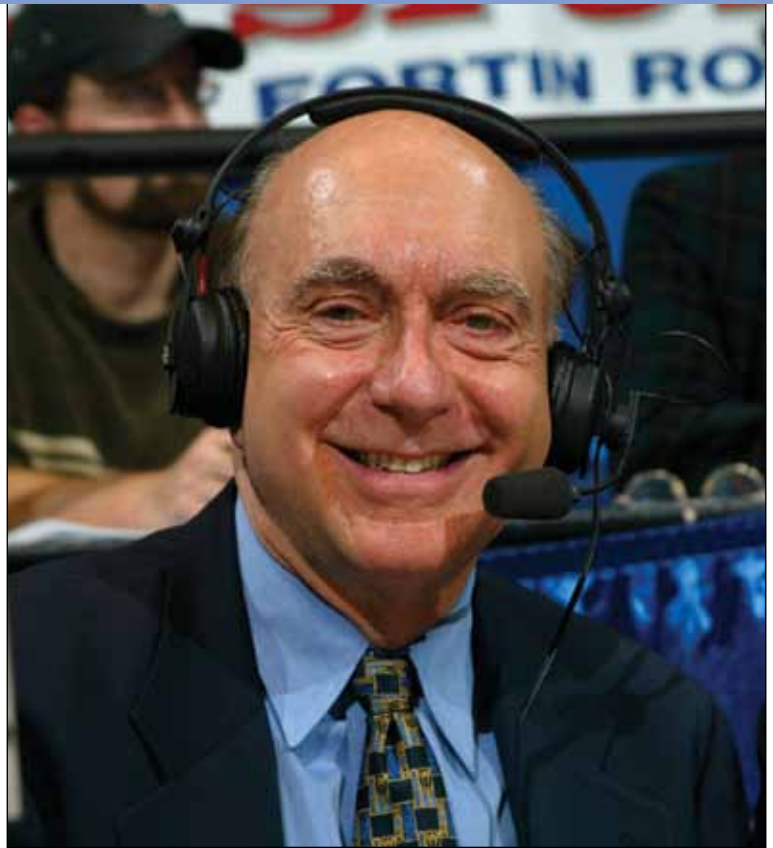
Roger Daltrey, legendary vocalist from the rock band 'The Who' and Dick Vitale the renowned college basketball announcer have benefitted from Dr. Zeitels' laser treatment of vocal cord dysplasia. Mr. Daltrey, who has had a storied career as a singer, musician, and actor, was having increased difficulty during his tour in late 2009. Daltrey sought an evaluation with Dr. Zeitels, who diagnosed precancerous dysplasia and subsequently removed the disease with the specialized angiolytic KTP laser. Remarkably, 6 weeks later, Daltrey provided fans with an exhilarating half-time performance at the 2010 SUPER BOWL. Daltrey has become a committed supporter of the ILVR and its mission to assist others with voice loss.

(Continued on page 2)

Roger Daltrey & Dick Vitale Undergo Novel Laser Treatment

(Continued from page 1)

Dick Vitale underwent initial angiolytic KTP laser treatment for precancerous vocal cord dysplasia in the midst of the 2007-8 basketball season. He shared his dramatic career-threatening experience with friends, fans and colleagues. Later that year, with his voice restored, he discussed this dramatic experience in a heartfelt acceptance speech during the ceremony for his induction into the Basketball Hall of Fame. Since then, given his long history of raising philanthropic funds for cancer research ('V' Foundation), Vitale has been instrumental in helping Zeitels and his team to raise critically-needed funds to explore novel treatment approaches for vocal cord cancer. □



Dick Vitale

New Vocal Cord Cancer Treatment

Reported By ABC World News, The New York Times & National Public Radio

A new treatment for vocal cord cancer developed by Dr. Steven Zeitels and collaborators at the MGH Voice Center has been the subject of several media reports in the US and abroad. The breakthrough was reported by Dr. Timothy Johnson on ABC World News (<http://abcnews.go.com/Health/story?id=4759329&page=1>), and was featured in the New York Times (<http://www.nytimes.com/2008/05/06/health/06canc.html>) and on National Public Radio.

Dr. Zeitels, the Eugene B. Casey Professor of Laryngeal Surgery and the Director of the MGH Voice Center has been innovating vocal cord treatment for precancerous dysplasia and cancer for the past 20 years. This work has culminated in a new laser treatment for cancer, which has produced the best results to date.

This treatment employs an angiolytic KTP laser which concentrates the laser energy in the cancer and optimally spares the normal vocal cord tissue to preserve and/or restore the patient's voice. The green light of the KTP laser is highly absorbed by red blood cells which enable it to selectively ablate the increased

network of blood vessels (referred to as angiolysis) in cancerous tumors while preserving healthy tissue. The concept of treating cancer by diminishing its blood supply was established by Dr. Judah Folkman years ago. Dr. Zeitels initiated this new treatment over 7 years ago after using angiolytic lasers for a number of years to treat precancerous dysplasia. The first patient to undergo this treatment was John Ward, PhD, the President of the ILVR, who has been teaching and lecturing without difficulty ever since.

The initial research investigation demonstrating the effectiveness for this work was published in the Annals of Otolaryngology, Rhinology, and Laryngology in 2008. Patients are seeking this cancer care from throughout the US and abroad and the MGH team has now treated over 100 patients.

