AHNS 2015
ANNUAL MEETING

During the Combined Otolaryngology Spring Meetings (COSM)

April 22-23, 2015
Hynes Convention Center, Sheraton Boston Hotel, Boston, MA

FINAL PROGRAM
Dear Colleagues,

As we all know, head and neck cancer is not one of the more “publicized” cancers and often overlooked by both the general public and research funding sources. However, we believe that this is slowly starting to change. With increased attention on head and neck cancer, the Research and Education Foundation believes this is an opportunity to strengthen and expand our impact. **With your commitment to the Foundation, we can reverse the trend of declining funding for head and neck cancer research!**

Presently the Research and Education Foundation supports two research awards each year. We are proud to fund these grants but there are more to cover. We would like to create more opportunities for young clinicians and researchers to explore unique and innovative treatments which may one day lead to a cure. To do as much, the Foundation needs to increase its asset base.

There are **three targeted ways for you to support** the Foundation which are designed to provide immediate revenue as well as to increase the capital base for the long term with the goal of generating increased annual income perpetually to support more research. The support opportunities include:

1. **Legacy gifts**, such as estate planning, single premium life insurance and charitable lead annuity trusts (CLATs), are meaningful ways to create continuous and sustainable growth for the Foundation in the years and decades to come.
2. Committing to a **five-year pledge** with an annual donation provides the Foundation income in the present and assists us in budgeting several years out. We will be launching a Future in Five campaign with a generous but critical pledge of $5,000/annually. This pledge level entitles one to Centurion Club level membership for life.
3. **General Donations and Centurion Club membership**: Any donation from AHNS members and general public alike provides immediate support and is always appreciated. All gifts of $1,000 or more (including pledge gifts) are considered Centurion Club level donations.

*To make your donation today, please go online to [www.ahnsfoundation.info/donations](http://www.ahnsfoundation.info/donations) or you may complete a donation form available at the AHNS registration desk. Please contact Kelly Honecker at kelly@ahns.info with any questions. The future of the Foundation is bright and your support brings great promise to head and neck cancer research. Thank you!*  

Sincerely,

Jatin P. Shah, MD  
Foundation Chair  

Doug Girod, MD  
AHNS President
American Head and Neck Society
2015 Annual Meeting
During the Combined Otolaryngology
Spring Meetings

MEETING PROGRAM

April 22 - 23, 2015
Hynes Convention Center
Sheraton Boston Hotel
Boston, MA
The programs and lectures presented at the AHNS 2015 Annual Meeting are copyrighted products of the American Head & Neck Society. Any reproduction or broadcasting without the express consent of the AHNS is strictly prohibited.
General Information

The American Head and Neck Society’s 2015 Annual Meeting
April 22 - 23, 2015
Hynes Convention Center
900 Boylston Street, Boston MA 02115

COSM Registration Hours
3rd floor of Hynes Convention Center outside Room 303

Wednesday, April 22  6:30 am - 5:00 pm
Thursday, April 23  7:00 am - 5:00 pm
Friday, April 24  7:00 am - 5:00 pm
Saturday, April 25  7:00 am - 3:00 pm
Sunday, April 26  7:00 am - 10:00 am

COSM Exhibit Hall Hours
Exhibit Hall D of the Hynes Convention Center

Thursday, April 23  9:00 am - 4:00 pm
      5:30 pm - 7:00 pm
Friday, April 24  9:00 am - 4:00 pm
      5:30 pm - 7:00 pm
Saturday, April 25  9:00 am - 4:00 pm

Speaker Ready Room Hours
Room 305 at Hynes Convention Center
Speakers must check in at the Speaker Ready Room 4 hours before their presentation.

Tuesday, April 21  4:00 pm - 8:00 pm
Wednesday, April 22  6:00 am - 6:00 pm
Thursday, April 23  6:00 am - 6:00 pm
Friday, April 24  6:00 am - 6:00 pm
Saturday, April 25  7:00 am - 6:00 pm
Sunday, April 26  7:00 am - 10:00 am

Spouse/Guest Hospitality Lounge Hours
Exeter at Sheraton Boston

Wednesday, April 22  8:00 am - 2:00 pm
Thursday, April 23  8:00 am - 2:00 pm
Friday, April 24  8:00 am - 2:00 pm
Saturday, April 25  8:00 am - 2:00 pm
Sunday, April 26  8:00 am - 12:00 pm

AHNS Foundation/Centurion Club Lounge
Room 308 at Hynes Convention Center

Wednesday, April 22  7:45 am - 5:30 pm
Thursday, April 23  7:15 am - 5:30 pm

Official Language
The official language of the conference is English. Simultaneous translation will not be offered.
VISIBILITY DONORS
Thank you to our 2015 Visibility Donors!
The following companies have provided generous support for non-CME meeting activities:

GOLD LEVEL

Ethicon US, LLC
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*Device measurements based on a metrology study (profile is clamp arm + pad + blade area [.0079 sq in vs .0098 sq in]).
†Versus HARMONIC FOCUS Shears without Adaptive Tissue Technology, as exhibited in a benchtop study performed
with devices on porcine tissue (median transection time of 2.22 sec vs 4.41 sec for tip cuts on thin tissue, P=.045).
General Information

AHNS 2015 Annual Meeting Educational Objectives
At the conclusion of the activity, participants will be able to:

- Understand the 2015 ATA guidelines for pretreatment radiographic assessment in thyroid cancer patients
- Identify controversies in reconstruction of surgical defects of the tongue, lateral mandible and parotid and understand novel approaches to head and neck reconstruction.
- Understand the principles of patient centered head and neck cancer care through the entire cancer journey.
- Differentiate overseas outreach practices that are helpful and those that are potentially harmful.
- Define three components of meaningful peer review.

AHNS 2015 CME Credit Claim Process
Please use the worksheet on page 36 to track the number of CME hours you attend for each activity. After the meeting, an email will be sent to attendees with a link to the on-line survey and claim form.

To Receive Your CME Credit:
AHNS has instituted a process for claiming CME credits and printing certificates. All attendees wishing to receive a CME certificate for activities attended at the AHNS 2015 Annual Meeting must first complete an on-line meeting evaluation form. Attendees will have access to the on-line form via link on the AHNS website after the meeting.

Please allow 4-6 weeks for processing before your certificate arrives.

Attendance Certificates
Attendees in need of an attendance certificate instead of a certificate with your CME hours may ask for one at the AHNS Desk.

Free Wi-Fi Available
To connect to the Wi-Fi available in the Hynes Convention Center please follow the following three steps:

- Go to “settings” on your mobile device
- Select the Wi-Fi option
- Click “BCEC Wireless Network” or “Hynes Wireless Network”

SAVE THE DATE!
AHNS FUTURE MEETING SCHEDULE

AHNS 9th International Conference on Head and Neck Cancer
July 16 - 20, 2016 • Washington State Convention Center • Seattle, Washington

AHNS 2017 Annual Meeting
During the Combined Otolaryngology Society Meetings
April 26 - 30, 2017 • Manchester Grand Hyatt • San Diego, California
About the American Head and Neck Society

Mission Statement
The purpose of this society is to promote and advance the knowledge of prevention, diagnosis, treatment and rehabilitation of neoplasms and other diseases of the head and neck, to promote and advance research in diseases of the head and neck, and to promote and advance the highest professional and ethical standards.

Why Join the AHNS?
The American Head and Neck Society is an organization of physicians, scientists and allied health professionals dedicated to improving the understanding of Head and Neck Cancer and the care of patients afflicted with that disease. Membership is open to a wide variety of interested individuals in several categories that differ both in terms of responsibility and level of involvement in the society.

For more information about AHNS membership and to apply online, please visit www.ahns.info/member-central, call +1-310-437-0559, ext. 156

The Benefits of AHNS Membership:
• Interaction with colleagues dedicated to promoting and advancing the knowledge of prevention, diagnosis, treatment, and rehabilitation of neoplasms and other diseases of the head and neck
• Member rates on all meeting registration fees
• The honor of being a part of our worldwide network of surgeons, physicians and health care professionals dedicated to the prevention and treatment of head and neck cancer
• Opportunities to partake in educational offerings, including those planned by the society and those co-sponsored by the society
• Opportunity to post regional meetings and courses on the AHNS “Related Meetings” web page

• Access to the AHNS member contact information in the “Members Only” section of our website
• E-newsletter with updates about the society and head & neck surgery
• Ability to apply for research grant awards offered yearly
• Opportunity to participate on committees and to vote at the annual business meeting
• Opportunity to add a member profile to the Find a Specialist Section of the website

Qualifications for Active Fellowship:
Surgical applicants must be Diplomats of the American Board of Otolaryngology, Plastic Surgery, or Surgery or OTHER EQUIVALENT CERTIFICATION BOARD. Additionally, all applicants must be a Fellow of the American College of Surgeons, Fellow in the Royal College of Surgeons (FRCS) or equivalent non-surgical organization.

Qualifications for Associate Fellowship:
An applicant for Associate Fellowship must be a physician, dentist, or scientist who has special interest contributions in the field of neoplastic or traumatic diseases of the head and neck.

Qualifications for Candidate Fellowship:
The trainee currently enrolled in an approved residency program in Otolaryngology, Plastic Surgery, or General Surgery or in a Fellowship program approved by the Advanced Training Council may become a Candidate Fellow.

Qualifications for Corresponding Fellowship:
An applicant for Corresponding Fellowship must be a physician who specializes in the treatment of head and neck cancer, who by their professional associations and publications, would appear in the judgment of Council to be qualified to treat head and neck cancer. Corresponding Fellows must reside in a country other than the United States or Canada.

Deadline for the 2016 cycle is October 31, 2015
For over 20 years, Stryker has delivered ENT solutions that make healthcare better. Rooted in our heritage as a world leader in medical technology, we set the industry’s pace with uncompromising sales support and superior medical education opportunities. Our renewed focus on ENT technologies is matched with a greater investment in research and technology development and a commitment to listening while leading. That’s why a growing number of physicians trust Stryker when choosing products to deliver comprehensive ear, nose and throat care.

Visit us at COSM Booth #313 to experience our full ENT portfolio.
AHNS President

Douglas A. Girod, MD

Executive Vice Chancellor of the University of Kansas Medical Center since 2013, Douglas A. Girod, M.D., oversees the educational, research, patient care and community engagement missions of the University of Kansas Schools of Medicine, Nursing and Health Professions, with more than 3,300 students, 3,800 faculty and staff, $116 million in externally funded research, and campuses in Kansas City, Wichita, and Salina. Girod was interim executive dean of the KU School of Medicine until 2014 and as Senior Associate Dean for Clinical Affairs and the Russell E. Bridwell Endowed Chair of the Department of Otolaryngology-Head and Neck Surgery. Girod earned his bachelor’s degree in chemistry from the University of California at Davis, and his medical degree from the University of California at San Francisco. He completed his residency and an NIH research fellowship at the University of Washington in Seattle. Girod also served as Vice Chairman and Research Director in Otolaryngology at the Naval Medical Center in Oakland, Calif. In the U.S. Navy Reserve, he rose to the rank of Lieutenant Commander and earned the Meritorious Service Medal. He is a practicing head and neck surgeon and has held leadership positions within the American Head and Neck Society, where he is currently president.

About the American Head and Neck Society

History of the Society


The contributions made by the two societies forming the AHNS are significant in the history of surgery in the United States. Dr. Hayes Martin conceived the Society of Head and Neck Surgeons in 1954, a surgeon considered by many to be the “father of modern head and neck tumor surgery.” The purpose of the society was to exchange and advance the scientific knowledge relevant to the surgery of head and neck tumors (exclusive of brain surgery) with an emphasis on cancer of the head and neck. Two years later, The American Society for Head and Neck Surgeons was organized with the goal to “facilitate and advance knowledge relevant to surgical treatment of diseases of the head and neck, including reconstruction and rehabilitation; promote advancement of the highest professional and ethical standards as they pertain to the practice of major head and neck surgery; and to honor those who have made major contributions in the field of head and neck surgery, or have aided in its advancement.”

The new Society remains dedicated to the common goals of its parental organizations.
Dr. Karen Pitman graduated from the University of Maryland where she received a BS in Zoology and then worked at the NIH as a research assistant in the Section on Neurotoxicology. She is a graduate of the Uniformed Services University of the Health Sciences in Bethesda, MD and served on active duty in the US Navy for 17 years. She completed her Otolaryngology residency at Naval Medical Center Portsmouth VA, followed by fellowship training in Head and Neck Surgery at the University of Pittsburgh School of Medicine. Her commitment to the US Navy was fulfilled as an otolaryngologist at NMC Portsmouth VA. She was honorably discharged from the Navy and the recipient of several awards, including 2 commendation medals.

After leaving the Navy she was at the Department of Otolaryngology at the University of Mississippi Medical School, advancing to Professor of Otolaryngology and for the past 2 years at Banner MD Anderson Cancer Center in Phoenix Arizona.

Her academic service includes leadership roles in both the American Head and Neck Society and American Academy of Otolaryngology, Head and Neck Surgery Foundation. She serves on the editorial board of the Laryngoscope and an Associate Editor for Head and Neck. She is a member of the Triological Society, completing her thesis in 2001. Recent awards and honors are the AAO-HNSF Distinguished Service award, Castle Connolly America’s Top Doctors Award and Castle Connolly America’s Top Doctors for Cancer.

Dr. Farwell is the Vice-Chairman for Academic Affairs and the Director of Head and Neck Oncology/Microvascular Surgery at the University of California, Davis. He is the Co-Director of the Head and Neck Oncology fellowship at UC Davis and is a member of the Executive Leadership at the UC Davis Medical Center as the Secretary of the Medical Staff. He serves as the incoming Chairman of North American Board of the AO-ASIF as well as the Associate Editor for JAMA Otolaryngology-Head and Neck Surgery. His research centers on multidisciplinary approaches to novel diagnostic technologies including an RO1-funded grant looking at robotic applications of autofluorescent tumor detection. He and his wife Jennifer are the proud parents of two daughters, Sophia and Sarafina.
Hayes Martin Lecturer

John A. Ridge, MD, PhD

John Andrew “Drew” Ridge, M.D., Ph.D. is Vice-Chair of the Department of Surgical Oncology, Louis Della Penna Family Chair of Head and Neck Oncology and Chief of the Head and Neck Surgery Section, Professor of Surgical Oncology and of Molecular Therapeutics, and Senior Member at the Fox Chase Cancer Center. He also holds appointments as Professor of Surgery and of Otolaryngology - Head & Neck Surgery in the Temple University School of Medicine, and serves as Associate Director of the Temple Head and Neck Institute.

He has been a member of numerous federal advisory groups, including National Cancer Institute (NCI) Program Project Grant review panels, Special Emphasis Panels for the National Institute of Dental and Craniofacial Research (NIDCR), the NIH/NCI Institutional Review Group SPORE committee, and head & neck cancer “think tanks” for the NCI and NIDCR. Drew has also been a member of several CTEP committees (including Common Data Elements and Surgical Effects). He has helped to organize State of the Science and Clinical Trials Planning Meetings; including one for HPV related head & neck cancer, one on transoral resection of oropharynx cancer, and another on early thyroid cancer. A former ECOG Head & Neck Committee Co-chair and member of the RTOG Head & Neck Steering Committee, he was in his second term as Co-chair of the Previously Untreated, Locally Advanced Task Force (PULA) of the NCI Head and Neck Steering Committee when elected to Co-chair the Steering Committee itself. Currently he is Surgical Oncology Co-chair of the NRG cooperative group. Drew has been influential in the design and devoted to the execution of prospective trials. A member of many professional organizations, he is a Past-President of the American Head and Neck Society, and has authored more than 130 peer-reviewed articles and book chapters.

After they met at Sloan-Kettering in fellowship, he married Elin Sigurdson in 1989. A prominent academic surgical oncologist interested primarily in colorectal cancer, she too works at the Fox Chase Cancer Center. Their son, Lukas, and twin daughters, Kelsey and Hannah, have not shown the slightest interest in medical or scientific careers. A fencer, Drew holds an “A15” classification in Epee and competes internationally. He has had respectable results on the World Cup circuit of the FIE and has been a member of six US Fencing Association Veteran World Championship Teams. Though he enjoys the Rockies, he fences much better than he skis.

Past Hayes Martin Lecturers

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<tr>
<th>Year</th>
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<tr>
<td>2014</td>
<td>Patrick J. Gullane, MD</td>
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<td>Jonas T. Johnson, MD</td>
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<td>Gregory T. Wolf, MD</td>
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<td>Randal S. Weber, MD</td>
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<td>2010</td>
<td>Adel El-Naggar, MD</td>
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<td>Charles W. Cummings, MD</td>
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<td>Waun Ki Hong, MD</td>
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<td>2007</td>
<td>Jesus E. Medina, MD</td>
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<td>2006</td>
<td>Keith S. Heller, MD</td>
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<td>2005</td>
<td>Richard K. Reznick, MD, MEd</td>
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<td>2004</td>
<td>Christopher J. O’Brien, MD</td>
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<td>2003</td>
<td>Michael Johns, MD</td>
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<td>2002</td>
<td>Eugene Myers, MD</td>
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<td>William Wei, MS</td>
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<td>Robert M. Byers, MD</td>
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<td>1999</td>
<td>Jean-Louis H. LeFebvre, MD</td>
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<td>1998</td>
<td>Jatin P. Shah, MD</td>
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<td>1997</td>
<td>Blake Cady, MD</td>
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<td>1996</td>
<td>Joseph N. Attie, MD</td>
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<td>Helmut Goeppfert, MD</td>
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<td>John G. Batsakis, MD</td>
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<td>Ronald H. Spiro, MD</td>
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<td>John M. Lore, MD</td>
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<td>Ian Thomas Jackson, MD</td>
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<td>Alando J. Ballantyne, MD</td>
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<td>George A. Sisson, MD</td>
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<td>M.J. Jurkiewicz, MD</td>
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<td>Elliot W. Strong, MD</td>
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<td>Alfred S. Ketcham, MD</td>
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<td>William A. Maddox, MD</td>
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<td>John J. Conley, MD</td>
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<td>Milton Edgerton, MD</td>
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<td>Richard H. Jesse, MD</td>
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<td>Edward F. Scanlon, MD</td>
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<td>Harry W. Southwick, MD</td>
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<td>Edgar L. Frazell, MD</td>
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<td>Arthur G. James, MD</td>
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<td>Oliver H. Behars, MD</td>
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<td>William S. MacComb, MD</td>
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Hayes Martin Biography

Hayes Martin, MD

Hayes Martin was born in Dayton, a small town in north central Iowa. He attended the University of Iowa at Iowa Falls before being accepted to the medical school in 1913 on the same campus, finishing 4 years later in a class of 20.

World War I began in April 1917 while Hayes was in his final year of medical school. Many of his classmates at the medical school were in the Army ROTC units; however, Dr. Martin opted for the Navy, which he joined on the day America entered the war. He traveled to Europe on the USS Arkansas and was assigned to his permanent duty station at the U.S. Navy Air Station, La Trinite Sur Mer, France – a small seaside village on the southern coast of Brittany. The purpose of this base was antisubmarine warfare using blimps and kite balloons. Dr. Martin was made commanding officer of the air station for a brief period of time when the line officer in charge had become ill; it was a unique position for a medical officer in the Navy to take command during wartime.

After the war, Dr. Martin returned to the U.S and sought out an internship at the old Poly Clinic Hospital in New York City, which was temporarily made into a Veteran’s Administration hospital. Part of his internship was spent at Bellevue in the fourth surgical division, where he felt he would have the best possible training in general surgery. The chief of the second division was John A. Hartwell, MD, the distinguished surgeon memorialized by the Fellow’s Room in the library of the New York Academy of Medicine. Dr. Hartwell suggested that Dr. Martin go to Memorial Hospital to learn about cancer.

Dr. Martin received an internship at Memorial in the summer of 1922 and stayed on as a resident until 1923. He then had two years at the second surgical service at Bellevue, where he operated to his heart’s content and got the surgical education he so strongly desired. Once he finished his residency, Dr. Martin returned to Memorial where he joined as clinical assistant surgeon on the staff.

Dr. Martin made the use of aspiration biopsy on all solid tumors popular throughout Memorial. Now, this procedure is done throughout the world. Dr. Martin co-authored the first report on the subject published in the Annals of Surgery. Numerous other articles followed, including Dr. Martin’s two most famous publications, “Cancer of the Head and Neck,” published in two issues of the Journal of the American Medical Association in 1948, and “Neck Dissection,” appearing in Cancer in 1951. These two papers were so extensively requested that the American Cancer Society made reprints by the thousands available to those who requested them as many as 20 years after publication. Dr. Martin’s bibliography encompasses more than 160 articles.

In 1934, Dr. Martin was appointed Chief of the Head and Neck Service at Memorial Hospital. It wasn’t until 1940 that surgery began to take over as the treatment of choice for the majority of cancers of the head and neck. In that year, the beginnings of improved anesthesia permitted advances in surgery. Later, during World War II, antibiotics became available and surgery began to dominate much of head and neck cancer management. Dr. Martin wrote extensively on many subjects, most within the realm of head and neck surgery. His ideal was to be the complete head and neck surgeon and he treated a wide variety of head and neck abnormalities. His book, Surgery of the Head and Neck Tumors, was published in 1957.

Dr. Martin retired from active practice in 1957 at the age of 65. He performed his last operation at Memorial Hospital, assisted by Dr. Elliot Strong, in October 1959, but continued to see patients in his office until he passed away in 1977.
John J. Conley Lecturer

Jonathan Irish, MD, MSc, FRCSC

Dr. Irish graduated with his M.D. degree in 1984 from the University of Toronto. He completed residency training at UCLA and at the University of Toronto. He completed his Master's of Science degree in Molecular Biology at the Institute of Medical Science at the University of Toronto in 1991 where he studied the molecular biological characteristics of head and neck cancers. He completed the American Head and Neck Society Fellowship in Head and Neck Surgical Oncology in 1991 and joined the staff of the Toronto General Hospital and Princess Margaret Cancer Centre in 1992.

Dr. Irish is currently Chief of the Department of Surgical Oncology at the Princess Cancer Centre and is Professor of Otolaryngology-Head and Neck Surgery at the University of Toronto. Dr. Irish is cross-appointed to the Department of Surgery and to the Department of Speech Language Pathology at the University of Toronto.

Since 2004, Dr. Irish has been a major health policy advisor and responsible for access to care, quality improvement and health care funding for the Surgical Oncology Program at Cancer Care Ontario. In 2008, Dr. Irish was appointed Provincial Head of the Surgical Oncology Program at Cancer Care Ontario. He was the Provincial Clinical Lead for Access to Services and Wait Times for the Province of Ontario from 2008-2012.

Dr. Irish's clinical interest is in head and neck oncology and surgical reconstruction of the head and neck region. As the Kevin and Sandra Sullivan Chair in Surgical Oncology at the University of Toronto, his research interests range from basic science studies in head and neck cancer to patient education intervention trials to outcome studies in head and neck cancers. More recently he has led a multidisciplinary program in Guided Therapeutics at UHN and is currently leading the Guided Therapeutics Core for the TECHNA Institute at the University Health Network.

Dr. Irish has over 270 peer review publications and over 30 book chapters and has over $3M in peer-review funding for his research through the NCIC and CIHR.

Dr. Irish is married to Dr. Rosemary Martino who is a Canada Research Chair in Dysphagia. Jon and Rosemary have 3 children Matthew (27) who is a lawyer, Brendan (25) who is a primary care physician and Elizabeth (22) who is a medical student.
John J. Conley Biography

John J. Conley, MD

Although he looked and sounded like an English nobleman, Dr. John Conley was born in Carnegie, Pennsylvania, a small steel mill town just outside of Pittsburgh. He graduated from the University of Pittsburgh and later its school of medicine. He interned at Mercy Hospital in Pittsburgh. During that year, the nuns who ran the hospital suggested that Dr. Conley take a residency in cardiology and come back to Mercy as their cardiologist.

He went to Kings County Hospital in Brooklyn, a very busy city hospital with a huge patient population. Shortly after he began his training, he had an arrhythmia diagnosed as paroxysmal atrial tachycardia. Little was known about this benign condition at that time. Dr. Conley was told that cardiology was too stressful and that he should go into an easier, less-stressful field with better working hours, like ENT. He did an otolaryngology residency at Kings County Hospital. This was followed by four years of military service during World War II, which included experience in otolaryngology and plastic and reconstructive and maxillofacial surgery in the U.S. Army Medical Corps, both in this country and in the South Pacific theater. Exposure to the construction of war wounds would prove invaluable to him later on in applying these principles to reconstruction following ablative head and neck surgery.

Dr. Conley returned to New York City after the war. He became an assistant and then an associate of Dr. George T. Pack, a technically superb general oncologic surgeon at Memorial Hospital who taught Dr. Conley major ablative surgery of the head and neck. They worked day and night catching up with the backlog of surgery that was neglected during the war years. The combination of his training in otolaryngology, the exposure to ablative surgery, and the World War II experience in reconstructive surgery set the stage for Dr. Conley to evolve his unique approach to head and neck surgery.

Ironically, despite the admonition of the cardiologists about hard work, Dr. Conley did a prodigious amount of major head and neck reconstructive surgery. This proved to be more than ample to provide training to many fellows. His commitment to education is further attested to by the position he held for many years as Clinical Professor of Otolaryngology at the College of Physicians and Surgeons at Columbia University. He loved his appointment at Columbia and particularly his involvement in teaching the residents.

Dr. Conley’s vast surgical experience, together with active research interests, led to the authorship of almost 300 contributions to the scientific literature, and eight books. As a result of his productivity and rhetorical eloquence, he was very much in demand as a speaker in this country and abroad. He gave many prestigious eponymous lectures in our field and received many awards for his work, including the Philip H. Hench Award as the Distinguished Alumnus of the University of Pittsburgh School of Medicine, and the DeRoaldes and Newcomb Awards of the American Laryngological Association.

Dr. Conley’s contributions to the scientific literature, many technical innovations and surgical experience placed him in the position to receive many honors and important leadership positions, such as President of the American Academy of Otolaryngology and Ophthalmology, member of the Board of Governors of the American College of Surgeons, founding member of the Society of Head and Neck Surgeons, and founding member and first President of the American Society for Head and Neck Surgery. During those years, Dr. Conley used, to the great benefit of us all, his wisdom and diplomacy in carrying out such high-level responsibilities.

Past John J. Conley Lecturers

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<th>Lecturer</th>
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<td>Julie A. Freischlag, MD</td>
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<td>James D. Smith, MD</td>
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<td>Kenneth I. Shine, MD</td>
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<td>John Stone, MD, MACP</td>
<td>2006</td>
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<td>James F. Battey Jr., MD</td>
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<td>David C. Leach, MD</td>
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<td>Jonathan D. Moreno, MD</td>
<td>2003</td>
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<td>Rabbi David Saperstein</td>
<td>2002</td>
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<tr>
<td>Edward Hughes, MD</td>
<td>2001</td>
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Jatin P. Shah Symposium & Biography

Professor Jatin P. Shah graduated from the Medical College of MS University in Baroda, India, and received his training in Surgical Oncology and Head and Neck Surgery at Memorial Sloan Kettering Cancer Center. He is Professor of Surgery, at the Weil Medical College of Cornell University, and Chief of the Head and Neck Service, Leader of the Head and Neck Disease Management Team, and holds The Elliott W. Strong Chair in Head and Neck Oncology at Memorial Sloan-Kettering Cancer Center in New York City.

Dr. Shah is a national and international leader in the field of head and neck surgery, having served as President of The New York Cancer Society, The New York Head and Neck Society, The Society of Head and Neck Surgeons, The North American Skull Base Society and the International Academy of Oral Oncology. He is Founder of The International Federation of Head and Neck Oncologic Societies, in 1986. He currently serves as Chairman of the AJCC task force on Head and Neck. He was Chairman of the Joint Council for advanced training in head and neck oncologic surgery in the USA. He was also Chairman of the 4th International Conference on Head and Neck Cancer in Toronto in 1996. He has served in varying capacities for The American Board of Surgery, and the American College of Surgeons.

Professor Shah has been the recipient of numerous awards from various parts of the world, and is the recipient of honorary fellowships from The Royal College of Surgeons of Edinburgh, London and Australia. He holds Honorary PhD, degrees from the Catholic University of Louvain, in Belgium and the University of Athens, in Greece. He is recipient of the Blokhin Gold medal, the highest Honor in Oncology in Russia. He has been elected as an honorary member of several head and neck societies in Europe, Asia, Australia, Africa and Latin America. He has been continuously listed in the “Best Doctors in America” directories for several years. He serves on the Editorial and Review Boards of 18 scientific journals and has published over 300 peerreviewed articles, 50 book chapters and 7 books. His textbook of Head and Neck Surgery and Oncology won First Prize from The British Medical Association and The Royal Society of Medicine and was awarded the George Davey Howells Prize from the University of London, for the best published book in otolaryngology in the preceding five years.

