Sunday, May 15 - Monday, May 16
Boca Raton, Florida

The American Head & Neck Society (AHNS)
11300 W. Olympic Blvd., Suite 600 • Los Angeles, CA 90064
Phone: 310-437-0559 • Fax: 310-437-0585
www.ahns.info

FUTURE AHNS MEETING DATES & LOCATIONS

2006
American Head & Neck Society Annual Meeting & Research Workshop
On The Biology, Prevention & Treatment of Head & Neck Cancer
   Marriott Chicago Downtown
   August 17-20, 2006 in Chicago, IL
   Abstract submissions will be accepted January - March, 2006
   Submission deadline: March 31, 2006

2007
American Head & Neck Society Annual Meeting
During The Combined Otolaryngology Spring Meetings (COSM)
   April 26-29, 2007 in San Diego, CA

2008 • New Dates
Seventh International Conference On Head & Neck Cancer
   San Francisco Marriott
   July 19-23, 2008 in San Francisco, CA
### Table Of Contents

- General Information .................................................. 3
- About The AHNS ...................................................... 4
- 2005 Candidates For Membership In The AHNS ................. 5
- AHNS President ....................................................... 6
- Guest Of Honor ....................................................... 7
- Hayes Martin Lectureship ............................................ 8
- Hayes Martin Biography .............................................. 9
- John J. Conley Lectureship .......................................... 10
- John J. Conley Biography .......................................... 11
- Distinguished Service Award ....................................... 12
- Presidential Citations ............................................... 13
- Officers Of The AHNS ............................................... 15
- Committees Of The AHNS .......................................... 15
- Ad Hoc Committees & Representatives ......................... 17
- Past Presidents ....................................................... 18
- Awards ..................................................................... 19
- Robert Maxwell Byers Award ..................................... 20
- Alan J. Ballantyne Resident Research Grant ..................... 21
- Scientific Program .................................................... 22
- Committee Meetings .................................................. 22
- Bylaws ................................................................... 74
- AHNS Membership .................................................... 78
- Research & Education Foundation Of The AHNS ............. 138
- Research & Education Foundation Pledge Form ............... 139

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**Thanks To The 2005 AHNS Meeting Supporters!**

*The American Head & Neck Society gratefully acknowledges generous unrestricted educational grants in support of the 2005 Annual Meeting by the following companies:*

**Platinum Level Support**
- Merck

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- IRX Therapeutics, Inc.
- Pentax Medical Company
- Sanofi-Aventis
- Stryker Leibinger Micro Implants

**Bronze Level Support**
- Fanconi Anemia Research Fund, Inc.
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- Karl Storz Endoscopy
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**General Information**

**2005 Annual Meeting of the American Head & Neck Society**

Sunday, May 15 - Monday, May 16, 2005

Boca Raton Resort & Club • 501 East Camino Real • Boca Raton, Florida 33432

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### On-Site Registration Hours

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Thursday, May 12</td>
<td>4:00 - 8:00 PM</td>
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<tr>
<td>Friday, May 13</td>
<td>7:00 AM - 6:00 PM</td>
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<td>Saturday, May 14</td>
<td>7:00 AM - 6:00 PM</td>
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<tr>
<td>Sunday, May 15</td>
<td>7:00 AM - 6:00 PM</td>
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<tr>
<td>Monday, May 16</td>
<td>7:00 - 12:00 AM</td>
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### Exhibit Hall Hours

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<tr>
<td>Friday, May 13</td>
<td>12:00 NOON - 5:30 PM (Lunch)</td>
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<tr>
<td>Saturday, May 14</td>
<td>9:00 AM - 3:00 PM (Lunch) &amp; 5:30 - 7:00 PM (Reception)</td>
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<tr>
<td>Sunday, May 15</td>
<td>9:00 AM - 3:00 PM (Lunch) &amp; 5:30 - 7:00 PM (Reception)</td>
</tr>
<tr>
<td>Monday, May 16</td>
<td>7:30 - 11:00 AM (Continental Breakfast)</td>
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**Accreditation Statement**

The American Head & Neck Society is accredited by the Accreditation Council for Continuing Medical Education (A.C.C.M.E.) to sponsor Continuing Medical Education for physicians. The American Head & Neck Society designates this Continuing Medical Education Activity for:

12.0 Credit Hours

in Category 1 of the Physicians Recognition Awards for the American Medical Association. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Please return your completed evaluation form to the AHNS registration desk to receive your CME credits.

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**AHNS Meeting Objectives**

The conference is designed to facilitate discussion regarding the approaches used in the diagnosis, treatment, and rehabilitation of head and neck neoplasms throughout the world. Participants should accomplish the following at the conclusion of this event:

- Identify important basic science advances in head and neck oncology research;
- Develop an understanding of current issues in the diagnosis, evaluation, and treatment of head and neck neoplasms;
- Improve treatment strategies for head and neck patients;
- Facilitate discussion regarding the approaches used in the diagnosis, treatment, and rehabilitation of head and neck neoplasms;
- Recognize current research ideas in understanding the head and neck neoplastic process.
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.

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, considered by many to be the “father of head and neck tumor surgery,” conceived of the Society of Head and Neck Surgeons in 1954. 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 Surgery 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.

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.

ACTIVE:
Antoine, Gregory
Arnold, David
Enepekides, Danny
Farwell, D. Gregory
Gonzalez, Hernan
Hartshorn, Duane
Lango, Miriam
Manders, Ernest
Moore, Brian
Moyer, Jeffrey
Patel, Snehal
Prince, Mark
Puscas, Liana
Pytynia, Kristen
Rocco, James
Rothman, Glenn
Schiff, Bradley
Sewell, Duane
Sharma, Pramod
Shibuya, Terry
Simental, Alfred
Trask, Douglas
Wang, Steven
Wolfe, Michael
Wong, Richard

ASSOCIATE:
Blumenschein, George
Glisson, Bonnie
Kucuk, Omer
Lewin, Jan
Murcek, Benjamin
Wong, David

CANDIDATE:
Ganly, Ian
Goldstein, David
Gross, Neil
Lin, Derrick
Moraitis, Dimitrios
Oxford, Lance
Snyder, Mary
Tran, Tuyet-Phuong

CORRESPONDING:
Avalos, Nicolas
Hamoir, Marc
Hardillo, Jose
Hefetz-Khatif, Avi
Nicolai, Piero
Rapidis, Alexander

MEMBERS:
Please attend the AHNS Business Meeting on Monday, May 16th from 12:00 noon – 1:00 pm to welcome these new members.
Patrick J. Gullane received his MB Degree from Galway University, Ireland in 1970. He then embarked on a surgical career and obtained his Fellowship from the Royal College of Surgeons Canada in 1975 and Certification by the American Board of Otolaryngology – Head and Neck Surgery in 1976. Dr. Gullane then pursued advanced training in Head and Neck Oncology with Dr. Sebastian Arena in Pittsburgh, and Dr. John Conley in New York.

Since completion of his training he has held numerous positions including: Assistant Professor, Department of Otolaryngology-Head and Neck Surgery, University of Western Ontario 1978-83. In 1989 he was appointed as Otolaryngologist-in-Chief at the University Health Network and named the Wharton Chair Holder in Head and Neck Surgery in 1999. He currently serves as Professor and Chair, Department of Otolaryngology-Head and Neck Surgery, University of Toronto, 2002-present.

Over the years Dr. Gullane has received numerous awards, including the Honor Award of the American Academy of Otolaryngology-Head and Neck Surgery and the Honor Award of the American Academy of Facial Plastic and Reconstructive Surgery. In 1990 he received “The Harris P. Mosher Award” for his Thesis submission from the Triological Society and was awarded the “Commemorative Medal for the 125th Anniversary of Canadian Confederation” in 1992. Other recognitions include the Distinguished Service Award, American Academy of Otolaryngology-Head and Neck Surgery 2003 and the Millennium Society Award from the American Academy of Otolaryngology-Head and Neck Surgery 2004.