The MGH angiolytic laser treatment is an important and effective new option for treating vocal cord cancer since until now 90 percent of patients have received standard radiation treatment which can damage normal vocal cord tissue and impair the voice. □



Barry and Amy Baker

Amy & Barry Baker Surgical Innovations Program

Amy and Barry Baker graciously donated one million dollars to the ILVR to create a Surgical Innovations Program in the laboratories of the MGH Voice Center. This unique initiative was conceived by Mr. Baker and his close friend and colleague Dr. Steven Sobol, a prominent surgeon, in recognition of Dr. Zeitels' commitment to Mr. Baker and other cancer patients. Mr. Baker has successfully conquered his vocal cord cancer after a 12-year struggle, having previously failed radiotherapy and over 30 surgeries prior to his care with Dr. Zeitels. After controlling the disease, Dr. Zeitels' created a new voice for Mr. Baker with a one-of-a-kind procedure despite the fact that he had previously lost his vocal cords to the cancer. MGH Voice Center researchers have been 'creating the future' in larynx and voice surgery with a long tradition of designing and implementing state-of-the-art inventions, instruments, and procedures. Most recently, after a decade of basic research, Voice Center researchers have created a vocal biogel that has the potential to resolve a majority of human hoarseness. □

BOSTON MAGAZINE FEATURE ARTICLE

Innovators – Voice Box Hero



Julie Andrews and Dr. Steven Zeitels



Dr. Zeitels and Steven Tyler

A unique article was done in Boston Magazine chronicling Dr. Zeitels' educational and professional career as a surgical innovator (http://www.bostonmagazine.com/articles/voice_box_hero/page2). A central theme of this piece was the exceptional care Zeitels provides for his patients which has led to their unparalleled appreciation and loyalty. Many of Zeitels' patients contributed personal comments and stories including

Julie Andrews and Steven Tyler as well as ILVR board members John Ward, Scott Solombrino, and Eli Tannenbaum. This insightful reporting captured the spirit of the ILVR, which is based on the extraordinary commitment of Dr. Zeitels' patients to the cause of helping the large numbers of patients suffering from larynx and voice problems. □

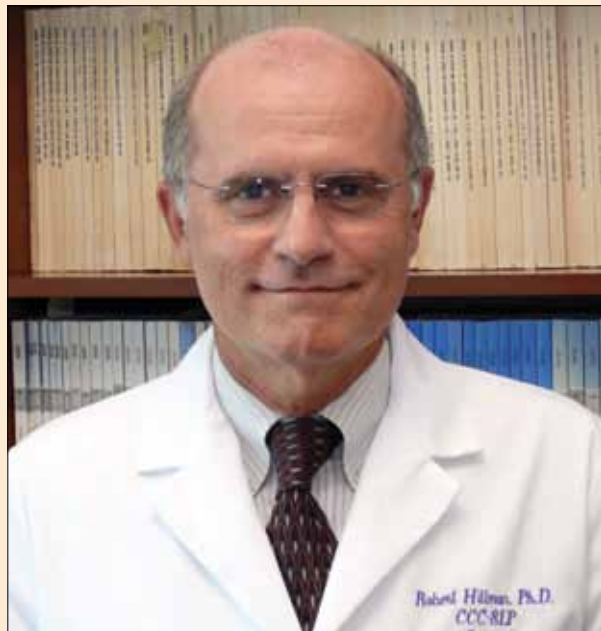
Dr. Hillman Receives Prestigious Penn State Award

Robert Hillman, PhD, CCC-SLP, Co-Director and Research Director of the MGH Voice Center, received the Alumni Fellow Award from the Pennsylvania State University in a ceremony presided over by University President Dr. Graham B. Spanier.

The Alumni Fellow Award is the most prestigious award given by the Penn State Alumni Association. Since 1973, the Alumni Fellow Award has been given to select alumni who, as leaders in their professional fields, are nominated by an academic college and accept an invitation from the President of the University to return to campus to share their expertise with students, faculty, and administrators.

At the award ceremony President Spanier described Dr. Hillman as one of the foremost clinical voice scientists in the world, having authored over 90 publications and having been awarded over 24 research grants from governmental and private sources to support his work. His research has produced new technologies, including an ambulatory monitoring and biofeedback system for treating voice disorders (featured in National Geographic Special “The Incredible Human Machine”), and the first voice neural prosthesis for laryngectomy patients (featured in *Newsweek* magazine).

In addition to his leadership role at the MGH Voice Center, Dr. Hillman is also Associate Professor in Surgery and Health Sciences and Technology at Harvard Medical School and Associate Provost for Research at the MGH Institute of Health Professions.



