MESSAGE FROM THE CHAIR

Donald T. Donovan, MD, FACS

Greetings.

The new year is in full swing. Faculty and residents have returned from the AAO-HNS meeting held in Dallas, Texas September 26-30 where the department was well represented in multiple venues. We are especially proud of Dr. Gayle Woodson (BCM Class 1975/Resident Class 1981) who completed her term as President of the Academy and presided over one of the best meetings in recent memory. Former Chairman, Dr. Bobby R. Alford was honored by Dr. Woodson with a 2015 Presidential Citation as was former faculty member and current Executive Director of the American Board of Otolaryngology Head and Neck Surgery, Dr. Robert Miller. In addition, Dr. Alford was recognized in a special ceremony as the Academy awarded the first recipient of The Bobby R. Alford Endowed Research Grant established by Dr. Ron Kuppersmith (Resident Class 1999) during his tenure as President of the Academy in 2011.

I am proud to have this issue focus on the newly established Institute for Voice and Swallowing located at the BCM McNair Campus. Complex voice disorders are often multifactorial in origin and unlike many conditions, swallowing disorders are often secondary to other medical diagnoses, requiring a multidisciplinary team of specialists to properly diagnose and treat patients appropriately. Led by Vice Chair of Clinical Affairs, Dr. Kenneth Altman, the team includes gastroenterologists, thoracic surgeons, neurologists, and otolaryngologists to provide comprehensive care for patients. Details of the team’s work can be found throughout this issue.

Activities in all other patient care, education and research endeavors continue at a strong pace. Adding to the regular commitments of faculty, residents and staff this time of year are the residency recruitment efforts. We have received over 300 applications for our five first year residency positions. Under the direction of Dr. Krista Olson, Associate Program Director (BCM Class 1997/Resident Class 2003) we look forward to matching the best possible candidates to our historic program.

All of us in the Bobby R. Alford Department of Otolaryngology-Head and Neck Surgery would like to wish everyone a happy and healthy new year.

DONALD T. DONOVAN, MD, FACS
Olga Keith Wiess Professor & Chair, Otolaryngology – Head & Neck Surgery
THE INSTITUTE FOR VOICE AND SWALLOWING AT BAYLOR COLLEGE OF MEDICINE
Kenneth W. Altman, MD, PhD, FACS

We are entering an exciting time in the department, at Baylor College of Medicine, and our newly emerging Baylor St. Luke’s Medical Center. With this change comes the opportunity to build on our traditional strengths while advancing how we define ourselves. It is a special responsibility to take this approach to the Institute for Voice and Swallowing, where we are at the forefront of implementing the latest developments in clinical voice care through measuring outcomes, creating and applying translational research, and using our accomplishments as a platform to enhance education.

Located at the McNair campus of the Texas Medical Center, Dr. Julina Ongkasuwan and Dr. Donald Donovan join the Institute to form strong interdisciplinary partnerships and bring a philosophy of teamwork to our patients in each of our clinical specialty areas. These include:

The Program for Professional Voice recognizes the different phases of a career, and meets the unique needs of the patient starting with a comprehensive evaluation including laryngeal stroboscopy. We coordinate with speech pathology to maximize vocal efficiencies, as well as voice and singing coaches to rehabilitate injured voices. We’ve also helped build a broader community of voice professionals by founding the Houston Area Chapter of the Voice Foundation, and have performed outreach to new teachers in Houston. Research on the education and vocal health of classical singers is also being performed.

The Center for Dysphagia and Swallowing Disorders is a formal collaboration with Gastroenterology and Thoracic Surgery, accompanied by state-of-the-art diagnostic tools, and interdisciplinary conferences to address both common and high-risk swallowing disorders. There is also a formalized partnership with Neurology to screen patients with neurodegenerative diseases for dysphagia in a care pathway, and to create meaningful interventions.

The Program for Interventional Laryngology uses minimally invasive methods when surgery is needed, including treatments for vocal paralysis, vocal lesions, and early larynx cancer. One of the most challenging areas is vocal leukoplakia where the potential for pre-malignancy and need for a cure is carefully balanced with voice preservation. In partnership with our Head & Neck Cancer Center, our novel research on leukoplakia is presently helping to define inflammatory and immune markers that can be used to guide the need for more aggressive surgery.

(continued on page 3)
The Program for Chronic Cough includes collaboration with Pulmonology, Thoracic Surgery, Gastroenterology, and The Lung Institute. We’ve published more than 15 journal articles contributing to best practice in managing chronic cough, and 7 book chapters. Our mastery is in clinical diagnosis, addressing rhinologic contributions, and bringing novel treatments to the challenging patient.
The Laryngology service line has settled nicely into our 9th floor clinic at the McNair Campus. Our new space is complete with state of the art HD stroboscopy equipment with large screen monitors for the patients to view their exams. Our multidisciplinary approach allows us to provide a medical evaluation, laryngeal stroboscopy, voice measures, and clinical swallow evaluation in one visit in one place. Felicia L. Carter, CCC-SLP brings expertise in modified barium swallow study (MBSS) and flexible endoscopic evaluation of swallowing (FEES). She is also able to provide voice and swallow therapy services.