He is a much sought after speaker who has delivered over 1,000 scientific presentations including, 59 eponymous lectures and keynote addresses, and visiting professorships in the United States, Canada, United Kingdom, Scotland, Sweden, Belgium, Germany, Italy, Spain, Poland, Russia, Croatia, Turkey, Egypt, South Africa, India, China, Korea, Japan, Hong Kong, Taiwan, Singapore, Phillipines, Australia, Argentina, Brazil, Chile, Peru, Equador, Venezuela, Panama, and Mexico.

In recognition of his outstanding contributions, and World Leadership in Head and Neck Surgery, Memorial Sloan Kettering Cancer Center, has established The “Jatin Shah Chair in Head and Neck Surgery and Oncology”, The International Federation of Head and Neck Oncologic Societies has established “The Jatin Shah Lecture”, at its world congresses, and the American Head and Neck Society has established the “Jatin Shah Symposium” at its annual meeting.
Guest of Honor

Charles W. Cummings, MD

Dr. Charles Cummings was born in Boston, Massachusetts, in November of 1935. He graduated from Deerfield Academy in 1953, Dartmouth College in 1957, and the University of Virginia Medical School in 1961. He was an intern at Dartmouth and completed a year of general surgery residency at the University of Virginia. Dr. Cummings entered the Air Force in 1963, was discharged in July 1965, and entered residency training in Otolaryngology-Head and Neck Surgery at the Harvard Medical School, Massachusetts Eye and Ear Infirmary, finishing the program in 1968.

Dr. Cummings worked in private practice in Boston and on the clinical staff at the Massachusetts Eye and Ear Infirmary until the end of 1975 when he moved to Syracuse, New York and became an Associate Professor in the Department of Otolaryngology – Head and Neck Surgery at the State University of New York Upstate Medical University. Two years later, he assumed chairmanship of the Department of Otolaryngology – Head and Neck Surgery at the University of Washington where he remained until the end of 1990 when he became Director of the Department of Otolaryngology – Head and Neck Surgery at Johns Hopkins. He was Chief of Staff of the Johns Hopkins Hospital from 1997 through 1999. In 2003, Dr. Cummings stepped down as Director. He is currently a Distinguished Service Professor at Johns Hopkins and continues to care for patients.

Dr. Cummings was also the Senior Medical Director for Johns Hopkins International from 2003 until 2011. In addition, he has served as interim chair of the department of Dermatology (2007 - 2009) and the Department of Orthopaedics from (9/2011 - 9/2013) He returned to the Department of OTO/HNS at that time.

He has written 142 scientific papers and was the founder and Senior Editor of the four-volume text, Cummings Otolaryngology – Head and Neck Surgery, which is now in its fifth edition, edited by Dr Paul Flint. He has also co-authored two surgical atlases, one on laryngeal surgery and another on surgical access and reconstruction in the field of laryngology and head and neck surgery. Dr. Cummings served as a Director of the American Board of Otolaryngology, as Chairman of the Residency Review Committee and Chairman of the Advisory Council for Otolaryngology to the American College of Surgeons. He is a Past President of the American Association for Academic Departments of Otolaryngology, American Broncho-Esophagological Association, the American Academy of Otolaryngology – Head and Neck Surgery and the American Society for Head and Neck Surgery. Dr. Cummings has received numerous honors for his work, including the Chevalier Jackson Award (American Broncho-Esophagological Association), the Newcomb Award (American Laryngological Association), the Ogura lecturer for the Triological Society, The Hayes Martin lecturer for the American Head and Neck Society, The Daniel Baker Lecturer for the Triological Society, and others. He was presented with the 2009 Johns Hopkins Heritage Award, and the Johns Hopkins Distinguished Alumnus award in 2013. He has been honored by many International Head and neck Societies as an honorary member.

Many of his former residents and faculty are currently Chairing Departments of Otolaryngology- Head and Neck Surgery at leading Academic Institutions, a source of great personal pride.
Distinguished Service Award

Carol R. Bradford, MD

Dr. Carol Bradford serves as chair of the Department of Otolaryngology-Head and Neck Surgery at the University of Michigan Medical School and the Charles J. Krause, M.D., Collegiate Professor of Otolaryngology. She is internationally recognized leader in the treatment of head and neck cancer.

Dr. Bradford specializes in head and neck cancer surgery and reconstruction, as well as cutaneous oncology and sentinel lymph node biopsy. Her research focuses on identifying and evaluating biomarkers that can predict outcomes in head and neck cancer patients, and developing therapies to combat certain types of head and neck cancer that are resistant to traditional forms of treatment. Bradford has published more than 200 peer-reviewed articles.

During her 16-year tenure as co-director of the Head and Neck Oncology Program at the U-M Comprehensive Cancer Center, she helped to advance it from a small program with a few members to one with 30 members from 10 departments and five schools. She continues to play an active role within the program.

Bradford is the honored recipient of several awards, including the Jeanne Cady Solis Award for American Medical Women’s Association Mentorship and the 2009 Physician of the Year Award from Castle Connolly. More recently, she was elected into the prestigious Institute of Medicine.


Past Distinguished Service Award Recipients

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<thead>
<tr>
<th>Year</th>
<th>Recipient</th>
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<tbody>
<tr>
<td>1989</td>
<td>Jatin P. Shah, MD</td>
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<td>1990</td>
<td>Stephan Ariyan, MD</td>
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<td>1991</td>
<td>Ashok R. Shaha, MD</td>
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<td>1995</td>
<td>Elliot W. Strong, MD</td>
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<td>1999</td>
<td>John J. Coleman, MD</td>
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<td>1999</td>
<td>David L. Larson, MD</td>
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<td>Harold J. Wanebo, MD</td>
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<td>2001</td>
<td>Jonas T. Johnson, MD</td>
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<td>2003</td>
<td>Helmuth Goepfert, MD</td>
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<td>2004</td>
<td>Marc D. Coltrera, MD</td>
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<td>1999</td>
<td>Wayne Koch, MD</td>
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<td>2006</td>
<td>John A. Ridge, MD, PhD</td>
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<td>2007</td>
<td>Ernest A. Weymüller, Jr., MD</td>
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<td>2008</td>
<td>Helmuth Goepfert, MD</td>
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<td>2009</td>
<td>Keith S. Heller, MD</td>
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<td>2010</td>
<td>Mark K. Wax, MD</td>
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<td>2011</td>
<td>Randal S. Weber</td>
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<td>2012</td>
<td>Ashok R. Shaha, MD</td>
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<td>2013</td>
<td>Dennis H. Kraus, MD</td>
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<td>2014</td>
<td>Jesus E. Medina, MD</td>
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Past Special Recognition Award Recipients

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<tr>
<td>1984</td>
<td>Paul B. Chyetien, MD</td>
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<td>John M. Lore, Jr., MD</td>
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<td>1986</td>
<td>William S. MacComb, MD</td>
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<td>1987</td>
<td>Calvin T. Klopp, MD</td>
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<td>1988</td>
<td>Edgar L. Fazell, MD</td>
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<td>1989</td>
<td>Harvey W. Baker, MD</td>
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<td>1991</td>
<td>Vahram Y. Bakamjian, MD</td>
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<tr>
<td>1995</td>
<td>Jean-Louis Lefevbre, MD</td>
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Presidential Citations

Terry A. Day, MD

Terry Day, MD received his medical degree from the University of Oklahoma. He completed his residency at Louisiana State University before pursuing a fellowship in Head and Neck Oncologic Surgery at the University of California, Davis, and in craniomaxillofacial surgery at Inselspital-Bern in Bern, Switzerland. Following fellowship, he joined the faculty in the Department of Otolaryngology-Head and Neck Surgery at Vanderbilt University Medical Center in Nashville, Tennessee.

Currently, he is Professor and Director of the Division of Head and Neck Oncologic Surgery in the Department of Otolaryngology - Head and Neck Surgery at the Medical University of South Carolina.

Dr. Day is the Director of the Head and Neck Tumor Center at Hollings Cancer Center, and Chair of the Coordinating Council of the statewide South Carolina Cancer Alliance. He currently serves as the president of the American Head and Neck Society, chairs the committee on Head and Neck Surgery and Oncology for the American Academy of Otolaryngology – Head and Neck Surgery and the Prevention Committee for the American Head and Neck Society. He also serves on the Head and Neck Surgical Subcommittee for RTOG and Head and Neck Working Group for the American College of Surgeons Oncology Group. Dr. Day volunteers his time as President of the Head and Neck Cancer Alliance and leads the international Oral, Head and Neck Cancer Awareness Week annually.

Since completion of his fellowship, Dr. Day has limited his practice to patients with tumors of the head and neck region, including skull base, thyroid, and salivary gland. His goals for patient care include a comprehensive and multidisciplinary approach to each patient to provide the best cure, quality of life, and cosmesis.
Presidential Citations

Dave W. Eisele, MD

Dr. David W. Eisele is the Andelot Professor and Director of the Department of Otolaryngology – Head and Neck Surgery at Johns Hopkins University School of Medicine in Baltimore, Maryland.

Dr. Eisele attended Dartmouth College, where he was a member of the Sigma Alpha Epsilon fraternity. He graduated from Cornell University Medical College and completed residency training in otolaryngology – head and neck surgery at the University of Washington. Following his residency training in 1988, Dr. Eisele joined the faculty at Johns Hopkins University School of Medicine where he eventually became Professor of Otolaryngology, Professor of Oncology, and Professor of Anesthesiology and Critical Care Medicine. He was the founding Director of the Johns Hopkins Head and Neck Cancer Center and served as Director of the Division of Head and Neck Surgery.

In 2001, Dr. Eisele joined the faculty at the University of California, San Francisco as Professor and Chairman of the Department of Otolaryngology - Head and Neck Surgery. At UCSF he was the Irwin Mark Jacobs and Joan Klein Jacobs Endowed Chair in Head and Neck Cancer and directed the Head and Neck Oncology Program at the UCSF Comprehensive Cancer Center. He also served as President of the UCSF Medical Staff. In 2102, he returned to Johns Hopkins in his present role.

Dr. Eisele is a Director of the American Board of Otolaryngology and a member of the NCCN Head and Neck Cancer Panel. He has served as a member of the Residency Review Committee for Otolaryngology, as Chair of the Advisory Council for Otolaryngology - Head and Neck Surgery for the American College of Surgeons, President of the American Head and Neck Society, and as Vice-President of the Triological Society. He also served as President of the Maryland Society of Otolaryngology and is a former Governor of the American College of Surgeons.

Dr. Eisele’s clinical interests include benign and malignant tumors of the head and neck, with special interest in salivary gland, oral cavity, oropharyngeal, and thyroid gland neoplasms. His research interests have included functional stimulation of the upper airway for obstructive sleep apnea, electrophysiological nerve monitoring during head and neck surgery, dysphagia, head and neck cancer treatment outcomes, and minimally invasive salivary gland surgery.

Dr. Eisele has three daughters, Leigh, Lauren, and Mariel, and is married to Janice J. Eisele, Senior Vice-President for Development at the University of Maryland Medical System Foundation.
Presidential Citations

Dennis H. Kraus, MD

Dennis Kraus MD is the Director of the Center for Head and Neck Oncology within the New York Head & Neck Institute and the North Shore-LIJ Cancer Institute and Professor of Otolaryngology at Hofstra North Shore-LIJ School of Medicine. He previously served as an Attending Surgeon on the Head and Neck Service at Memorial Sloan-Kettering Cancer Center and Professor of Otolaryngology at Cornell University Medical Center. He has served in a number of administrative positions within otolaryngology and head and neck surgery. He has served in multiple roles within the AHNS, including program chair of the annual meeting and Secretary, and is currently President elect.

He serves as a member of the Board of Governor for the American College of Surgeons and the Otolaryngology Advisory Council. He is a member of the American Joint Commission of Cancer. He is the past president of the North American Skull Base Society, the New York Head and Neck Society and the New York Laryngological Society. He is currently the co-editor in chief of the Skull Base Journal and associate editor of Head and Neck Surgery. He was a member of the Subspecialty Advisory Council for the American Academy of Otolaryngology-Head and Neck Surgery and is past chair of the Head and Neck Educational committee and the Home Study Course.

His clinical interest focuses on all aspects of head and neck oncology and his research efforts have paralleled his clinical initiatives. He has been fortunate to lecture across both the USA and around the world in a number of venues. On a personal level, he is married to his wife of 27 years Daryl and all 3 of his children are currently attending college. He continues to enjoy golf, skiing and travel.
Presidential Citations

Bob Page, MBA

Bob Page was born and raised in Elgin, Illinois where he graduated high school 1975. Upon graduation with a BA in Accounting from Illinois Wesleyan University, Page passed the CPA exam and began his professional career with Price Waterhouse. In 1981, he left public accounting and took on a role in internal auditing at Jewish Hospital in St. Louis, Missouri.

He joined Saint Louis University to head up their medical center internal audit function in 1986, which is where he completed his MBA. Bob rejoined Jewish Hospital in 1990 as the Director of Audit Services. In 1996, he left BJC as Corporate Director of Audit Services and joined The University of Kansas Hospital as Vice President for Organizational Improvement. This was a critical and transformative period during which the hospital was separated from state systems and processes and became a Public Authority. Page was instrumental in establishing the foundation and processes which helped transform the organization’s culture, create strong relationships with physician partners and improve patient care and outcomes.

Page became the hospital’s Chief Operating Officer in 2000 and in July 2007, he was selected by The University of Kansas Hospital Authority Board to be President and CEO. During his tenure as President and CEO, the hospital system has experienced unprecedented growth and established itself as a national leader in service and quality. With record setting volumes, twelve services nationally ranked on US News Best Hospitals list, and high levels of customer satisfaction and consumer preference, the organization is well positioned for future success.

Bob serves on the Board of Directors for the University HealthSystem Consortium, Kansas Hospital Association and the Kansas City Metropolitan Healthcare Council & Missouri Hospital Association’s District 2. He holds a courtesy assistant professor appointment in the Department of Health Policy and Management at the University of Kansas School of Medicine.

In 2013, Bob was honored by Illinois Wesleyan University as Distinguished Alumni. Later that year he was recognized for his work promoting the Negro Leagues Baseball Museum in Kansas City with the Buck O’Neil Legacy Award.

Bob has two adult children, Jesse and Charlie, and one grandchild, Lily. An avid Cubs fan from childhood, baseball has been important throughout his life. He has participated in seven Chicago Cubs Fantasy Camps, enjoys collecting sports memorabilia and playing golf.
Yelizaveta (Lisa) Shnayder, MD, FACS is currently an Associate Professor of Otolaryngology-Head and Neck Surgery at the University of Kansas School of Medicine. She serves as a Director of the Fellowship in Head and Neck Oncology and Microvascular Reconstruction as well as an Associate Director of the Otolaryngology Residency Program.

Dr. Shnayder started her seven-year-long medical education in Odessa, Ukraine, which was interrupted after 3 years when she immigrated to New York City. She later graduated summa cum laude from Brooklyn College (CUNY) with a B.S. in Biology. Dr. Shnayder obtained her medical degree at the New York University School of Medicine, where she was a member of the Alpha Omega Alpha Honor Medical Society. Dr. Shnayder trained in Otolaryngology-Head and Neck Surgery at the New York University School of Medicine, where she received Resident Research Awards for two consecutive years. She then completed a Head and Neck Oncology and Microvascular Reconstruction fellowship at the University of Miami, having also received a Fellow Research Award at graduation.

Dr. Lisa Shnayder joined the Department of Otolaryngology-Head and Neck Surgery at the University of Kansas in 2006 as an Assistant Professor. She was actively involved in developing a fellowship in Head and Neck Oncology and Microvascular Reconstruction at the University of Kansas. She became an Associate Fellowship Program Director in 2008, and later a Director of the Fellowship in 2012. The fellowship training program has been fully accredited by the Advanced Training Council of the American Head and Neck Society since 2009 and has accomplished two successful site visits. Dr. Shnayder also became an Associate Residency Program Director in 2010, and has contributed to the program receiving a full 5-year accreditation after a site visit.

Dr. Shnayder has been an active member of the American Head and Neck Society and served on the Reconstructive, Awards, and Publications committees, as well as on the Women in Head and Neck Surgery Task Force.

Her clinical interests include head and neck oncologic surgery, microvascular reconstruction, surgical treatment of melanoma, and transoral cancer resections utilizing Da Vinci robotic technology. She has developed a clinical program in Transoral Robotic Surgery at the University of Kansas and founded a Multi-Disciplinary Melanoma Tumor Board at the institution.

Dr. Shnayder’s research interests include outcomes in head and neck surgery and microvascular reconstruction, novel drug delivery methods in treating patients with head and neck cancer and radiation induced fibrosis. She was the recipient of Young Investigator CORE Award jointly sponsored by the American Head and Neck Society and American Academy of Otolaryngology in 2010, for her work investigating cisplatin-hyaluronic acid conjugate in an animal model for head and neck cancer.

She has been married to Boris Naronov, an information technology professional, for 25 years. They have two beautiful daughters: Polina, 23, a financial analyst in Greenwich, CT, and Sophia, 7, a first grader.
Presidential Citations

Steve Stites, MD

Steven Stites, MD, serves a dual role as vice chancellor for clinical affairs and senior vice president for clinical affairs for The University of Kansas Hospital Authority. He served as chair of the University of Kansas Medical Center’s Department of Internal Medicine from 2007 to 2014. He also has served as senior associate dean for clinical affairs for the University of Kansas Medical Center, following 10 months as acting executive vice chancellor.

As vice chancellor for clinical affairs, Dr. Stites reports to the university’s executive vice chancellor, working to fully integrate our clinical departments into a wider-reaching health system and ensuring we have a strong strategic plan for educating future physicians and growing the academic strength of our clinical programs. As senior vice president for clinical affairs, Dr. Stites reports to The University of Kansas Hospital Authority’s chief executive officer and have responsibilities especially in the area of clinical programs and practice development, as well as strategic planning and education. He will work closely with other members of the hospital’s executive team, and with The University of Kansas Physicians, to implement the next phase of our clinical enterprise, which includes the creation of a wider health system.

Under Dr. Stites’ leadership, the Department of Internal Medicine saw significant growth. Six Internal Medicine divisions — pulmonary medicine, nephrology, cardiology, oncology, endocrinology and gastroenterology — earned top 50 U.S. News and World Report rankings in 2013. The medical intensive care unit is one of the country’s best, with a Beacon Award to its name. In addition to his administrative responsibilities, Dr. Stites directs KU Medical Center’s Cystic Fibrosis Center, having founded the adult CF program in 1994. It’s now one of the larger adult programs in the United States, with more than 150 patients. His areas of research include investigating different methods of airway clearance for adult CF patients and how these affect the distribution of inhaled medicines. He has also written at length on the ways and means of developing mission-based funding for academic departments: the Educational Value Unit (EVU) system — specifically aligning salary support for faculty with each individual’s educational responsibilities — which he published in 2005, has been adopted by several other institutions.
Presidential Citations

Terance T. Tsue, MD

Terance T. Tsue, MD FACS is currently Physician-in-Chief of the NCI-designated University of Kansas Cancer Center, Douglas A. Girod MD Endowed Professor of Head and Neck Surgical Oncology, and Vice-Chairman of the Department of Otolaryngology-Head and Neck Surgery at the University of Kansas School of Medicine.

After growing up through high school in Seattle, Terry attended Stanford University. He graduated first as the Henry Ford Scholar in engineering and earned a B.S. in Electrical Engineering and Biology. He went to medical school at Johns Hopkins University School of Medicine and subsequently did his residency training at the University of Washington Department of Otolaryngology-Head and Neck Surgery. During his training, he did a 2-year NIH-funded fellowship in the Virginia Bloedel Hearing Research Center in Vestibular Hair Cell Regeneration. He gained sub-specialty experience in skull base and microvascular reconstructive surgery during his training.

Eighteen years ago he joined the faculty at the University of Kansas School of Medicine Department of Otolaryngology-Head and Neck Surgery. He was a Merit Review Award recipient at the Kansas City VAMC, where he continued his studies in Hair Cell Regeneration as a junior Faculty member. After serving as residency program director for nearly a decade through two successful ACGME site visits and a complement increase, he became the Associate Dean for Graduate Medical Education and DIO at the University of Kansas School of Medicine. During his tenure, he led the Institution through a successful ACGME site visit with no citations and with commendation. His passion for resident and fellow education is also exemplified in his current tenure on the ACGME Residency Review Committee for Otolaryngology, and he most recently served as Chair of the Otolaryngology Milestones Committee which developed the Otolaryngology Competency Milestones currently in use. He has been a diplomate of the American Board of Otolaryngology since 1997, and has recently served as both Guest and Senior Examiner for the American Board of Otolaryngology Oral Boards examination. He continues to be an active member of the ABOto Education Council and member of the Resident Screening Committee evaluating new methodologies to evaluate resident applicants. Dr. Tsue has lectured extensively nationally on educational and clinical subjects. He serves on the Editorial Board of Laryngoscope as well having a long history of educational committee service to the American Academy of Otolaryngology-Head and Neck Surgery, American Head and Neck Society and Society of University Otolaryngologists.

Dr. Tsue has been on a number of international mission trips, the last being to Cuba. He is a nationally competitive foil fencer. His greatest accomplishment remains his marriage of 27 years to his wife Debbie, and his greatest joys are following his daughter (Ashley) NCAA fencing tournaments as a sophomore at Princeton and his son Trevor’s research in Cancer Biology as an incoming freshman at Stanford University.
Congratulations to the AHNS 2015 Award Winners!

Presented during the AHNS Awards Ceremony
Thursday, April 23, 2015
7:30 AM - 8:00 AM
Ballroom A

Robert Maxwell Byers Award
Brian Nussenbaum, MD
Washington University School of Medicine
Department of Otolaryngology Head and Neck Surgery
Treatment Outcomes for T4 Oropharyngeal Squamous Cell Carcinoma

Best Resident Basic Science Paper
Brittny N. Tillman, MD
University of Michigan Health System
Department of Otolaryngology Head and Neck Surgery
Targeted Sequencing of an Epidemiologically Low Risk patient define Fibroblast Growth Factor Family Aberrations as a driver of Head and Neck Squamous Cell Carcinoma

Best Resident Clinical Paper
Laura J. White, MD
Emory University
Department of Otolaryngology Head and Neck Surgery
Applying ACS-NSQIP Methodology to Assess Patients Undergoing Fibula Free Flap Reconstruction: Examining Factors that Impact Hospital Length of Stay
AHNS Leadership

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President-Elect  
Dennis H. Kraus, MD

Vice President  
Jeffrey Myers, MD

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Brian B. Burkey, MD, Med

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Ehab Y. Hanna, MD

Past President  
Terry A. Day, MD

Past President  
Mark K. Wax, MD

Past President  
Carol R. Bradford, MD

AHNS Foundation President  
Jatin P. Shah, MD, PhD

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Amy Chen, MD  
Christine G. Gourin, MD  
Neal Dwayne Gross, MD  
D. Gregory Farwell, MD

Ellie Maghami, MD  
William Lydiatt, MD  
Cherie-Ann O. Nathan, MD  
Lisa A. Orloff, MD

 Committees of the AHNS 2014 - 2015

ACGME Fellowship Accreditation Task Force

Brian B. Burkey, MD, Med (Co-Chair)  
Douglas A. Girod, MD (Co-Chair)  
Ara A. Chalian, MD

Terry A. Day, MD  
Ralph W. Gilbert, MD  
William M. Lydiatt, MD  
Randal S. Weber

2014-2016  
2014-2016

Ad Hoc Development Committee

Bert W. O’Malley, Jr, MD (Chair)  
Jon Irish, MD  
Karen Pitman, MD  
Wendell Yarbrough, MD  
Jeffrey M. Bumpous, MD  
Robert L. Ferris, MD, PhD  
Neal D. Futran, MD, DMD

Floyd “Chris” Holsinger, MD  
James Rocco, MD, PhD  
David J. Terris, MD  
Jatin Shah, MD (ex officio member)  
Bevan Yueh (Ex Officio)  
Ehab Hanna, MD

2013-2016  
2013-2016  
2013-2016  
2014-2017

Ad Hoc Survivorship Committee

Matthew Miller, MD (chair)  
Kristi Chang, MD  
Joseph Curry, MD  
Louise Davies, MD  
Carol Lewis, MD  
Kelly Mallory, MD

Ben Roman, MD  
Andrew Shuman, MD  
Joshua Waltonen, MD  
Mark Zafereoa, MD  
Victoria Villaflor, MD

2013-2016  
2013-2016  
2013-2016  
2013-2016  
2013-2016

Advanced Training Council (ATC)

William M. Lydiatt, MD (Chair)  
Ara A. Chalian, MD (Secretary)  
Danny Enepekides, MD, FRCS  
Erich M. Sturgis, MD  
Douglas A. Girod, MD  
David J. Terris, MD

Donald T. Weed, MD  
William R. Carroll, MD  
Babak Givi, MD  
Amit Agrawal, MD  
Amy Chen, MD

2012-2015  
2013-2018  
2010-2015  
2010-2015  
2012-2017  
2012-2017

Awards Committee

William R. Carroll, MD (Chair)  
John H. Lee, MD  
Yelizaveta Lisa Shnayder, MD  
Gregory L. Randolph, MD

William Russell Ryan, MD  
John Yoo, MD  
Frank Miller, MD  
2013-2016  
2012-2015  
2012-2015  
2013-2016

28 AHNS 2015 Annual Meeting
AHNS Leadership

CME Compliance & Measurement Committee
Paul L. Friedlander, MD (Chair) 2013-2016
Marilene Wang, MD 2014-2017
Samir Kharwala, MD 2014-2017
Charles Coffey, MD 2012-2015
Jan L. Kasperbauer, MD 2012-2015
Rohan Ramchandra Walvekar, MD 2012-2015
Brian B. Burkey, MD (Ex Officio) 2013-2016
Jason Anthony Diaz, MD 2013-2016
Jason Gabriel Newman, MD 2013-2016
Hadi Seikaly, MD, FRCS 2013-2016
Baran Devrim Sumer, MD 2013-2016
Giovana Thomas, MD 2014 - 2017
Tapan Padhya, MD 2014 - 2017

Constitution & Bylaws Committee
Ellie Maghami, MD (Chair) 2013-2016
Brian B. Burkey, MD, Med (Ex Officio) 2013-2016
M. Boyd Gillespie, MD, MS 2012-2015
Rizwan Aslam, DO 2013-2016
Christopher H. Rassekh, MD 2013-2016
Marilene B. Wang, MD 2013-2016
Terry Tsue, MD 2014-2017

Credentials Committee
Douglas Girod, MD (Chair) 2014-2015
Terry A. Day, MD 2014-2016
Daniel G. Deschler, MD 2012-2015
Brian B. Burkey, MD, Med (Ex Officio) 2013-2016
Sandeep Samant, MS, FRCS 2013-2016
Mark K. Wax, MD 2013-2015

Education Committee
David Goldenberg, MD (Chair) 2013-2016
Stuart Charles Coffey, MD 2012-2015
Tamer Ghanem, MD, PhD 2012-2015
Jeffrey Chang-Jen Liu, MD 2012-2015
Luc G.T. Morris, MD MSc 2012-2015
Nitin A. Pagedar, MD 2012-2015
Theodoros N. Teknos, MD 2012-2015
Terance T. Tsue, MD 2012-2015
Carole Fakhry, MD, MPH 2013-2016
Babak Givi, MD 2013-2016
Nathan Hales, MD 2013-2016
Arjun Joshi, MD 2013-2016
Brett A. Miles, MD 2013-2016
Matthew Christopher Miller, MD 2013-2016
Karen T. Pitman, MD 2013-2016
Jeremy Richmond, MD 2013-2016
Nilesh R. Vasan, MD 2013-2016
Amit Agrawal, MD 2014-2017
Thomas Ow, MD 2014-2017
Christopher Rasseeh, MD 2014-2017
Frank Miller, MD 2014-2017
Neil Gross, MD 2014-2017

Endocrine Task Force
Jeff Myers, MD (Chair) 2014-2017
Brenden Stack, MD 2014-2017
Gregory Randolph, MD 2014-2017
Maise Shindo, MD 2014-2017
David Terris, MD 2014-2017

Endocrine Committee
Gregory L. Randolph, MD (Chair) 2013-2016
Kevin T. Brumund, MD 2012-2015
Maria Evasovich, MD 2012-2015
Neil Dwayne Gross, MD 2012-2015
Russell B. Smith, MD 2012-2015
Nishant Agrawal, MD 2013-2016
William B. Armstrong, MD 2013-2016
Andres Ignacio Chala, MD 2013-2016
David M. Cognetti, MD 2013-2016
Umamaheswar Duvvuri, MD 2013-2016
Gady Har-EI, MD 2013-2016
Emad Kandil, MBBCb 2013-2016
Joseph Scharpf, MD 2013-2016
Catherine Fiona Sinclair, MD, FRACS 2013-2016
David Steward, MD 2014-2017
David Terris, MD 2014-2017
Claudio Cernea, MD 2014-2017
AHNS Leadership