Robert Hillman, PhD, CCC-SLP

Dr. Hillman received his B.S. (with distinction) and M.S. degrees in speech-language pathology from Penn State where a combination of academic and athletic accomplishments (track and cross-country) won him the Ernest B. McCoy Award as the outstanding senior scholar-athlete. Dr. Hillman received his PhD, in speech science from Purdue University. □



James A. Burns, MD

Dr. James Burns Inducted into The Triological Society

James A. Burns, MD, a member of the MGH Voice Center surgical staff since 2005, was inducted into the prestigious American Laryngological, Rhinological, and Otological Society (aka The Triological Society) after completing the society’s rigorous requirement of a research thesis. In his innovative thesis work Dr. Burns utilized a chick embryo model (avian chorioallantoic membrane - CAM) to better characterize the vascular and tissue effects of photoangiolytic

and ablative lasers that are currently used in laryngeal surgery, with a special emphasis on delineating the impact of active tissue cooling. This information is helping to optimize the effectiveness of these lasers for treating laryngeal pathology while conserving vocal function. This investigation was published in the *Laryngoscope*, a leading journal in Otolaryngology. Dr. Burns discussed this work during visiting professorships in Cairo, Egypt and Australia. □

Groundbreaking Treatment for Respiratory Papillomatosis (RRP) with Avastin & KTP Laser

FEATURED ON GOOD MORNING AMERICA & ABC WORLD NEWS



Office-based treatment with KTP laser

Laryngeal Papillomatosis (RRP) is a devastating disease that affects tens of thousands of people in the United States, more than half of whom are children. It is not unusual for patients to undergo 50 to 100 procedures. Over the past decade, the MGH researchers have created and established state-of-the-art treatment paradigms including the angiolytic KTP laser, and office-based laser surgery with local anesthesia. Most recently, they introduced and pioneered the use of the anti-angiogenesis drug Avastin for RRP.

The landmark research investigation demonstrating the effectiveness of Avastin with the KTP laser was published as a supplement to the *Annals of Otolaryngology, Rhinology, and Laryngology* in 2009. The MGH researchers are currently completing the first phase of an FDA approved study with promising early results. This research has transformed lives of the MGH patients treated thus far and was featured on Good Morning America (<http://abcnews.go.com/GMA/OnCall/opera-singers-lost-voice-returns-devastating-diagnosis/story?id=9364014&page=2>) and ABC World News (<http://abcnews.go.com/WN/story?id=7700000&page=2>). These shows explored former New York City Opera vocalist Mr. Michael Neimann's transformative treatment from the loss of his ability to sing to the resolution of the Papillomatosis and the restoration of his beautiful voice. "For me, the biggest gift I've had is losing it and then getting it back," said Neimann. □

ILVR Supports Clinical and Research Surgical Fellowships at MGH

The ILVR has continued to fulfill the educational part of its mission by providing ongoing funding for Harvard-affiliated clinical and research fellowships in laryngeal surgery and voice disorders at the MGH Voice Center. Current Clinical Fellows at the MGH Voice Center are David G. Lott, MD and David E. Rosow, MD. Dr. Lott graduated magna cum laude from Northern Arizona State University where he was also awarded the President's Prize (most outstanding overall student), then went on to receive his medical degree with research distinction from the University of Iowa College of Medicine. He subsequently completed his residency in Otolaryngology and Head and Neck Surgery at the Cleveland Clinic, serving as Chief Resident his final year. Dr. Rosow graduated cum laude from both Harvard College and Harvard Medical School. He then went on to complete a residency in Otolaryngology and Head and Neck Surgery at the Columbia and Cornell campuses of New York Presbyterian Hospital.

Dr. Anca Barbu and Dr. Tali Landau-Zemer are currently doing ILVR-funded Research Fellowships at the MGH Voice Center. Dr. Barbu graduated cum laude from the University of California at Los Angeles. She went on to complete a medical degree at the Drexel



(From Left): Drs. Landau-Zemer, Barbu, Lott, Zeitels and Rosow

University College of Medicine and residency in Otolaryngology and Head and Neck Surgery at University Hospitals Case Medical Center in Cleveland. Dr. Landau-Zemer completed medical school and residency training at the Sackler School of Medicine at Tel Aviv University in Israel and was on staff there prior to coming to Boston. □

Dr. Aaron Friedman Joins MGH Surgical Team



Dr. Aaron Friedman

Aaron D. Friedman, MD joined the surgical staff at the MGH Voice Center after completing the MGH Clinical Fellowship in Laryngeal Surgery in 2008. Dr. Friedman graduated with highest honors from the University of California at Berkeley, receiving undergraduate degrees in both Biology and Economics. After obtaining his medical degree from the College of Physicians and Surgeons at Columbia University in New York City, he completed residency training in Otolaryngology-Head & Neck Surgery at the Cleveland Clinic in Ohio.

He also devoted an additional year to basic science research in immunology and laryngeal transplantation under the direction of his program chairman, Dr. Marshall Strome, who had previously performed the world's first human total laryngeal transplant. Dr. Friedman received one of six national research grants and a first place Joseph H. Ogura Resident Research Award from the American Academy of Otolaryngology-Head and Neck Surgery for his work, which investigated the immune system's response to laryngeal transplantation in an animal model.

In addition to providing compassionate and cutting-edge clinical care to his patients at the MGH Voice Center, Dr. Friedman is also conducting innovative research to develop a mammalian model that can be used to test new treatments for laryngeal stenosis, and he is a member of the research team that is developing bio-implants for restoring voice function to damaged vocal cords. □

Dr. Karajanagi Joins Research Staff



Dr. Robert Langer (left) with Dr. Sandeep Karajanagi

Sandeep Karajanagi, PhD, joined the research staff of the MGH Voice Center to assume a leading role in developing vocal cord bio-implants as part of the ILVR-funded Voice Restoration Project. Dr. Karajanagi received his Bachelors degree in Chemical Engineering from University of Mumbai (India) in 2001 and his PhD degree in Chemical and Biological Engineering from Rensselaer Polytechnic Institute (Troy, NY) in 2006. His doctoral work, on the preparation of novel biologically active nanomaterials, produced 11 publications in scientific journals.