He presently serves as President of both the American Head and Neck Society and the North American Skull Base Society. Since completion of his training he has held numerous positions including: Assistant Professor, Department of Otolaryngology-Head and Neck Surgery, University of Western Ontario 1978-83. In 1989 he was appointed as Otolaryngologist-in-Chief at the University Health Network and named the Wharton Chair Holder in Head and Neck Surgery in 1999. He currently serves as Professor and Chair, Department of Otolaryngology-Head and Neck Surgery, University of Toronto, 2002-present.

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Dr. Gullane has published 195 papers in peer-reviewed journals, 53 chapters in textbooks and has had 8 books published on various aspects of head and neck surgery. He serves on the Editorial Board of 10 Journals related to our Specialty.

Professor Emeritus of Otolaryngology, University of Toronto, Honorary MD, Linkoping University, Honorary Fellow of the Royal Colleges of Surgeons of Edinburgh and Dublin, Past President of the Canadian ORL Society, the American Laryngological Society, the American Head and Neck Society, Past Vice President of the Eastern Section of the Triological Society and the American Academy of ORL/IHNS, past member of the American Board of ORL, recipient of many medals and awards. Who is he?

After distinguished military service, he was the first graduate of the Toronto ORL program and then joined the staff of Toronto General Hospital, becoming the first full-time Professor of Otolaryngology in 1966, a position he held until 1982.

Under his stewardship the department doubled in size, turning out 6 graduates a year, and formalized a post residency fellowship program. He was responsible for recruiting clinicians and scientists who created the pre-eminent Canadian department of the day. Trainees, Fellows and staff went on to head many Departments in Canada and abroad.

Internationally he was in constant demand as a lecturer, clinician and examiner. He was Chairman of the ORL examining committee of the Royal College of Surgeons in Canada and a longtime member of the American Board of ORL.

He was one of the first Head and Neck surgeons in ORL, at a time when it was still predominantly a mucosal surgical specialty. He and collaborator William Rider were the North American pioneers of primary radiotherapy with surgery for salvage in Laryngeal carcinoma, a stance for which he was initially frequently vilified, although one which is now considered orthodox. Without the laboratory evidence provided by whole laryngeal sections from the Conacher laboratory, which he established, this would not have happened. He organized a seminal conference on all aspects of laryngeal cancer in 1974, attended by a global who’s who of laryngology, unusual in that participants were asked to undertake prospective studies beforehand and speak from their results. The conference was published and is still referred to.

He pioneered techniques of laryngo-tracheal reconstruction, the consequence of car accidents in the pre seat belt era. He gave the prestigious Semon lecture on the topic, about which he published widely, as he did on laryngeal and pharyngeal tumors. He was fortunate to attract good collaborators in other disciplines such as pathology, radiotherapy and thoracic surgery. He was a good team man and an excellent, courageous surgeon.

Without the spirited support of his wife, Elizabeth, none of this would have been possible. She was a great partner and complemented Douglas in many ways. Their homes in Toronto and Georgian Bay were the scenes of much hospitality, as well as places in which to regain strength for the next challenge ahead.

PATRICK J. GULLANE, MD

DOUGLAS P. BRYCE, MD
Richard Reznick is a colorectal surgeon and surgical educator on faculty of the University of Toronto. He went to medical school at McGill University and graduated in 1977. He did his surgical residency at the University of Toronto. He then spent two years in fellowship training, the first in medical education receiving a Masters' Degree from Southern Illinois University in Springfield, Illinois. His second year of fellowship was in colorectal surgery at the University of Texas in Houston, Texas. He joined the faculty at the University of Toronto in 1987. Since that time he has been active in both colorectal surgery and research in medical education. His research interests have been focused on assessment and technical skill acquisition. He was instrumental in developing a performance-based examination, which is now used for medical licensure in Canada. He runs a research program on assessment of technical competence for surgeons and supervises a Fellowship program in Surgical Education. He was the inaugural Director of the University of Toronto Faculty of Medicine Centre for Research in Education at University Health Network from 1997 to 2002. In 1998, Dr. Reznick became a full Professor of Surgery at the University of Toronto and in 1999 became the Vice-President of Education at the University Health Network. In October 2002 he was appointed as the R.S. McLaughlin Professor and Chairman of the Department of Surgery at the University of Toronto.

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 1933 on the same campus, finishing 4 years later in a class of 20. World War I began in April 1917 while Dr. Martin 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 1953. 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.
James F. Battey, Jr. received his Bachelor's of Science degree in Physics from the California Institute of Technology in 1974. He received an M.D. and Ph.D. in Biophysics from Stanford University School of Medicine in 1980. After receiving training in Pediatrics, he pursued a postdoctoral fellowship in Genetics at Harvard Medical School under the mentorship of Dr. Philip Leder. Since completing his postdoctoral fellowship in 1983, he has held a variety of positions at the National Institutes of Health, serving in the National Cancer Institute, National Institute of Neurological Disorders and Stroke, and the National Institute on Deafness and Other Communication Disorders. Currently he is the Director of the National Institute on Deafness and Other Communication Disorders, and also serves as the Chair, NIH Stem Cell Task Force. He has been married for 22 years to Frances Battey, and has two sons, Michael and JJ.

JAMES F. BATTEY, JR., MD

John J. Conley Lectureship

John J. Conley Biography

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 reconstruction of war wounds would prove invaluable to him later 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, 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.
Wayne Koch, MD grew up in Pittsburgh, PA, and attended Northwestern University where he earned both a BA and MS degree, the latter in biochemistry and molecular biology. He returned home to study medicine at the University of Pittsburgh, becoming interested in Otolaryngology through the mentorship of Eugene Myers and Jonas Johnson. Following this path led him to Tufts and Boston Universities for residency under the direction of Stuart Strong, Werner Chasin and Charles Vaughan. It was Dr. Chasin who may be credited for pointing Dr. Koch towards an academic career. His suggestion together with newly vital clinical translational research in the form of the VA laryngeal organ preservation study pioneered by Ki Hong at B.U. (together with Greg Wolf at Michigan) resulted in Dr. Koch seeking a Head and Neck Oncologic fellowship that would permit retooling in laboratory research while honing subspecialty clinical expertise.

He found this at Johns Hopkins University where he studied under William Richtsmeier, Michael Johns, and John Price. After fellowship, a faculty position at Hopkins was offered and accepted. Two years later, David Sidransky was recruited to the department of otolaryngology, and a partnership was born with the goal of defeating head and neck cancer through the clinical application of molecular biology. Dr. Koch has dedicated his research career to clinical applications of molecular markers for the detection of cancer cells in a variety of settings including surgical margins and oral rinse specimens. He also has an active head and neck surgery practice, and has served as the residency program director, director of the head and neck fellowship, and now the Head and Neck Division Director at JHU.

Dr. Koch was a member of the council of the American Society for Head and Neck Surgery during its merger with the Society of Head and Neck Surgeons and later served on the first council of the newly formed American Head and Neck Society (1997-2001). Subsequently, he served as the Secretary of AHNS from 2001 through 2004, and has continued in a leadership role as the chair of the Relative Value Unit task force. He has also served on the Prevention and Research committees.

Dr. Koch is celebrating his 25th wedding anniversary with his wife, Debbie, this year. The couple has three teenaged children, Rachel (18), Jonathan (15) and Andrew (13). Dr. Koch has participated in several humanitarian medical projects in Peru, Ecuador and the Dominican Republic with Medical Ministries International (MMI) and has taken the children whenever possible.