Ethics & Professionalism Committee
Susan Dixon McCammon, MD (Chair) 
2013-2016
Krishnamurthi Sundaram, MD 
2013-2016
Pierre Lavertu, MD 
2012-2015
Marilene B. Wang, MD 
2013-2016
Mark E.P. Prince, MD, FRCS 
2012-2015
Steven J. Wang, MD 
2013-2016
Robert H. Maisel, MD 
2013-2016
Andrew Shuman, MD 
2014-2017
Enver Ozer, MD 
2013-2016
Robert Lindau, MD 
2014-2017
Michael Stadler, MD 
2013-2016
Kiran Kakarala, MD 
2014-2017

Finance Committee
Shawn D. Newlands, MD, PhD (Chair) 
2012-2015
Ralph P. Tufano, MD 
2013-2016
Ehab Y. Hanna, MD (Ex Officio) 
2013-2016
Steven Wang, MD 
2014-2017

Head & Neck Reconstructive Committee
Derrick Lin, MD (Chair) 
2013-2015
Eben L. Rosenthal, MD 
2013-2016
Tamer Ghanem, MD, PhD 
2013-2016
Gregory Karl Hartig, MD 
2013-2016
Brian Nussenbaum, MD 
2013-2016
Joshua Hornig, MD 
2013-2016
Yelizaveta Lisa Shnayder, MD 
2012-2015
Neal D. Futran, MD, DMD 
2013-2016
Jason M. Leibowitz, MD 
2013-2016
Timothy S. Lian, MD 
2013-2016
Jason Anthony Diaz, MD 
2013-2016
Vasu Divi, MD 
2014-2017
Matthew M. Hanasono, MD 
2013-2016
Matthew Old, MD 
2014-2017

History Committee
Arnold Komisar, MD, DDS (Chair) 
2014-2017
Barry Wenig, MD 
2014-2017
Susan Dixon McCammon, MD 
2013-2016
Giovanna Thomas, MD 
2014-2017
Kirin Kakarala, MD 
2014-2017
Jeffrey D. Spiro, MD 
2013-2016
J. Trad Wadsworth, MD 
2014-2017
Melonie Nance, MD 
2013-2016
Andrew Shuman, MD 
2014-2017
Steven Wang, MD 
2014-2017

Humanitarian Committee
Wayne M. Koch, MD (Chair) 
2012-2015
Larry L. Myers, MD 
2013-2016
M. Boyd Gillespie, MD, MS 
2012-2015
Hector M. Santini Olivieri, MD 
2013-2016
Joshua Hornig, MD 
2012-2015
Scharukh Jalisi, MD 
2012-2015
Michael Stadler, MD 
2013-2016
James L. Netterville, MD 
2012-2015
Kerstin M. Stenson, MD 
2013-2016
Randal A. Otto, MD 
2012-2015
Mark Zafereo, MD 
2013-2016
K. Thomas Robbins, MD 
2012-2015
Kevin Potts, MD 
2014-2017
Neal D. Futran, MD, DMD 
2013-2016
Michael Moore, MD 
2014-2017

Nominating Committee
Terry A. Day, MD (Chair) 
2014-2015
Greg Krempl, MD 
2014-2015
Mark K. Wax, MD 
2014-2015
Bevan Yueh, MD 
2014-2015
Carol R. Bradford, MD 
2014-2015

Ad Hoc Oral Surgery Task Force
Bill Lydiatt, MD (Chair) 
2014-2017
Neal Futran, MD 
2014-2017
Ara Chalian, MD (Co-chair) 
2014-2017
Scharukh Jalisi, MD 
2014-2017
AHNS Leadership

Prevention and Early Detection Committee

Joseph Anthony Califano, MD (Chair) 2013-2016
Joseph Scharpf, MD 2012-2015
Rodrigo Bayon, MD 2013-2016
Stanley H Chia, MD 2013-2016
Andrew Thomas Cowan, MD, PhD 2013-2016
Deepak Kademani, DMD, MD 2013-2016
Mumtaz J Khan, MD 2013-2016
Jason M. Leibowitz, MD 2013-2016

2015 Program Committee for Annual Meeting
Karen Pitman, MD (Chair) 2015-2016
Greg Farwell, MD (Poster Chair) 2015-2016

2015 Program Committee for Translational Research Meeting
Wendell Yarbrough, MD (Chair) 2015-2016
Ben Judson, MD (Poster Chair) 2015-2016
Boyd Gillepsie, MD (Co-Chair) 2015-2016

Publications Committee
D. Gregory Farwell, MD (Chair) 2013-2016
Paul Levine, MD (Ex Officio) 2014-2016
Brian B. Burkey, MD, Med 2013-2016
Douglas Girod 2014-2015
Vinod K. Anand, MD 2013-2016
Rizwan Aslam, DO 2013-2016
William B. Armstrong, MD 2013-2016
Eben L. Rosenthal, MD 2013-2016
Matthew M. Hanasono, MD 2013-2016
Pierre Lavertu, MD 2013-2016
Samir Khariwala, MD 2013-2016
Mumtaz Khan, MD 2013-2016
Eric Lentsch, MD 2013-2016
Kyle Mannion, MD 2013-2016
Luc G.T. Morris, MD, MSc 2013-2016

Quality of Care Committee
Amy C. Hessel, MD (Chair) 2012-2015
Stanley H Chia, MD 2012-2015
Ramon Esclamado, MD 2012-2015
Ralph W. Gilbert, MD 2012-2015
Christine G. Gourin, MD 2012-2015
Stephen Y. Lai, MD, PhD 2012-2015
Amy Anne Donatelli Lassig, MD, BA 2012-2015
Carol Lewis, MD, MPH 2012-2015

Relative Value and CPT Advisory Committee
Brendan C. Stack, Jr, MD (Chair) 2012-2015
Brian B. Burkey, MD, Med 2013-2016
Alan P. Mullins, MD 2013-2016
Christopher L. Oliver, MD 2013-2016
Jeffrey P. Kirsch, MD 2013-2016
Emre Vural, MD 2013-2016
William Charles Spanos, MD 2013-2016
Peter E. Andersen, MD 2012-2015
William R. Carroll, MD 2012-2015

April 22 - 23, 2015 - www.ahns.info 31
## AHNS Leadership

### Research Committee

<table>
<thead>
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<th>End Year</th>
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<td>Wendell Gray Yarbrough, MD</td>
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<td>2012-2015</td>
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<tr>
<td>Louise Davies, MD, MS</td>
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<td>Ian Ganly, MD, PhD</td>
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<td>Neil Dwayne Gross, MD</td>
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<td>Patrick Kyongmin Ha, MD</td>
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<td>Hisham Mehanna, PhD, MD</td>
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<td>Eduardo Mendez, MD</td>
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<td>David Myssiorek, MD</td>
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<td>Rizwan Aslam, DO</td>
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<td>Carol R. Bradford, MD</td>
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<td>Babak Givi, MD</td>
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<td>Arjun Joshi,</td>
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<td>Bevan Yueh, MD</td>
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<td>Seungwon Kim, MD</td>
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<td>Ravindra Uppaluri, MD, PhD</td>
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### Website Committee

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<th>End Year</th>
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<tr>
<td>Karen T. Pitman, MD</td>
<td>Chair</td>
<td>2012-2015</td>
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<tr>
<td>Brian B. Burkey, MD, Med</td>
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<td>2013-2016</td>
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<tr>
<td>Luc G.T. Morris, MD MSc</td>
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<td>Snehal G. Patel, MD, FRCS</td>
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<td>David Charles Shonka, MD</td>
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<td>Elizabeth A. Blair, MD</td>
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<td>Emad Kandil, MBBCh</td>
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<td>Young Kim, MD, PhD</td>
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<tr>
<td>Brian Nussenbaum, MD</td>
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<td>2012-2015</td>
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<td>Mark A.S. Varvares, MD</td>
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<td>Vikas Mehta, MD</td>
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<td>2012-2015</td>
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<tr>
<td>Samer Al Khudari, MD</td>
<td></td>
<td>2014-2017</td>
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### Women in AHNS Task Force

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Start Year</th>
<th>End Year</th>
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</thead>
<tbody>
<tr>
<td>Amy Chen, MD</td>
<td>Chair</td>
<td>2014-2017</td>
<td></td>
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<tr>
<td>Carol Bradford, MD</td>
<td></td>
<td>2014-2017</td>
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<tr>
<td>Chris Gourin, MD</td>
<td></td>
<td>2014-2017</td>
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<tr>
<td>Amy Hessel, MD</td>
<td></td>
<td>2014-2017</td>
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<tr>
<td>Anna Pou, MD</td>
<td></td>
<td>2014-2017</td>
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<tr>
<td>Karen Pitman, MD</td>
<td></td>
<td>2014-2017</td>
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<tr>
<td>Lisa Schnyder, MD</td>
<td></td>
<td>2014-2017</td>
<td></td>
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<tr>
<td>Cherie Ann Nathan, MD</td>
<td></td>
<td>2014-2017</td>
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### Representatives

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Position</th>
<th>Start Year</th>
<th>End Year</th>
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<tr>
<td>AAO-HNSF Legislative Liaison</td>
<td>Jeffery Scott Magnuson, MD</td>
<td></td>
<td>2012-2018</td>
<td></td>
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<tr>
<td>AAO-HNSF Specialty Advisory Council</td>
<td>Brian B. Burkey, MD, Med</td>
<td>2013-2018</td>
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<td></td>
<td>Don Weed, MD (Alternate)</td>
<td>2014-2019</td>
<td></td>
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<td>American Board of Otolaryngology Liaison</td>
<td>Ramon Esclamado, MD</td>
<td>2013-2016</td>
<td></td>
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<tr>
<td>American College of Surgeons Board of Governors Advisory Council</td>
<td>Ellie Maghami, MD</td>
<td>2012-2015</td>
<td></td>
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</tr>
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<td>Theodoros N. Teknos, MD</td>
<td>2012-2015</td>
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<td>American College of Surgeons Commission on Cancer</td>
<td>Dan Deschler, MD</td>
<td>2014-2017</td>
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<tr>
<td>American Joint Committee on Cancer Membership &amp; Bylaws Committee Liaison</td>
<td>Dennis H. Kraus, MD</td>
<td>2013-2016</td>
<td></td>
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<tr>
<td>JAMA Otolaryngology – Head and Neck Surgery</td>
<td>D. Gregory Farwell, MD (Associate Co-Editor)</td>
<td>2013-2016</td>
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</tr>
</tbody>
</table>
AHNS Leadership

Past Presidents

The American Head and Neck Society:

John J. Coleman, III, MD (2006)  

The American Society for Head and Neck Surgery:

Nicholas J. Cassisi, MD (1996-97)  Loring W. Pratt, MD (1979-80)
Gary L. Schechter, MD (1994-95)  John A. Kirchner, MD (1977-78)
James Y. Suen, MD (1993-94)  George F. Reed, MD* (1976-77)
Bryon J. Bailey, MD (1992-93)  Emanuel M. Skolnick, MD* (1975-76)
Helmuth Goepfert, MD (1990-91)  Charles M. Norris, MD* (1973-74)
Willard N. Fee, Jr., MD (1989-90)  Edwin W. Cooke, Jr., MD* (1972-73)
Eugene N. Myers, MD (1988-89)  Burton J. Sobotoff, MD* (1971-72)
Charles J. Krause, MD (1987-88)  John S. Lewis, MD* (1970-71)
John M. Lore, Jr., MD* (1986-87)  George A. Sisson, MD* (1969-70)
Robert W. Cantrell, MD (1985-86)  W. Franklin Keim, MD* (1967-68)
Hugh F. Biller, MD (1984-85)  John F. Daly, MD* (1965-67)
Jerome C. Goldstein, MD (1982-83)  Paul H. Holinger, MD* (1961-63)

The Society of Head and Neck Surgeons:

Ronald H. Spiro, MD (1998)  Donald P. Shed, MD (1977)
J. Edward M. Young, MD (1994)  Robin Anderson, MD* (1973)
Robert D. Harwick, MD (1988)  Oliver H. Beahrs, MD* (1967)
Frank C. Marchetta, MD* (1986)  Harry W. Southwick, MD* (1965)
Alando J. Ballantyne, MD* (1985)  Calvin T. Kloop, MD* (1964)
Alvin L. Watne, MD (1983)  Arnold J. Kremen, MD (1960-61)
John M. Moore, MD (1982)  Danely P. Slaughter, MD* (1959)
Elliott W. Strong, MD (1981)  Grant Ward, MD* (1958)
John C. Gaisford, MD (1979)  
William A. Maddox, MD (1978)  *Deceased
The Robert Maxwell Byers Award, in the amount of $1000, is awarded for the best clinical or basic science research paper submitted for presentation at the annual meeting of the American Head and Society.

Robert Maxwell Byers, M.D. was born in Union Hospital, Baltimore, Maryland on September 24, 1937. He grew up on the Eastern Shore of Maryland in the small town of Elkton. Very active in the varsity sports of baseball, basketball and track during his high school years, he continued his athletic participation at Duke University along with his pre-med studies. He entered the University of Maryland Medical School in Baltimore in 1959 where he excelled in his medical studies and received membership in AOA and the Rush Honor Medical Society. The highlight of his sophomore year was his 1961 marriage to Marcia Davis, his high school sweetheart. During his junior year, he was commissioned an Ensign in the United States Naval Reserve and later rose to the rank of Captain in 1986.

In 1963, Dr. Byers began his general surgical residency with Dr. Robert Buxton at the University Hospital in Baltimore. Five years later, as a fully trained general surgeon, he went to the Republic of Vietnam with the 1st Marine Division where he received a unit commendation medal and a combat action ribbon. On return to the United States, he spent a year at Quonset Point, Rhode Island Naval Hospital as Chief of Surgery. In 1969, he was certified by the American Board of Surgery. After discharge from the Navy in 1970, Dr. Byers and his family moved to Houston, Texas where he began a fellowship in Surgical Oncology at the University of Texas M.D. Anderson Cancer Center under the guidance of Drs. R. Lee Clark, Richard Martin, Ed White, William MacComb, Richard Jesse and Alando J. Ballantyne. This move proved to be a decisive event, as he never left. His career in Head and Neck Surgical Oncology was born, nurtured, and matured during the 31 years of his academic/clinical practice at the University of Texas M.D. Anderson Cancer Center.

During his tenure at M.D. Anderson Cancer Center he rose through the ranks from Assistant Professor in 1972 to Associate Professor in 1976 and, finally, Professor and Surgeon in 1981.

In 1998, he was honored with the Distinguished Alando J. Ballantyne Chair of Head and Neck Surgery. He is the author or co-author of over 200 published papers, book chapter and monographs. He has given invited lectures all over the world. Most recently (1999), he was selected to give the Hayes Martin Memorial Lecture at the 5th International Conference on Head and Neck Cancer. He has been President of the American Radium Society and President of the Society of Head and Neck Surgeons both in 1995 - 1996. His research interests and his expertise have been focused on cancer of the oral cavity, head and neck cancer in young people and treatment of the neck involved with metastatic cancer with a particular interest in various neck dissections. Dr. Byers is a member of many prestigious societies, of which the Southern Surgical Association, the Texas Surgical Society, the American College of Surgeons and the Society of Surgical Oncologists are but a few. He is a peer reviewer for many medical journals and on the Editorial Board of three. During his 31 years at the University of Texas M.D. Anderson Cancer Center, he has participated in the surgical education of over 300 residents and fellows, many of who have gone on to become prominent members of the specialty. The youth community of Houston has benefited from his coaching expertise in baseball and basketball while he has indulged in the hobbies of hunting, travel, and collecting toy soldiers.
The Research and Education Foundation of the American Head and Neck Society extends a special thank you to our 2015 Centurion Club* members for their generous donations of $1,000 or more:

Elliot Abemayor
Amit Agrawal
Carol Beir-Laning
R. Bryan Bell
Elizabeth Blair
Carol Bradford
Robert Byers
Joseph Califano
Bruce Campbell
Ricardo L. Carrau
William Carroll
Chin Yen Chien
Charles Coffey
Peter Costantino
Terrence Day
Daniel Deschler
David Eibling
David Eisele
Ramon Esclamado
Donald Farwell
Greg Farwell
Robert Ferris
Marion Gillespie
Doug Girod*
David Goldenberg
Patrick Gullane
Ehab Hanna
Keith Heller
Jonas Johnson
Kiran Kakarala
Wayne Koch
Dennis Kraus
Greg Krempel
Pierre Lavertu
Derrick Lin
Kimberly Lee
Bill Lydiatt
Ellie Maghami
Matthew Miller
Susan McCammon
Eugene Myers
Cherie-Ann Nathan
Brian Nussenbaum
John O’Brien
Matthew Old
Bert O’Malley
Enver Ozer
Nitin Pagedar
Lester Peters
Karen Pitman
Christopher Rassekh
John Ridge
James Rocco
Eben Rosenthal
John Saunders
Cecelia Schmalbach
Jatin Shah*
Uttam K. Sinha
William Spanos
Kerstin Stenson
Elliott Strong*
Maie St. John
Krishnamurthi Sundaram
Ted Teknos
David Terris
Anthony Tufaro
Marilene Wang
Steven Wang
Mark Wax
Randal Weber
William Wei
Gregory Weinstein
Mark Weissler
Ernest Weymuller
Wendell Yarbrough
Bevan Yueh

*List as of March 24, 2015
CME Worksheet

This is not your CME credit form. Please use the worksheet below to track the number of CME hours you attend for each activity. Fill in the number of hours you attended each activity in the chart below to track your CME credits.

**WEDNESDAY, APRIL 22, 2015**

<table>
<thead>
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<th>Time</th>
<th>Activity</th>
<th>Credits Available</th>
<th>Hours Attended</th>
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<tr>
<td>8:15am - 9:00am</td>
<td>John Conley Lecture: The Changing Role of the Surgeon: Leading the Transformation of Health Care</td>
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<td>9:00 am - 9:45 am</td>
<td>Scientific Session 1</td>
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<td>10:15am - 11:30am</td>
<td>Patient Centered Care in Head &amp; Neck Cancer Panel</td>
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<td>11:30am - 12:15pm</td>
<td>Scientific Session 2</td>
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<td>1:15pm - 2:45pm</td>
<td>Thyroid Surgery 2015: Recent Guidelines and Surgical Pearls</td>
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<td>3:15pm - 4:00pm</td>
<td>Scientific Session 3</td>
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<td>4:00pm - 5:30pm</td>
<td>Controversies in Head and Neck Reconstruction</td>
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Total Credits Available for Wednesday, April 22, 2015: 7.25

**THURSDAY, APRIL 23, 2015**

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<td>9:00am - 9:45am</td>
<td>Hayes Martin Lecture: Some Things We Know</td>
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<td>10:15am - 11:00am</td>
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<tr>
<td>11:00am - 12:00pm</td>
<td>Jatin Shah Symposium: Oropharyngeal Cancer: A Public Health Dilemma</td>
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<tr>
<td>1:00pm - 2:15pm</td>
<td>OVERSEAS OUTREACH: How can we help? How might we hurt?</td>
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<tr>
<td>2:15pm - 2:45pm</td>
<td>Scientific Session 5</td>
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<td>3:15pm - 4:45pm</td>
<td>Issues of Surgical Competence</td>
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<td>4:45pm - 5:30pm</td>
<td>Personalized Mentoring and Sponsorship: Career Guidance and Development</td>
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Total Credits Available for Thursday, April 23, 2015: 7.5

TOTAL CREDITS AVAILABLE: 14.75

To receive your CME credit:

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AHNS Accreditation

Accreditation Statement
The American Head & Neck Society (AHNS) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement
The AHNS designates this live activity for a maximum of 14.75 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Questions?
Comments?
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#AHNS2015

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Commercial Bias Reporting Form

You are encouraged to ...

1) Document (on this form) any concerns about commercially-biased presentations/materials during educational sessions,

2) Make suggestions about how bias might have been avoided/minimized, and

3) Immediately take your completed form to the AHNS staff at the Registration Desk

Your feedback will be shared with a member of the CME Compliance Committee, who will make the faculty aware of the concerns and/or suggestions.

Commercial Bias

The AHNS CME Compliance Committee has defined “bias” as an existing predisposition that may interfere with objectivity in judgment. Bias may be minimized through prior declaration of any source of conflict of interest, reference to evidence-based literature and expert opinions, and/or an independent peer-review process.

If an educational presentation certified for CME includes bias of any commercial interests*, please provide the following details:

(*Commercial interest is defined by the ACCME as an entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients.)

Presentation: Commercial Bias by: Promotion via:
(eg session name, etc) (ie faculty name, company rep) (eg handouts, slides, what they said, actions)

Commercial Bias about:
(check all that apply)

____ Patient treatment/management recommendations were not based on strongest levels of evidence available.

____ Emphasis was placed on one drug or device versus competing therapies, and no evidence was provided to support its increased safety and/or efficacy.

____ Trade/brand names were used.

____ Trade names versus generics were used for all therapies discussed.

____ The activity was funded by industry and I perceived a bias toward the grantors.

____ The faculty member had a disclosure and I perceived a bias toward the companies with which he/she has relationships.

____ Other (please describe):

Suggestions for avoiding or minimizing bias:


Extra Copies Are Available at the AHNS Desk

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AHNS CME, 11300 W. Olympic Blvd, Suite 600, Los Angeles, CA 90064
Networking Breakfast – Sponsored by Women in AHNS Task Force

Chief Guest – Douglas A. Girod, MD

Join members of the Women in Head and Neck Surgery Task Force for breakfast and SPEED networking prior to the opening ceremony of the AHNS Annual Meeting

Open to all - AHNS members, residents, medical students, fellows.

Space is limited. First come, first serve.

Welcome & Recognition of Guest of Honor - Charles W. Cummings, MD

Douglas A. Girod, MD
Karen T. Pitman, MD
D. Gregory Farwell, MD

John Conley Lecture

The Changing Role of the Surgeon: Leading the Transformation of Health Care

Jonathan Irish, MD

Introduction by: Douglas A. Girod, MD, AHNS President

Supported in part by our Platinum Level Donors:

Astra Zeneca
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Scientific Session 1: Decisions in Advanced Head and Neck Cancer

Moderators: Susan D. McCammon, MD & Miriam Lango, MD

S001: SOCIODEMOGRAPHIC DISPARITIES IN CHOICE OF THERAPY AND SURVIVAL IN ADVANCED STAGE LARYNGEAL CANCER
Alok T Saini, MD, Eric Genden, MD, MBA, Uchechukwu Megwulu, MD, MPH; Mount Sinai Hospital

S002: PROGNOSTICATORS OF ONE-YEAR SURVIVAL AFTER SALVAGE SURGERY FOR RECURRENT HEAD AND NECK SQUAMOUS CELL CARCINOMA
Jh Kim, MD, W G Albergotti, MD, P A Choi, D J Kaplan, S Abberbock, J T Johnson, MD, S Kim, MD, N Gildener-Leapman, MD; 1University of Pittsburgh School of Medicine, 2Department of Otolaryngology - Head and Neck Surgery, University of Pittsburgh Medical Center, 3Biostatistics Facility, University of Pittsburgh Cancer Institute, 4Otolaryngology Head and Neck Surgery NYEEI of Mount Sinai

S003: THE COST OF DYING: HOSPICE UTILIZATION IN TERMINALLY ILL HEAD AND NECK CANCER PATIENTS
Laura M Enomoto, MD, Eric W Schaefer, MS, David Goldenberg, MD, FACS, Heath Mackley, MD, Wayne M Koch, MD, Christopher S Hollenbeak, PhD; 1Penn State Milton S. Hershey Medical Center, 2Penn State College of Medicine, 3Johns Hopkins University
Scientific Program  Wednesday, April 22, 2015

9:24AM  S004: TREATMENT OUTCOMES FOR T4 OROPHARYNGEAL SQUAMOUS CELL CARCINOMA  Joseph Zenga, MD, Wilson Michael, BA, Dorina Kallogjeri, MD, MPH, Douglas R Adkins, MD, Hiram A Guy, MD, Bruce H Haughey, MBChB, MS, FACS, FRACS, Randal C Paniello, MD, Jason T Rich, MD, Wade L Thorstad, MD, Nussenbaum Brian, MD; Washington University School of Medicine

9:32AM  S005: FACTORS ASSOCIATED WITH TREATMENT DELAYS IN ORAL CAVITY SQUAMOUS CELL CARCINOMA AND EFFECT ON SURVIVAL  Rance J Fujiwara, BSChm, Benjamin L Judson, MD, Wendell G Yarbrough, MD, Saral Mehra, MD, MBA; Yale School of Medicine

9:40AM  Discussion

9:45AM - 10:15AM  Morning Break  Outside Ballroom A

10:15AM - 11:30AM  Patient Centered Care in Head & Neck Cancer Panel  Ballroom A

Patient centered care has become a core care standard that will become central to payor reimbursement in a value-based care environment, but also an important aspect of referral maintenance in an increasingly competitive medical marketplace. Patient expectations have also kept pace with this changing treatment focus. Panelists will present proven Patient Centered care practices that enhance the cancer patient experience through streamlined access and intake, real-time patient communication, patient navigation through care transitions, customized pertinent cancer education, and lifelong symptom and treatment side effect mitigation.

10:15AM  The Patient-Centered Care Model: Navigating the Journey  Terance T. Tsue, MD & Mark Uhlig, AB, MPA, JD

10:45AM  Oncologic Rehabilitation: Improving Quality Life of Life After A Diagnosis of Cancer  Sherin Fetouh, MD

11:00AM  Providing Patient Educational Materials that Enhance and Reinforce Communication  Brian B. Burkey, MD, Med

11:15AM  Questions

At the conclusion of this session, participants will be able to:

1. Be able to understand the essential role of Patient-Centered Care in breaking down barriers, customized education and “Thrivorship”

2. Be able to identify key aspects of high quality health information and its effective integration into patient communications.