Dr. Karajanagi was subsequently recruited to begin working on the Voice Restoration Research Project in 2006 as a Postdoctoral Research Associate in Dr. Robert Langer's laboratory at MIT. Dr. Langer is a world renowned scientist and inventor who has had a very active research collaboration with the MGH Voice Center for many years. After completing his Postdoctoral Fellowship, Dr. Karajanagi joined the research staff at the MGH Voice Center in 2008 where he is performing a central role in developing a novel injectable biomaterial for restoring pliability to scarred vocal folds. His current responsibilities include working with manufacturing and regulatory agencies (FDA) to facilitate the first human testing of the Center's first-generation vocal fold bio-implant in 2011. □

AWARDS, HONORS, & GRANTS

Voice Center Research Team Receives Broyles Maloney Award

In April 2010, the MGH Voice Center research team received the highly prestigious **Broyles Maloney Award from the American Broncho-Esophagological Association** for their mammalian studies to create a vocal biogel. This achievement recognized the extraordinary impact that this innovation will have in the future care of those suffering from voice loss. The Voice Center research team included Sandeep Karajanagi, PhD, Gerardo Lopez-Guerra, MD, James Kobler, PhD; Marilyn Galindo, BS, Jon Aanestad, BS, Daryush Mehta, PhD, Yoshihiko Kumai, MD, PhD, James Heaton, PhD, Robert Hillman, PhD, and Steven Zeitels, MD. This work was done in collaboration with Drs. Langer (MIT) and Herrera (BU).

Hillman Wins Manuel Garcia Prize

Robert Hillman, PhD, Co-Director and Research Director at the MGH Voice Center, was a senior author on a paper that won the Manuel Garcia Prize from the International Association of Logopedics and Phoniatrics (IALP) for outstanding scientific contributions to the official journal of IALP and to the field of communication and disorders. The award was announced at the IALP's annual meeting in August 2010, held this year in Athens Greece.

Kobler Given London Teaching Award

James B. Kobler, PhD, a senior research scientist at the MGH Voice Center, received the Irving M. London Teaching Award in 2009, which is bestowed annually upon that faculty member who, through excellence and dedication to teaching in the biomedical sciences curriculum, best exemplifies the goals and philosophy of Harvard-MIT Health Sciences and Technology (HST).

Zeitels Wins ABEA Award and Gives DeLynn Lecture

Dr. Steven Zeitels, Director of the MGH Voice Center, won the 2009 Foreign Body Management Award at the Annual meeting of the American Broncho-Esophagological Association. Dr. Zeitels also delivered the 2009 Laurence and Jean DeLynn Oncology Lecture at the University of West Virginia: "The Influence of Laryngology and Voice Management in Medicine, Surgery & Oncology." <http://www.health.wvu.edu/newsreleases/news-details.aspx?ID=1182>

Friedman Receives ACS Award

Dr. Aaron Friedman, a new member of the surgical staff at the MGH Voice Center, received the 1st place award for residents/fellows at the 2009 Massachusetts Chapter of the American College of Surgeons for his presentation, "Photoangiolytic Treatment of Early Glottic Cancer."

Mehta Wins First Place at Triological Society Meeting

A research poster presentation by Daryush Mehta, PhD, a postdoctoral research fellow at the MGH Voice Center, won first place in the Laryngology category at the 2009 Eastern Section of the Triological Society for research titled "Integration of ultra high-speed color videoendoscopy with time-synchronized measures of vocal function".

Voice Center Team Awarded Research Grants

In addition to the ongoing support provided by the ILVR, researchers at the MGH Voice Center also seek other sources of funding to support their work. Following is a list of recent successes in securing additional research funding:

GRANTS of the MGH VOICE CENTER

- Dr. Steven Zeitels received a grant from the 'V Foundation for Cancer Research' to investigate Voice Preservation in the Treatment of Early Glottic (Laryngeal) Cancer.
- James Heaton, PhD, is the Co-Principal Investigator on an NIH grant entitled Surgical and Rehabilitative Management of Facial Nerve Injury, and has also secured additional NIH funding to collaborate with Griffin Laboratories, Inc. on a grant to develop an electromyographically controlled electrolarynx voice prosthesis.
- James Kobler, PhD, is co-investigator on a sub-contract from the National Science Foundation that supports a collaborative project with biophotonics engineer, Dr. Adela Ben-Yakar at the University of Texas (Austin) to develop a femtosecond laser device for vocal fold surgery.

Akin to lasik eye surgery, this novel device will allow surgeons to operate with microscopic precision beneath the surface of the vocal fold without damaging the delicate surface epithelium. This will aid in removing scar tissue and in creating a surgical plane where vocal fold implant substances can be placed by a simple injection.
- Robert Hillman, PhD, is the Principal Investigator on a sub-contract from NIH that supports a collaborative project with Dimitar Deliyski, PhD, at Cincinnati Children's Hospital to investigate the "Efficacy of Laryngeal High-Speed Videoendoscopy". □

ILVR Supports a Unique Harvard - Mass General Continuing Medical Education Laryngeal Surgery Course

AT THE HARVARD CLUB IN BOSTON



Eugene Myers, M.D. & Steven Zeitels, M.D.