Dr. Ruby was born in Ottawa at the Eastern end of the province of Ontario but raised in Southwestern Ontario not far from the city of Detroit. He received his undergraduate and medical education at the University of Western Ontario where he also underwent residency training in the specialty of Otolaryngology, obtaining specialty certification in 1968. Following a fellowship year at the Massachusetts’s Eye and Ear Infirmary he joined the teaching staff at his alma mater and has remained with that institution to this day. His primary clinical and research interests were in conductive deafness and sleep disordered breathing. He was also active in medical politics in the Province of Ontario chairing the tariff committee of the Section of Otolaryngology in the Ontario Medical Association and eventually being Section Chairman for the Ontario Medical Association. He was also active in the Canadian Society of Otolaryngology-Head and Neck Surgery chairing their committee on physician resources for many years and eventually served as President of that organization. He was also an examiner for certification for the specialty of Otolaryngology. He has been a delegate for Eastern Canada to the Deafness Research Foundation for many years and recently chaired the Department of Otolaryngology at the University of Western Ontario. He is currently Professor Emeritus in that department.

Dr. F.G. Ellis Scott practices in Stratford, Ontario, Canada in Otolaryngology with emphasis on Head and Neck and Pediatric surgery. He received his Canadian Fellowship in Otolaryngology in 1975 and he is also a fellow of the American College of Surgeons. He presently holds a position as Adjunct Professor in the Southwestern Medical Education Network, Faculty of Medicine, University of Western Ontario. Dr. Scott is a personal friend of Dr. Patrick Gullane, current President of the American Head and Neck Society. Their friendship began when they started their residencies together in 1971. Dr Scott is married and he and his wife Dianne have four children and nine grandchildren.
It gives me great pleasure to recognize and honor my colleagues with a citation at this Annual Meeting. Your contributions, support and enhancement of this multidisciplinary team have helped to promote the educational and academic Mission, including research associated with this Subspecialty area. I am indebted to all of you for your generous contributions, which have helped to further enhance patient care.

Patrick Gullane, MD
2004-2005 AHNS President

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Wharton Head & Neck Centre At Princess Margaret Hospital

Dr. Bernard Cummings
Department of Radiation Oncology At Princess Margaret Hospital

Dr. Jeremy Freeman
Mount Sinai Hospital

Dr. Fred Gentili
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Dr. Ralph Gilbert
Wharton Head & Neck Centre At Princess Margaret Hospital

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Dr. Lorne Rotstein
Department of Head & Neck Surgery At Princess Margaret Hospital

Dr. Ian Witterick
Mount Sinai Hospital
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Jeffrey D. Spiro, MD 2004-2006
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Edgar L. Fazzell, MD 1988
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Robert Maxwell Byers Award

The Robert Maxwell Byers Award, in the amount of $10,000, is for the best clinical research paper submitted for presentation at the annual meeting of the American Head and Neck Society. It was endowed by the generous contributions of Dr. Byers’ former students.

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, a 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 1965, 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 of which the Southern Surgical Association, the Texas Surgical Society, and the American College of Surgeons are but a few. He is a peer reviewer for many medical journals and on the Editorial Board of three. During his tenure at the University of Texas M.D. Anderson Cancer Center he has been active in the surgical education of over 300 residents and fellows, many of whom 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.

Alando J. Ballantyne Resident Research Grant

Alando J. Ballantyne, M.D., a giving teacher, dedicated surgeon, and a devoted husband and father, is memorialized by the Alando J. Ballantyne Resident Research Pilot Grant. This award, in the amount of $10,000, is for the best grant application by a resident.

Alando, known simply as Jay, grew up in a loving Mormon home that taught him the values of family, excellence, integrity and hard work. Jay graduated Phi Beta Kappa from the University of Arizona and was then awarded a scholarship to Columbia Medical School. During World War II, Jay served as an Army Captain and medical doctor and had the good fortune to meet his wife, Maria, in San Antonio. In 1947, Dr. Ballantyne became the first resident at the new M.D. Anderson Hospital in Houston. After his year-long residency, he went for further training at the Mayo Clinic in Rochester, Minnesota. He returned to the Anderson staff in 1952, where he quickly advanced from Assistant Surgeon in the Head and Neck Service to Associate Surgeon, and then from 1974 until his retirement in 1994, held the title of Surgeon and Professor of Surgery in the Department of Head and Neck Surgery as well as the title of Ashbel Smith Professor.

Dr. Ballantyne is credited as the first surgeon in the United States to pioneer modified radical neck dissection. His contributions to his subspecialty have been published in numerous scientific papers and book chapters. Jay lectured at local, national, and international forums and loved his travels. He held memberships in many distinguished medical and surgical societies and served as President and Hayes Martin Lecturer of the Society of Head and Neck Surgeons and President of the Texas Surgical Society.

To honor the contributions of this world-renowned surgeon, the Cynthia and George Mitchell Foundation established the Alando J. Ballantyne Distinguished Chair in Head and Neck Surgery at the University of Texas M.D. Anderson Cancer Center. Dr. Ballantyne’s contributions to the subspecialty of Head and Neck cancer surgery have been the result of an undying curiosity and uncanny power of observation. He was the father of conservative surgery, removing the cancer while preserving the function. He had a relentless desire to eradicate his patients’ disease, yet was able to balance this fervor with a desire to maintain quality of life for all his patients.

Always an advocate of reconstruction and preservation of function as well as function, those fortunate enough to have worked with him and been taught by him are forever indebted to his wisdom, surgical expertise, and devotion to his patients. He was beloved by his patients, admired by his peers and idolized by his family.

The Alando J. Ballantyne Resident Research Pilot Grant is funded by the generous contributions of members of the Ballantyne family, including Dr. Gilchrist L. Jackson, a respected member of the American Head and Neck Society.
Committee Meetings

Saturday, May 14th

Veranda Salon IV, Mizner Building
8:00 - 9:00 AM  Website Committee
9:00 - 10:00 AM  Executive Committee
10:00 - 11:00 AM  Education Committee
11:00 AM - 12:00 NOON  Fellowship & Scholarship Committee
1:00 - 2:00 PM  Neck Dissection Classification Committee
2:00 - 3:00 PM  Foundation
3:00 - 4:00 PM  2006 Program Committee
4:00 - 5:00 PM  Finance Committee

Addison Ballroom East, Mizner Building
10:00 - 11:00 AM  Research Committee

Sunday, May 15th

Veranda Salon IV, Mizner Building
6:45 - 7:45 AM  Advanced Training Council
8:00 - 11:30 AM  AHNS Council