Our clinic is situated between the Neurosurgery and Neurology Clinics. This proximity has allowed us to develop research protocols for the management of dysphagia in patients with Multiple Sclerosis and Parkinson’s disease. Preliminary data was presented at the Fall Voice Conference in Pittsburg, PA. We have also worked towards developing an algorithm to streamline the management of dysphagia within the VA hospital. This work was presented by Paul Kwak, MD at the American Laryngologic Association Meeting in Boston, MA.

This fall, we staged a workshop for new Houston Independent School District teachers to educate them about how to use and preserve their voices in the classroom. Drs. Altman and Ongkasuwan spoke on the anatomy, physiology, and disorders of voice; while Ms. Carter gave a hands-on demonstration of vocal warm-ups and exercises. In addition, we also gave a lecture on vocal health to the new singers at the Houston Grand Opera Young Artists Studio.

Dr. Altman, Felicia Carter, Dr. Ongkasuwan, and Nicole Trieu at the HISD Workshop for New Teachers.
RESEARCH AT THE INSTITUTE FOR VOICE AND SWALLOWSING

There are a number of areas of cutting edge research being conducted at the Institute to support our mission. In addition to patient outcomes, process mapping, and educational research being performed in our clinical programs, we are also committed to a strong foundation in basic science research.

Dr. Ongkasuwan who also sees patients at Texas Children’s Hospital, is pioneering the use of laryngeal ultrasound (LUS) in both the pediatric and adult populations. With grant funding from the Thrasher Research Fund, she established the imaging criteria and demonstrated vocal fold immobility in neonates after congenital heart surgery (Figure 1). This promises to become a reliable diagnostic tool beyond flexible nasopharyngolaryngoscopy in high risk populations.

FIGURE 1
Laryngeal ultrasound in an infant with left vocal fold immobility. A) Adduction B) Abduction. Note the movement of the right arytenoid, but not the left with inspiration.

Receiving grant funding from the Texas Children’s Hospital Department of Surgery, Dr. Ongkasuwan is also exploring the use of LUS for the identification of vocal fold nodules. While the diagnosis is typically via laryngeal stroboscopy, LUS may be used to further characterize vocal fold lesions (Figure 2).

FIGURE 2
Vocal fold nodules as seen on laryngeal stroboscopy (A) and laryngeal ultrasound (B).

(continued on page 6)
Dr. Altman is championing a new understanding of larynx physiology as it relates to extra esophageal reflux disease symptoms. In a series of 8 basic science, epidemiologic and best practice journal publications, and multiple reviews, his team demonstrated the presence of the gastric H+/K+-ATPase proton pump in human larynx seromucinous glands (Figure 3). These findings indicate a possible source of direct acid production in the larynx, mechanism for acid-base regulation, and a site for proton pump inhibitor binding in the larynx.

**FIGURE 3** Immunohistochemical staining for the proton pump alpha subunit at 40X (C) and 400X (D) in the human larynx ventricle

There is also great interest in laryngeal leukoplakia, where the risk of early malignancy is considered in the clinical treatment while preserving or maximizing voice outcome (Figure 4). In addition to clinical research to enhance early detection, and minimally invasive treatments including the KTP laser, Dr. Altman has a pending research grant entitled “Pre-malignant Degeneration and the Inflammatory Response to Smoke and Vape in a Murine Model of larynx leukoplakia.” The goal is to define immune markers in the pathologic specimen that can be used to determine clinical prognosis.

**FIGURE 4**
Vocal leukoplakia seen on the right vocal fold using a distal chip flexible scope (A), and with bilateral erythroplasia using a 70 degree Hopkins rod scope (B).
The history of the Bobby R. Alford Department of OTO-HNS and the legacy of those who have contributed to the stature of the department is extraordinary. Pictures of graduates and faculty of the program are displayed on the walls of the academic offices of the department. Included are portraits by renowned artist Kermit Oliver of several pioneers who helped shape the department after its establishment in the Texas Medical Center in the 1950’s including Drs. J. Charles Dickson, Herbert Harris, Fred Guilford and Claude Cody Jr. Dr. Dickson’s legacy has been perpetuated by an endowed gift initiated after his death. As many alumni may recall, each year an award is given to recognize resident research in both Clinical and Basic Science categories. He taught medical students and residents at BCM and was President of the Medical Staff of The Methodist Hospital in 1940 and again in 1953-1955, where he was on staff for 53 years. He joined Kelsey Seybold in 1962, where he served as the Chief of Clinic.