3. Be able to define the role of the Rehabilitation Medicine Specialist in the evaluation and treatment of cancer patients/survivors and understand the basic principles and practice of safe and effective cancer rehabilitation for the head and neck cancer patient.
Scientific Program

Wednesday, April 22, 2015

11:30AM - 12:15PM  **Scientific Session 2: Experimental Therapeutics/ Molecular Targets**

**Ballroom A**

**Moderators:** Ian Ganly, MD, PhD & Steven J. Wang, MD

**11:30AM**

**S006: INHIBITION OF C-MET EFFECTIVELY MITIGATES STROMA-FACILITATED HNSCC PROGRESSION**

Christopher J Kandl, MD, Dhruv Kumar, PhD, Chase Hamilton, BS, Sufi M Thomas, PhD; University of Kansas Medical Center, Department of Otolaryngology Head and Neck Surgery

**11:38AM**

**S007: IDENTIFICATION OF CIRCULATING TUMOR CELLS IN SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK PATIENTS AT TIME OF SURGICAL INTERVENTION: LONG-TERM OUTCOMES**

Kyle P McMullen, MD, Kris R Jatana, MD, Priya Balasubramanian, PhD, Jas C Lang, PhD, Theodoros N Teknos, MD, David E Schuller, MD, Jeffrey J Chalmers, PhD; Department of Otolaryngology, The Ohio State Wexner Medical Center, Department of Pediatric Otolaryngology, Nationwide Childrens Hospital, Department of Chemical and Biomolecular Engineering, The Ohio State University

**11:46AM**

**Discussion**

**11:49AM**

**S008: PRELIMINARY RESULTS OF A PHASE II RANDOMIZED TRIAL OF DCA (DICHLOROACETATE) IN COMBINATION WITH CISPLATIN AND DEFINITIVE RADIATION IN STAGE III-IV SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK**

Steven F Powell, MD, William C Spanos, MD, Andrew Terrell, MD, Miroslaw Mazurczak, MD, Michael Keppen, MD, Sana Jeffreys, MD, Elie Dib, MD, Mark Gitau, MD, Keely Hack, MD, Steven McGraw, MD, Michelle Lohr, MD, Ashley Jensen, Susan Puumala, PhD, Keith Miskimins, PhD, Lora Black, RN, Kimberly Lee, BS, John Lee, MD; Sanford Health

**11:57AM**

**S009: PIVOTAL PHASE 3 TRIAL RESULTS OF 99MTC-TILMANOCEPT IN SENTINEL LYMPH NODE DETECTION IN ORAL CANCER PATIENTS: COMPARISON OF “SAME DAY” VS “NEXT DAY” IMAGING AND DIAGNOSTIC EFFICACY IN FLOOR OF MOUTH DISEASE**

SY Lai, MD, PhD, Amit Agrawal, MD, Francisco J Civantos, MD; University of Texas, MD Anderson Cancer Center, Dept of Head and Neck Surgery, The Ohio State University, Wexner Medical Center, Dept of Otolaryngology, University of Miami Hospitals and Clinics, Dept. of Otolaryngology

**12:05PM**

**Discussion**

**12:15PM - 1:15PM  Lunch**

Outside Ballroom A

**1:15PM - 2:45PM  Thyroid Surgery 2015: Recent Guidelines and Surgical Pearls**

**Ballroom A**

**Moderator:** Gregory L. Randolph, MD

This session will discuss recent important surgical guidelines relating to thyroid surgery in thyroid cancer care. The session will also review expert recommendations regarding specific surgical maneuvers for technically more complex portions of thyroid surgical cases.
## AHNS Scientific Program

### Wednesday, April 22, 2015

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenters</th>
<th>Description</th>
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<tbody>
<tr>
<td>1:15PM</td>
<td>ATA 2015 Preoperative Radiographic Cancer Assessment – Primary Assessment and Nodal Mapping – Ultrasound and CT</td>
<td>Lisa A. Orloff, MD &amp; Richard J. Wong, MD</td>
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<td>1:25PM</td>
<td>Neural Monitoring Update - Prognosis/ Superior Laryngeal Nerve/Continuous Vagal Monitoring and Nerve Injury Prevention</td>
<td>Gregory L. Randolph, MD</td>
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<td>1:35PM</td>
<td>AHNS Invasive Cancer Guidelines 2014</td>
<td>Maisi Shindo, MD</td>
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<td>1:45PM</td>
<td>Specific Surgical Maneuvers Pearls – Superior Pole/SLN</td>
<td>David J. Terris, MD</td>
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<td>1:50PM</td>
<td>Specific Surgical Maneuvers Pearls – Ligament of Berry/RLN</td>
<td>Dennis H. Kraus, MD</td>
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<td>1:55PM</td>
<td>Specific Surgical Maneuvers Pearls – Parathyroid Preservation</td>
<td>Ralph P. Tufano, MD</td>
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<td>2:00PM</td>
<td>Specific Surgical Maneuvers Pearls – Revision Central Node Dissection</td>
<td>Jeremy L. Freeman, MD</td>
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<td>2:05PM</td>
<td>Cases and Questions from the Audience</td>
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<td>2:45PM-3:15PM</td>
<td>Afternoon Break</td>
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<td>3:15PM-4:00PM</td>
<td>Scientific Session 3: Outcomes</td>
<td>Ballroom A</td>
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<td>3:15PM</td>
<td>S011: POST-TREATMENT TUMOR SURVEILLANCE AND PATTERNS OF RECURRENT DETECTION: TOWARDS DETERMINING AN OPTIMAL FOLLOW UP AND IMAGING PROTOCOL</td>
<td>Ashish Patel, MD, DDS, Yedeh Ying, MD, DMD, Allen Cheng, MD, DDS, Tuan Bui, MD, DMD, Eric Dierks, MD, DMD, R Bryan Bell, MD, DDS; Providence Cancer Center, Portland OR</td>
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<td>3:23PM</td>
<td>S012: FACTORS AFFECTING DELAYS TO RADIATION THERAPY FOR HEAD AND NECK SQUAMOUS CELL CARCINOMA, 1998-2011: A REPORT FROM THE NATIONAL CANCER DATA BASE</td>
<td>Erik Liederbach, BS¹, Cheryl C. Nocon, MD², Carol M Lewis, MD, MPH³, Chi-Hsiung Wang, PhD⁴, Arif Shaikh, MD¹, Mihir Bhayani, MD¹; ¹NorthShore University HealthSystem, ²University of Chicago School of Medicine, ³University of Texas, MD Anderson Cancer Center</td>
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<td>3:31PM</td>
<td>S013: CLINICAL AND PATHOLOGIC CHARACTERISTICS OF HPV-POSITIVE AND NEGATIVE OROPHARYNGEAL SQUAMOUS CELL CANCER: AN ANALYSIS OF 2,833 CASES</td>
<td>Alexander L Luryi, BS, Benjamin L Judson, MD; Department of Surgery, Yale University School of Medicine, New Haven, CT</td>
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<td>3:39PM</td>
<td>S014: THE PREOPERATIVE ASSESSMENT AND OVERALL NUTRITION PREDICTS POSTOPERATIVE COMPLICATIONS AND RE-ADMISSIONS IN HEAD AND NECK CANCER PATIENTS</td>
<td>Ashley C Mays, MD, Mitch Worley, BS, Feras Ackall, BS, Joshua Waltonen, MD, Ralph D'Agostino, Jr., PhD; Wake Forest Baptist Health</td>
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Scientific Program

Wednesday, April 22, 2015

3:47PM
S015: WHAT PREDICTS TRIPLE MODALITY THERAPY FOR PATIENTS WITH T1 AND T2 OROPHARYNGEAL TUMORS UNDERGOING PRIMARY SURGICAL TREATMENT? Benjamin R Roman, MD, MSHP1, Snehal G Patel, MD1, Jatin P Shah, MD1, Marc A Cohen, MD2; 1Memorial Sloan Kettering Cancer Center, 2Weill Cornell Medical College

3:55PM Discussion

4:00PM - 5:30PM Controversies in Head and Neck Reconstruction
Moderator: Mark K. Wax, MD
Discussants: Matthew Old, MD, & Tamer Ghanem, MD, PhD
This session will use a case management format to discuss Tongue reconstruction, Lateral mandibular reconstruction, and parotid reconstruction. Controversies and outcomes will be presented.

4:00PM Tongue Reconstruction Jeremy Richmon, MD
4:15PM Discussion of Cases
4:30PM Lateral Mandibular Reconstruction Derrick Lin, MD
4:45PM Discussion of Cases
5:00PM Parotid Reconstruction Mark K. Wax, MD
5:15PM Discussion of Cases
At the conclusion of this session, participants will be able to:
1. Distinguish the different soft tissue options available for tongue reconstruction
2. Develop a treatment paradigm for soft tissue reconstruction of parotid defects
3. Discuss the difference between letting the mandible swing as opposed to soft tissue or boney reconstruction

5:30PM - 6:30PM Fellowship Information Session
Ara A. Chalian, MD & William M. Lydiatt, MD
Attend the fellowship information session and learn what fellowships are available and network with program directors.
AHNS 2015 Annual Meeting

Scientific Session
Thursday, April 23, 2015

7:30AM - 8:00AM  AHNS Awards Ceremony
Presented by: William R. Carroll, MD
- Best Resident Clinical Paper Award
- Robert Maxwell Byers Awards
- Best Resident Basic Science Paper Award

8:00AM - 9:00AM  Scientific Session 4: Endocrine Surgery
Moderators: Elizabeth A. Blair, MD & Maria Evasovich, MD

8:00AM  S016: ACCURACY & PREDICTIVE VALUE OF THYROID NODULE FNA: THE NEED FOR INSTITUTIONAL INTROSPECTION
Marcus J Magister, BS, Irina Chaikhoutdinov, MD, Brian Saunders, MD, David Goldenberg, MD; Penn State Hershey Medical Center

8:07AM  S017: IS THE COST OF SURVEILLANCE JUSTIFIABLE IN PATIENTS WITH LOW-RISK DIFFERENTIATED THYROID CANCER?
Laura Y Wang, MBBS, MS, Benjamin R Roman, MD, MSHP, Jocelyn C Migliacci, MA, Michael R Tuttle, MD, Ashok R Shaha, MD, Jatin P Shah, MD, Snehal G Patel, MD, Ian Ganly, MD, PhD; Memorial Sloan Kettering Cancer Center

8:14AM  S018: COST EFFECTIVENESS OF INTRAOPERATIVE PATHOLOGY IN THE MANAGEMENT OF INDETERMINATE THYROID NODULES
Christopher Vuong, MD, Daniel Kwon, MD, Alfred Simental, MD, Cherine Kim, Sonia Mohan, MD, Pedro Andrade Filho, MD, Mia Perez, MD, Steve Lee, MD, PhD; Loma Linda University Medical Center

8:21AM  Discussion

8:26AM  S019: COMPARISON OF 99MTC-SESTIMIBI AND SPECT/CT IMAGING IN PARATHYROID ADENOMA LOCALIZATION: A COST-EFFECTIVENESS ANALYSIS
Brittany Barber, MD, Elaine Fung, MD, FRCCS, Daniel O’Connell, MD, MSc, FRCCS, David Cote, MD, MPH, CCFP, FRCCS, Jeffrey Harris, MD, MHA, FRCCS; University of Alberta

8:33AM  S020: SURGICAL CONSIDERATION AND THE ASSOCIATION BETWEEN TUMOR SIZE AND MICROSCOPIC EXTRATHYROIDAL EXTENSION IN DIFFERENTIATED THYROID CANCER
Manish A Shaha, BS, Laura Y Wang, MBBS, MS, Jennifer Cracchiolo, Jatin P Shah, MD, Snehal G Patel, MD, Ian Ganly, MD, PhD, R. Michael Tuttle, MD, Ashok R Shaha, MD; Memorial Sloan Kettering Cancer Center

8:40AM  S021: THE IMPACT OF GENE EXPRESSION CLASSIFIER MOLECULAR TESTING ON THE DECISION-MAKING PROCESS FOR PATIENTS WITH NODULAR THYROID DISEASE PRESENTING FOR SURGICAL CONSULTATION
Salem I Noureldine, MD, Alireza Najafian, MD, Patricia Aragon Han, MD, Matthew Olson, MD, Eric B Schneider, PhD, Jason Prescott, MD, PhD, Nishant Agrawal, MD, Martha A Zeiger, MD, Ralph P Tufano, MD; Johns Hopkins School of Medicine

8:47AM  S022: ANAPLASTIC THYROID CARCINOMA, DOES AGGRESSIVE PALLIATION IMPROVE SURVIVAL?
Yuval Nachalon, Gideon Bachar, Jacob Shvero, Dror Limon, Aron Popovtzer; Beilinson Hospital, Rabin Medical Center, Petach Tikva, Israel

8:54AM  Discussion

9:00AM - 9:45AM  Hayes Martin Lecture
Some Things We Know
John A. Ridge, MD, PhD
Introduction by: Douglas A. Girod, MD, AHNS President
Scientific Session

Thursday, April 23, 2015

9:45AM - 10:15AM  Morning Break  Exhibit Hall D

10:15AM - 11:00AM  Presidential Address and Awards  Ballroom A
The Role of the Head and Neck Surgeon in the New World of Health Care Reform

Douglas A. Girod, MD
Introduction by: AHNS President-Elect Dennis H. Kraus, MD

Distinguished Service Award
Carol R. Bradford, MD

Presidential Citations
Terry A. Day, MD
Dave W. Eisele, MD
Dennis H. Kraus, MD
Bob Page, MBA
Lisa Shnayder, MD
Steve Stites, MD
Terance T. Tsue, MD

11:00AM - 12:00PM  Jatin Shah Symposium: Oropharyngeal Cancer: A Public Health Dilemma  Ballroom A

Moderator: Terry A. Day, MD
This symposium will address the controversies surrounding the counseling of patients regarding viral issues, treatment decision making and outcomes with surgical and non-surgical treatments. Panelists include an expert in public health, medical oncologist, radiation oncologist and head and neck surgeon.

11:00AM  Public Health Implications of Oral HPV Infection: Epidemiology of Oropharyngeal Cancer and Counseling of Patients with HPV-OPC  Amber D’Souza, PhD

11:10AM  Discussing Surgical vs Non-surgical Initial Treatment for Oropharyngeal Cancer  Robert I. Haddad, MD

11:20AM  Does Initial Surgery Improve Quality of Life in Oropharyngeal Cancer?  Carole Fakhry, MD, MPH

11:30AM  Upstaging and Downstaging after Surgery for Oropharyngeal Cancer – Do Dose or Toxicity Change?  Paul Busse, MD, PhD

At the conclusion of this session, participants will be able to:
1. Compare the current treatments for oropharyngeal cancers
2. Demonstrate appropriate counseling for patients and partners with HPV associated oropharyngeal cancer
3. Identify side effects and advantages of the variety of treatments for oropharyngeal cancer

12:00PM - 1:00PM  Lunch with Exhibitors or - AHNS Business Meeting  Exhibit Hall D

Ballroom A
Scientific Session Thursday, April 23, 2015

1:00PM - 2:15PM Overseas Outreach: How can we help? How might we hurt? Ballroom A
Moderator: Wayne H. Koch, MD
This panel involves experts with experience in medical-surgical and research activities in the context of the developing world and resource limited settings. Panelists will convey observations and lessons learned during these activities with the goal of assisting others to maximize opportunities to provide valuable assistance to communities in need while avoiding common medical, social and cultural pitfalls.

1:00PM Short-Term Projects: Community Integration v. Alienation James L. Netterville, MD
1:10PM Training Residents: Theirs vs. Ours Jo Shapiro, MD
1:20PM Research: Respectful Partnership vs. Neocolonialism Eleni Rettig, MD
1:30PM Practice Guidelines: Listening and Consensus Building vs. Paternalistic Advice Mark Zafereo, MD
1:40PM Advanced Training: Infusion vs. Extraction Johan Fagan, MBChB, MMEd
1:50PM Questions and Answers All

At the conclusion of this session, participants will be able to:
1. Adjust plans, approaches and activities in overseas outreach projects to avoid common pitfalls.
2. Choose programs and projects best equipped to be of help in resource-limited settings.
3. Build relationships and working partnerships with local experts in resource limited settings through enhanced cultural and practical awareness.

2:15PM - 2:45PM Scientific Session 5: General Head and Neck Surgery Ballroom A
Moderators: Paul L. Friedlander, MD & Elizabeth J. Franzmann, MD

2:15PM S023: APPLYING NSQIP METHODOLOGY TO ASSESS PATIENTS UNDERGOING FIBULA FREE FLAP RECONSTRUCTION: EXAMINING FACTORS THAT IMPACT HOSPITAL LENGTH OF STAY Laura White, MD1, Kaitlyn Strickland1, Hongzheng Zhang1, Weiming Shi, MD2, Mihir Patel, MD1, Jeffrey T Wadsworth, MD1, Mark W El-Deiry, MD1, Amy Y Chen, MD1; 1Emory, 2MD Anderson Cancer Center

2:22PM S024: IMPACT OF A DOCUMENTATION IMPROVEMENT PROGRAM AT AN ACADEMIC OTOLARYNGOLOGY PRACTICE Suhael Momin, Telena Owens, RN, RHT, Robert Lorenz, MD, Eric Lamarre, MD; Cleveland Clinic Foundation

2:29PM S025: CREATION OF A JOINT COMMISSION DISEASE SPECIFIC CERTIFICATION ON LARYNGEAL CANCER - REPORT ON OVERALL EXPERIENCE Eric D Lamarre, MD, Terri Tereczuk, RN, Joann Kmieck, MA, Brian B Burkey, MD, Shlomo Koyfman, MD, Robert R Lorenz, MD, David Adelstein, Michael S Benninger, MD; Cleveland Clinic

2:36PM S026: DETECTION OF SUBCLINICAL RECURRENCE OR SECOND PRIMARY CANCER USING FDG PET/CT IN PATIENTS TREATED CURATIVELY FOR HEAD AND NECK SQUAMOUS CELL CARCINOMA Masahiro Kikuchi1, Shogo Shinohara1, Megumu Hino2, Kyo Itoh2, Atsushi Suehiro1, Risa Tona3, Ippei Kishimoto1, Hiroyuki Harada1, Fumihiko Kuwata1, Yasushi Naito1; 1Department of Otolaryngology-Head and Neck Surgery, Kobe City Medical Center General Hospital, 2Department of Radiology, Kobe City Medical Center General Hospital, 3Institute of Biomedical Research and Innovation

2:43PM Discussion

46 AHNS 2015 Annual Meeting
Scientific Session  Thursday, April 23, 2015

2:45PM - 3:15PM  Afternoon Break  Exhibit Hall D

3:15PM - 4:45PM  Issues of Surgical Competence  Ballroom A

Moderator: Carl H. Snyderman, MD
Panelists: Neal S. Beckford, MD
Ehab Y. Hanna, MD
Scharukh Jalisi, MD
Jonas T. Johnson, MD

This panel discussion will address multiple areas of surgical competence including surgical volume and quality, the impaired physician, the aging physician, lapses in surgical activity, and Ongoing Professional Practice Evaluation (OPPE)/Focused Professional Practice Evaluation (FPPE). Clinical vignettes will be used to illustrate the challenges of addressing surgical competence.

At the conclusion of this session, participants will be able to:
1. Recall the categories of physician impairment;
2. Develop strategies for management of the impaired physician;

4:45PM - 5:30PM  Personalized Mentoring and Sponsorship: Career Guidance and Development  Ballroom A

This panel discussion will address multiple areas of surgical competence including surgical volume and quality, the impaired physician, the aging physician, lapses in surgical activity, and Ongoing Professional Practice Evaluation (OPPE)/Focused Professional Practice Evaluation (FPPE). Clinical vignettes will be used to illustrate the challenges of addressing surgical competence.

4:45PM  Sponsorship vs. Mentorship  Carol R. Bradford, MD
4:57PM  Time Management for the Mentor and Mentee  Cherie-Ann O. Nathan, MD
5:09PM  Reflections on How to be an Effective Mentor/Sponsor  Jonas T. Johnson, MD
5:21PM  Q &A  led by Amy Y. Chen, MD

At the conclusion of this session, participants will be able to:
1. Outline the nuances of mentorship vs. sponsorship
2. Understand strategies for effective time management
3. Understand that different learning styles may dictate different mentoring styles.

5:30PM - 7:00PM  “Meet the Authors” Poster Session  COSM Exhibit Hall

Supported in part by our Silver Level Donor: Karl Storz Endoscopy America

7:30PM  President’s Reception  Sheraton Boston Constitution Ballroom

Supported in part by our visibility donors:
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Faculty Listing

Neal S. Beckford, MD - Germantown, TN
Elizabeth A. Blair, MD - Chicago, IL
Carol R. Bradford, MD - Ann Arbor, MI
Brian B. Burkey, MD, Med - Cleveland, OH
Paul M. Busse, MD, PhD - Boston, MA
William R. Carroll, MD - Birmingham, AL
Amy Y. Chen, MD, MPH - Atlanta, GA
Terry A. Day, MD - Charleston, SC
Vasu Divi, MD - Stanford, CA
Gypsyamber D'Souza, PhD - Baltimore, MD
Maria Evasovich, MD - Minneapolis, MN
Johannes J. Fagan, MBChB, MMed - South Africa
Carole Fakhry, MD, MPH - Baltimore, MD
D. Gregory Farwell, MD - Sacramento, CA
Sherin Fetouh, MD - Kansas City, KS
Elizabeth Jane Franzmann, MD - Miami, FL
Jeremy L. Freeman, MD - Toronto, ON, Canada
Paul L. Friedlander, MD - New Orleans, LA
Ian Ganly, MD, PhD - New York, NY
Tamer Ghanem, MD, PhD - Detroit, MI
Douglas A. Girod, MD - Kansas City, KS
Robert I Haddad, MD - Boston, MA
Ehab Y. Hanna, MD - Houston, TX
Jonathan Irish, MD - Toronto, ON, Canada
Scharukh Jalisi, MD, MA - Boston, MA
Jonas T. Johnson, MD - Pittsburgh, PA
Wayne M. Koch, MD - Baltimore, MD
Dennis H. Kraus, MD - New York, NY
Miriam Lango, MD - Philadelphia, PA
Derrick Lin, MD - Boston, MA
Susan Dixon McCammon, MD - Galveston, TX
Cherie-Ann O. Nathan, MD - Shreveport, LA
James L. Netterville, MD - Nashville, TN
Matthew Old, MD - Columbus, OH
Lisa A. Orloff, MD - Stanford, CA
Karen T. Pitman, MD - Gilbert, AZ
Gregory L. Randolph, MD - Boston, MA
Eleni Rettig, MD - Baltimore, MD
Jeremy Richmon, MD - Baltimore, MD
John A. Ridge, MD, PhD - Philadelphia, PA
Merry E. Sebelik, MD - Memphis, TN
Jo Shapiro, MD - Boston, MA
Maisie Shindo, MD - Portland, OR
Carl H. Snyderman, MD - Pittsburgh, PA
David J. Terris, MD - Augusta, GA
Terance T. Tsue, MD - Kansas City, KS
Ralph P. Tufano, MD - Baltimore, MD
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**S001: SOCIODEMOGRAPHIC DISPARITIES IN CHOICE OF THERAPY AND SURVIVAL IN ADVANCED STAGE LARYNGEAL CANCER**

Alok T Saini, MD, Eric Genden, MD, MBA, Uchechukwu Megwalu, MD, MPH; Mount Sinai Hospital

**Importance:** Identifying sociodemographic factors impacting choice of therapy and survival will reveal potential opportunities for intervention aimed at reducing health disparities.

**Objective:** To determine if socio-demographic factors affect choice of treatment and survival in patients with advanced stage laryngeal cancer in the U.S. using a large population-based cancer database.

**Design/Setting/Participants:** Population-based, non-concurrent cohort study of 5,381 patients with a diagnosis of stage III or stage IV laryngeal squamous cell carcinoma between 1992 and 2009. Data was extracted from the Surveillance, Epidemiology, and End Results (SEER) Database.

**Interventions:** N/A

**Main Outcome(s) and Measures:** Choice of therapy (surgical vs. non-surgical) and disease specific survival (DSS)

**Results:** On multivariable analysis, age ≥60 years (Odds Ratio [OR]=0.78; 95% CI, 0.70-0.88), stage III disease (OR=0.43; 95% CI, 0.39-0.49) and more recent year of diagnosis (OR=0.89; 95% CI, 0.87-0.90) decreased the odds of receiving surgical therapy, while residing in a county with low median household income (OR=1.36; 95% CI, 1.17-1.57) and glottic subsite (OR=1.59; 95% CI, 1.39-1.81) increased the odds of receiving surgical therapy.

**Conclusions and Relevance:** For patients with advanced laryngeal cancer, younger age, stage IV disease, glottic cancer, and residing in a low income county increase the likelihood of receiving surgical therapy. Female sex, married status, stage III disease, and glottic subsite provides a survival benefit regardless of treatment choice. Black race was a negative prognostic factor for patients treated with surgical therapy, but not with nonsurgical therapy. This highlights the impact of sociodemographic factors on treatment strategies and outcomes, and highlights areas for further research on health disparities.

**S002: PROGNOSTICATORS OF ONE-YEAR SURVIVAL AFTER SALVAGE SURGERY FOR RECURRENT HEAD AND NECK SQUAMOUS CELL CARCINOMA**

Jh Kim¹, W G Albergotti, MD², P A Choi¹, D J Kaplan¹, S Abberbock, JT Johnson, MD³, S Kim, MD, N Gildener-Leapman, MD⁴; University of Pittsburgh School of Medicine, Department of Otolaryngology – Head and Neck Surgery, University of Pittsburgh Medical Center, ¹Biostatistics Facility, University of Pittsburgh Cancer Institute, ²Otolaryngology Head and Neck Surgery NYEEI of Mount Sinai

**Background:** Surgery is frequently the only available treatment modality for recurrent head and neck squamous cell carcinoma (HNSCC), although it carries with it increased morbidity and lower success rates compared to surgery in the setting of primary disease. The value that surgical salvage offers is controversial at times, especially for elderly patients and in the setting of health care cost containment.

**Objectives:** (1) To report short-term overall and disease-free survival of surgically treated patients with recurrent HNSCC (2) To report pre-operative prognostic factors predictive of short-term mortality in this patient cohort.

**Methods:** This is a retrospective cohort of patients who underwent surgery for recurrent HNSCC from January 2003 to December 2013 at one institution. Patients were excluded if there was no complete record of their primary treatment, no curative intent for the salvage surgery, or if there was less than one year of follow-up after surgery for recurrence.

**Time zero for survival analysis was the day of salvage surgery. Patients were stratified by survival greater than or less than one year after surgery.** Statistical analysis included Fisher’s exact method, Chi-squared test, Cochran-Armitage trend and Student’s T-test. Log rank analysis was used to test for differences in overall survival in by head and neck site.

**Results:** A total of 201 patients (77 larynx, 74 oral cavity, 41 oropharynx and 9 hypopharynx) met inclusion criteria. The overall survival rates after salvage at 6 months and 12 months was 83% and 72%, respectively. Disease free survival was 76% and 57% at 6 and 12 months, respectively. One year overall local failure rate was 18%. One-year regional failure rate was 6% and one-year distant failure rate was 14%. Overall 6 month and 12 month survival for oropharyngeal HNSCC was 82% and 72%, laryngeal HNSCC 86% and 78%, oral cavity HNSCC 82% and 70% and hypopharyngeal HNSCC 67% and 56% (p =0.006).

**Conclusions:** Survival after definitive surgical
treatment for recurrence differs between anatomic sites of HNSCC. The presence of tobacco use, primary T stage, advanced primary nodal stage, primary regional or free-flap reconstruction, adjuvant therapy after primary resection and/or a short disease-free interval prior to recurrence is associated with mortality within 1 year after surgery for recurrence. These factors should be considered when determining appropriate therapy in the setting of recurrent HNSCC.

**S003: THE COST OF DYING: HOSPICE UTILIZATION INTERMEDIATELY ILL HEAD AND NECK CANCER PATIENTS**

Laura M Enomoto, MD, MS, Eric W Schaefer, MS, David Goldenberg, MD, FACs; 1Heath Mackley, MD, 1Wayne M Koch, MD, 1Christopher S Hollenbeck, PhD; 1Penn State Milton S. Hershey Medical Center, 2Penn State College of Medicine, 3Johns Hopkins University

**Background.** Hospice care has been repeatedly suggested as a method for decreasing medical costs at the end of life. The purpose of this study was to use data from the Surveillance, Epidemiology, and End Results (SEER) Medicare-linked database between 1995 and 2005 to compare the monthly costs of all services consumed during the last months of life by patients with oral and pharyngeal cancer who received hospice care to those who did not use hospice services. The costs represented all payments of life by patients who received hospice care to those who died but never used hospice services. Costs were inflated to year 2009 dollars. We used a propensity score analysis that adjusted for differences in patient characteristics between hospice groups to estimate the difference in the average cost in the last month of life between patients who used hospice services and patients who did not use hospice.

**Methods.** We identified elderly (age ≥65) patients diagnosed with oral cavity or pharyngeal cancers who subsequently died in the database. Patients who had a hospice claim at any time between the date of diagnosis and the date of death comprised the hospice group; all other patients comprised the non-hospice comparison group. We compared monthly Medicare costs of all services consumed during the last 12 months of life by patients who received hospice care to those who died but never used hospice services. Costs represented all payments made by Medicare for all-cause treatments and were inflated to year 2009 dollars.

**Results.** A total of 4,205 patients had oral cavity cancer and 3,178 had pharyngeal cancer. Most patients (63% for oral cavity and 58% for pharyngeal) enrolled in hospice within 30 days of death. Average unadjusted monthly Medicare costs prior to death are shown for each cancer site stratified by hospice status in the Figure. Patients who did and did not use hospice had similar costs until approximately 60 days prior to death, after which costs for patients who did not use hospice increased sharply while costs for patients who received hospice increased gradually. Based on the propensity analysis, patients who received hospice had $7,035 lower costs (95% CI: $6,040 to $8,160) and $7,370 lower costs (95% CI: $6,340 to $8,310) in the last month of life for oral cavity and pharyngeal cancer, respectively.

**Conclusions.** Encouraging hospice admissions for patient care provides not only compassionate, dignified treatment at the end of life, but also an opportunity for substantial savings in health care costs.

**S004: TREATMENT OUTCOMES FOR T4 OROPHARYNGEAL SQUAMOUS CELL CARCINOMA**

Joseph Zenga, MD, Wilson Michael, BA, Dorina Kallogjeri, MD, MPH, Douglas R Atkins, MD, Hiram A Guy, MD, Bruce H Haughey, MBChB, MS, FACS, FRACS, Randall C Paniello, MD, Jason T Rich, MD, Wade LT Thorstad, MD, Nussenbaum Brian, MD; Washington University School of Medicine

**Importance:** Studies evaluating treatment outcomes for advanced stage oropharyngeal squamous cell carcinoma (OPSCC) often report data for stage III and IV disease. Little is known about the specific management of T4 OPSCC.

**Objective:** Evaluate oncologic treatment outcomes for T4 OPSCC.

**Design, Setting, and Participants:** This retrospective cohort study conducted at an academic hospital included all patients treated for T4 OPSCC, with any N-stage and without distant metastatic disease at presentation, between 1998 and 2012 for whom there was minimum 2-year follow up. We identified 145 patients. P16 status could not be obtained for 25 patients. The remaining 120 were included for analysis. T4a and T4b patients were included.

**Interventions:** Sixty-two patients underwent chemoradiation. Thirty-nine (63%) of these patients were p16 positive. Fifty-eight patients underwent surgical treatment, of which 32 (55%) received adjuvant radiation, 21 (36%) received adjuvant chemoradiation, and 5 (9%) did not receive adjuvant therapy. Forty-six (79%) of the surgical patients were p16 positive.

**Main Outcomes and Measures:** Overall survival (OS) was the primary outcome measure. Secondary outcome measures included disease-specific survival (DSS), disease-free survival (DFS), stage-specific survival (DSS), and DFS rates and major complication rates. Cox proportional hazards univariate and multivariable analysis was performed to identify significant predictors of overall survival.