Over the past 6 years, the ILVR has provided funding to support 6 highly-successful Harvard-MGH continuing medical education (CME) courses in Laryngology and Voice Surgery. These courses have provided a key educational curriculum for surgeons worldwide to become familiar with spectrum of innovations developed at the MGH Voice Center. This culminated recently with an exceptional symposium at the Harvard Club in September 2010. The attendance of the symposium reached capacity with surgeons registered from 25 countries and 25 states. The program included lectures from 15 leading internationally-recognized experts including Keynote addresses from guest-of-honor Eugene Myers, MD (Distinguished Professor & Emeritus Chair of the Department of Otolaryngology at the University of Pittsburgh School of Medicine), Andrew Warshaw, MD (W. Gerald Austen Professor of Surgery: Harvard Medical School & Surgeon in Chief of the MGH), Robert Langer, ScD (David H. Koch University Professor: Massachusetts Institute of Technology), R. Rox Anderson, MD (Professor of Dermatology: Harvard Medical School & Director of the Wellman Center for Photomedicine at the MGH), and Marsha Moses, PhD (Julia Dyckman Andrus Professor: Department of Surgery at Harvard Medical School and the Director of the Vascular Biology Program at Children's Hospital Boston). □



Rox Anderson, M.D.



Marsha Moses, Ph.D.

New Directors Join the ILVR Board

The ILVR is pleased to announce the recent election of two new Board members, Richard Neumann and James Radtke, who have volunteered to help advance the organization's mission.



Richard Neumann

teams as well as engaging the appropriate government officials and private sector executives in discussions leading to negotiating new stadium development or renovation projects.

Mr. Neumann has over twenty-five years of experience in the sports administration and facility management field with a special expertise in company start up, team-building and new business development. During his career, he has successfully negotiated millions of dollars in major category, national and regional corporate sponsorships; private suite and premium seating sales; and naming rights agreements. In addition, he was also a principal in the ownership group of two professional sports franchises and the 16,000 seat arena in which they played.

Holding a Masters Degree in Sports Administration and Facility Management from Ohio University, Neumann also

Richard Neumann is President of Baseball Development for Mandalay Baseball Properties and is responsible for their expansion efforts. He is the company's representative in markets where professional baseball franchises have been identified as candidates for acquisition or management contracts. Mr. Neumann is also responsible for conducting extensive due diligence with the ownership groups of these targeted

consults with major corporations and non-profit entities in the areas of sports, entertainment and special event marketing and sponsorships sales. Neumann and his wife, Susan, live in Anderson Township a suburb of Cincinnati, OH. They have four children and four grandchildren.



James Radtke

Prior to UBB, Jim worked for Cargill, Inc. in emerging markets debt and petroleum products trading. He received a Bachelor of Science degree in Business, with a Finance emphasis from the University of Minnesota's Carlson School of Management. For the past 18 months, Jim has partnered with Dr. Steven Zeitels to launch the ILVR forums and has been proactive in promoting the dissemination of voice disorder information. He resides in Minneapolis, MN with his wife Colleen and two children. □

James Radtke is Vice President of UBB Securities, a broker-dealer designed exclusively for independent and community banks throughout the country. He consults bank owners, presidents and board members to ensure comprehensive balance sheet management results in income maximization. Jim specializes in investment portfolio management. He has been with UBB Securities for over ten years.

Harvard-MIT PhD Students Receive ILVR Funding for Voice Research

The ILVR has participated in funding doctoral students pursuing voice research who are enrolled in the Speech and Hearing Biosciences and Technology PhD Program at the Harvard-MIT conjoint Division of Health Sciences and Technology. Four of these students who recently received their PhDs are Dr. Cara Stepp (currently doing a Postdoctoral Fellowship at the University of Washington), Dr. Asa Wehner (currently completing a Clinical Fellowship in Speech Pathology at Boston Children's Hospital), Dr. Yoko Saikachi (currently a staff scientist at the Riken Brain Science Institute in Japan), and Dr. Daryush Mehta (currently doing a combined Postdoctoral Fellowship at Harvard University and the MGH Voice Center). □

New Look for ILVR Website and Online Patient Forums

The Institute of Laryngology and Voice Restoration (ILVR) has recently redesigned and upgraded its website (www.ilvr.org) and associated patient forums to make it easier for patients, their families, and other interested individuals to find up-to-date information about the diagnosis and treatment of voice disorders. The Patient Forums are provided for individuals who are contending with the difficulties and potentially devastating effects of larynx and voice problems. These are intended to be

an open resource for patients, their families and friends, to seek and share information about laryngeal and voice disorders, and to provide a supportive online community for those who are struggling (or have struggled) with voice and airway issues at a personal level. Oversight and management of the Forums is graciously provided by new ILVR Board Member James Radtke, whose interests and insights stem from dealing with his own chronic voice condition. □



ILVR Expresses Gratitude to Paki Papaioanu for His Long-Standing Critical Support

The Institute of Laryngology and Voice Restoration (ILVR), and the MGH Voice Center, owe a deep debt of gratitude to Mr. Paki Papaioanu for all of the voluntary support and resources he has provided since the ILVR was founded. Mr. Papaioanu was one of the founding members of the ILVR, where he sat

on the Board of Directors for three years. He stepped off of the Board to focus his formidable energies and talents on designing, equipping and supporting the computer infrastructures that are critical to the operations of the ILVR and MGH Voice Center. Starting more than eight years ago he has tirelessly volunteered hundreds of hours to creating and maintaining critical technical resources, making himself available on a 24/7 basis to help resolve technical emergencies. It is hard to imagine how the ILVR and MGH Voice Center could have functioned in the past with out Mr. Papaioanu's constant and critical support.