Vidal Room, Tower
7:30 - 8:00 AM  Otobase Committee
8:15 - 9:00 AM  Microscopy Committee
9:00 - 10:00 AM  Committee Meetings
10:00 - 11:00 AM  AHNS Council
11:00 AM - 12:00 NOON  Fellowship & Scholarship Committee
1:00 - 1:20 PM  Introduction of Foreign Attendees
1:20 - 2:10 PM  Introduction of Guest of Honor – Douglas Bryce, MD
2:10 - 2:50 PM  Moderators: Carol Bradford, MD & Dennis Kraus, MD
2:50 - 3:15 PM  Oral #1: Great Auricular Nerve Morbidity After Sacrifice During Parotidectomy & The Impact On Patients, William Ryan, Palo Alto
3:15 - 3:30 PM  Discussion
3:30 - 4:15 PM  Oral #2: Impact of Sentinel Node Status & Other Risk Factors On The Clinical Outcomes of Head & Neck Melanoma Patients, Stanley Leong, San Francisco
4:15 - 5:00 PM  Oral #3: Combined Therapy of Anaplastic Thyroid Carcinoma With Cetuximab & Irinotecan, Seunjun Kim, Houston
5:00 - 5:15 PM  Discussion
5:15 - 5:30 PM  Oral #4: Results of Surgical Salvage After Failure of Definitive Radiation Therapy For Early-Staged Squamous Cell Carcinoma Ian Gurley, New York
5:30 - 5:45 PM  Oral #5: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
5:45 - 6:00 PM  Discussion
6:00 - 6:15 PM  Oral #6: The Impact of Sentinel Node Status & Other Risk Factors On The Clinical Outcomes of Head & Neck Melanoma Patients, Stanley Leong, San Francisco
6:15 - 6:30 PM  Discussion
6:30 - 7:00 PM  Oral #7: Combined Therapy of Anaplastic Thyroid Carcinoma With Cetuximab & Irinotecan, Seunjun Kim, Houston
7:00 - 7:15 PM  Oral #8: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
7:15 - 7:30 PM  Discussion
7:30 - 8:00 PM  Oral #9: Combined Therapy of Anaplastic Thyroid Carcinoma With Cetuximab & Irinotecan, Seunjun Kim, Houston
8:00 - 9:00 AM  Oral #10: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
9:00 - 10:00 AM  Discussion
10:00 - 11:00 AM  Oral #11: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
11:00 AM - 12:00 NOON  Oral #12: Selective Neck Dissection For N+ Neck In Head & Neck SCC: A Word of Caution, Based On A Preliminary Study, Claudio Cernea, São Paulo
12:00 NOON - 1:00 PM  Oral #13: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
1:00 - 2:00 PM  Oral #14: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
2:00 - 3:00 PM  Oral #15: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
3:00 - 4:00 PM  Oral #16: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
4:00 - 5:00 PM  Oral #17: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo
5:00 - 6:00 PM  Oral #18: Voice Evaluation In Patients Submitted To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury, Luiz Kowalski, São Paulo

Scientific Program

Sunday, May 15, 2005

9:00 AM - 3:00 PM  Food/Coffee/Lunch
3:00 - 9:00 PM  Scientific Session 1
9:00 AM - 5:35 PM  Scientific Session 2
5:35 - 7:00 PM  Scientific Session 3
7:00 - 7:15 PM  Scientific Session 4
7:15 - 8:00 PM  Scientific Session 5
8:00 - 9:00 AM  Scientific Session 6
9:00 - 10:00 AM  Scientific Session 7
10:00 - 11:00 AM  Scientific Session 8
11:00 AM - 12:00 NOON  Scientific Session 9
12:00 NOON - 1:00 PM  Scientific Session 10
1:00 - 2:00 PM  Scientific Session 11
2:00 - 3:00 PM  Scientific Session 12
3:00 - 4:00 PM  Scientific Session 13
4:00 - 5:00 PM  Scientific Session 14
5:00 - 6:00 PM  Scientific Session 15
6:00 - 7:00 PM  Scientific Session 16

Rules for Asking Questions During Scientific Sessions

1. You may question the presenter by proceeding to the microphone to ask a question from the floor.
2. When recognized by the moderator, give your name, hospital or university affiliation, city, country and a commercial disclosure (including nothing to disclose) before asking your question.
3. Please ask your question in a clear, concise manner and indicate the name of the presenter to whom your question is directed.
4. Please do not give comments or information about results of a similar study, except as part of your question.
5. Each questioner is limited to one question; not a discussion.

Please complete the meeting evaluation form and return to the registration desk to receive your CME credits.
**Monday, May 16, 2005**

**7:00 - 7:25 AM**

**Symposium: The State of Evidence In H&N Surgery**

- Chair: Bevan Yueh, MD
- C. Ron Cannon, MD, “The Importance of EBM In Clinical Practice”
- Bevan Yueh, MD, “Introduction & Methods For EBM”
- Ehab Hanna, MD, “Radiation Vs. Surgery For T1 Laryngeal Cancers”
- Amy Chen, MD, “Selective Neck Dissections For N1 Neck Disease”
- John Werning, MD, “Surgery For Well-Differentiated Thyroid Cancers”

**Discussion All**

- Chair: Bevan Yueh, MD

**7:30 - 8:00 AM**

**Breakfast/Coffee**

**8:00 - 9:00 AM**

**Scientific Session 3**

- Moderators: Richard Wong, MD, Erich Sturgis, MD & Gary Clayman, MD

**Oral 23:** Can cDNA Microarray Predict Nodal Metastasis In Patients With Cancer of the Head & Neck? Ehab Hanna, Houston

**Oral 24:** LEKTI Regulates Metalloproteinases & Suppresses Perineral Invasion In HNSCC, Thomas Shellenberger, Houston

**Oral 25:** Three-Dimensional Analysis of p53 Mutations In Head & Neck Squamous Cell Carcinoma, Christopher Lansford, Ann Arbor

**Discussion**

**9:00 - 9:40 AM**

- Thanks to our Platinum Level Donor for support of this Lecture: Merck

**Hayes Martin Lecture**

- Dr. Richard Reznick, Chair
- Department of Surgery, University of Toronto
- “Training In 35 Hours Per Week: Laudable Or Lunacy?”

**9:40 - 10:10 AM**

**Coffee**

**10:10 - 11:00 AM**

**Scientific Session 4**

- Moderators: Jonathan Irish, MD
- Oral 29: IRX-2 Immunotherapy of Head & Neck Cancer, John Hadden, Farmingdale
- Oral 20: In Vivo Optical Coherence Tomography of The Human Oral Cavity & Oropharynx, James Ridgway, Irvine
- Oral 22: The Role of PET/CT Fusion In The Staging & Management of Primary Head & Neck Cancers, Patrick Ha, Baltimore

**Discussion**

**11:00 - 12:00 NOON**

**Thanks to our Platinum Level Donor for support of this Session: Merck**

**Presidential Address & Presidential Citations**

- Patrick Gullane, MD, AHNS President 2004-2005
- **If It Ain’t Broke, Don’t Fix It**

**12:00 - 1:00 PM**

**Lunch On Your Own**

**AHNS Business Meeting For Members**

**Including Box Lunch**

**1:00 - 1:45 PM**

**Transitional Progress Seminar**

- Chair: Jay Boyle, MD
- Joseph Califano, MD, “Biomarkers for Prognosis”
- David Terris, MD, “Robotics”
- Jennifer Grandis, MD, “Targeted Therapy For The Present State of The Art”

**Discussion**

**1:45 - 2:45 PM**

**Oral 25: Tobacco Smoke Activates The EGFR Signaling Through Activation Of The Protoncogene C-SRC, Dimitrios Moraitis, New York**

**Discussion**

**2:45 - 3:00 PM**

**Coffee**

**Outside Estate Ballroom**

**Scientific Program 5**

- Moderators: Chris Holsinger, MD & Wayne Koch, MD

- Oral 24: Quality of Life After Total Laryngectomy, Rehan Kazzi, London

- Oral 25: Supraglottic & Supracricoid Laryngectomy ForAdvanced Larynx Cancer, David Goldenberg, Baltimore

- Oral 26: Transoral Laser Surgery For Pharyngeal Or Pharyngo-Laryngeal Carcinomas, Jürg Katter, Lausanne

- Oral 27: Mature Results of Phase II Multi-Institute RADPLAT For T4 HNSCC (RTGO 9815), K. Thomas Robbins, Springfield

- Oral 28: Neck Dissection Impression Index: A Disease Specific Measure Used To Evaluate Impairment After Neck Dissection, Douglas Chepeha, Ann Arbor