**Results:** The median follow up time was 32.6 months. Significant baseline differences between the surgical and non-surgical groups included follow up time (median 45.3 vs 26.2, p=0.001), age (median 59 vs 55.5, p=0.006), gender (male 95% vs 82%, p<0.05), BMI (median 27.1 vs 23.2, p=0.001), smoking history greater than 10 pack-years (52% vs 74%, p=0.011), and treatment year (78% vs 56% before 2010, p=0.014). Comorbidity as measured by ACE-27 score was not significantly different between treatment groups. Patients receiving non-surgical treatment had 2.5 times higher chance of death (HR=5.8, 95% CI: 1.4-22.6) than surgical patients and this pattern remained true even after controlling for p16 status (HR=2.2; 95%CI: 1.2-4.0). Patients undergoing surgical treatment had significantly higher 2-year DFS, DSS and DFS rates than non-surgical group among p16 positive and p16 negative patients. In p16 positive patients 2-year survival rates of surgical versus non-surgical patients were,
Background: The tumor microenvironment has emerged as an important factor in head and neck squamous cell carcinoma (HNSCC) tumor progression [1]. The most abundant stromal cell in HNSCC tumor microenvironment is tumor-associated fibroblasts (TAFs). We previously reported that TAFs facilitate HNSCC growth and metastasis [2]. Activation of the c-MET tyrosine kinase receptor by its ligand hepatocyte growth factor receptor (HGF), triggers various signaling pathways that drive several tumorigenic properties including cell migration, proliferation, and survival [3]. We reported that the c-MET receptor is expressed in HNSCC cell lines and patient tumors [4]. In addition, TAF-secreted HGF induces HNSCC proliferation and invasion via activation of c-MET that are currently being tested in clinical trials. Ficlatuzumab a humanized monoclonal antibody that binds to HGF, preventing it from binding and activating c-MET, has not been reported that the c-MET receptor is expressed in HNSCC cell lines and patient tumors [4]. In addition, TAF-secreted HGF induces HNSCC proliferation and invasion via activation of c-MET that are currently being tested in clinical trials. Ficlatuzumab a humanized monoclonal antibody that binds to HGF, preventing it from binding and activating c-MET, has not been previously tested in HNSCC. We hypothesized that targeting the c-MET pathway via small molecule inhibition of c-MET receptor or monoclonal antibody inhibition of HGF will mitigate TAF-mediated HNSCC proliferation, migration, and invasion.

Methods: TAFs were obtained from patients undergoing excision of previously untreated HNSCC and maintained in culture. Conditioned media was obtained from confluent flasks of TAFs incubated in serum-free media for 72 hours. HNS and OSC19 HNSCC cell lines were maintained in culture and used for our experiments. Ficlatuzumab was obtained from Aveo Pharmaceuticals. Proliferation assays were done using the CyQuant Kit per the initial diagnosis outside of the NCDB reporting facility (OR = 2.56, p < 0.001), advanced pT stage (OR = 1.13, p = 0.01), and advanced AJCC stage (OR = 1.98, p = 0.04) were significantly associated with delays in the diagnosis to surgery time period. Non-white race (OR = 1.45, p = 0.01), initial diagnosis outside of the NCDB reporting facility (OR = 1.67, p < 0.001), and higher pT stage (OR = 1.28, p < 0.001) were significant, independent predictors of prolonged diagnosis to treatment completion interval. The only treatment delay time period that was significantly associated with worse overall survival was radiation duration (HR = 1.28, p < 0.001, Figure 1).

Conclusions and Relevance: A number of factors are associated with treatment delays in oral cavity squamous cell carcinoma; however, only radiation duration is significantly associated with worse overall survival.

S006: INHIBITION OF C-MET EFFECTIVELY MITIGATES STROMA-FACILITATED HNSCC PROGRESSION
Christopher J Kandi, MD, Dhruv Kumar, PhD, Chase Hamilton, BS, Sufi M Thomas, PhD; University of Kansas Medical Center, Department of Otolaryngology Head and Neck Surgery

Results: Median days from diagnosis to surgery was 31 days, surgery to radiation start was 50 days, radiation duration was 49 days, and total treatment time was 137 days. On univariate analysis, age > 60 years (OR = 1.22, p = 0.02), lack of insurance (OR = 1.62, p = 0.02), insurance by Medicaid (OR = 1.68, p = 0.01), comorbidity (OR = 1.19, p = 0.03), and delayed diagnosis to treatment completion interval. The only treatment delay time period that was significantly associated with worse overall survival was radiation duration (HR = 1.28, p < 0.001, Figure 1).

Conclusions and Relevance: A number of factors are associated with treatment delays in oral cavity squamous cell carcinoma; however, only radiation duration is significantly associated with worse overall survival.

S006: INHIBITION OF C-MET EFFECTIVELY MITIGATES STROMA-FACILITATED HNSCC PROGRESSION
Christopher J Kandi, MD, Dhruv Kumar, PhD, Chase Hamilton, BS, Sufi M Thomas, PhD; University of Kansas Medical Center, Department of Otolaryngology Head and Neck Surgery

Background: The tumor microenvironment has emerged as an important factor in head and neck squamous cell carcinoma (HNSCC) tumor progression [1]. The most abundant stromal cell in HNSCC tumor microenvironment is tumor-associated fibroblasts (TAFs). We previously reported that TAFs facilitate HNSCC growth and metastasis [2]. Activation of the c-MET tyrosine kinase receptor by its ligand hepatocyte growth factor receptor (HGF), triggers various signaling pathways that drive several tumorigenic properties including cell migration, proliferation, and survival [3]. We reported that the c-MET receptor is expressed in HNSCC cell lines and patient tumors [4]. In addition, TAF-secreted HGF induces HNSCC proliferation and invasion via activation of c-MET that are currently being tested in clinical trials. Ficlatuzumab a humanized monoclonal antibody that binds to HGF, preventing it from binding and activating c-MET, has not been previously tested in HNSCC. We hypothesized that targeting the c-MET pathway via small molecule inhibition of c-MET receptor or monoclonal antibody inhibition of HGF will mitigate TAF-mediated HNSCC proliferation, migration, and invasion.

Methods: TAFs were obtained from patients undergoing excision of previously untreated HNSCC and maintained in culture. Conditioned media was obtained from confluent flasks of TAFs incubated in serum-free media for 72 hours. HNS and OSC19 HNSCC cell lines were maintained in culture and used for our experiments. Ficlatuzumab was obtained from Aveo Pharmaceuticals. Proliferation assays were done using the CyQuant Kit per the
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manufacturer’s instructions. Migration assays were performed through transwell inserts. After 24 hour incubation, migrated cells were stained using the Hema3 kit. Cells with treatments were plated in parallel in 96-well plates to assess cell growth or cytotoxicity over the same duration as the migration assay. The CyQuant assay was used to determine the OD of plated cells after 24 hours. Migrated cells were counted. A ratio of the migrated cell number to the OD value from the CyQuant assay was determined in order to take into consideration cell proliferation or death over the 24 hour period. Fold-migration relative to the vehicle control was calculated. Similarly, invasion assays were performed through transwell inserts with a synthetic matrix, PepGel over the upper surface.

**Results:** TAF conditioned media facilitated tumor proliferation, invasion and migration in vitro. Treatment with ficituzumab significantly reduced HNSCC cell proliferation in vitro. In addition, ficituzumab significantly reduced HNSCC migration and invasion in vitro.

**Discussion:** Over the past 10-15 years there has been growing interest in the tumor microenvironment. Activation of the c-MET pathway by HGF and subsequent activation of various signaling pathways is known to drive tumor progression. We have shown that neutralizing TAF-derived HGF with ficituzumab effectively mitigates c-Met activation and decreases HNSCC proliferation, migration, and invasion.

**S007: IDENTIFICATION OF CIRCULATING TUMOR CELLS IN SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK PATIENTS AT TIME OF SURGICAL INTERVENTION: LONG-TERM OUTCOMES**

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**Importance:** Identification of circulating tumor cells (CTCs) in peripheral blood is a potential prognostic factor for patients with squamous cell carcinoma of the head and neck (SCCHN). The identification of circulating tumor cells (CTCs) in peripheral blood has emerged as a potential prognostic factor for patients with epithelial carcinomas.

**Objective:** The aim of this study was to examine the long-term outcomes of our SCCHN patients with regard to presence of cytokeratin positive CTCs and disease-free survival.

**Design:** Prospective clinical follow-up study (>5 years) after blood samples were collected at the time of surgical intervention for CTC analysis.

**Setting:** Tertiary and Quaternary Care, Comprehensive Cancer Center

**Methods:** A negative depletion enrichment process was used to isolate and quantify CTCs from the blood of patients with SCCHN using immunomagnetic separation. Immunostaining for cytokeratin was performed on the enriched samples to determine the number of CTCs. After enrichment for CD45 negative cells, our CTC definition included DAPI and cytokeratin positive and intact cell membrane. Correlation of the presence of CTCs, tumor stage, nodal status, clinical characteristics, and clinical outcomes were made. A subset of blood samples was also assessed using confocal imaging for multiparameter analysis.

**Results:** Our most recent updated outcome data on 50 initial SCCHN patients for which we have prospective clinical follow-up, suggests that patients with no detectable CTCs per milliliter of blood at the time of surgery had a significantly higher probability of disease-free survival 70% vs. 50% (p<0.05). Cytokeratin positive CTCs were identified in 72% of patients. There was no significant difference in patients with or without presence of CTCs in regard to age, sex, tumor site, stage, or regional nodal involvement. We have found several EpCAM negative, CD45 negative CTCs in patients with SCCHN including those with the presence of mesenchymal markers and cancer stem-cell markers. Recently, HPV mRNA has also been identified on some SCCHN CTCs.

**Conclusions:** Our enrichment technology, based on the removal of normal cells, has been used to identify CTCs in the peripheral blood of SCCHN patients. At the time of surgical intervention, a statistically significant improved disease-free survival was observed in SCCHN patients with no cytokeratin positive CTCs present. This non-biased approach to the identification of CTCs is important to avoid missing cells that may have undergone EMT and may not express typical surface markers. Future studies are focused on multimarker analysis of these CTCs. A prognostic blood test could have important treatment and surveillance implications for patients with SCCHN, and additional prospective longitudinal studies are needed.

**S008: PRELIMINARY RESULTS OF A PHASE II RANDOMIZED TRIAL OF DCA (DICHLOROACETATE) IN COMBINATION WITH CISPLATIN AND DEFINITIVE RADIATION IN STAGE III-IV SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK**

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**BACKGROUND:** Concurrent chemoradiotherapy (CRT) is heavily utilized in the definitive management of stage III-IVA squamous cell carcinoma of the head and neck (SCCHN). Novel approaches are needed to improve responses and reduce toxicity. Immunotherapies are emerging as promising treatment options, however the tumor microenvironment may limit their efficacy. Agents that modulate this microenvironment are appealing options to augment therapy. Dichloroacetate (DCA) inhibits pyruvate dehydrogenase kinase (PDK) and thus decreases lactic acid production in the tumor microenvironment. In an in vivo mouse model
evaluating DCA in combination with CRT, immune clearance of SCCHN was enhanced through this mechanism. As a result, we performed a clinical trial to evaluate the safety and efficacy of DCA in combination with standard high-dose cisplatin based CRT.

**METHODS:** A randomized, double-blinded, placebo-controlled multi-site study of DCA versus placebo in combination with high-dose bolus cisplatin (100 mg/m2 on days 1, 22, and 43) in combination with radiation treatment (70 cGy) in patients with Stage III-IV Squamous Cell Carcinoma of the Head and Neck (SCCHN) was conducted. DCA (dichloroacetate) or placebo was given PO or per G-tube twice a day during radiation therapy. DCA was given at a dose of 12.5mg/kg. Comparison of safety (based on CTCAE version 4.0) between the two groups was the primary outcome. The secondary outcome of efficacy was evaluated by 2- and 5-year progression-free survival (PFS) rate, overall response rate (ORR) per RECIST 1.1, and median overall survival (OS). Correlative studies included health-related quality of life (HRQOL) comparison between groups and correlation of HPV status with secondary outcome measures.

**RESULTS:** A total of 50 patients enrolled in the study from May 2011 through April 2014. 25 were randomized to DCA and 25 were randomized to placebo. A total of 133 adverse events (AEs) were analyzed during the study. There was a difference in the distribution of grades of several AEs. Higher grades in alopecia, headache, tinnitus and vomiting were seen in those treated with in placebo group when compared to DCA. . Higher grades in hypotension and decreased platelet counts were seen in those treated with in DCA. Efficacy analysis is still underway. For evaluable patients, ORRs did not significantly differ between groups. However, in patients who were assessed 8/18(44%) patient in placebo showed complete response versus 12/15(80%) had completed response in DCA group on the end of treatment imaging studies (day 100 post-radiation completion). 6-month PFS and OS data are being analyzed and will be available by the time of the meeting.

**CONCLUSION:** The addition of DCA to definitive CRT did not add significant, serious toxicity. Response rates were not statistically different between the two groups. However, 100 day complete response favored DCA. Future data regarding PFS and OS will help determine the potential of this agent for future use in clinical trials. Data from our study suggests that metabolic inhibitors can be safely incorporated into the management of SCCHN patients undergoing treatment with standard CRT.

**SO09: PIVOTAL PHASE 3 TRIAL RESULTS OF 99MTC-TILMANOCEPT IN SENTINEL LYMPH NODE DETECTION IN ORAL CANCER PATIENTS: COMPARISON OF “SAME DAY” VS “NEXT DAY” IMAGING AND DIAGNOSTIC EFFICACY IN FLOOR OF MOUTH DISEASE**

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**Background:** The value of 99mTc-tilmanocept, a synthetic, reticuloendothelial cell-targeted radiotracer, for preoperative lymphoscintigraphy and intraoperative sentinel lymph node (SLN) detection in subjects with oral cancer was previously demonstrated in a multi-center phase 3 study. In subjects with floor of mouth (FOM) cancer SLN detection is challenging due to the radiotracer signal “shine through” which may obscure visualization of potentially involved proximal (Level 1) lymph nodes. We present data indicating that usage of 99mTc-tilmanocept, which has a residence-time of up to 30 hours in the SLNs, when used in conjunction with imaging the day before surgery may overcome this SLN identification challenge.

**Material/Methods:** A total of 95 OCSCC subjects staged T1-T4, N0, M0 were included in the study and underwent SLN biopsy with subsequent elective neck dissection (END) and postoperative histo-pathological evaluation of all lymph nodes. In this cohort 20 subjects had FOM cancer. All subjects received 50 µg 99mTc-tilmanocept radioabeled with either 0.5 mCi for “same-day” or 2.0 mCi for “next-day” injection relative to surgery. Preoperative imaging was performed in all subjects. False Negative Rate (FNR), based on the ratio of false negatives/true positives + false negatives, was the primary objective. Major secondary endpoints included: Sensitivity, negative predictive value (NPV), accuracy and safety. Calculations were based on a per subject analysis and were performed for the entire cohort as well as for “same” vs “next” day injected subjects and tumor location.

**Results:** 78 OCSCC patients were injected with 99mTc-tilmanocept and underwent surgical removal of lymph nodes. At least 1 SLN was identified/removed in 77 patients (98.7%). Thirty-six OCSCC subjects underwent “same day” and 41 “next day” injection/ imaging. All subjects with FOM disease underwent the “next day” procedure. Overall FNR was 2.56% (4.56% for “same day, 0% for “next day”). SLNs were detected in 20 (100%) of subjects with FOM cancer leading to a FNR of 0%. Overall NPV was 97.58%, sensitivity 97.4% and accuracy 98.7%, with 100% for all 3 parameters for “next day” injection. 99mTc-tilmanocept was verified to be well tolerated in this patient population.

**Conclusion:** The comparable intraoperative efficacy achieved with “same day” and “next day” injection and imaging suggest that the rapid SLN uptake and long residence time achieved with 99mTc-tilmanocept enables effective and highly accurate SLN detection both a day prior to and on the day of surgery. “Next day” injection procedure particularly valuable in subjects with FOM cancer, possibly related to a decrease in “shine through” from the primary tumor. However, the 100% sensitivity, with 0% FNR and 100% NPV, compared favorably to values reported for the use of sulfur colloid in the ACOSOG Z-0360 study in which a 25% FNR (9.8% overall) and 96% NPV were reported. This data supports routine clinical application of 99mTc-tilmanocept.
for preoperative lymphoscintigraphy and intraoperative SLN detection in OSCC subjects over wide time frame which could reduce the number of patients requiring END with its associated morbidity.

**S011: POST-TREATMENT TUMOR SURVIVAL PATTERNS AND PREFERENCES OF RECURRENT DETERMINATION: TOWARDS AN OPTIMAL FOLLOW UP AND IMAGING PROTOCOL** Ashish Patel, MD, MBBS, Yedeh Ying, MD, DMD, Anh Cheng, MD, DDS, Tuan Bui, MD, DMD, Eric Dierks, MD, DMD, R Bryan Bell, MD, DDS; Providence Cancer Center, Portland OR

**STATEMENT OF PROBLEM:** Despite aggressive therapy with surgery, radiation, and chemotherapy, oral, head and neck squamous cell carcinoma (SCCA) still has a high incidence of locoregional and distant failure [1]. For this reason, structured follow up is a critical component of the care of cancer survivors. The NCCN has published guidelines for the frequency of follow up and the timing for the first post-treatment imaging study [2]. Unfortunately, these recommendations are based on consensus, as there is a dearth of evidence to draw from. Although it is widely known that most failures occur within two years post treatment [3], there is little data determining the optimal method for identifying them. Furthermore, the NCCN does not make recommendations for surveillance imaging beyond the first 6 months. In this study, we aim to establish the natural history for treatment failure in oral, head and neck SCCA and how they are identified.

**MATERIALS AND METHODS:** This is a retrospective review of patients treated at two cancer centers. All patients treated for oral, head and neck SCCA from July 2012 to September 2014 at these two centers were included in this study. Patients were excluded if they had incomplete records or were lost to follow up. All patients were treated according to NCCN guidelines. Patients had scheduled follow up every 3 months for two years, every 6 months for the third year, and annually for fourth and fifth year. Out of sequence follow up visits were patient directed based on symptoms. The first post treatment imaging was obtained 3 months following completion of treatment. Either a PET/CT or CT with contrast were used for imaging.

**RESULTS:** 242 patients met inclusion criteria. Of these, 51 patients had treatment failures (3 with incomplete response or failure during treatment, 7 with second primaries, and 14 distant recurrences). Of these, 51 patients had treatment failures (3 with incomplete response or failure during treatment, 7 with second primaries, and 14 distant recurrences). 34 (67%) of these occurred in the first two years following treatment. 8 (19.6%) patients are deceased (all related to recurrent cancer). Of the locoregional failures, 17 (46%) were identified due to evaluation of patient symptoms, 10 (27%) were identified on routine surveillance exam, and 10 (27%) were identified on routine surveillance imaging. For distant recurrences, the results were 5 (36%), 17 (17%), and 8 (57%) respectively. Interestingly, of HPV+ oropharynx SCCA, the majority (60%) failed due to distant recurrence and were all identified by surveillance PET/CT (100%). In contrast, oral SCCA more often failed locoregionally (75%) or presented with second primary oral cavity cancers (21%) and their identification was more symptom or surveillance exam directed (76%).

**CONCLUSIONS:** Patients with oral SCCA are more likely to have locoregional failure and have recurrences diagnosed on structured surveillance exam or based on symptom directed examination and imaging. HPV+ oropharynx SCCA is more likely to fail distantly, with asymptomatic recurrences identified with imaging. Post treatment surveillance protocols regarding examination and imaging frequency should be tailored based on likelihood of detecting recurrences for different SCCA based on tumor location and other clinical factors.

**S012: FACTORS AFFECTING DELAYS TO RADIATION THERAPY FOR HEAD AND NECK SQUAMOUS CELL CARCINOMA, 1998-2011: A REPORT FROM THE NATIONAL CANCER DATA BASE**

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**Introduction:** Few studies have examined the timely delivery of radiation-based regimens for head and neck squamous cell carcinoma (HNSCC). This study investigates time intervals from diagnosis to initiation of radiation therapy (RT) using the National Cancer Data Base (NCDB) in HNSCC subsites preferentially treated with RT-based regimens.

**Methods:** The NCDB was queried for stage I-IV squamous cell carcinomas (SCC) of the oropharynx, nasopharynx, hypopharynx, and larynx treated with RT from 1998 to 2011. Patients who received primary surgery were excluded. Patients who received chemotherapy were categorized into induction chemotherapy, concurrent chemotherapy (CRT), and RT followed by chemotherapy treatment groups. Patients were dichotomized based on time to RT relative to the median. Chi-square tests and logistic regression models were used for analyses.

**Results:** 102,887 patients were identified of which 18,775 (18.2%) were stage I, 15,643 (15.2%) were stage II, 22,876 (22.2%) were stage III, and 45,593 (44.3%) were stage IV. There were 41,659 (40.5%) that received RT alone. Of these patients, the median time to RT increased from 24 days in 1998 to 35 days in 2011 (p<0.001). In a multivariate analysis in 2010-2011, patients were more likely to be treated with RT after the median (34 days) if they were African American (OR: 1.25, 95%CI: 1.03-1.52), with low socioeconomic status (OR: 1.26, 95%CI: 1.08-1.47), treated at an academic/research hospital (OR: 1.63, 95%CI: 1.31-2.01), in the Middle Atlantic region (OR: 1.47, 95%CI: 1.12-1.94), had a referral from the diagnosing institution (OR: 1.60, 95%CI: 1.42-1.81), had an oropharynx primary (OR: 1.82, 95%CI: 1.54-2.15), and stage IV disease (OR: 1.48, 95%CI: 1.20-1.81). For the 61,228 (59.5%) patients who received chemotherapy, 13,042 (21.3%) had induction chemotherapy, 41,723 (68.1%) had concurrent CRT, 2,454 (4.0%) had RT followed by chemotherapy, and 4,009
S013: CLINICAL AND PATHOLOGIC CHARACTERISTICS OF HPV-POSITIVE AND NEGATIVE OROPHARYNGEAL SQUAMOUS CELL CANCER: AN ANALYSIS OF 2,833 CASES

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Importance: The optimal treatment of oropharyngeal squamous cell carcinoma (OPSCC) remains uncertain. The potential need for postoperative adjuvant radiation or chemoradiation is important in consideration of surgical treatment. It is unknown how often indications for adjuvant therapy occur based on pre-operative clinical factors or whether this differs between human papillomavirus (HPV) positive and HPV negative OPSCC.

Objective: Report population-level data on clinical and pathologic characteristics of surgically treated OPSCC focusing on criteria for adjuvant therapy.

Study Design, Setting, and Interventions: Retrospective analysis of the National Cancer Data Base

Participants: Patients with surgically treated OPSCC and with known tumor HPV status and pathologic stage between 2010 and 2011.

Main outcomes and measures: Clinical and pathologic stage, tumor HPV status, and pathologic indications for adjuvant therapy.

Results: 2,833 patients were identified and HPV-positive tumors comprised 67.8% of cases. Clinical T stage matched pathologic T stage in 76% of cases, and clinical N stage matched pathologic N stage in 60% of cases. Overall accuracy of clinical staging did not significantly differ between HPV-positive and -negative tumors (p = 0.9, 0.4 for T and N staging, respectively). Of clinically N0 tumors, 31% of HPV-positive tumors and 19% of HPV-negative tumors were found to have pathologic nodal metastases (p = 0.001). Extracapsular extension (ECE) was present in 40.5% of pathologically node-positive (pN+) HPV-positive tumors and 40.9% of pN0 HPV-negative tumors (p = 0.8). The presence of ECE by clinical N stage for N0, N1, N2a, N2b, N2c, and N3 was 8%, 30%, 30%, 43%, 53%, and 58% for HPV-positive tumors and 5%, 27%, 28%, 47%, 44%, and 75% for HPV negative tumors. The incidence of positive surgical margins by clinical T stage for T1, T2, T3, and T4 was 21%, 32%, 42%, and 40% for HPV-positive tumors and 20%, 29%, 28%, and 31% for HPV-negative tumors. Over 50% of patients with HPV-positive tumors with clinically T2+ or N2+ disease met indications for salvage chemotherapy or radiotherapy (CRT) due to ECE or positive margins.

Conclusions and relevance: The incidence of possible indications for postoperative adjuvant therapy, including occult nodal disease, presence of ECE, and positive margins, is reported here by clinical T and N stage and will inform the role of surgery in the treatment of patients with OPSCC.

S014: THE PREOPERATIVE ASSESSMENT AND OVERALL NUTRITION PREDICTS POSTOPERATIVE COMPLICATIONS AND RE-ADMISSIONS IN HEAD AND NECK CANCER PATIENTS

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Objectives: 1) Investigate the relationship between patient demographics, premorbid conditions, preoperative nutrition, and timing of gastrostomy tube (G-tube) placement on postoperative outcomes in head and neck cancer patients. 2) Determine a relationship between preoperative gastrostomy tube placement and postoperative complications.

Methods: A retrospective chart review of all patients with head and neck cancers of the upper aerodigestive tract that underwent resection at Wake Forest Baptist Health from 2007-2013 was performed. Patient charts were screened for patient demographics, preoperative nutrition variables [ie, G-tube placement, body mass index (BMI)], comorbid conditions, tumor-node-metastasis (TNM) staging, surgical treatment type, and timing of G-tube or Dobhoff tube placement. Outcome measures were all post-surgical outcomes [wound and medical (non-wound) complications, hospital re-admissions], length of inpatient hospital stay (LOS), intensive care unit (ICU) time, and length of time requiring enteral access. Stepwise logistic and linear regression analysis was performed to identify the best combination of the individual patient measures to predict the post-surgical outcomes of interest. Variables with a significance level of 0.10 or less were retained to allow for a comprehensive predictive model.

Results: 750 patients were included. When all complications were grouped to include all wound/non-wound complications and post-surgical hospital re-admissions (binary outcome 57% with complication), tobacco use (Odds Ratio [OR] 1.7, 95% Confidence Interval [95% CI] 1.1-2.6, p = 0.009), pre-operative history of dysphagia (OR 1.6, 95% CI 1.1-2.3, p = 0.007), tumor (T-stage) (p = 0.001, with stage 1 vs stage 4 OR 0.36 95% CI 0.23-0.58 and stage 3 vs stage 4 0.71 95% CI 0.62-0.29), tracheotomy placement (OR 2.4, 95% CI 1.7-3.5, p = 0.001), and reconstruction type (OR 0.5, 95% CI 0.36-0.77, p = 0.001) were found to be significant predictors of postoperative complications. For predicting days in the ICU, 8 risk factors were retained: tobacco (p = 0.005), age (p < 0.001), heavy alcohol (p = 0.03), reconstruction type (p = 0.001), tracheotomy placement (p = 0.001), T-stage (p = 0.001), dysphagia (p = 0.079), and preoperative weight.
loss (p<0.10) were found to be significant predictors, with a combined R2 value of the model of 17% (p<0.0001). A similar model was found for predicting LOS, since ICU care time and LOS are strongly correlated (r=0.68, p<0.0001). Preliminary analysis also suggests that patients with G-tubes (pre-op or post-op) were more likely to have complications compared to those without G-tubes (p<0.001), but those with preoperative G tubes had a lower rate of complications compared to those with postoperative G-tubes (71.7% versus 76.0%).

Conclusions: Postoperative complications and prolonged hospital care can be predicted based on preoperative patient characteristics. Though G-tube placement at any point suggests a more high risk patient, using our published predictive model for G-tube placement in the preoperative period may protect against poor postoperative outcomes.

SO15: WHAT PREDICTS TRIPLE MODALITY THERAPY FOR PATIENTS WITH T1 AND T2 OROPHARYNGEAL TUMORS UNDERGOING PRIMARY SURGICAL TREATMENT?

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Objective: Early T-stage oropharyngeal squamous cell carcinoma may be treated with a primary non-surgical or primary surgical approach, with adjuvant therapy as needed. One potential advantage of selecting patients for a primary surgical approach is the possibility of being able to avoid adjuvant chemotherapy and its sequelae. The objective of this study was to determine the success of the selection process for patients that might be able to avoid chemotherapy, and to determine factors associated with the receipt of adjuvant chemoradiotherapy.

Methods: This study used a cohort of patients with histologically confirmed oropharyngeal squamous cell carcinoma in the National Cancer Data Base from 1998-2011. Patients were included if they had T1 or T2 tumors and underwent a primary surgical approach with curative intent (e.g. pharyngectomy including tonsillectomy, but not excisional biopsy). Patients were then divided into groups of those receiving no adjuvant therapy, radiation alone, or chemoradiation. For analysis of our primary outcome, patients receiving chemoradiation were separated from the rest. We used bivariate analysis to determine the association of tumor factors and the year of diagnosis with the receipt of adjuvant chemoradiation. We used multivariable logistic regression to control for tumor factors and year and determine if any other patient factors were predictive of the use of adjuvant chemoradiotherapy.