The ILVR previously honored Mr. Papaioanu's father, Dimitri Papaioanu, who was a noted educator in Greece and larynx cancer patient, by sponsoring a Visiting Professorship and lecture in his name in the historic Ether Dome of the Bulfinch Building

at Massachusetts General Hospital.

At his day-job, Mr. Papaioanu is the president of SyncroVision Productions LLC, an Information Technologies professional services firm specializing in emerging businesses in Real Estate, Health Care and Alternative Energy. The company is one of the most innovative small-business IT firms in the Greater Boston area, with emphasis in company-wide data integration, automation, business management systems and vertical market applications. Recent innovations include the use of data centers and cloud computing platforms to extend the reach and performance of rapidly growing businesses. Current clients include: RCG, Panelclaw, Partners Healthcare, MGH, Blue Cross and Blue Shield of California, CNA Insurance, Aetna, Legacy and Veterans Administration Hospital.

Before founding SyncroVision, Mr. Papaioanu was the Database Administrator for the Boston University's School of Management, where he created the Graduate Admissions Management System and the Faculty and Staff Collaboration Enterprise System. Mr. Papaioanu is the true Renaissance Man, having studied Computer Science (B.S) and Theater Arts (B.F.A) at Boston University. He is actively involved with Boston Theater Community and speaks three languages. □



Since its inception in 2003, ILVR has grown to become one of the world's most significant contributors to the field of laryngology and voice restoration. *More than ten million dollars* donated by individuals and organizations has been used to support innovative research, education, and clinical programs; substantially more funding has been earmarked for continued advancements. We could not achieve our goals without you.

Thank you.