- Oral 29: Twelve-Year Experience With The Multimodal Intensification Regimen For Advanced Recurrent Squamous Cell Cancer of The Oral Cavity, Oropharynx, or Hypopharynx, Ewer Ozer, Columbus

- Oral 30: Standardized Care Protocol For Alcohol Withdrawal In Post-Operative Head & Neck Cancer Patients, Christopher Lansford, Ann Arbor


- Oral 32: Pituitary Tumor Transforming Gene (PTTGD) Generates Genomic Instability In Thyroid Cancer, Dave Kim, Birmingham

**4:40 - 5:00 PM**

**Closing Remarks**

- Jay O. Boyle, MD & Patrick Gullane, MD
- Introduction Of The New President
**Poster Sessions**

Posters will be displayed in the Exhibit Hall (Grand Ballroom) on Sunday, May 15, 2005 from 10:30 AM – 7:00 PM. Poster tours will be held from 6:30 – 7:00 PM. The Poster Session and Posters of Distinction Awards are supported by our Silver Level Sponsors: IRX Therapeutics, Inc., Pentax Medical Company, Sanofi-Aventis, and Stryker Leibinger Micro Implants

**Poster #76**
Molecular Prognostic Markers In Oropharyngeal Squamous Cell Carcinoma: The Role of Phospho-Akt, Z. Yu

**Poster #77**
Molecular Targeted Therapy For Human Follicular Thyroid Cancer Bone Metastasis, M. Younes

**Poster #78**
Sclerosing Mucoepidermoid Carcinoma With Eosinophilia of The Thyroid: Three Case Reports & Review Of The Literature, M. Khanna

**Poster #79**
Inhibition of Invasion In HNSCC By The Serine Proteinase Inhibitor Headpin, T. Shellenberger

**Poster #80**
Papillary Thyroid Carcinoma: Pattern of Neck Metastasis According To The AHNS Neck Dissection Classification Update, H. Gonzalez

**Poster #81**
Paratracheal Recurrence of Papillary Thyroid Carcinoma: Increased Morbidity Associated To Extracapsular Spread, H. Gonzalez

**Poster #82**
Health Literacy & Quality of Life In An Inner City Laryngectomy Population, A. Chen

**Poster #83**
Racial Disparities In Oral Cavity Cancer, A. Chen

**Poster #84**
Treatment of Thyroid Gland Neoplasms With Fast Neutron Radiotherapy, P. Oriol

**Poster #85**
18-FDG-PET Scanning For Cervical Metastases of Head & Neck Squamous Cell Carcinoma, D. Kutter

**Poster #86**
Prospective Study of Perioperative Factors Predicting Postoperative Hypocalcemia After Thyroid & Parathyroid Surgery, S. Chia

**Poster #87**
Outcomes of Critically Ill Patients With Head & Neck Cancer, M. Soueres

**Poster #88**
The Myoepithelial Defense: Loss of Fhit Expression In Adenoid Cystic Carcinoma, C. Tran

**Poster #89**
Socioeconomic Effects & Risk Factors For Disability In Long Term Survivors of Head & Neck Cancer, L. Kowalski

**Poster #90**
Organ Preservation & Wound Complications After Salvage Head & Neck Surgery: A Survey of The AHNS Membership, J. Paydarfar

**Poster #91**
Donor Site Breakdown Requiring Surgical Intervention For The Radial Forearm Free Flap, K. Emerick

**Poster #92**
Expression Profiles In Pre-treatment Biopsies From SCC Of The Head & Neck Correlate With Outcome of Radiotherapy, J. Akerrall

**Poster #93**
Pulmonary Complications Are Associated With Post-treatment Dysphagia & Silent Aspiration In Head & Neck Patients, L. Kowalski

**Poster #94**
Effects of Activated Inhibitor Of STAT3 Signaling On Oral Cavity Squamous Cell Carcinoma Cell Lines, M. Kupferman

**Poster #95**
Quality of Life Outcomes In Laryngeal & Oropharyngeal Cancer Patients Following Chemoradiation, M. Lotempio

**Poster #96**
Fractionated Stereotactic Radiotherapy Using Cyberknife For Recurrent Head & Neck Cancer, B. Judson

**Poster #97**
Quality of Life After Thyroidectomy: A Proposal For A New Questionnaire, C. Cernea

**Poster #98**
Quantitative mRNA & Mutational Analysis of p16 In Primary & Recurrent Squamous Cell Carcinomas of The Head & Neck, K. Jutam

**Poster #99**
FAS Promoter Single Nucleotide Polymorphism & Risk of Thyroid & Salivary Gland Carcinomas: A Case-Control Analysis, T. Ho

**Poster #100**
The Extent of Chromosomal Losses & The Status of CpG Methylation In Squamous Cell Carcinoma of The Head & Neck, K. Cho

**Poster #101**
Signature Expression As Predictors For Response To Radiochemotherapy In Locally Advanced Larynx & Hypopharynx SCC, L. Kowalski

**Poster #102**
Changing Trends In Primary Management of Oral Cavity/ Oropharyngeal SCC Over 20 Years At One Institution: A Review of 712, A. Al-Mutairy

**Poster #103**
Regulation of P-Glycoprotein Expression In Oral Cavity Cancers By Low Dose Fractionated Radiation, P. Spring

**Poster #104**
A Multi-Dimensional Assessment of The Pharyngo- Esophageal Segment In Total Laryngectomy Patients, R. Kazi

**Poster #105**
Development of A Voice Prosthesis Questionnaire For Patients With Total Laryngectomy, R. Kazi

**Poster #106**
Nitric Oxide Stimulates Hypoxia Induced Tumor Cell Migration By S-Nitrosylation of Metalloproteinases, B. Bentz

**Poster #107**
Expression of Hxy Gene Predicts Poor Prognosis In Early Stage Head & Neck Carcinomas, L. Kowalski

**Poster #108**
Malignant Fibrous Histiocytoma (MFH) Of The Head & Neck, S. Kim

**Poster #109**
Hypothyroidism After Hemi-Thyroidectomy, F. Miller

**Poster #110**
Three Cases of Clavicular Osteoradionecrosis After Radiation Therapy For Head & Neck Cancer, A. Bien

**Poster #111**
Real-Time Quantitative PCR As A More Specific Assay For Determination of HPV-16 Prevalence In Tonillar Carcinomas, D. Sewell

**Poster #112**
Microvascular Reconstructive Head & Neck Surgery - Does Volume Really Matter?, E. Lueg

**Poster #113**
Effects of Preserving The Posterior Branch of The Greater Auricular Nerve At Parotidectomy On Postoperative Sensation, J. Park

**Poster #114**
Voice Quality of Early SCC Glottis Patients Treated With External Beam Radiotherapy At The Royal Marsden Hospital, London, R. Kazi

**Poster #115**
Voice Quality Of Advanced Laryngeal & Hypopharyngeal Cancer Patients On An Organ Saving Protocol At The RMI, London, R. Kazi

**Poster #116**
Head & Neck Adenoid Cystic Carcinoma: Clinical, Histological & Immunohistochemical Study, L. Kowalski

**Poster #117**
Combination of Doxorubicin & Cisplatin Chemotherapy For Advanced Or Metastatic Nasopharyngeal Cancer (NPC), A. Bensalem

**Poster #118**
Interest of The Cervical Neck Dissection After Primary Radiochemotherapy, P. Vedrine

**Poster #119**
Recurrent Early Stage Laryngeal Cancer Treated With Photodynamic Therapy, D. Myssiorek

**Poster #120**
Influence of Initial Treatment On Disease Outcome For Patients With Submandibular Gland Malignancy, S. Kaszuba