Results: 3,866 patients with histologically confirmed oropharyngeal SCCA undergoing primary surgical therapy were identified in the NCDB (mean age 56 ± 10 years; 50% male; 92% white). 23% had surgery alone, 31% had adjuvant radiation, and 46% had adjuvant chemoradiation. The percentage of patient undergoing adjuvant chemoradiation increased over time, especially between the years 2004-2009 (see Figure 1). Patients with N0, N1, N2, and N3 disease received adjuvant chemoradiation 17%, 41%, 56%, and 70% of the time, respectively (p<0.0001). Patients with positive extracapsular spread (ECS) or positive margins received adjuvant chemoradiation 68% and 57% of the time, respectively (both p<0.0001). Even controlling for nodal stage, ECS, margin status, and year, patients were more likely to receive adjuvant chemoradiation if they were younger (<50 vs. ≥80: O.R. 9.31, C.I. 2.64-32.87, p= 0.001), male (O.R. 1.44, C.I. 1.12-1.84, p= 0.004), had private insurance (vs. Medicare or Medicaid: O.R. 1.73, C.I. 1.26-2.39, p= 0.001), or if they went to hospitals treating fewer oropharyngeal cancer patients (1-5 patients vs. >25 patients: O.R. 1.65, C.I. 1.18-2.29, p= 0.003).

Conclusion: Triple modality therapy (surgery plus radiation and chemotherapy) is common in early T-stage oropharyngeal cancer, and non-tumor factors are associated with the addition of chemotherapy. Efforts are warranted to determine appropriate selection for primary surgical treatment and the benefit of adjuvant chemoradiation, especially in the era of increased HPV-associated disease and increased enthusiasm for trans-oral approaches to early T-stage disease.

SO16: ACCURACY & PREDICTIVE VALUE OF THYROID NODULE FNA: THE NEED FOR INSTITUTIONAL INTROSPECTION

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OBJECTIVES/ BACKGROUND: The Bethesda system for reporting thyroid cytopathology has helped standardize the way thyroid nodules (TN) are classified. The test characteristics of fine needle aspiration (FNA) biopsies of larger nodules are a source of controversy. The objective of this study is to assess the accuracy and predictive value of pre-operative FNA biopsies preferred on thyroid nodules as compared to their final pathology.

MATERIALS and METHODS: Two hundred and fifty eight patients (268 primary nodules) were retrospectively identified. All underwent a pre-operative FNA followed by surgical excision between 2011 and 2013 at the Penn State Hershey Medical Center. All FNA results were reviewed by the Department of Pathology and assigned a Bethesda classification to determine the negative (NPV) and positive predictive values (PPV) of benign (class-II) and malignant (class-III-V) TN, respectively. Additionally, the rate of malignancy in indeterminate thyroid nodules (class-III-V) was also assessed. All results were stratified by nodule size into groups of <2.0cm, 2-3cm, and ≥3cm.

RESULTS: The 258 patients were comprised of 202 females and 56 males; the mean age was 50 years old (± 15). Primary nodule size ranged from 0.4cm to 8.8cm with a mean of 2.06cm (=1.41cm). Our data included 9 class-I, 59 class-II, 42 class-III, 70 class-IV, 23 class-V, and 66 class-VI TN. Comparison of all class-II nodules to their final pathologies revealed a NPV of 93%. Likewise, comparison of all class-
Vi nodule to their final pathologies revealed a PPV of 98%. When stratified by size however, class-II nodules ≥2cm were 4.7 times more likely to show malignant changes on final pathology as compared to class-II nodules ≥2cm (14% vs. 3%). Class-VI nodules showed no such pattern when stratified by size. Results from our subset analyses revealed rates of malignancy of 31%, 20%, and 83% for class-III, IV, and V nodules, respectively. When these indeterminate nodules were stratified by size, class-IId nodules <2cm were 2.2 times more likely to have malignant changes on final pathology as compared to nodules ≥2cm (40% vs. 18%). Additionally, the rates of malignancy of the largest TN (≥3cm) did not significantly differ from those expected based on their Bethesda classification.

**CONCLUSIONS:** At our institution, we found class-II and III nodules <2cm have higher rates of malignancy than previously assumed. Our data did not find an increase in the false-negative rate with larger nodules (≥3cm), as suggested in some prior reports. Therefore, thyroidectomy based solely on nodule size without prior FNA should be viewed with caution.

**S017: IS THE COST OF SURVEILLANCE JUSTIFIABLE IN PATIENTS WITH LOW-RISK DIFFERENTIATED THYROID CANCER?** Laura Y Wang, MBBS, MS, Benjamin R Roman, MD, MSHP, Jocelyn C Migliacci, MA, Michael R Tuttlet, MD, Ashok R Shaha, MD, Jatin P Shah, MD, Snehal G Patel, MD, Ian Ganly, MD, PhD; Memorial Sloan Kettering Cancer Center

**Background:** Clinical guidelines on follow-up management for thyroid cancer frequently rely on expert opinion without evidence regarding its cost-effectiveness, and often leave much of the surveillance to clinician discretion. At the same time, there has been a rapid rise in the incidence of thyroid cancer and increasing concern of the rising cost of healthcare. The aim of our study was to analyze the cost of surveillance in the 3 years post thyroidectomy for each American Thyroid Association (ATA) risk category.

**Methods:** 2932 patients who underwent thyroidectomy for differentiated thyroid cancer (DTC) between January 2000 and December 2010 at Memorial Sloan Kettering Cancer Center were identified from an institutional database. 1856 patients were excluded from the analysis for having less than 36 months of follow-up. 362 (33.6%) patients were ATA low-risk, 554 (51.5%) intermediate-risk and 160 (14.9%) were high-risk categories. In the first 3 postoperative years, US$443,456 was spent on the surveillance of ATA low-risk patients (or US$1225 per patient), US$969,108 for intermediate-risk patients (or US$1749 per patient), and US$447,755 for each high-risk patient (or US$2758 per patient). There were 3 and 37 recurrences in the low and intermediate-risk category respectively, with no DSD. In the high-risk category there were 18 recurrences and 4 DSD. The cost of surveillance for each recurrence detected in the low, intermediate and high-risk categories were US$147,819, US$20,619 and US$20,352, respectively (Figure 1).

**Conclusion:** The total cost of recurrence in a low-risk patient is 7.3 times greater than the cost in a high-risk DTC patient. It is difficult to justify this allocation of resources to the surveillance of low-risk patients, and the surveillance strategies in this group should be reviewed.

**S018: COST EFFECTIVENESS OF INTRAOPERATIVE PATHOLOGY IN THE MANAGEMENT OF INDETERMINATE THYROID NODULES** Christopher Vuong, MD, Daniel Kwon, MD, Alfred Simental, MD, Cherine Kim, Sonia Mohan, MD, Pedro Andrade Filho, MD, Mia Perez, MD, Steve Lee, MD, PhD; Loma Linda University Medical Center

**Intro:** Fine-needle aspiration (FNA) is a widely used method to determine the preoperative malignancy potential of thyroid nodules using the Bethesda Thyroid Scale (BTS). Rapid frozen section (RFS) can also be used in attempt to identify the risk of malignancy. FNA has proven to be sensitive for identifying papillary carcinoma. However, Follicular Lesions (FL), Atypia of Undetermined Significance (AUS) or Follicular Lesion of Undetermined Significance (FLUS), which are classified as BTS III/IV, present more of a challenge in identifying or excluding malignancy. Preoperative or intraoperative identification of malignancy may prevent reoperation in patients with lesions requiring total thyroidectomy. RFS may be useful in determining malignancy in AUS, FLUS, and FL, and help avoid re-operation. Our objective is to determine the efficacy of RFS in detecting thyroid malignancy and to use a cost-analysis model to compare routine frozen section versus a secondary operation in patients who have indeterminate FNA that are discovered to have malignancy on final pathology.

**Methods:** A retrospective chart review was conducted at the Loma Linda University Medical Center (LLUMC) between January 2009 and June 2013 on 1114 patients who were identified with preoperative FNA for thyroid lesions and subsequently underwent intraoperative RFS during thyroidectomy. Patients with a cytologic diagnosis of AUS, FLUS or FL on FNA had their pathology results reviewed.
evaluated to correlate the intraoperative RFS and final pathology report. Specifically, the impact of RFS on surgical management and avoidance of additional surgery was determined. Cost analysis was performed comparing estimated costs at our institution for intraoperative pathology consultation versus second thyroid surgery.

Results: Of the 1114 patients initially identified, 314 patients had FNA showing AUS or FLUS with 32 of these patients harboring malignancy. RFS identified malignancy in 13 of 32 patients resulting in total thyroidectomy, avoiding a second surgical event. RFS was unable to detect malignancy in 19 patients who eventually had malignancy seen on final pathology. Of these false negatives, 7 were micropapillary carcinoma and these patients elected for observation. However, 12 patients eventually required a second surgery. There were no false positives for RFS pathology indicating parathyroid malignancy. In our series, for every 24 patients with AUS or FLUS, RFS allowed one patient to avoid a second surgery. Accounting for the additional cost of intraoperative RFS analysis contrasted with avoiding re-operation, routine use of RFS in AUS or FLUS at our institution resulted in approximate savings of $14 per surgery in this population.

Conclusion: Rapid frozen section detected malignancy in 4% of patients with BTS III/IV FNA, preventing a second surgical procedure in these patients. This practice appears to be essentially cost-neutral when used to avoid re-operation for completion thyroidectomy. Considering the additional socioeconomic effects and social burdens of each surgical event, intraoperative rapid frozen section analysis appears to be a useful tool in patients with indeterminate FNA pathology.

S019: COMPARISON OF 99MTC- SESTIMIBI AND SPECT/CT IMAGING IN PARATHYROID ADENOMA LOCALIZATION: A COST-EFFECTIVENESS ANALYSIS

Background: Traditional surgical treatment for primary hyperparathyroidism included a bilateral neck dissection and 4-gland exploration (4GE) to identify and resect the pathological gland(s). However, more recently, exploration (4GE) to identify and resect the pathological gland(s) has become more common owing to advancements in localization techniques. The impact of RFS on surgical management and avoidance of additional surgery was determined using a combination of US-Sestimibi and US-SPECT/CT, and comparing results to intraoperative location as the gold standard. The findings were classified as: 1) lateralizing (wherein the modality detected the adenoma(s) on the correct anatomic side), 2) localizing (wherein the modality detected the adenoma(s) in the correct anatomic quadrant i.e. right superior), 3) non-detecting, or 4) incorrect (wherein the modality detected the adenoma(s) on the incorrect side). Comparison of lateralization and localization accuracy, as well as non-detection, between the US-Sestimibi and US-SPECT/CT groups was undertaken using a Chi-squared analysis. An incremental cost-effectiveness (ICER) analysis was utilized to analyze the cost-effectiveness of each imaging modality from the government payer perspective.

Methods: All patients with biochemical hyperparathyroidism presenting to the University of Alberta from January 2009 to August 2014 underwent preoperative localization imaging with ultrasound (US) at baseline to rule out concurrent thyroid pathology as is standard protocol at the University of Alberta, and either sestimibi or SPECT/CT as an adjunct. Minimally-invasive parathyroid surgery (MIPS) was performed by 3 experienced head and neck surgeons under local or general anesthesia for all localized PAs. Four-gland exploration was undertaken if no localization was possible from preoperative imaging. All surgical specimens were sent for histopathologic analysis to confirm the presence of a PA or parathyroid hyperplasia. Localization accuracy was determined using a combination of US-Sestimibi and US-SPECT/CT, and comparing results to intraoperative location as the gold standard. The findings were classified as: 1) lateralizing (wherein the modality detected the adenoma(s) on the correct anatomic side), 2) localizing (wherein the modality detected the adenoma(s) in the correct anatomic quadrant i.e. right superior), 3) non-detecting, or 4) incorrect (wherein the modality detected the adenoma(s) on the incorrect side). Comparison of lateralization and localization accuracy, as well as non-detection, between the US-Sestimibi and US-SPECT/CT groups was undertaken using a Chi-squared analysis. An incremental cost-effectiveness (ICER) analysis was utilized to analyze the cost-effectiveness of each imaging modality from the government payer perspective.

Results: One hundred thirty-four patients underwent US-Sestimibi and 73 patients underwent US-SPECT/CT. Mean age of patients was 55.72, and 62% were male. Review of the patients revealed that 12 had ectopically-situated PAs, 11 patients had multiple adenomas, and 22 underwent a 4GE due to non-localizing preoperative imaging. Localization accuracy of US-Sestimibi and US-SPECT/CT imaging was found to be 67.6% and 70.6% respectively (p=0.32). Localization accuracy was 85.1% for US-Sestimibi and 86.0% for US-SPECT/CT (p=0.28), and non-detection rates were 8.3% and 10.3%, respectively (p=0.26). An ICER analysis revealed an incremental cost expenditure of $2400 per additional PA localization when US-SPECT/CT is utilized.

Conclusions: SPECT/CT is neither more accurate, nor significantly more cost-effective in preoperative work-up of parathyroid adenomas.

S020: SURGICAL CONSIDERATION AND THE ASSOCIATION BETWEEN TUMOR SIZE AND MICROSCOPIC EXTRATHYROIDAL EXTENSION IN DIFFERENTIATED THYROID CANCER

Methods: All patients with biochemical hyperparathyroidism presenting to the University of Alberta from January 2009 to August 2014 underwent preoperative localization imaging with ultrasound (US) at baseline to rule out concurrent thyroid pathology as is standard protocol at the University of Alberta, and either sestimibi or SPECT/CT as an adjunct. Minimally-invasive parathyroid surgery (MIPS) was performed by 3 experienced head and neck surgeons under local or general anesthesia for all localized PAs. Four-gland exploration was undertaken if no localization was possible from preoperative imaging. All surgical specimens were sent for histopathologic analysis to confirm the presence of a PA or parathyroid hyperplasia. Localization accuracy was determined using a combination of US-Sestimibi and US-SPECT/CT, and comparing results to intraoperative location as the gold standard. The findings were classified as: 1) lateralizing (wherein the modality detected the adenoma(s) on the correct anatomic side), 2) localizing (wherein the modality detected the adenoma(s) in the correct anatomic quadrant i.e. right superior), 3) non-detecting, or 4) incorrect (wherein the modality detected the adenoma(s) on the incorrect side). Comparison of lateralization and localization accuracy, as well as non-detection, between the US-Sestimibi and US-SPECT/CT groups was undertaken using a Chi-squared analysis. An incremental cost-effectiveness (ICER) analysis was utilized to analyze the cost-effectiveness of each imaging modality from the government payer perspective.

Results: One hundred thirty-four patients underwent US-Sestimibi and 73 patients underwent US-SPECT/CT. Mean age of patients was 55.72, and 62% were male. Review of the patients revealed that 12 had ectopically-situated PAs, 11 patients had multiple adenomas, and 22 underwent a 4GE due to non-localizing preoperative imaging. Localization accuracy of US-Sestimibi and US-SPECT/CT imaging was found to be 67.6% and 70.6% respectively (p=0.32). Localization accuracy was 85.1% for US-Sestimibi and 86.0% for US-SPECT/CT (p=0.28), and non-detection rates were 8.3% and 10.3%, respectively (p=0.26). An ICER analysis revealed an incremental cost expenditure of $2400 per additional PA localization when US-SPECT/CT is utilized.

Conclusions: SPECT/CT is neither more accurate, nor significantly more cost-effective in preoperative work-up of parathyroid adenomas.
Background: The AJCC classification of differentiated thyroid cancer (DTC) upstages patients with extrathyroidal extension (ETE) to T3 disease if primary tumor size is less than 4 cm. Furthermore, the presence of ETE is an indication for adjuvant radioactive iodine (RAI) therapy. This is based on the assumption that ETE may be a marker of aggressive disease. Intraoperatively, surgeons resect the sternothyroid and/or sternohyoid muscles in the presence of gross ETE to achieve clear surgical margins and allow better mobilization of the thyroid gland. However, in the absence of gross ETE, the resection of the sternothyroid muscle is surgeon dependent. The aim of this study is to determine patient and tumor factors associated with the presence of microscopic ETE.

Methods: An institutional database of 3664 previously untreated patients with DTC operated between 1986 and 2010 was reviewed. Patients with less than total thyroidectomy, residual disease at end of surgery, M1 at presentation, tumor size greater than 4 cm, or gross ETE were excluded. 2304 patients were included for analysis (Figure 1). Patient demographics and pathological features were retrospectively recorded. Pearson’s chi-squared analysis was used to compared patients and tumor characteristics.

Results: The median age of the cohort was 47.1 years (range 12–87). Table 1 shows a comparison of patient and tumor characteristics between those with and without microscopic ETE. Patients with microscopic ETE are more likely to be male (p=0.002), more likely to exhibit papillary tall cell variant (p=0.001), and associated with tumor size between 1–3 cm (p<0.001). Patients with microscopic ETE were also more likely to receive adjuvant RAI therapy (p<0.001). Microscopic ETE was present in 16.4%, 33.5%, 32.2% and 21.3% of patients with primary tumor less than 1 cm, 1-2 cm, 2-3 cm, and 3-4 cm respectively.

Conclusion: Greater than 30% of patients with no evidence of gross ETE at time of surgery are subsequently found to have microscopic ETE on histopathology if the primary tumor is between 1 and 3 cm. With the incidence of microscopic ETE being above 30%, due consideration should be given for the resection of the sternothyroid muscle for satisfactory oncolgic purposes.

S021: THE IMPACT OF GENE EXPRESSION CLASSIFIER MOLECULAR TESTING ON THE DECISION-MAKING PROCESS FOR PATIENTS WITH NODULAR THYROID DISEASE PRESENTING FOR SURGICAL CONSULTATION

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Background: Commercial molecular marker testing, such as the Afirma gene expression classifier (GEC), is now being utilized in the work-up of cytologically indeterminate thyroid nodules. While this molecular test appears to be promising in improving thyroid cancer diagnosis, its impact on surgical decision-making has yet to be demonstrated. We aimed to determine the impact of Afirma GEC molecular marker test results on the decision-making process for patients with nodular thyroid disease presenting for surgical consultation.

Methods: A surgical management algorithm was developed, and peer review published, that incorporated individual Bethesda Thyroid Imaging System for Reporting Thyroid Cytopathology classification, clinical, laboratory, and radiological results. We then retrospectively applied this algorithm to all consecutive patients with nodular thyroid disease who had presented with Afirma GEC testing for surgical consultation between April 1, 2010 and September 30, 2014. Changes in management were recorded to identify the impact of GEC molecular testing on the surgical decision-making process. A 20% alteration in management was considered significant.

Results: Of the 336 patients assessed by preoperative Afirma GEC molecular testing, the GEC was suspicious in 80.5%, benign in 10.8%, and indeterminate in 8.8%. The management plan of only 7% of patients was altered as a result of the GEC molecular test result. However, 66% of these patients, relative to postoperative histopathology analysis, were inappropriately overtreated.

Conclusion: Afirma GEC molecular testing for nodular thyroid disease did not significantly impact the surgical decision-making process. Among patients whose treatment was altered based upon these markers, there was evidence of overtreatment. Further comprehensive studies should be conducted to define the utility of diagnostic molecular marker testing for nodular thyroid disease.

S022: ANAPLASTIC THYROID CARCINOMA, DOES AGGRESSIVE PALLIATIVE IMPROVE SURVIVAL? Yuval Nachalon, Gideon Bachar, Jacob Silvero, Dror Limon, Aron Popovtzer; Beilinson Hospital, Rabin Medical Center, Petach Tikva, Israel

Introduction: Anaplastic thyroid carcinoma (ATC) is an undifferentiated tumor of the thyroid gland with an extremely aggressive behavior. ATC is notorious for its high rates of regional and distant spread and extremely low survival rates, in many series as low as 3 month median survival. There is no standard treatment, some suggest surgery, others radiotherapy with or without chemotherapy, and others only palliative symptomatic treatment. The aim of this study is to review our active policy :surgery and adjuvant concomitant radiation and chemotherapy(CRT) if amenable or otherwise for local disease full dose CRT (RT=70 Gy) , for metastatic disease: aggressive palliative radiation(APR) to 50 Gy and only for low performance patients’ palliative radiation (PAR).

Methods: This is a retrospective chart review of all patients who were treated in our center for ATC between 2008-2013.In general for localized patients the RT field includes the tumor bed and bilateral level 2 to 6,for all other patients the treatment field only included the tumor bed with a 1 cm PTV. Concomitant chemotherapy given was Adriamycin (10MG/
M2 weekly) or 70 MG/m2 paclitaxel. 

**Results:** Twenty-four patients (15 females) were treated. Of the 24, 20 patients were treated curative dose of radiation, including 4 patients who underwent Curative surgery, 8 patients APR, 2 patients PAR and 2 patients didn’t get any radiotherapy. The overall median survival was 24 weeks. Significant difference in median survival was noted between radiotherapy, PAR, APR and curative group of 2, 6, 20 and 41 weeks respectively (p<0.001). 

Eight patients were given chemotherapy which had a significant impact on survival with median survival time of 51 weeks compared to 14 weeks for patients who were not (p=0.001). Among the patients who underwent surgery 3 are alive with more than 3 years follow up.

**Conclusions:** ATC continues to have a grave prognosis but an aggressive policy including surgery, radiotherapy and chemotherapy seem to improve survival. Furthermore, higher doses of radiation for patients who were given palliative treatment were shown to improve survival as well, and may be considered for patients with extended disease.

**S023: APPLYING NSQIP METHODOLOGY TO ASSESS PATIENTS UNDERGOING FIBULA FREE FLAP RECONSTRUCTION: EXAMINING FACTORS THAT IMPACT HOSPITAL LENGTH OF STAY**

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**Introduction:** The average length of hospital stay (LOS) for patients undergoing free tissue reconstruction with a fibular free flap has been reported to be from 8.8 to 15.1 days. As the average cost of inpatient hospital stay per day is approximately $2000, increased LOS contributes to significantly higher costs to both the patient and the hospital. To date, no one has sought to determine factors contributing to an increased LOS in patients undergoing free fibula flaps. Modifying these factors could result in decreased LOS and decreased utilization of costly resources. NSQIP has been used to assess quality in a wide variety of surgeries, but never before in free fibula reconstructive surgery.

**Methods:** A retrospective analysis of an academic tertiary center’s patients undergoing free fibula reconstruction from July 2013 to June 2014 was performed. Clinical and demographic information was collected using a Head and Neck Surgery adaptation of the American College of Surgeons National Surgical Quality Improvement (ACS-NSQIP) data form. Our primary outcome measure was LOS. Univariate and multivariate analysis was performed to analyze factors contributing to LOS.

**Results:** Thirty patients underwent free fibula flap reconstruction during the study timeframe, and all were included in the study. Median LOS was 10 days with a range of 8 to 31 days. The patients were divided into two groups based on length of stay: 17 patients with a LOS ≤ 10 days, and 13 patients with a LOS > 10 days. Univariate analysis revealed no significant differences in age, sex, tumor site, type of insurance, indication for surgery, or pre-operative medical comorbidities between the two groups (p > 0.05). Multivariate logistic regression was used to evaluate the independent association risk factors and LOS, controlling for possible confounders. Analysis revealed patients with a LOS > 10 days were significantly more likely to have an operative time > 12 hours (p = 0.0017), to be ventilator dependent for > 48 hours post-operatively (p = 0.02), and to have post-operative altered mental status (AMS) (p = 0.001). Analysis revealed that the increased risk of LOS > 10 days relative to LOS ≤ 10 days was significantly associated with operative time of > 12 hours (OR = 6.43, 95% CI 1.03-40.23, p = 0.038), ventilator dependence for > 48 hours post-operatively (OR = 10.67, 95% CI 1.12-101.34, p = 0.02), and the presence of AMS (OR = 7.31, 95% CI 1.44-37.16, p = 0.024).

**Conclusion:** In patients undergoing free fibula flap reconstruction, length of stay is significantly increased by longer length of surgery, longer post-operative ventilator dependence, and presence of post-operative AMS. Each of these factors is modifiable and results indicate that targeted efforts aimed to decrease operative time, as well as protocols for early ventilator weaning and aggressive management of post-operative AMS would lead to overall shorter hospital LOS in patients undergoing free fibula flap reconstruction. We have also demonstrated that using NSQIP methodology is effective in evaluating quality outcomes in head and neck ablative and reconstructive cases.

**S024: IMPACT OF A DOCUMENTATION IMPROVEMENT PROGRAM AT AN ACADEMIC OTOLARYNGOLOGY PRACTICE**

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**Background/objectives:** Clinicians recognize the value of accurate documentation to facilitate patient care, communication and the distribution of professional fees. However, the relationship between inpatient documentation, hospital billing and quality metrics is less clear. Hospitalizations are assigned to a base MS-DRG (Medicare Severity Diagnosis Related Group) based on the primary surgery/procedure/medical diagnosis for an admission. The base MS-DRG has an expected length of stay as well as a relative weight that, in conjunction with each hospital’s unique multiplier, determines payment. If medical documentation supports a qualifying secondary diagnosis, the base MS-DRG is upgraded include a complication/comorbidity (CC) or major complication/comorbidity (MCC), with correspondingly higher expected length of stay and relative payment weight. Documentation is also used to group patients by severity of illness (SOI) and risk of mortality (ROM).

Unfortunately, the specific language needed to meet requirements for a higher level of acuity is not intuitive and is often not used. As a result, patients are incorrectly assigned lower to lower DRG, SOI and ROM groups. This conveys a lower level of patient acuity than was actually treated, leading to inaccurate reimbursement and quality metrics. Our
Oral Papers

**S025: CREATION OF A JOINT COMMISSION DISEASE SPECIFIC CERTIFICATION ON LARYNGEAL CANCER - REPORT ON OVERALL EXPERIENCE**

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**Introduction:** Disease-specific certification (DSC) is a program established by the Joint Commission to assess institutions' continuum of care surrounding various disease processes. Active programs include disease processes such as stroke, acute myocardial infarction and chronic obstructive pulmonary disease. In 2013, the Head and Neck Institute at the Cleveland Clinic sought to create a laryngeal cancer DSC. We report on our experience, the processes involved in creation of such a program and the end result.

**Method:** In 2013, a multidisciplinary laryngeal cancer DSC working group was created consisting of inpatient and outpatient nursing, speech and language pathology (SLP), dentistry, social work, nutrition, medical oncology, radiation oncology and otolaryngology. The objective was to adopt clinical practice guidelines that spanned the entirety of a patient's experience from diagnosis of laryngeal cancer (all stages) to oncologic surveillance. Guidelines were adopted; basic metrics were selected and evaluated on an ongoing process to refine group practices. Four metrics selected to present to the Joint Commission for purposes of program adoption included: offering patients smoking cessation assistance, presentation to multidisciplinary tumor board for patients with Stage 2 cancer or greater or independent consultations, a flexible laryngoscopy exam for all patients with newly-diagnosed laryngeal cancer and a preoperative SLP consultation for all patients undergoing a total laryngectomy. Data was retrieved and reviewed on a quarterly basis and education to involved caretakers performed continually.

**Results:** Since the inception of the program, 117 laryngeal cancer patients were enrolled (January 2013 – October 2014). All metrics showed progressive improvement in the time period observed. The following are comparisons between the first quarter observed and the final quarter: offering patients assistance with smoking cessation improved from 44% to 100% (p = .001); presenting patients to multidisciplinary tumor board or independent consultations from 90% to 100% (p = .42); flexible laryngoscopy exams for all newly-diagnosed patients from 89% to 100% (p = .188) and SLP consultations prior to laryngectomy from 44% to 100% (p = .02).

**Discussion:** With increased attention to the laryngeal cancer pathway by way of establishing a Joint Commission DSC, we have shown improvements in many process-related metrics. Since the inception of the program, it has expanded to include additional metrics such as time from initial presentation to treatment, dental evaluation prior to radiation, patient satisfaction and compliance with oncologic surveillance. Given this overall improvement observed, we have maintained the program and have expanded it to create a laryngeal cancer carepath with a focus on the quality and cost of care.

**S026: DETECTION OF SUBCLINICAL RECURRENCE OR SECOND PRIMARY CANCER USING FDG PET/CT IN PATIENTS TREATED CURATIVELY FOR HEAD AND NECK SQUAMOUS CELL CARCINOMA**

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**Background:** The potential value of surveillance 18F-fluorodeoxyglucose positron emission tomography (FDG PET/CT) is relatively high, but there is no clear consensus on the timing, interval and frequency of scans after curative treatment for head and neck squamous cell carcinoma (HNSCC).
Oral Papers

We hypothesized that serial follow-up FDG PET/CT for post-treatment surveillance in asymptomatic HNSCC patients would permit early detection of a subclinical lesion, and that this could lead to improved survival. The purposes of this study were to determine the rate of subclinical lesions detected by surveillance FDG PET/CT after initial definitive treatment; to evaluate the detection rate for the first and subsequent scans; and to determine if the timing of FDG PET/CT influences survival after curative treatment for HNSCC.