Recent Publications by MGH Voice Center Staff

Scientific Journal Articles

1. Zeitels, S.M., Burns, J.A., Lopez-Guerra G, Anderson, R.R., Hillman, R.E., Photoangiolytic Laser Treatment of Early Glottal Cancer: A New Management Strategy. *Annals of Otolology, Rhinology and Laryngology*. 2008; 117: Supplement 199 July, 1-24.
2. Burns JA, Kobler JB, Heaton JT, Lopez-Guerra G, Anderson RR, Zeitels SM. Clinical Predicting Efficacy of Photoangiolytic and Cutting/Ablating Lasers Using the Chick Chorioallantoic Membrane Model: Implications for Endoscopic Voice Surgery. *Laryngoscope Journal*. 2008 Jun;118(6):1109-24.
3. Park H, Williams R, Goldman N, Choe, H, Kobler J, Lopez-Guerra G, Heaton JT, Langer R, Zeitels SM.: Comparison of effects of 2 harvesting methods on fat autograft. *Laryngoscope*. 2008 Aug;118(8):1493-9.
4. Walsh CJ, Heaton JT, Kobler JB, Szabo TL, Zeitels SM.: Imaging of the calf vocal fold with high-frequency ultrasound. *Laryngoscope*. 2008 Oct;118(10):1894-9.
5. Chau, Y, Luo, Y., Cheung, C., Nagai, Y., Zhang, S., Kobler, J.B., Zeitels, S.M., Langer, R. Incorporation of a matrix metalloproteinase-sensitive substrate into self-assembling peptides - A model for biofunctional scaffolds. *Biomaterials*. 2008 11:1713-1719.
6. Stepp, C.E., Heaton, J.T., and Hillman, R.E. Post-Laryngectomy speech respiration patterns. *Annals of Otolology, Rhinology, and Laryngology*. 2008; 117(8), 557-563.
7. Heaton, J.T., Kowaleski, J.M., Bermejo, R., Zeigler, H.P., Ahlgren, D.J., and Hadlock, T.A. A System for Studying Facial Nerve Function in Rats through Simultaneous Bilateral Monitoring of Eyelid and Whisker Movements. *Journal of Neuroscience Methods*, 2008, 171; 197-206.
8. Hadlock, T.A., Kowaleski, J., Lo, D., Bermejo, R., Zeigler, H.P., Mackinnon, S., Heaton, J.T. Functional Assessments of the Rodent Facial Nerve: A Synkinesis Model. *Laryngoscope*. 2008, 118(10), 1744-1749.
9. Deliyiski, D., Petrushev, P., Bonilha, H., Gerlach, T., Martin-Harris, B., Hillman, R. (2008). Clinical Implementation of Laryngeal High-Speed Videendoscopy: Challenges and Evolution. *Folia Phoniatr Logop*, 60(1):33-44.
10. Kempster G, Gerratt B, Verdolini K, Barkmeier-Kraemer J, Hillman R. Consensus Auditory-Perceptual Evaluation of Voice: Development of a Standardized Clinical Protocol. *Am. J of Speec-Lang. Path.* 2009; 18(2): 124-132.
11. Burns, J.A., Zeitels, S.M., Hillman, R.E.: Phonomicrosurgical Treatment of Intracordal True Vocal-Fold Cysts in Singers. *Laryngoscope*. 2009 Feb;119(2): 419-22.
12. Kumai Y, Kobler JB, Park H, Lopez-Guerra G, Karajanagi S, Herrera VL, Zeitels SM: Crosstalk between adipose-derived stem/stromal cells and vocal fold fibroblasts in vitro. *Laryngoscope Journal*. 2009 119:799-805.
13. Kubert HL, Stepp CE, Zeitels SM, Gooley JE, Walsh MJ, Prakash SR, Hillman RE, Heaton JT. Electromyographic control of a hands-free electrolarynx using neck strap muscles. *J Commun Disord*. 2009 42:211-225.
14. Lahav Y, Burns JA, Feinberg S, Heaton JT, Zeitels SM. Initial anatomic geographic presentation of glottal dysplasia. *Annals of Otolology, Rhinology and Laryngology* 2009 May 118:321-325.
15. Burns JA, Friedman, A.D., Lutch, M.J., Anderson, R.R., Zeitels, S.M. The Value of the 532nm Pulsed KTP Laser in Laryngeal Surgery. *Journal of Laryngology and Otolology*. 2009 2010 Apr;124(4):407-11.
16. Burns JA, Kim, K.H., Kobler JB, deBoer, J., Lopez-Guerra G, Zeitels, S.M.. Real-time Tracking of Vocal Fold Injections with Optical Coherence Tomography. *Laryngoscope*. 2009 Nov;119(11):2182-6.
17. Burns JA, Har-El G, Shapshay S, Maune S, Zeitels SM. Endoscopic laser resection of laryngeal cancer: is it oncologically safe? Position statement from the American Broncho-Esophagological Association. *Annals of Otolology, Rhinology and Laryngology*. 2009 Jun;118(6):399-404.
18. Herrera, V.L., Viereck, J.C., Lopez-Guerra, G., Kumai, Y., Kobler, J., Karajanagi S, Park, H., Hillman, R. E., Zeitels, S.M. 11.7 Tesla Magnetic Resonance Microimaging of Laryngeal Tissue Architecture. *Laryngoscope* 2009 Nov;119(11):2187-94.
19. Zeitels, S.M., Lopez-Guerra G, Burns, Lutch, M., Friedman, A.M. Hillman, R.E., Microlaryngoscopic and Office-Based Injection of Bevacizumab (Avastin) to Enhance 532-nm Pulsed KTP Laser Treatment of Glottal Papillomatosis. *Annals of Otolology, Rhinology and Laryngology*. 2009; 118: Supplement 201 September, 1-24.
20. Stepp, C.E., Heaton, J.T., Givens, R.N. and Hillman, R.E. Use of neck and face surface electromyography for controlling a prosthetic voice after total laryngectomy. *IEEE in Transactions on Neural Systems & Rehabilitation Engineering*. 2009 Apr;17(2):146-55.
21. Saikachi, Y., Stevens, K., Hillman, R.E. Development and Perceptual Evaluation of Amplitude-Based F0 Control in Electrolarynx Speech. *Journal of Speech, Language, and Hearing Research*. 2009;52(5): 1360-1369.
22. Mehta, D.D, Deliyiski, D.D.; Zeitels, S.M., Quatieri, T.F., Hillman R.E., Voice production mechanisms following phonosurgical treatment of early glottic cancer. *Annals of Otolology, Rhinology and Laryngology*. 2010 119(1):1-9.
23. Luo Y, Kobler JB, Heaton JT, Jia X, Zeitels SM, Langer R., Injectable hyaluronic acid-dextran hydrogels and effects of implantation in ferret vocal fold. *Biomed Mater Res B Appl Biomater*. 2010 May;93(2):386-93.
24. Kumai Y, Kobler JB, Park H, Galindo M, Herrera VL, Zeitels SM., Modulation of vocal fold scar fibroblasts by adipose-derived stem/stromal cells. *Laryngoscope*. 2010 Feb;120(2):330-7.
25. Burns JA, Friedman AD, Lutch MJ, Hillman RE, Zeitels SM., Value and utility of 532 nanometre pulsed potassium-titanyl-phosphate laser in endoscopic laryngeal surgery. *Laryngol Otol*. 2010 Apr;124(4):407-11.
26. Friedman, AD, Burns, JA, Heaton, JT, Zeitels, SM, Early versus late injection medialization for unilateral vocal cord paralysis. *Laryngoscope*. 2010 120:2042-2046.
27. Kobler JB, Chang EW, Zeitels SM, Yun SH, Dynamic imaging of vocal fold oscillation with four-dimensional optical coherence tomography. *Laryngoscope*. 2010 Jul;120(7):1354-62.
28. Heaton, J.T., Kowaleski, J., Edwards, C., Smitson, C., Hadlock, T.A. Evidence for Facial Nerve-Independent Mechanisms of Blinking in the Rat. *Invest Ophthalmol Vis Sci*. 2010 Jan;51(1):179-82.
29. Hadlock, T.A., Kowaleski, J., Lo, D., Mackinnon, S.E., Heaton, J.T. Rodent Facial Nerve Recovery after Selected Lesions and Repair Techniques. *Plast Reconstr Surg*. 2010 Jan;125(1):99-109.
30. Stepp, C.E., Hillman, R.E., Heaton, J.T. Use of Neck Strap Muscle Intermuscular Coherence as an Indicator of Vocal Hyperfunction. *IEEE Transactions on Neural Systems & Rehabilitation Engineering*. 18 (30), 2010.
31. Lindsay, R.W., Heaton, J.T., Edwards, C., Smitson, C., Vakharia, K., and Hadlock, T.A. Nimodipine Accelerates Functional Recovery of the Facial Nerve after Crush Injury. *Archives of Facial Plastic Surgery*. 2010, Jan-Feb; 12(1):49-52.
32. Lindsay RW, Heaton JT, Edwards C, Smitson C, Vakharia K, Hadlock T.A. Daily Facial Stimulation Improves Recovery after Facial Nerve Repair. *Arch Facial Plast Surg*. 2010 May-Jun;12(3):180-5.
33. Stepp C.E., Hillman R.E., Heaton J.T. "The Impact of Vocal Hyperfunction on Relative Fundamental Frequency during Voicing Offset and Onset", *Journal of Speech, Language, and Hearing Research*, 53, 2010: 1220-1226. pages.
34. Stepp C.E., Hillman R.E., Heaton J.T. "A virtual trajectory model predicts differences in vocal fold kinematics in individuals with vocal hyperfunction", *Journal of the Acoustical Society of America*, 127(5), 2010.
35. Stepp C.E., Heaton, J.T., Jette M., Burns J.A., Hillman, R.E. Neck surface electromyography as a measure of vocal hyperfunction before and after injection laryngoplasty. *Ann Otol Rhinol Laryngol.*, 119, 2010.
36. Awan, S.N., Roy, N., Jetté, M., Meltzner, G., & Hillman, R.E. (2010). Quantifying Dysphonia Severity using a Spectral / Cepstral – Based Acoustic Index: Comparisons with Auditory-Perceptual Judgments from the CAPE-V. *Clinical Linguistics & Phonetics*, 24(9), 742–758.
37. Mehta, D., Deliyiski, D., Quatieri, T., Hillman, R.E. Automated measurement of vocal fold vibratory asymmetry from high-speed videendoscopy recordings. *Journal Speech, Language, and Hearing Research*, Aug 2010; 52: 1 -17.
38. Mehta, D., Deliyiski, D., Hillman, R.E. Why laryngeal stroboscopy really works: Clarifying misconceptions surrounding Talbot's law and the persistence of vision. *Journal Speech, Language, and Hearing Research*, Oct 2010; 53: 1263 - 1267.
39. Hoy, C.L., Everett, W.N., Kobler, J., and Ben-Yakar, A., Towards endoscopic ultrafast laser microsurgery of vocal folds, *Proc. SPIE* 7548, 754831(2010).
40. Kumai Y, Kobler JB, Herrera VL, Zeitels SM. Perspectives on adipose-derived stem/stromal cells as potential treatment for scarred vocal folds: opportunity and challenges. *Curr Stem Cell Res Ther*. 2010;5:175-81.
41. Park H, Karajanagi S, Wolak K, Aanestad J, Daheron L, Kobler JB, Lopez-Guerra G, Heaton JT, Langer RS, Zeitels SM. Three-dimensional hydrogel model using adipose-derived stem cells for vocal fold augmentation. *Tissue Eng Part A*. 2010;16:535-43.
42. Kim K, Burns JA, Bernstein JJ, Maguluri GN, Park BH, deBoer JF. In Vivo 3-Dimensional Human Vocal Fold Imaging with Polarization Sensitive Optical Coherence Tomography and a MEMS Scanner. *Optics Express* 2010; 18(14): 14644-14653.