**Poster #121**
Oval Cavity & Hypopharyngeal Cancer: Kentucky Patterns Of Incidence, J. Valentino

**Poster #122**
Intra-Operative Evaluation of Supraglottic Carcinoma Using Endoscopic Ultrasound, A. McWhorter
Poster #123
Combined Therapy of Anaplastic Thyroid Carcinoma With Cetuximab & Bevacizumab, C. Prichard

Poster #124
Inadvertent Parathyroidectomy During Thyroidectomy, J. Werning

Poster #125
Reconstruction of Extensive Lower Lip Defects, P. Sharma

Poster #126
Variability In Cutaneous Lymphatic Drainage Detected By Lymphoscintigraphy May Contribute To Nodal Recurrences, A. Willis

Poster #127
Proteomic Analysis of Normal Human Nasal Mucosa, J. Lee

Poster #128
Most Free Tissue Head & Neck Reconstructions Do Not Require Tracheotomy Or Gastrostomy, A. Willis

Poster #129
p66 & E-Cadherin1 (CDH1) Hypermethylation In Head & Neck Tumors, L. Kowalski

Poster #130
TP53 & p66 Genetic Alterations In Primary Head & Neck Carcinomas, L. Kowalski

Poster #131
Supracricoid Laryngectomy With Adjuvant Therapy, F. Holsinger

Poster #132
The Combined Use of Alloderm© & Split-Thickness Skin Graft For Radial Forearm Free Flap Donor Site Reconstruction, B. Gosselin

Poster #133
Tumor Stromal Interaction In An Immunocompetent Mouse Model, J. Hsu

Poster #134
Expression p53, bcl-2 & TGF-beta In Locally Invasive Well-Differentiated Thyroid Carcinoma, L. Kowalski

Poster #135
The Sentinel Role of Pain In Head & Neck Cancer, J. Scharyf

Poster #136
Resection of Advanced Head & Neck Cancer & Cerebrovascular Surgery Can Be Safely Combined In A Single Stage, J. Lamont

Poster #137
Neck Dissection Following Combined Chemoradiotherapy For Stage III/IV SCCA of The Head & Neck, W. Carroll

Poster #138
Is Chemoradiotherapy Safe & Effective In Advanced Oral Cavity Cancer?, J. Baru

Poster #139
Outcome of Patients With Basaloid Squamous Cell Carcinoma, M. Rossi

Poster #140
Malignant Melanoma & Its Relation To UVB Radiation Levels In Chile, N. Avalos

Poster #141
Aberrant Cell-cell & Cell-matrix Adhesion Initiate Squamous Cell Carcinoma In Bioengineered, 3D Human Tissue Construct, J. Garlick

Poster #142
Hyperparathyroid Crisis, R. Phitayakorn

Poster #143
Review of The Utilization of The Intraoperative Parathyroid Hormone Assay In A Single Institution, J. Bocker

Poster #144
Proteomic Approach For Identification of Head & Neck Cancer Antigens, H. Lin

Poster #145
Headpin Regulates Nuclear Transcription of Cyclin D1 & Proliferation In HNSCC Cells, T. Shellenberger

Poster #146
Early Neck Dissection After Radiation Improves Regional Control & Survival With Head & Neck Cancer: RTOG Trial 90-03, J. Ridge

Poster #147
Accuracy of Fine Needle Aspiration Cytology In The Assessment of Parotid Tumour, C.M. Lim

Poster #148
Mucoepidermoid Carcinoma of Salivary Glands In Pediatric Age Group, P. O. Vedrine

Poster #149
Primary Malignant Tumors of The Sphenoidal Sinus, P. O. Vedrine

Poster #150
Molecular Profiling of Squamous Cell Carcinoma of The Tonsil By Immunohistochemistry, W. Riefkohl

Future AHNS Meeting Dates & Locations

2006
American Head & Neck Society Annual Meeting & Research Workshop On The Biology, Prevention & Treatment of Head & Neck Cancer
Marriott Chicago Downtown
August 17-20, 2006 in Chicago, IL
Abstract submissions will be accepted January - March, 2006
Submission deadline: March 31, 2006

2007
American Head & Neck Society Annual Meeting
During The Combined Otolaryngology Spring Meetings (COSM)
April 26-29, 2007 in San Diego, CA

2008 • New Dates
Seventh International Conference On Head & Neck Cancer
San Francisco Marriott
July 19-23, 2008 in San Francisco, CA
<table>
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<th>Faculty Listing</th>
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INTRODUCTION: Selective sentinel lymphadenectomy (SSL) following preoperative lymphoscintigraphy represents the most significant recent advance in the management of patients with primary cutaneous melanoma. We hypothesize that sentinel lymph node (SLN) status and other primary melanoma risk factors may influence recurrence and overall survival in head and neck (H&N) melanoma patients.

METHODS & PATIENTS: The Sentinel Lymph Node Working Group (SLNWG) based in the United States, with 11 member centers, John Wayne Cancer Institute and MD Anderson submitted data on 629 primary H&N melanoma patients having had SSL. A total of 914 subjects were analyzable. All centers have obtained internal review board approval and adhered to the HIPAA regulations. Cox proportional hazard model was used to identify factors associated with overall survival and disease-free survival.

RESULTS: Overall, 10% (n=62) of the subjects had at least one positive node. There was no difference in SLN status by age or gender. Subjects with positive SLN status had significantly thicker tumors than those with negative SLN status (mean thickness 2.8 mm vs. 1.1 mm, p=0.0009), and were more likely to have ulcerated tumors (p=0.044). Over the median follow-up period of 3.3 years, the overall mortality from H&N melanoma was 10%, with over 20% experiencing at least one recurrence. In a univariate model, mortality was significantly associated with SLN status (HR=2.6, 95% CI 1.4-4.8, p=0.002). When other factors were considered in a multivariable model, positive SLN status was not found to be an independent predictor of mortality (HR=1.8, 95% CI 0.9-3.3, p=0.08). Tumor size was significantly associated with mortality, with tumors on the scalp having a greater than 3.6-fold (p=0.008) increased mortality over tumors on the face. Tumors located on the ear and neck were also associated with increased mortality as compared to those on the face, but the results were not statistically significant. Tumor thickness was also found to be an independent predictor of overall survival in the multivariable model (HR=3.6, 95% CI 1.3-9.7, p=0.005).

CONCLUSIONS: SLN status was the most important predictor of melanoma recurrence in head and neck tumors, but not an independent predictor of overall mortality. Tumors located on the scalp had the highest mortality, whereas tumors on the face had the lowest mortality. Disease-free survival also differed by tumor location. Tumor ulceration was a significant predictor of overall survival but not disease-free survival, while tumor thickness was a significant predictor of overall survival but not disease-free survival.

3. Combined Therapy of Anaplastic Thyroid Carcinoma With Cetuximab & Irinotecan


- University of Texas M.D. Anderson Cancer Center, Houston, TX; University of Texas M.D. Anderson Cancer Center, Houston, TX

BACKGROUND: Anaplastic thyroid carcinoma (ATC) remains one of the most lethal human cancers with a median survival of 4-6 months. Epidermal growth factor receptor (EGFR) has been implicated in the pathogenesis of ATC. Targeted molecular therapy with cetuximab, a monoclonal antibody against EGFR, offers new treatment potential.

Furthermore, cetuximab has been reported to have synergistic effects when combined with irinotecan, a topoisomerase inhibitor. Therefore, we hypothesized that simultaneous administration of cetuximab and irinotecan would be effective in inhibiting the growth and progression of ATC in a murine orthotopic model.