Methods: We conducted a retrospective analysis of consecutive 158 oral, oropharyngeal, hypopharyngeal, and laryngeal SCCs who were treated curatively and underwent post-treatment FDG PET/CT scans after definitive therapy. Serial follow-up FDG PET/CT was scheduled every 3 to 6 months in year 1 and every 6 to 12 months in years 2 to 5, regardless of clinical suspicion of recurrence. The number of patients with recurrence or a second primary cancer detected by surveillance FDG PET/CT and the detection rate of subclinical lesions in each surveillance FDG PET/CT scan were analyzed. To model realistic surveillance conditions, FDG PET/CT scans in symptomatic patients and those performed after recurrence or salvage treatment were excluded from these analyses. In addition, to examine whether the timing of scans influenced survival, hazard ratios for disease-specific and overall survival were determined for comparison of the early and late scan groups using a Cox regression model adjusted for T/N classification and definitive therapy modality for each scan. Patients who underwent a scan before the median time of FDG PET/CT after completion of definitive treatment were defined as the early scan group for each of the four scans, and those who underwent a scan after the median time were similarly defined as the late scan group.

Results: Recurrence or a second primary cancer occurred in 70 patients, and 67% of these cases were detected by surveillance FDG PET/CT. Detection rates were 17%, 9%, 5%, 5% in the first, second, third, and fourth scans at 4, 9, 15 and 21 months, respectively. In multivariate analysis, patients who underwent early first scans (<4 months after treatment) had significantly better disease-specific (HR=0.37, P=0.031) and overall (HR=0.45, P=0.040) survival compared to those who underwent late first scans (>4 months after treatment).

Conclusions: Earlier detection of subclinical lesions by first surveillance PET/CT within 4 months after treatment may improve survival in patients with HNSCC. However, frequent surveillance FDG PET/CT scans may be omitted if the first scan shows negative results because the detection rate of subclinical disease was less than 10% in the second and subsequent scans.
C001: EFFECTIVENESS OF ONE CYCLE OF NEOADJUVANT CHEMOTHERAPY USING S-1 IN MULTIPLE DISEASES IN PATIENTS WITH HEAD AND NECK SQUAMOUS CELL CARCINOMA
Hiroyuki Harada, MD, Masahiro Kikuchi, MD, PhD, Shogo Shinohara, MD, PhD, Atushi Suehiro, MD, PhD, Risa Tona, MD, Ippei Kisimoto, MD, Keizo Fujiwara, MD, Fumihiko Gavilan, MD, Yasushi Naito, MD, PhD; Department of Otolaryngology-Head and Neck Surgery, Kobe City Medical Center General Hospital, 1Institute of Biomedical Research and Innovation

C002: SURGICAL AND NON-SURGICAL TREATMENT OUTCOMES IN ADVANCED STAGE ORAL CAVITY CANCER: A POPULATION-BASED STUDY
Richard B Cannon, MD, Justin C Sowder, MD, Luke Buchmann, MD, Jason P Hunt, MD, Marcus M Monroe, MD; University of Utah

C003: CORRELATION BETWEEN THE HISTOPATHOLOGY AND THE MEASUREMENTS OF SHEAR WAVE VELOCITY FOR FRESH THYROID SPECIMENS
Takahiro Fukuhara, MD, Eriko Matsuda, BS, Yukari Endo, CT, Kazunori Fujiwara, MD, Hideyuki Kataoka, MD, Hiroya Kitano, MD; Tottori University, Faculty of Medicine

C004: SURVIVAL OUTCOMES IN ELDERLY PATIENTS WITHUNTREATED UPPER AERODIGESTIVE TRACT CANCER
Brian B Hughley, MD, Steven M Sperry, MD, Mary E Charlton, PhD, Nitin A Pagedar, MD, MPH; University of Iowa

C005: INCIDENCE OF LEVEL 2 AND LEVEL 2B SENTINEL LYMPH NODE BASIN FOR CUTANEOUS HEAD AND NECK MALIGNANCY
Francis Creighton, MD, Molly Yancovitz, MD, Jessica Fewkes, MD, Derrick T Lin, MD, Daniel Deschler, MD, Kevin Emerick, MD; Harvard Residency Program in Otolaryngology, 1Harvard Department of Dermatology, Massachusetts Eye and Ear Infirmary, 2Harvard Department of Otolaryngology, Massachusetts Eye and Ear Infirmary

C006: SALIVARY DUCT CARCINOMA: A SINGLE-INSTITUTION, 20-YEAR REVIEW OF 75 CASES
Mark R Gilbert, MD, Nicole C Schmitt, MD, Arun Sharma, MD, MS, Seungwon Kim, MD; University Of Pittsburgh Medical Center

C007: 4D-CT SCORING AND PROTOCOL OPTIMIZATION OF PARATHYROID ADENOMAS. CHALLENGING DIAGNOSIS MADE SIMPLE.
Shivani Shah, MD, Zacharia, MD, Paul Kalapos, MD, Eric Schaefer, PhD, Kevin Moser, PhD, David Goldenberg, MD; Penn State Milton S. Hershey Medical Center

C008: EFFECTS OF BODY MASS INDEX IN OUTCOME INDICATORS AND QUALITY ASSESSMENT IN HEAD AND NECK SURGERY
Renato B Lira, MD, Genival B Carvalho, MD, Luiz P Kowalski, MD, PhD; AC Camargo Cancer Center

C009: PEDIATRIC NASOPHARYNGEAL CARCINOMA: A NATIONAL CANCER DATABASE SERIES
Morgan K Richards, MD, Kenneth Gow, MD, Adam B Goldin, MD, MPH; John Doski, MD, Jed G Nuchtern, MD, Monica Langer, Elizabeth A Beierle, MD, Sanjeev A Vaseudven, MD, Melanie Goldfarb, MD, Doug Hawkins, MD, Sanjay R Parikh, MD, FACR; 1Little Children's Hospital of South Texas, 2Baylor College of Medicine, 3Maine Children's Cancer Program, 4Children's Hospital of Alabama, 5John Wayne Cancer Institute

C010: PREDICTIVE VALUE OF NODAL SUV(MAX) OBTAINED BY 18F-FDG-PET-CT IN OROPHARYNGEAL SQUAMOUS CELL CARCINOMA
Jessica M Clark, MSc, MD, Caroline Jeffery, MD, Han Zhang, MD, Daniel A O'Connell, MD, FRCSC, Jeffrey Harris, MD, FRCSC, Hadi Seikaly, MD, MSc, FRCSC, Vincent L Biron, MD, PhD, FRCSC; University of Alberta

C011: LONG-TERM COMPLICATIONS OF A SMALL VOLUME RADIOTHERAPY TREATMENT OF EARLY GLOTTIC CANCER, A POPULATION BASED RETROSPECTIVE STUDY.
Michele Thomas, MRT, Helene Vanasse, MRTT, Larry El-Sayed, MD; The Ottawa Hospital Cancer Centre, 1University of Ottawa

C012: EFFECTS OF A MU-OPIOID AGONIST AND ANTAGONIST ON HEAD AND NECK CANCER CELLS
Reema Padia, MD, Tyler Call, MD, Jill Shea, PhD, Luke Buchmann, MD, Patricia Larrabee, BS, Matthew Firpo, PhD, MS; University of Utah

C013: CANCER BUDDY PROGRAM TO IMPROVE QUALITY AND TIMELINE OF HEAD & NECK CANCER TREATMENT: A PILOT STUDY
Meghan N Wilson, MD, Daniel W Nuss, MD, Rohan R Walvekar; Louisiana State University Health Sciences Center, New Orleans

C014: EVALUATION OF CLINICO-PATHOLOGICAL PREDICTIVE FACTORS FOR LYMPH NODE METASTASIS IN ORAL TONGUE SQUAMOUS CELL CARCINOMA
Madanee Jeswanandam, MD, Frederick Laliberté, MD, FRCSC, Hadi Seikaly, MD, MSc, FRCSC, Adam B Goldin, MD, Shogo Fujiwara, MD; 1Children's Hospital of South Texas, 2Baylor College of Medicine, 3Maine Children's Cancer Program, 4Children's Hospital of Alabama, 5John Wayne Cancer Institute

C015: COMMUNITY HEALTH INDICATORS ASSOCIATION WITH THE LONG-TERM OUTCOMES OF THYROIDECTOMY: A MULTI-STATES ANALYSIS
Zaid Al-Qurayshi, MBChB, MPH, Adam Hauch, MD, MBA, Rizwan Aslam, DO, Paul Friedlander, MD, Emad Kandil, MD, FACS; Tulane University School of Medicine, Department of Surgery

C016: PAPILLARY THYROID CARCINOMA CANCER STEM CELLS CAN PROLIFERATE THROUGH ASYMMETRIC DIVISION TO SELF-RENEW AND PRODUCE DIFFERENTIATED TUMOR CELLS
Alfred Simental, MD, Pedro De Andrade Filho, MD, Steve Lee, MD, PhD, Saied Mirshahidi, PhD, Penelope Duersken-Hughes, PhD, Xiangpeng Yuan; LOMA LINDA UNIVERSITY
C017: SUBEROYLANILIDE HYDROXAMIC ACID (SAHA) INHIBITS GROWTH OF HEAD AND NECK CANCER CELL LINES BY REACTIVATION OF TUMOR SUPPRESSOR MICRORNAS Jharna Dutta, PhD, Mozaffarul Islam, PhD, Samidha Dutta, BS, Sounak Roy, Quintin Pan, PhD, Theodoros N Teknos, MD; The Ohio State University

C018: MALIGNANT PERIPHERAL NERVE SHEATH TUMORS OF THE HEAD AND NECK: DEMOGRAPHICS, CLINICOPATHOLOGIC FEATURES, MANAGEMENT, AND TREATMENT OUTCOMES Armin Arshi, BS, Bobby A Tajudeen, MD, Maie St. John, MD, PhD; Department of Head and Neck Surgery, David Geffen School of Medicine at UCLA

C019: TOWARD THE NEXT GENERATION OF TRANSORAL ROBOTIC SURGERY: A FEASIBILITY STUDY USING THE DAVINCI SURGICAL XI ROBOT Josephine A Czechowicz, MD, Chafeek Tomeh, MD, Ryan Li, MD, F C Holsinger, MD, FACS; The Ohio State University

C020: PREDICTORS OF FAILED AND DELAYED DECANNULATION AFTER HEAD AND NECK SURGERY: A CASE-CONTROL STUDY Andre Isaac, MD, Han Zhang, MD, Stefan Hamilton, BSc, Jeffrey R Harris, MD, MHA, FRSCC, Daniel A O’Connell, MD, MSc, FRSCC, Hadi Seikaly, MD, MAL, FRSCC; University of Alberta, Memorial University of Newfoundland

C021:UTILITY OF NECK DISSECTION IN REGIONALLY-METASTATIC MEDULLARY THYROID CARCINOMA Suhael Momin, MD, Mumtaz Khan, MD, FACS, Brian Burkey, MD, FACS, Joseph Scharpf, MD, FACS; Cleveland Clinic Foundation

C022: LARYNGEAL REINNervation AFTER NERVE SECTIONING WITH VASCULARIZED, ADJUVANT, ACELLULAR AND CONDUIT NERVE GRAFTS Jordan P Sand, MD, Neel Bhatt, MD, Andrea M Park, MD, Shaun C Desai, MD, Laura Marquardt, MS, Shelly Sakiyama-Elbert, PhD, Randall C Paniello, MD, PhD; Washington University School of Medicine

C023: CHANGING TRENDS IN THE MANAGEMENT OF PRIMARY INFRATEMPORAL AND PARAPHRARYNGEAL SPACE TUMORS Kelly Groom, MD, Shanik Fernando, BS, James Netterville, MD; Vanderbilt University Medical Center, Vanderbilt University School of Medicine

C024: BARRIERS IN HEAD AND NECK CANCER SURVIVORSHIP: LESSONS LEARNED Anita Deshpande, Jennifer Gross, MD, Joan Giblin, Mihir Patel, MD, Jeffrey T Wadsworth, MD, Mark El-Deiry, MD, Amy Y Chen, MD; Emory, Washington University School of Medicine, Dept of Otolaryngology

C025: ANALYSIS OF ONCOLOGICAL AND FUNCTIONAL RESULTS IN TRANSORAL LASER MICROSURGERY AS A PRIMARY TREATMENT OPTION OF SELECTED T3 GLOTTIC AND SUPRAGLOTTIC LARYNGEAL CANCERS. Sara Penco, MD, Luca Guastini, MD, Gregorio Santori, MD, PhD, Giovanna Gaggero, MD, Cesare Piazza, MD, PhD; Diego Barbieri, MD, Giorgio Peretti, MD; Department of Otorhinolaryngology Head and Neck Surgery, University of Genoa, Italy, Department of Surgical Sciences and Integrated Diagnostics, University of Genoa, Italy, Department of Otorhinolaryngology Head and Neck Surgery, University of Brescia, Italy

C026: DETERMINANTS OF SURVIVAL IN EARLY STAGE (T1-2N0M0) ORAL CAVITY CANCER - A POPULATION-BASED STUDY Justin C Sowder, MD, Richard B Cannon, MD, Luke O Buchmann, MD, Jason P Hunt, MD, Ying Hitchcock, MD, Shane Lloyd, MD, Marcus M Monroe, MD; University of Utah

C027: THE ROLE OF PALLIATIVE/ CURATIVE RE-IRRADIATION IN RECURRENT AND RESIDUAL SQUAMOUS CELL CARCINOMA OF THE UPPER AERODIGESTIVE TRACT. Kelly J Pettijohn, MD, William Lorenzo, Vishad Nabili, MD, Marilene Wang, MD; UCLA, Veterans Administration

C028: THE LAST YEAR OF LIFE: END-OF-LIFE CARE IN ELDERLY PATIENTS WITH TERMINAL LARYNX AND OROPHARYNX CANCER Christine G Gourin, MD, MPH, Robert J Herbert, BS, Rab Razzak, MD, David W Eisele, MD, Thomas J Smith, MD; Johns Hopkins University

C029: COMPARISON OF SHORT-TERM OUTCOMES OF PATIENTS UNDERGOING FIBULAR AND SCAPULAR FLAP FREE TISSUE RECONSTRUCTION BY USING NSQIP METHODOLOGY Kaitlyn Strickland, Laura White, MD, Mihir Patel, MD, Jeffrey T Wadsworth, MD,Mark W El-Deiry, MD, Amy Y Chen, MD; Emory, Anderson Cancer Center

C030: PROGNOSTIC INDICATORS AND TREATMENT OF MYOEPITHELIAL CARCINOMA: A POPULATION-BASED ANALYSIS Irene A Kim, MD, Armin Arshi, BS, Bobby Tajudeen, MD, Maie St. John, MD, PhD; David Geffen School of Medicine at UCLA, Head and Neck Surgery, David Geffen School of Medicine at UCLA, David Geffen School of Medicine at UCLA, Head and Neck Surgery; Jonsson Comprehensive Cancer Center

C031: TRAVEL DISTANCE IS ASSOCIATED WITH STAGE AT PRESENTATION AND LARYNGECTOMY AMONG PATIENTS WITH LARYNGEAL CANCER Laura Dooley, MD, Snehal Patel, MD, MS, FRCS, Jatin Shah, MD, MS, FACS, Benjamin R Roman, MD, MSHP; Memorial Sloan Kettering Cancer Center
C032: DIFFERENCES BETWEEN TREATMENT AND NON-TREATMENT SEEN IN A COMMUNITY BASED HEAD AND NECK CANCER SCREENING Edie R Hapner, PhD; Matt C Ochsner, BS; Justin C Wise, PhD; Laura J White, MD; "Department of Otolaryngology, Emory University School of Medicine, Ogletorpe University

C033: ONCOLOGIC AND FUNCTIONAL OUTCOMES OF SURGICAL AND NON-SURGICAL TREATMENT FOR ADVANCED SQUAMOUS CELL CARCINOMA OF THE SUPRAGLOTTIC LARYNX Adekunle Elaqbebe, PhD; Lisa A Rybicki, MS; David J Adelstein, MD; "Cleveland Clinic Lerner College of Medicine, Cleveland Clinic

C034: ENDOSCOPIC VERSUS OPEN TREATMENT FOR SIMONASAL SQUAMOUS CELL CARCINOMA: AN OUTCOMES STUDY Brandon L Prendes, MD; Saqib R Ahmed, MD; Michael W McDermott, MD, Ivan H El-Sayed, MD; "University of California - San Francisco

C035: INCIDENCE OF PERIOPERATIVE ISCHEMIC STROKE AFTER NECK DISSECTION S. Danielle MacNeil, MD, MSc; Samantha Tam, MD; Kuan Liu, MMath; Amit X Garg, MD, PhD; Amardeep Thind, MD, PhD; Eric Winquist, MD, MSc; John Yoo, MD, MSc; Anthony Nichols, MD; Kevin Fung, MD; Stephen Hall, MD, MSc; Salimah Z Sharrif, PhD; "Department of Otolaryngology-Head and Neck Surgery Western University, "Institute for Clinical and Evaluative Sciences, "Department of Oncology, Western University, "Department of Otolaryngology, Queen's University

C036: EXPRESSION OF TOBACCO- AND ALCOHOL-METABOLIZING ENZYMES IN YOUNG AND OLD PATIENTS WITH ORAL SQUAMOUS CELL CARCINOMA Estela Kaminagakura; Adriana Caris; Claudia Camilo-Cortinhov; Victor Costa; Raphaela Medeiros; Luiz Paulo Kowelaki; "University of Sao Paulo State, "AC Camargo Cancer Center

C037: NARROW MARGINS (1-4MM) IN HPV-POSITIVE OROPHARYNGEAL SQUAMOUS CELL CARCINOMA (OPSCC) TREATED WITH TRANS-ORAL ROBOTIC SURGERY ALONE Jason I Kass, MD, PhD; Juan C Hernandez-Pera, MD, Christopher Pool, Elizabeth G Demico, MD, Eric M Genden, MD; Ichin School of Medicine at Mount Sinai

C038: EARLY ORAL TONGUE SQUAMOUS CELL CARCINOMA: SAMPLING OF MARGINS FROM TUMOR RESECTION DEFECT CORRELATES WITH WORSE LOCAL CONTROL Jessica H Maxwell, MD, MPH; Lester DR Thompson, MD; Margaret S Brandwein-Gensler, MD; Bernhard G Weiss, MD; Martin Canis, MD; Bibianna Purgin, MD; Chi Li, MD; Yongli Shuai, MS; Ummaheswary DuVuri, MD; Robert L Ferris, MD; PhD; Jonas T Johnson, MD; Seungwon Kim, MD; Raja Seethala, MD; Simion Chiosea, MD; "Department of Otolaryngology, University of Pittsburgh Medical Center, "Department of Pathology, Southern California Permanente Medical Group, "Department of Pathology, University of Alabama at Birmingham, "Department of Otorhinolaryngology, Head and Neck Surgery, University of Gottingen, Germany, "Department of Pathology and Laboratory Medicine, The Ottawa Hospital/University of Ottawa, "Biostatistics Facility, University of Pittsburgh Cancer Institute, "Department of Pathology, University of Pittsburgh Medical Center

C039: PREDICTING QUALITY OF LIFE OUTCOMES IN PATIENTS WITH OROPHARYNGEAL CARCINOMA TREATED WITH A MINIMALLY INVASIVE SURGERY-FIRST APPROACH Jonathan P Giurintano, MD, Karuna Dewan, MD, Jared J Tompkins, MD, Kathryn King, FNP; Sandeep Samant, MS, FRCS; University of Tennessee Health Science Center

C040: RETROPHARYNGEAL LYMPH NODE DISSECTION DURING TRANSORAL ROBOTIC SURGERY: PATTERNS OF METASTASIS AND FUNCTIONAL OUTCOMES Scott H Troob, MD, Peter Andersen, MD, Danield Clayburgh, MD, PhD; Oregon Health and Science University

C041:MICROSURGICAL RECONSTRUCTION OF THE TISSUES OF THE ORAL CAVITY AND PHARYNX BY VISCERAL FLAPS IN CANCER PATIENTS Andrey Polyakov; Igor Reshetov; Mikhail Ratushnyy; "PA.Hertzen Moscow Cancer Research Institute, "I.M.Sehenov First Moscow State Medical University

C042: QUALITY OF LIFE OUTCOMES IN PATIENTS WITH OROPHARYNGEAL CARCINOMA TREATED WITH A MINIMALLY INVASIVE, SURGERY-FIRST APPROACH Jonathan P Giurintano, MD, Jared J Tompkins, MD, Kathryn King, FNP; Sandeep Samant, MS, FRCS; University of Tennessee Health Science Center

C043: PATIENT-PERCEIVED AND OBJECTIVE FUNCTIONAL OUTCOMES FOLLOWING SALVAGE TRANSORAL ROBOTIC SURGERY (TORS) FOR OROPHARYNGEAL SQUAMOUS CARCINOMA. Andressa S Freitas, SLP; Christina G Santos, SLP; Fernando L Dias, MD, PhD; Izabela C Santos, MD, PhD; Julia M Levi, MD, MSc; L Coça, SLP; Bartolomeu P Rodrigues, SLP; Mariana C Guedes, SLP; BARIJAN NATIONAL CANCER INSTITUTE
C046: SURGERY FOR NON-LOCALIZING HYPERPARATHYROIDISM IN THE ERA OF LOCALIZATION Christopher D Vuong, MD, Pedro A Andrade Filho, MD, Alfred A Simental, MD, Daniel I Kwon, MD; Department of Otolaryngology-Head and Neck Surgery, Loma Linda University CA

C047: QUALITY OF LIFE AND ONCOLOGICAL SAFETY OF SALIVARY GLAND TRANSFER IN OROPHARYNGEAL CANCER PATIENTS TREATED WITH PRIMARY CHEMO-RADIATION Gregoire B Morand, MD,1 Madana Jeevanandam, MD,2 Sabrina D da Silva, PhD,2 Michael Roskies, MD,1 Adrian Costesco,1 Trevor Lewis,2 Khalil Sultanum, MD,2 Martin J Black, MD,2 Alex M Mlynarek, MD, MSc,2 Michael P Hier, MD,1 1 Otologyngology - Head and Neck Surgery, Jewish General Hospital, McGill University, 2 Lady Davis Institute for Medical Research, McGill University. 2 Radiooncology, Jewish General Hospital, McGill University

C048: DESCRIPTION AND COST ANALYSIS OF ATELEMEDICINE TREATMENT MODEL FOR HEAD AND NECK CANCER IN A VETERANS HEALTH ADMINISTRATION POPULATION Daniel M Beawick, MD, Yohan Song, BS, Rosemary Pham, BS, Davud Sirjani, MD; Stanford Department of Otolaryngology - Head and Neck Surgery

C049: ADJUVANT THERAPY DOES NOT IMPACT SURVIVAL FOLLOWING SURGICAL RESECTION OF SINONASAL MELANOMAS Gaurav S Ajmani, MHS,1 Erik Liederbach,2 Jayant M Pinto, MD,2 Mihir K Bhayani, MD,2 1 Pritzker School of Medicine, University of Chicago, 2 Section of Otolaryngology, NorthShore University Health System, 2 Section of Otolaryngology-Head and Neck Surgery, Department of Surgery, The University of Chicago, Illinois

C050: ONCOLOGIC OUTCOMES OF PATIENTS WITH ADVANCED OROPHARYNGEAL CANCER TREATED WITH A MINIMALLY INVASIVE SURGERY FIRST APPROACH Jonathan P Giurintano, MD, Jared J Tompkins, MD, Kathryn King, FNP, Faisel Mohamed, MPH, Sandeep Samant, MS, FRCSS; University of Tennessee Health Science Center

C051: SALIVARY MICRORNA BIOMARKERS FOR DETECTION OF HPV-POSITIVE OROPHARYNGEAL SQUAMOUS CELL CARCINOMA Peter S Vosler, MD, PhD,1 Robert L Ferris, MD, PhD,1 Parvez Akhtar, PhD,1 Saleem A Khan, PhD,2 1 Department of Otolaryngology, UPMC, 2 Department of Otolaryngology and Plastic Surgery, Johns Hopkins University School of Medicine

C052: HOME SELF-DILATATION: A NOVEL APPROACH FOR TREATMENT OF RADIATION INDUCED DYSPHAGIA IN HEAD AND NECK CANCERS Mohammad Alnoor, BS, Niels Kokot, MD, Brenda Villegas, MS, CCCSLP; Keck School of Medicine of the University of Southern California

C053: NECK INCISION PLANNING FOR TOTAL LARYNGECTOMY: CLINICAL REVIEW AND FINITE ELEMENT ANALYSIS Allen L Feng, BS,1 James H Clark, MB, BCh,1 Katie Morton, MD,1 Nishant Agrawal, MD,1 Wailed Moussa, PhD, PEng2, Jeremy D Richmon, MD,1 Johns Hopkins School of Medicine,1 University of Alberta

C054: PART I: NECK DISSECTION TECHNIQUE COMMONALITY AND VARIANCE AN INTERNATIONAL SURVEY OF NECK DISSECTION TECHNIQUE AMONG HEAD AND NECK ONCOLOGIC SURGEONS IN THE AMERICAN HEAD AND NECK SOCIETY Shirin M Hemmat, BA, William R Ryan, MD; University of California-San Francisco

C055: NODE METASTASES IN LARYNGEAL SQUAMOUS CELL CARCINOMA Gabriele Molteni, MD, FEBO, MHS,1 Margherita Bettini, MD, Gaia Federici, Marco Bonali, MD, Livio Presutti, MD; Department of Otolaryngology and Head & Neck Surgery, University of Modena and Reggio Emilia

C056: USE OF ANGULAR VESSELS IN HEAD AND NECK FREE-TISSUE TRANSFER: A CASE SERIES REVIEW Bryan N Reifel, MD, Michail Fritz, MD; The Cleveland Clinic

C057: PREDICTORS OF POSITIVE MARGINS AND EXTRACAPSULAR EXTENSION FOR PATIENTS RECEIVING TRANSORAL ROBOTIC SURGERY FOR SQUAMOUS CELL CARCINOMA OF THE OROPHARYNX Harry E Subramanian,1 Henry S Park, MD, MPH,2 Benjamin L Judson, MD,1 Zain A Husain, MD,2 1 Yale University School of Medicine, 2 Department of Therapeutic Radiology, Yale University School of Medicine, 2 Section of Otolaryngology, Department of Surgery, Yale University School of Medicine

C058: OFFERING MORE FOR PERSISTENT DYSPHAGIA AFTER HEAD AND NECK CANCER: THE EVOLUTION OF BOOT CAMP SIALOLOGY THERAPY Katherine A Hutcherson, PhD,1 Sophia Kelly,1 Martha P Barrow, MPH,2 Denise A Barringer, MS,2 Denice G Perez, MA,2 Leila G Little, MS,2 Randall S Weber, MD,1 Jan S Lewin, PhD,2 2 UT MD Anderson Cancer Center, 1 Augustana College

C059: FEEDBACK AUTOCRINE LOOP OF FGFR-1-1 ACTIVATES ERK REBOUND TO MEK INHIBITION IN HNSSC Yeon Ju Yang,1 Myung Jin Ban,2 Hwi Jung Na,2 Jae Won Chang,2 Hyung Kwon Byeon,2 Ji Hoon Kim2, Hye Jin Hwang,2 Jeong Jin Park,2 Jae Wook Kim1, Jae Yong Lee1, Jae Hong Park1, Won Shik Kim1, Yoon Woo Koh2, Eun Chang Choi1, Brain Korea 21 PLUS Project for Medical Science, Yonsei University, 1 Yonsei University College of Medicine, 2 Soonchunhyang University College of Medicine
C060: A PROSPECTIVE STUDY OF LOCAL CONTROL (LC), PATTERN OF FAILURE (PF) AND SURVIVAL (OS) IN PATIENTS WITH SQUAMOUS CARCINOMA OF THE HEAD AND NECK REGION (SCCHN) TREATED WITH IMRT RADIOTHERAPY, RESULTS OF LONG TERM FOLLOW UP  Samy El-Sayed, MD,1,2, Hussain Al-Hussein, MD,1,2, Kathy Carty, MRTT,1,2; ‘University of Ottawa, ‘The Ottawa Hospital

C061: DETERMINING PATIENT PREFERENCES AND THRESHOLDS FOR THE MANAGEMENT OF INDETERMINATE THYROID NODULES: SURGERY, OBSERVATION, OR GENETIC TESTING  Daniel J Lee, BHSc,1,2, Jason J Xu, MD,1,2, Dale H Brown, MB, BCh, FRCSC,1,2, Neil Gross, MD,1,2, Alla Bakhsh, MD,1,2, Daniel Brickman, MD,1,2, Daniel Sperling, MD,1,2, Tauhid S Khan, MB, BCh, FRCSC,1,2, Alejandro Trujillo, MD,1,2, Jonathan C Irish, MD, MSc, FRCSC,1,2, P Goldstein, MD, MSc, FRCSC,1,2, MB, FRCSC,1,2, W Gilbert, MD, FRCSC,1,2, W D Stoll, MD,1,2, Rusha J Patel, MD,1,2, Neil Gross, MD,1,2, Kathy Carty, MRTT,1,2; ‘University of Ottawa, ‘The Ottawa Hospital

C062: PREDICTIVE RISK FACTORS FOR IMMEDIATE REVISION OF FLAP RECONSTRUCTIONS IN HEAD AND NECK CANCER PATIENTS  Thomas K Chung, MD,1 Eben L Rosenthal, MD,1; University of Alabama at Birmingham