Book Chapters, Reviews & Editorials

1. Zeitels, S.M., Akst, L.A., Broadhurst, M.B. The History of Tracheotomy In: E.N. Myers editor. *Tracheotomy: Airway Management, Communication and Swallowing*, 2nd edition Plural, San Diego 2008 p.1-21.
2. Zeitels, S.M. Practical Aspects For Endoscopic Resection Of Benign Laryngeal Lesions In C. R. Cernea editor. *Pearls and Pitfalls in Head and Neck Surgery* Karger 2008.
3. Zeitels, S.M. Prospective Trial of Voice Outcomes Following Thyroidectomy: Evaluation of patient-reported and clinician-determined voice assessments in identifying post-thyroidectomy dysphonia. *Surgery* 2008; 143(6):822-3.
4. Mehta, D., Hillman, R.E. Voice Assessment: Updates on perceptual, acoustic, aerodynamic and endoscopic imaging. *Current Opinion in Otolaryngology & Head and Neck Surgery* 2008; 16:211-215.
5. Zeitels, S.M. Vocal Fold Cancer In L. Sulica, R. Branski editors. *Classics in Voice & Laryngology*. Plural, San Diego 2009.
6. Stadelman-Cohen, T., Burns, J, Zeitels, S., Hillman, R.E. Team management of voice disorders in singers. *ASHA Leader* (publication of the American Speech-Language-Hearing Association). 2009; 15(5).
7. Hillman, R.E. and Mehta, D. Introduction to Stroboscopic Imaging of Vocal Fold Vibration. In: *Laryngeal Evaluation: Indirect Laryngoscopy to High Speed Digital Imaging*. (K. Kendall and R. Leonard: Eds.) Thieme, Inc. 2010.
8. Zeitels, S.M., de Alarcon, A. In History of Laryngeal Imaging. In: *Laryngeal Evaluation: Indirect Laryngoscopy to High Speed Digital Imaging*. (K. Kendall and R. Leonard: Eds.) Thieme, Inc. 2010.
9. Deliyiski, D., and Hillman, R.E. State of the Art in Laryngeal Imaging. *Current Opinion in Otolaryngology & Head and Neck Surgery*. 2010: 18:147-152.

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 - ✓ Share your story for a future publication.
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-

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