MATERIALS & METHODS: The anti-proliferative effects of cetuximab and irinotecan on an in vivo ATC model were tested by MTT assay. Flow cytometry based assay was utilized to examine the pro-apoptotic effects of cetuximab and irinotecan. In order to study the in vivo effects of cetuximab...
and irinotecan, nude mice bearing orthotopic xenografts of ATC were randomized into four groups (10 mice per group); control, cetuximab, irinotecan, and cetuximab/irinotecan combination groups. Control mice were injected intraperitoneally (IP) injections of 0.1% PBS once/week. Cetuximab was given at 2 mg/kg IP, twice/week and irinotecan was administered IP at 50 mg/kg IP, once/week. At one end of 4-week period, the mice were sacrificed, and tumor sizes were measured. A total of 88 patients submitted to thyroid surgery were included in the study. A control group of patients who underwent breast surgery, trying to define the role of orotracheal intubation in the etiology of voice alteration.

4. Results of Surgical Survival After Failure of Definitive Radiation Therapy For Early-staged Squamous Cell Carcinoma on the Larynx


“Memorial Sloan Kettering Cancer Center, New York, NY

INRODUCTION: The objective of this study is to report the outcome of surgical salvage in patients with stage IV disease. A previous study has suggested that this technology may allow detection of tumor progression of disease. Such patients have a poorer survival due to an aggressive course of disease and the presence of lymph node metastases. Disease specific survival (DSS) and overall survival (OS) were calculated from the time of salvage surgery using the Kaplan-Meier method.

MATERIALS & METHODS: Serum samples from patients with prostate and bladder cancer using ProteinChip Surface Enhanced Laser Desorption/Ionization Time-Of-Flight Mass Spectrometry (SELDI-TOF- MS) have been shown to identify reproducible protein profiles associated with specific tumor biomarkers that can be used for early detection of disease. A previous study has suggested that this technology may allow detection of head and neck squamous cell cancer (HNSCC), associated tumor biomarkers.

OBJECTIVE: We sought to analyze SELDI-TOF-MS protein profiles of patients with HNSCC. We evaluated this novel technology with stage III or IV disease. The oral cavity was the most common primary site (39.3%), followed by the larynx (21.3%), oropharynx (14.8%), nasopharynx (9.1%), and hypopharynx (8.1%). Median survival was 160 minutes. The videolaryngoscopic exam after surgery showed the laryngotracheal fixation that impairs the larynx vertical movement.

RESULTS: There was no postoperative death following salvage surgery. The overall incidence of complications was 26%; local complications and pharyngeal or laryngeal are the most common at 23% and 12% respectively. There was no significant difference in terms of overall survival or disease specific survival among patients who were suitable for partial laryngectomy had a 1 year overall survival and disease specific survival of 86% and 84%, respectively. Patients who required total laryngectomy had a 1 year overall survival and disease specific survival of 38% and 32%, respectively. The difference in DSS between the two groups was due to a poorer regional and distant disease free survival in the total laryngectomy group.

CONCLUSION: Careful follow up and selection of patients with tumors whose recurrence after radiation allows them to be successfully salvaged by partial laryngectomy with excellent survival outcomes. However, despite an aggressive policy of carrying out partial laryngectomy when feasible, up to 50% of patients will require a total laryngectomy due to progression of disease. Such patients have a poorer survival due to an aggressive course of disease and the presence of lymph node metastases. Disease specific survival (DSS) and overall survival (OS) were calculated from the time of salvage surgery using the Kaplan-Meier method and compared statistically.

35/37 (81%) of young patient tumors compared to 15/40 (37.5%) of older patients (p<0.01). The differences in the expression of proteins between young and old patients suggested that a genetic susceptibility mechanism, either functionally equivalent to tumor suppressor genes, or exposing to carcinogen exposure or representing an increased risk of development of cancer in the presence of carcinogen exposures, could lead to an increased risk of cancer development in these individuals at an earlier age.

6. Gene Expression Profiling of Oral Cancer From The UK & Sri Lanka; Gene Specific Changes Related To Aetiology

V.Lopes, W.Wei, J.Pan

Institute for Cancer Studies, Birmingham University Kingdom

Many attempts have been made to improve the classification of sub- groups of oral cancer. Traditional attempts to define such groups have used histological features, various molecular markers as well as clinical features such as nodal status. All such attempts have provided only limited improvements in clinical outcomes. The advent of microarray technology has led to great advances in disease taxonomy in other tumours including breast cancer, B-cell lymphoma and melanoma. Gene expression arrays have also provided an insight into the most important genes involved in tumour metastasis.

Gene expression profiling of oral cancers has been carried out in several studies of oral cancer. Sub-groups of tumours have been defined by such studies and particular importance has been given to trying to define the clinical correlates of such groups. This study has been demonstrated as breast cancer and B-cell lymphoma.

In this study we compared two cohorts of patients with oral cancer from the United Kingdom and Sri Lanka. In each case the risk factors for development of oral cancer were compared.

3. Proteomic analysis of serum protein profiles distinguishes patients with HNSCC from controls with a high degree of sensitivity and specificity. Further investigation into the clinical utility of this technology in HNSCC detection and surveillance is warranted.

4. De-epigenetically regulated expression of FANCA & GSTP1 In Oral Squamous Cell Carcinoma


Cancer Institute, University Health Network, University of Toronto, Toronto, ON Canada; Ontario Cancer Institute/Princess Margaret Hospital, University Health Network, Toronto, ON Canada; Catholic University, Rome, Italy; Universidade Federal de São Paulo, São Paulo, Brazil; University of Toronto/Princess Margaret Hospital, University Health Network, Toronto, ON Canada

Oral squamous cell carcinoma (OSCC) most commonly develops in males over 50 years of age with a history of tobacco and alcohol abuse. However, some individuals develop OSCC before age 40, often without known carcinogenic exposure. This study was carried out to determine both epigenetic and microRNA expression patterns in young and older patients with OSCC. These studies suggest that young

5. Voice Evaluation In Patients Submmited To Thyroid Surgery Without Recurrent Laryngeal Nerve Injury


Hospital do Cancer A Camargo, Sao Paulo Brazil; Hospital do Cancer A Camargo, Sao Paulo, SP, Brazil

BACKGROUND: Alterations in voice quality after thyroid surgery can be found even with preserved function of laryngeal nerves. Some reports showed that preservation of laryngeal function can have major consequences for patient's quality of life, especially with preservation of vocal cord movements. The aim of this study is to evaluate the influence of voice quality alteration to patients submitted to thyroid surgery without recurrent laryngeal nerve injury.

MATERIALS & METHODS: A prospective study of 45 patients submitted to thyroid surgery under general anesthesia with the patient undergoing thyroid surgery. All patients were submitted to a subjective voice perceptual auditory analysis, objective acoustic analysis, Videodilargoscopic exam, and a pH laryngometry exam before and 2 weeks after surgery. A control group of patients submitted to breast surgery underwent the same exam at the same period.

RESULTS: A total of 88 patients submitted to thyroid surgery and 30 patients submitted to breast surgery were studied. In the thyroid group, patients submitted to total laryngectomy had a 1 year overall survival of 77% (median 70 months) compared to 85% (median 49 months) in patients submitted to lobectomy (p=0.05). In the breast group, the 1 year overall survival was 96% (median 70 months) compared to 84% (median 49 months) in patients submitted to mastectomy (p=0.05). The differences in the mean tumor volume compare cetuximab/irinotecan therapy with standard chemotherapy of which 22 (44%) had T1 and 28 (56%) had T2 tumors. Twenty- five percent of patients evidenced subjective voice changes at 2 weeks after surgery. A control group of patients submitted to thyroid surgery, trying to define the role of orotracheal intubation in the etiology of voice alteration.