C063: INTRAOPERATIVE VASOPRESSOR USE IN SOFT TISSUE VS OSTEOTOMANOUS FREE FLAP RECONSTRUCTION: A RANDOMIZED TRIAL  Rujsha J Patel, MD,1,2, Robert Taylor, MD,1,2, Paul Tennent, MD,1,2, Jeff Houlton, MD,1,2, C Sealy,1,2, W D Stoll, MD,1,2, Joshua Hornig, MD,1,2, William Hand, MD,1,2, Terry Day, MD,1,2; ‘Medical University of South Carolina, ‘Louisiana State University, ‘University of Alabama at Birmingham

C064: PREVALENCE, DISTRIBUTION, AND LEVELS OF HIGH-RISK HPV TYPES IN SQUAMOUS CELL CARCINOMA OF THE NASOPHARYNX  Pradip Manna, PhD,1,2, Ossama Tawfik, MD, PhD,1,2, Kaiser Jamil, PhD,1,2, Vishnu V R Martha, MDPhD,1,2; ‘Mahavir Medical Research centre, ‘Kamineni Institute of Medical Sciences & Research Centre

C065: REGIONAL VARIATION IN OUTCOMES FOR HEAD AND NECK CANCER IN CALIFORNIA  Vasud Divi, MD,1,2, Wifel Ma, Kim F Rhoads, PhD,2, Stanford University

C066: HEAD AND NECK SQUAMOUS CELL CARCINOMA IN THE SETTING OF ORGAN TRANSPLANTATION  Kartik Rajasekaran, MD,1,2, Rahul Seth, MD,1,2, Charles Orosco, MD,1,2, Thomas K Chung, MD,1,2, David C Chang, PhD,1,2, ‘University of California San Diego, ‘Department of Surgery, University of San Diego, ‘Department of Surgery, University of California San Diego, ‘Department of Surgery, ‘Department of Surgery, ‘Harvard Medical School

C067: PROGNOSTIC FACTORS OF RECURRENT ORAL CAVITY SQUAMOUS CELL CARCINOMA ASSOCIATED WITH SURVIVAL IN THE SALVAGE PATIENT POPULATION  Syed A Ali, BA,1,2, David E Schuller, MD,1, Enver Ozer, MD,1,2, Ricardo L Carrau, MD,1, Amit Agrawal, MD,1, Theodoros N Teknos, MD,1, Matthew O Old, MD,1,2, Ohio State University Wexner Medical Center - Department of Otolaryngology - Head and Neck Surgery

C068: A SINGLE INSTITUTION EXPERIENCE WITH MANAGEMENT OF SUPRAGLOTTIC SCCA IN THE ERA OF CHEMORADIATION (CRT): 2001-2012  Jason I Kass, MD, PhD,1,2, Mark Kubik, MD,1, Eugene Myers, MD,2, University of Pittsburgh

C069: IMPACT OF CURRENT SMOKING AND ALCOHOL ON GASTROSTOMY DURATION IN PATIENTS WITH HEAD AND NECK CANCER UNDERGOING DEFINITIVE CHEMORADIOTHERAPY  Ross O'Shea, Joel Tucker, Helen Byrne, Gerard O'Leary, Patrick Sheahan; South Infirmary Victoria University Hospital, Cork

C070: NOVEL HIGH FIDELITY PERITONSILLAR ABSCESS SIMULATOR  Grace Scott, MSc, candidate, Kathryn Roth, MD, Kevin Fung, MD; Western University

C071: STUDY ON GSTT1, GSTM1, CYP1A1, XRCC1 AND P53 GENE IN HEAD AND NECK CANCER PATIENTS HABITUATED WITH SIDI AND CIGARETTE SMOKING  Sabitha K, PhD,1,2, Kaiser Jamil, PhD,1,2, Vishnu V R Martha, MDPhD,1,2; ‘Mahavir Medical Research centre, ‘Kamineni Institute of Medical Sciences & Research Centre

C073: CONCORDANT ORAL AND VAGINAL HPV INFECTION IN THE UNITED STATES  Sural Kedarietty, BS,1,2, Ryan K Orosco, MD,1,2, Avram S Hecht, MD,1,2, Charles C Coffey, MD,1,2, Philip A Weissbrod, MD,1,2, David C Chang, PhD,1,2; ‘School of Medicine, University of San Diego, ‘Department of Surgery, University of California San Diego, ‘Department of Surgery, ‘Massachusetts General Hospital, ‘Harvard Medical School

C074: HYPOFRACTIONATION FOR THE TREATMENT OF RADIO-RESISTANT RECURRENT HEAD AND NECK CANCER: A NEW TREATMENT PARADIGM  Dhor Limon, MD,1,2, Yuval Nachalon, MD,1, Aron Popovtzer, MD,1, Rabin Medical Center

C075: COST-BENEFIT ANALYSIS OF OTOLARYNGOLOGY-SPECIFIC EMERGENCY ROOM SERVICES USING A CONTINGENT VALUATION SURVEY  Matthew R Naunheim, MD, MBA,1,2, Elliott D Kozin, MD,1, Rosh K Sethi, MD, MPH,1,2, Mark G Shrime, MD, MPH,1,2; ‘Oregon Health and Science University, ‘MD Anderson Cancer Center

C076: THE IMPACT OF PROPHYLACTIC EXTERNAL CAROTID ARTERY LIGATION ON POSTOPERATIVE HEMORRHAGE AFTER TRANSORAL ROBOTIC SURGERY (TORS) FOR OROPHARYNGEAL SQUAMOUS CELL CARCINOMA  John P Gleavey, MD,1,2, Scott Troob, MD,1, Tyler Light,1, Daniel Brickman, MD,1, Daniel Clayburgh, MD, PhD,1,2, Peter Andersen, MD,1, Neil Gross, MD,2; ‘Oregon Health and Science University, ‘MD Anderson Cancer Center
C077: EFFECT OF RADIATION AND CHEMORADIATION THERAPY ON DERMATOMYELOCUTANEOUS MICROVASCULAR FLAPS IN HEAD AND NECK RECONSTRUCTION. Si Chen, MD, Nicolas Purdy, DO, Jason Leibowitz, MD; University of Miami

C078: CHEMORESPONSE ASSAYS IN HEAD AND NECK CANCER PATIENTS: A 3-YEAR FOLLOW UP. Basem T Jamal, BDS, DSc1; Gregory A Grillone, MD2, Scharukh Jalili, MD, MBA1; King Abdulaziz University Hospital, 1Boston Medical Center

C079: NOVEL PAROTIDECTOMY SURGICAL SIMULATOR MAY PROVIDE OBJECTIVE MEASURE OF SURGICAL SKILLS IN TRAINEES. Rosemary Pham, MS1, Yohan Song, BA2; James Fann, MD1, Nikolas Bleivins, MD1, Daudvir Sirjani, MD1; Stanford Department of Otolaryngology, Stanford University School of Medicine, Stanford Cardiothoracic Surgery

C080: INDUCTION OF DNA DAMAGE AND SELECTIVE KILLING OF HPV-ASSOCIATED HNSCC BY ROSCOVITINE. Cyril S Gary, BA; Michael Hajeck, BS, Asel Biktasova, MD, PhD, Wendell G Yarbrough, MD, PhD; Yale University School of Medicine

C081: POTENTIAL OF INDUCTION BASED THERAPY AS A PROTOCOL ROLE CHANGER: LESSONS FROM NEODAUVJANT CHEMORADIATION TRIAL -ECOG-E2303 Harold Wanebo, MD1, JuWhei Lee, PhD2, Barbara Burtness, MD1; John Ridge, MdPhD1, Sharon Spencer, MD, PhD1, Arlene Forastiere, MD1, M.D.11, MD1, Landmark Medical Center,Woonsocket,Ri, Dana Farber Cancer Institute,Boston Ma, FoxChase Cancer Center,Philadelphia,Penn, Univ of Alabama,Birmingham,Al, Johns Hopkins University,Baltimore Md

C082: AN OPEN-LABEL STUDY TO INVESTIGATE THE TOLERABILITY, PHARMACOKINETICS AND ANTI-TUMOR EFFECT FOLLOWING PHOTO Dynamic THERAPY (PDT) WITH SINGLE-ASCENDING DOSES OP LUCIFERIN IN PATIENTS WITH ADVANCED HEAD AND NECK CANCER. Julio Oliveira, MD, Eurico Monteiro, MD, PhD, Juliana Santos, RN, Lucio Lara-Santos, MD, PhD; Hospital CUF and Instituto Portugues de Oncologia, Porto, Portugal

C083: QUALITY OF NECK DISSECTION OPERATIVE REPORTS. Cheryl C Nocon, MD1, Marc A Cohen2, Alexander J Langerman, MD1; 1University of Chicago, 2Weil Cornell Medical Center

C084: EFFECT OF CHEMOTHERAPY AND RADIATION THERAPY ON NODAL YIELD IN NECK DISSECTION SPECIMENS. James R Bekeny, MD, Benjamin J Johnston, MD, Sarah L Rohde, MD, Kyle Mannion, MD; Vanderbilb University

C085: TRANSONAL ROBOTIC APPROACH TO PARAPHARYNGEAL SPACE TUMORS: CASE SERIES AND TECHNICAL LIMITATIONS. Brian Boyce, Joseph Curry, Adam Lugubuihi, David Cognetti; Thomas Jefferson University

C086: COMPARATIVE COST- EFFECTIVENESS ANALYSIS OF RADIATION THERAPY VS TRANS-ORAL ROBOTIC SURGERY FOR OROPHARYNGEAL SQUAMOUS CELL CARCINOMA (OPSCC). Lisa Cauley, MD1; Danielle Rodin, MD2, Emily Burger, MPhil3, Jane Kim, PhD1, David Palma, PhD, MD, FRCPC3, Stephanie Johnson-Obaseki, MD, FRSCC1, Brian O’Sullivan, MD1; 1University of Ottawa Department of Otolaryngology- Head and Neck Surgery, 2University ofToronto Department of Radiation Oncology, 3Harvard School of Public Health Center for Health Decision Science, University of Western Ontario Department of Radiation Oncology

C088: ERCC1 - LOCOREGIONAL DIFFERENCES IN PROGNOSTIC VALUE OF ERCC1 EXPRESSION IN PATIENTS WITH HEAD AND NECK SQUAMOUS CELL CARCINOMA. Adrian Muenacker, MD1, Sebastian Prochnow, MD1, Waldemar Wilczak, MD1, Rainald Knecht, MD2, Till Clauditz, MD2; University Medical Center Hamburg Eppendorf, Department of ORL, Head and Neck Surgery, University Center Hamburg Eppendorf, Institute of Pathology

C089: FREE THYROID TRANSFER (FTT): LONG-TERM RESULTS OF A NOVEL PROCEDURE FOR PREVENTION OF POST- RADIATION HYPOTHYROIDISM. Brittany Barber, MD1; Hani Almarzouki, MD, MSc, FRCS1, Jacques Romney, MD, FRCP2, Rufus Scrimger, MD, FRCP3, Daniel O’Connell, MD, MSc, FRCS1, Hadi Seikaly, MD, MAL, FRCS1, Jeffrey Harris, MD, MHA, FRCS1; 1University of Alberta, 2King Abdulaziz University

C090: CENTRAL SKULL BASE OSTEO RADIONECROSIS - CLINICAL PRESENTATION AND AGGRESSIVE SURGICAL MANAGEMENT OF A RARELY REPORTED BUT INCREASINGLY ENCOUNTERED CLINICAL ENTITY. Brandon L Prendes, MD, Andrew R Larson, BA, Ivan H El-Sayed, MD; University of California, San Francisco

C091: IMPORTANCE OF COMORBIDITIES, AGE, AND PATIENT STRATIFICATION IN ORAL CAVITY SQUAMOUS CELL CARCINOMA (OPSCC). Daniel D Martin1, Jeffrey Schord1, Nicole Brown, MS2, Syed Ali1; Bhavna Kumar1, Ricardo Carrau, MD1, Enver Ozer, MD1, Amit Agrawal, MD1, David Schuller, MD1, Theodoros Teknos, MD2, Matthew Old, MD1; 1The Ohio State University College Of Medicine, 2The Ohio State University Wexner Medical Center, 3The James Cancer Hospital and Solove Research Institute, Wexner Medical Center atThe Ohio State Uni

C092: CONTINUOUS INTRAOPERATIVE NERVE MONITORING DURING HYDROID SURGERY. Hossam Eldin Mohamed, MD, Jason M Gauthier, Ahmed Deniwar, MD, Muhammed Murcy, MD, Zaid Al-Qurayshi, Aslam Rizwan, Emad Kandil, MD, FACS, FACE; Tulane University
C093: ONCOLOGIC OUTCOMES FOR PAROTID MALIGNANCIES REQUIRING FACIAL NERVE SACRIFICE Brian Swendsen, MD, Nathan Swendsen, MD, Case Western Reserve Medical School, 2University Hospitals ENT Institute, 3Mayo Clinic, 4Case Western Reserve University

C094: THE UTILITY OF UPFRONT TRANSORAL ROBOTIC SURGERY FOR DE-ESCALATING AND TAILORING ADJUVANT THERAPY Neil Gildener-Leapman, MD, DS Meehong Kim, BS, Shira Abberbock, MS, Garrett W Choby, MD, Umnahamaswar Duvvuri, MD, PhD, Robert L Ferris, MD, PhD, Seungwon Kim, MD, 2New York Eye and Ear of Mount Sinai, 3University of Pittsburgh, 4University of Pittsburgh Medical Center

C095: METABOLIC TUMOR VOLUME AS A PROGNOSTIC INDICATOR IN OROPHARYNGEAL SQAMOUS CELL CARCINOMA TREATED WITH PRIMARY SURGERY Timothy Cooper, MD, Han Zhang, MD, Hadi Seikaly, MD, MAL, FRCS, Caroline C Jeffery, MD, Jonathan T Abele, MD, FRCP, Jeffrey R Harris, MD, MHA, FRCS, Vincent L Biron, MD, PhD, FRCS, Daniel A O’Connell, MD, MSc, FRCS, University of Alberta

C096: PATHOLOGICAL NODAL DISTRIBUTION OF CLINICALLY STAGED TONSIL AND TONGUE BASE SQAMOUS CELL CARCINOMA Troy C Mullikin, BS, Ryan Funk, MD, Eric J Moore, MD, Joaquín J García, MD, Robert L Foote, MD, Daniel J Ma, MD; Mayo Clinic

C097: THE DEVELOPMENT OF THE CHICAGO ASSESSMENT OF SOCIAL HEALTH OUTCOMES (CASH) DATABASE Jeremy O’Connor, MD, Bonnie J Yap, MS, Alexander J Langerman, MD, Louis G Portugal, MD, Elizabeth A Blair, MD, Jonas A de Souza, MD; The University of Chicago Medicine

C098: ELIMINATION OF PLANNED ADJUVANT RADIATION TO THE PRIMARY BED IN P16-POSITIVE, TRANSORALLY-RESECTED OROPHARYNGEAL CARCINOMA ON LOCAL CONTROL Parul Sinha, MBBS, Wade L Thorstad, MD, Hiram Gay, MD, Dorina Kallogjeri, MPH, Bruce H Haughey, MBChB; Washington University School of Medicine

C099: OSSEOINTEGRATED DENTAL IMPLANTATION OF FIBULA FREE FLAPS FOR MANDBULAR RECONSTRUCTION: TIMING AND OUTCOMES Ryan S Jackson, MD, Kevin Arce, DMD, MD, Daniel L Price, MD, Eric J Moore, MD; Mayo Clinic, Department of Otolaryngology, 2Mayo Clinic Department of Oral and Maxillofacial Surgery

C100: PH SENSITIVE NANOPROBE DETECTION OF HEAD AND NECK SQAMOUS CELL CANCER AND ASSOCIATED STROMAL CELLS Baran D Sumur, MD, Tian Zhao, BA, Yiguang Wang, PhD, Kejin Zhou, PhD, Gang Huang, PhD, Zhiqun Zeng, Joel Thibodeaux, MD, Jinming Gao, PhD; UT Southwestern Medical Center

C101: FIBULA JAW IN A DAY: STATE OF THE ART RECONSTRUCTION Mohammed Ouali, MD, DMD, Harold Kolodney, DMD, Gary Swedenburg, CDT, Ravi Chandran, DDS, PhD, Ronald Caloss, MD, DDS; University of Mississippi Medical Center

C102: VALIDATION OF METABOLIC TUMOR VOLUME AS A PROGNOSTIC FACTOR FOR ORAL CAVITY SQAMOUS CELL CARCINOMA TREATED WITH PRIMARY SURGERY Han Zhang, MD, Hadi Seikaly, MD, MAL, FRCS, Nhu-tram Nguyen, MDCM, Jonathan T Abele, MD, Jeffrey R Harris, MD, MHA, Daniel A O’Connell, MD, MSc, FRCS; University of Alberta

C103: BIO-OS SUCCESSFULLY INDUCES BONE HEALING IN A MARGINAL MANDIBULAR DEFECT Irene A Kim, MD, Min Lee, PhD, Olga Bezuglaya, Tara Aghaloo, DDS, MD, PhD, Maie St John, MD, PhD; David Geffen School of Medicine at UCLA, 2David Geffen School of Medicine at UCLA, 3David Geffen School of Medicine at UCLA, Head and Neck Surgery; Jonsson Comprehensive Cancer Center

C104: HISTOPATHOLOGIC FEATURES OF IRRADIATED AND NON-IRRADIATED RECIPIENT AND DONOR VESSELS IN HEAD AND NECK MICROVASCULAR RECONSTRUCTION Cesare Piazza; Francesca Del Bon, Alberto Paderno, Valentina Taglietti, Laura Morassi, Piero Nicolaì; 1Department of Otorhinolaryngology - Head and Neck Surgery, University of Brescia, Italy, 2Department of Surgical Pathology, University of Brescia, Italy

C105: METFORMIN PREVENTS THE PROGRESSION OF CARCINOMA IN CONDEMNED ORAL MUCOSA Niv Mor, MD, Christopher Tang, MD, Hyung Paek, MD, Marshal Strome, MD; Mount Sinai Roosevelt Hospital; Dept of Otolaryngology - Head and Neck Surgery, NY, NY; Yale New Haven Health System; Internal Medicine, West Haven, CT

C106: THYROID CANCER IN IRELAND: Paul Lennon, MB, BCH, FRCS, Orl HNS, M L Healy, J Kinsella, C Timon, James Paul O’Neill; St. James Hospital, Dublin, Royal College of Surgeons, Ireland

C107: SURVIVAL OUTCOMES IN OROPHARYNGEAL SQAMOUS CELL CARCINOMA PATIENTS TREATED WITH CARBOPLATIN AND CONCURRENT RADIOTHERAPY: A RETROSPECTIVE 5 YEAR REVIEW Michael Roskies, MD, Emily Kay-Rivest, Marco Mascarella, Khalil Sultanem, MD, Alex M Mlynarek, MD, FRCS, Michael P Hier, MD, FRCS; McGill University, Department of Otolaryngology - Head & Neck Surgery, 2McGill University, Faculty of Medicine, 3McGill University, Department of Radiation Oncology
C108: SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK OF UNKNOWN PRIMARY: A FIFTEEN-YEAR SINGLE INSTITUTION EXPERIENCE Leslie Kim, MD, MPH, Rahul Subbarayan, BA, Joshua Waltonen, MD, Benjamin Swanson, MD, David E Schuller, MD, Enver Ozer, MD, Theodoros N Teknos, MD, Matthew O Old, MD, Ricardo Carrau, MD, Amit Agrawal, MD; The Ohio State University Wexner Medical Center

C109: PART II: HOW, WHEN, AND FROM WHOM NECK DISSECTION TECHNIQUE IS LEARNED AN INTERNATIONAL SURVEY OF NECK DISSECTION EDUCATION AMONG HEAD AND NECK ONCOLOGIC SURGEONS Shirin M Hemmat, BA, William R Ryan, MD; University of California, San Francisco

C110: ONCOLOGIC OUTCOMES OF SALVAGE SURGERY IN RECURRENT SQUAMOUS CELL CARCINOMA OF THE ORAL TONGUE. Perry S Poteet, MD, Eric R Siegel, MS, Mauricio A Moreno, MD; University of Arkansas for Medical Sciences

C111: LARGE ORBITAL DEFECT RECONSTRUCTION IN THE SETTING OF GLOBE-SPARING MAXILLECTOMY: THE TITANIUM HAMMOCK AND LAYERED FIGURA TECHNIQUE Samuel J Troxman, MD, Michael A Fritz, MD; Cleveland Clinic Foundation

C112: A STUDY TO EVALUATE THE PROGNOSTIC SIGNIFICANCE OF MICROSCOPIC SPREAD OF DISEASE BEYOND GROSS TUMOUR EDGE IN PATIENTS WITH ORAL CAVITY SQUAMOUS CELL CARCINOMA Pankaj Chattervedi, MS, Sourav Datta, MS, Ashem Mishra, MS, Shubhda Kane, MD, Deepa Nair, Sudhir Nair; Tata Memorial Centre

C113: THE TUMOUR SUPPRESSORS P53 AND P63 ARE STABILIZED BY A COMBINATION OF RADIATION AND NUTLIN-3 IN HUMAN OROPHARYNGEAL CARCINOMA LINES HARBOURING HPV E6 Andrew S Lau, BSc, MB, BS, MRCS, DOHNS; Mark D DeHaven, MB, BS, MRCS, DOHNS, Terence M Jones, MD, FRCS, Mark T Boyd, PhD; University of Liverpool

C114: BUCINATOR MYOMUCOSAL FLAP FOR RECONSTRUCTION OF TORS DEFECTS: A REVIEW OF A PATIENT FUNCTIONAL OUTCOMES Jonathan P Giurintano, MD, Dana K Petersen, MD, DDS, Sandeep Samant, MS, FRCS; University of Tennessee Health Science Center

C115: ASSESSING LYMPHATIC RESPONSE TO RADIATION THERAPY USING NEAR-INFRARED FLUORESCENCE IMAGING Ron J Karmi, MD, I-Chin Tan, PhD, Eva Sevick-Muraca, PhD; UT Health Science Center Houston

C116: DIFFERENCES IN STAGING OF HEAD AND NECK SQUAMOUS CELL TUMORS BETWEEN INSTITUTIONS Sarah R Akking, MS, Roderick Kim, DDS, Tiffany Glazer, MD, Melissa A Pynnnonen, MD, MS, Carol R Bradford, MD; University of Michigan

C117: NUCLEAR FUSION IMAGING: OPTIMAL TECHNIQUES FOR LOCALIZING ECTOPIC PARATHYROID GLANDS Phillip Pelligterri, DO1, David Goldenberg, MD2, Brian Saunders, MD2; Guthrie Clinic Ltd, Hershey Medical Center, Penn State University School of Medicine

C118: RACIAL DISPARITIES IN SURVIVAL AMONG HEAD AND NECK SQUAMOUS CELL CARCINOMA PATIENTS: A POPULATION-BASED STUDY Lewis J Overton, MD1, Jose P Zevallos, MD, MPH, FACSc1, Angela Y Liu, MPH1, Jeremiah C Tracy, MD1, Mark C Weissler, MD, FACS2, Paul Brennan, PhD2, Devasena Anantharaman, PhD2, Behnoush Abedi-Ardekani, MD3, Andrew F Olshan, PhD3; ‘University of North Carolina at Chapel Hill, ‘International Agency for Research on Cancer

C119: ANALYSIS OF RISK FACTORS FOR RECURRENT HYPERPARATHYROIDISM AMONGST DIALYSIS PATIENTS WITH REFRACTORY SECONDARY HYPERPARATHYROIDISM Tsu-Hui (Hubert) Low, MD1, Jonathan Clark2, Allison Partridge3, Nabil Sultan4, John Yoo4; ‘Victoria Hospital, London Ontario; ‘Royal Prince Alfred Hospital

C120: INCIDENCE AND SIGNIFICANCE OF PATHOLOGIC FLOATERS IN TRANSORAL ROBOTIC SURGERY (TORS) FOR OROPHARYNGEAL CANCER Jon Mallen- St. Clair, MD, PhD, Fernando Palma Diaz, MD, Sunita Bhuta, MD, Haodong Xu, MD, PhD, Elliot Abemayor, MD, PhD, Abie Mendelsohn, MD; Department of Head and Neck Surgery, University of California, Los Angeles

C121: IS ASPIRATION OR RESIDUE THE BIGGER PROBLEM FOR POST-RADIATED HNC PATIENTS? Susan E Langmore, PhD1, Jessica Pisega, MS2, Gintas P Krisciunas, MA, MPH3, Tanya Meyer, MD3, Barbara R Pauloski, PhD4; ‘Boston University School of Medicine, ‘Boston University Sargent College, ‘U Washington School of Medicine, ‘Northwestern University

C122: RADIOGUIDED OCCULT LESION LOCALIZATION USING TECHNETIUM-99 Labeled MACROAGGREGATE ALBUMIN AIDS IN OPERATIVE TUMOR LOCALIZATION IN RECURRENT THYROID CANCER Aaron Lewis, MD, Alexander Jung, MD, Ellie Maghami, MD; City of Hope

C123: GENOME METHYLATION IN PAPILLARY THYROID CANCER Caroline M Beltrami1, Mariana B Reis2, Hellen Kuasne1, Mateus C Barros Filho3, Fabio Marchi1, Skirant Ambatipudi1, Zdenko Herceg4, Luiz Paulo Kowalski1, Silvia R Rogatto1; ‘ICPE - AC Camargo Cancer Center, ‘Instituto de Biociências, Universidade Estadual Paulista (UNESP), ‘Epigenetics Group, International Agency for Research on Cancer (IARC), ‘Dept of Head and Neck Surgery, AC Camargo Cancer Center, ‘Dept of Urology, Faculty of Medicine, UNESP/ICPE - AC Camargo Cancer Center
C157: ASSOCIATION OF DEPRESSION AND SURVIVAL OUTCOME IN HEAD AND NECK CANCER PATIENTS: A SYSTEMATIC REVIEW
Brittany Barber, MD, Linda Slater, MLIS, Daniel O’Connell, MD, MSc, FRCS, Jeffrey Harris, MD, MHA, FRCS, Hadi Seikaly, MD, MAL, FRCS; University of Alberta

C158: SYSTEMATIC REVIEW OF LACRIMAL SAC TUMORS, TREATMENT, AND OUTCOMES IN PAST 25 YEARS
Gregory R Dion, MD, MS, Grace Baik, BA, Nathan Hales, MD, FACS; San Antonio Military Medical Center, Uniformed Services University of the Health Sciences, San Antonio Head and Neck

C159: THE IMPORTANT PROGNOSTIC SIGNIFICANCE OF LYMPH NODE RATIO IN PATIENTS WITH NODE POSITIVE ORAL TONGUE CANCER
Hester Lieng, BScMed, MBBS, Val Gebski, MStat, HonFRANZCR, Gary J Morgan, MBBS, BDS, FRACDS, FRACS, Michael J Veness, MBBS, MMedClinEpi, MD, FRANZCR; Crown Princess Mary Cancer Care Centre, University of Sydney, Westmead Hospital, Sydney, Australia

C160: UTILIZATION OF INTRAOPERATIVE NERVE MONITORING IN THYROIDECTOMY AND THE RISK OF VOCAL CORD PARALYSIS: A MULTISTATES ANALYSIS
Zaid Al-Qurayshi, MBChB, MPH, Rizwan Aslam, DO, Paul Friedlander, MD, Emad Kandil, MD, FACS; Tulane University School of Medicine, Department of Surgery

C161: OPTIMIZING THE SETUP FOR DIAGNOSING AND TREATING HEAD AND NECK CANCER
Brittjette W Cherabi, MD, associate, professor; Copenhagen University Hospital, Copenhagen, Denmark

C162: PSYCHOLOGICAL STATES, FUNCTIONAL STATUS, AND QUALITY OF LIFE IN A MULTICULTURAL SAMPLE OF HEAD AND NECK CANCER SURVIVORS
Christopher Fundakowski, MD, Pascal Jean-Pierre, PhD, MPH, Zoukaa Sargi, MD, MPH; Temple University / Fox Chase Cancer Center, University of Notre Dame, University of Miami

C163: LEX ANTIGEN IS AN EARLY INDEPENDENT INDICATOR OF A BETTER PATIENT OUTCOME IN HEAD AND NECK SQUAMOUS CELL CARCINOMA
Martin E Rabassa, MD, PhD, Adrián C Pereyra, MD, Amada Segal-Eiras, MD, PhD, Maria V Croce, MD, PhD; Centre for Basic and Applied Immunological Research, National University of La Plata

C164: INCIDENCE OF SUICIDE IN PERSONS WITH HEAD AND NECK CANCER
David Kam, BS, George Gorgy, BA, Andrew Salib, BA, Eric T Carniol, MD, MBA, Jean Anderson Eloy, MD, FACS, Soly Baredes, MD, FACS, Richard C Park, MD; Rutgers-The State University of New Jersey (All Campuses)
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