This past month we were fortunate to have the family of J. Charles Dickson, M.D. visit the department, view their father and grandfather’s portrait, and share their memories with members of our team. We are most appreciative of the commitment of the Dickson family and the generosity of the Kelsey Seybold Foundation towards the department for over 25 years.
THE BOBBY R. ALFORD ENDOWED RESEARCH GRANT

The AAO-HNSF Endowed Research grant which was created to support innovative research in the specialty and help facilitate the career development of young investigators. This past year’s recipient was Dr. Nithin D. Adappa an Assistant Professor at the Hospital of the University of Pennsylvania.
The start of the new academic year in the Bobby R. Alford Department of Otolaryngology Head and Neck Surgery continues to be an exciting and vibrant time for the department. This year’s AAO-HNS annual meeting in Dallas provided a unique opportunity to bring together numerous alumni from throughout the state of Texas as well as across the nation with current residents and fellows, highlighting the rich and extensive legacy of the department.

Our residents and fellows continue to display their commitment to academic medicine and advancement of the field as demonstrated by the presentations and posters accepted to the AAO-HNS annual meeting. The topics presented this year included:

**Global humanitarian efforts in Otolaryngology** – Amy L. Richter, M.D./J. Caleb Simmons, M.D.

**Bilateral IAC/CPA lesions in children without NF2** – Joseph T. Breen, M.D.

**Botox treatment for phonic tics in Tourette’s syndrome** – Jennifer H. Dang, M.D.

**Interventional Drug-induced sleep endoscopy** – Andrew J. Victores, M.D.

The clinical experience of the educational program remains unparalleled as new clinical rotations serve to broaden the clinical and surgical experiences of our residents. The intern class experiences early surgical exposure in pediatric otolaryngology at Texas Children’s Hospital. Additionally, the joint venture between CHI St Luke’s Medical Center and Baylor College of Medicine serves as a site for an in-depth exposure to general otolaryngology, head and neck oncologic surgery, skull base surgery, otology, and laryngology.

We are pleased to introduce the new resident class of 2020:

1. **Tanner M. Fullmer** – Medical College of Wisconsin, MD University of Utah, B.S. Chemical Engineering
2. **Kate E. O’Connor** – Indiana University, MD St. Louis University, B.A. Economics
3. **Paul F. Wilson** – Indiana University, MD Wabash College Indiana, B.A. Philosophy
4. **W. Diane Chen** – Baylor College of Medicine, MD Rice B.S. Biochemistry and Cell Biology
5. **Meha Goyal** – Baylor College of Med, MD Baylor University, B.B.A. Business, Economics

As the year continues, we will continue to update you with the many exciting, academic accomplishments and educational opportunities of the residents of the Bobby R. Alford Department of Otolaryngology Head and Neck Surgery at Baylor College of Medicine.
RECENTLY AWARDED RESEARCH FUNDING

<table>
<thead>
<tr>
<th>PI</th>
<th>PROJECT TITLE</th>
<th>DONOR</th>
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<tbody>
<tr>
<td>PI: Brenda Farrell, PhD</td>
<td>Curation and management of electrophysiological data obtained from outer hair cells isolated from Cavia Porcellus</td>
<td>NIH_NLM supplement</td>
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<tr>
<td>PI: Andrew Sikora, MD, PhD</td>
<td>Targeting the tumor immune microenvironment to enhance immune-stimulating effects of chemoradiotherapy</td>
<td>Cancer Research Institute</td>
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<tr>
<td>PI: Andrew Sikora, MD, PhD</td>
<td>R01: Phase 2 Study of ADXS11-001 Vaccine for the Treatment of HPV-Related Oropharyngeal Cancer</td>
<td>Food and Drug Administration</td>
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</tbody>
</table>

SELECT PUBLICATIONS

- **Altman, Kenneth W.** “Physician Integrity, Unity, and Our Common Sense of Purpose.” *Ear, Nose, & Throat Journal* 94, no. 8 (August 2015): 300-301.

(continued on page 11)


AWARDS

Daniel C. Chelius, MD: Elected as Secretary of the American Academy of Otolaryngology Young Physicians Section
BOBBY R. ALFORD
DEPARTMENT OF
OTOLOGYNGOLOGY-
HEAD & NECK SURGERY

2ND ANNUAL BOBBY R. ALFORD, M.D. GRAND GROUNDS DISTINGUISHED LECTURESHP
PRESENTED BY DR. ROBERT L. FERRIS

“A New Disease, A New Surgical Technique, and a New Modality: Therapeutic Targeting of HPV-Associated Head and Neck Cancer”

Endowed by Diana Helis Henry and Adrienne Helis Malvin Medical Research Foundations

Thursday, February 11, 2016
1:30 p.m.

Cullen Auditorium,
Baylor College of Medicine