MATERIAL & METHOD: The protein expression of FANCA and GSTP1 were measured in 50 OSCC and 50 normal mucosa by microarray technology. Significant over-expressed (p<0.007) in tumors compared to normal mucosa of young and older patients was observed, comparing tumors of young and older patients, GSTP1 (p=0.020) and FANCC (p=0.005) had significantly lower expression in oral cancers compared to normal mucosa. FANCC mRNA was highly expressed in young patients compared to older patients. Significant differences in the expression of FANCC, FANCD2 and FANCG were also detected in the tumors of older patients as compared to their normal mucosa. Immunohischemistry was also performed to evaluate the protein levels of these genes. In this analysis, GSTP1 showed negative or low expression in 51/57 (40%) of young patients compared to 22/40 (55%) of older patient tumors (p=0.019). FANCC expression was absent or low in 29/37 (78%) of younger patients whereas GSTP1 was absent or low in 25/40 (62.5%) of older patient tumors (p=0.005). De-expressed expression of GSTP1 in tumors and total laryngectomy due to development of cancer in the presence of carcinogen exposures, could lead to an increased risk of cancer development in these individuals at an earlier age.

CONCLUSION: This study showed that voice quality changes are frequent following thyroidectomy even with preserved recurrent laryngeal nerve function and voice changes were not associated with adverse patient-reported outcomes. Further investigation into the clinical utility of this technology in HNSCC detection and surveillance is warranted.
9. Neoadjuvant Chemotherapy With Rebiplix Directed Salvage Therapy In Patients With Locally Advanced Head and Neck Squamous Cell Carcinoma: Analysis of a Phase II trial in 96 patients with a 18 month median follow-up

METHODS: This is an ongoing phase II study. Patients with locally advanced Head and Neck squamous cell carcinoma (SCCHN) were treated with weekly doses of 120mg/m^2 of Rebiplix either alone or combined with chemotherapy. The primary endpoint was progression-free survival (PFS) at 12 months. 16 patients were treated in the single-agent arm and 80 in the combination arm. 146 patients were randomized to receive one of the above regimens followed by surgery. Secondary endpoints included overall survival (OS), disease control, obtaining a major response, and the safety and tolerability of the treatment. The Kaplan-Meier method was employed to estimate the distribution of the endpoints. Results: Of the 16 single-agent patients, 11 (69%) achieved a major response (95% CI: 0.45 to 0.86), with a median PFS of 16.6 months (95% CI: 3.1 to 32.1 months). Of the 80 combination arm patients, 65 (81.3%) achieved a major response (95% CI: 0.71 to 0.91), with a median PFS of 17.5 months (95% CI: 12.6 to 21.1 months). The median OS of the single-agent patients was 27.3 months (95% CI: 17.8 to 41.8 months), with a 3-year OS of 71% (95% CI: 54.8 to 84.4%). The median OS of the combination arm patients was 26.3 months (95% CI: 19.8 to 31.8 months), with a 3-year OS of 64% (95% CI: 53.1 to 74.4%). The difference in OS is not statistically significant (log-rank test: p = 0.79). Conclusions: This study demonstrates that addition of Rebiplix to conventional chemotherapy regimens is feasible and safe. The major response rate was significantly better with combination therapy than with single-agent therapy. Combination chemotherapy was associated with a shorter time to progression and a longer overall survival. This may be due to the ability of Rebiplix to induce more rapid and durable responses. Further studies are needed to confirm these findings and to determine the optimal duration of treatment. 10. Radiofrequency Ablation of Recurrent Laryngeal Nerve: A Case Series of 10 Patients

METHODS: This is a retrospective study of 10 patients who underwent radiofrequency ablation (RFA) of the recurrent laryngeal nerve (RLN) for recurrent laryngeal nerve palsy (RLNP). All patients had undergone prior laryngeal surgery and had failed conventional treatment modalities. A total of 9 patients (90%) had recurrent laryngeal nerve paralysis (RLNP) and 1 (10%) had vocal cord paralysis. The average age of the patients was 58 years (range: 40-74 years). Preoperative evaluation included laryngeal electromyography (EMG), laryngoscopy, and laryngeal muscle strength testing. The RFA was performed with a radiofrequency ablation device (Cool-tip, Boston Scientific, Natick, MA) under local anesthesia. The procedure was performed in the operating room and lasted an average of 30 minutes. The postoperative course was uneventful in all cases. Mean follow-up was 12 months (range: 6-24 months). Results: All patients showed improvement in laryngeal muscle function with a mean improvement of 60% (range: 20-100%). Nine patients (90%) had complete resolution of RLNP, and 1 patient (10%) had partial improvement. There were no complications related to the procedure. Conclusion: Radiofrequency ablation of the recurrent laryngeal nerve is a safe and effective treatment for recurrent laryngeal nerve paralysis. It provides significant improvement in laryngeal muscle function and quality of life for patients with recurrent laryngeal nerve palsy.
constitutive expression in normal oral mucosa but loss of expression in both primary and metastatic head and neck squamous cell carcinoma (SCC) samples. We performed the analysis on multiple HSNCC lines. We previously established that recombiant human LEKTI inhibits a battery of cancer-promoting activities such as angiogenesis, invasion, tyrosinase, cathepsin G, and elastase, all implicated in the activation of matrix metalloproteinases and degradation of ECM. Here, we sought to determine the molecular consequences of LEKTI expression, focusing on its ability to influence direct contact-dependent invasion, expression, and invasion in order to examine the therapeutic potential of potentiating LEKTI expression.

METHODS: Using OSC-19 cells, we investigated in vitro cell functions including cell detachment, expression of MMPs and cell invasion. To determine the in vivo changes in invasion of tumors in which LEKTI expression was returned to the tumor microenvironment we inoculated 40 in vivo experiments.

RESULTS: LEKTI expressing clones of OSC-19 showed enhanced cell adhesion on type I, III, and V collagen, fibronectin, and laminin-5. F-actin stress fibers and focal adhesions were detected in LEKTI expressing cells, but were not observed when cells were transfected with control vector or parental cell lines. Moreover, LEKTI expressing clones demonstrated reduced cell invasion in Matrigel. In the tongue tumor of mice, lymphovascular invasion or perivascular spread was found in 65% of tumors derived from vector or parental cell lines but was totally absent in all tumors derived from LEKTI expressing clones (p<0.001 by Fisher’s exact test).

CONCLUSIONS: The enhancement of cell adhesion along with the alteration in expression pattern of MMPs in LEKTI expressing clones of OSC-19 demonstrate a mechanism of inhibited invasive potential. Our findings define a novel role in which LEKTI expression provides a critical finding in which LEKTI expression provides a critical

15. Three-Dimensional Analysis of p53 Mutations In Head & Neck Squamous Cell Carcinoma C.L.Danskov, M.B.Fraser, B.Kamar, S.G.Fisher, T.L.Learoyd

INTRODUCTION: Variations in behavior of head and neck squamous cell carcinoma beyond that described by standard staging methods present a challenge to the development of more accurate and informative paradigms. Although chemical mutagenesis predicts radiosensitivity and thus avails non-clinical outcomes, such as duration of survival, time to laryngectomy, expression was returned to the tumor microenvironment we inoculated 40

RESULTS: Five million (90±600) StatSH, RbASG, cyr76, and Cyf76 were both recloned identified twice; the remaining 30 tumors were unique. The latter context (CpG motifs), which are commonly found in bacterial DNA, can alter the mutational analysis to include predicted point mutations, and cell lines were grouped expression of CLDN1 (86%) and EGFR (89%) of OSCCs compared to

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RESULTS: Five million (90±600) StatSH, RbASG, cyr76, and Cyf76 were both recloned identified twice; the remaining 30 tumors were unique. The latter context (CpG motifs), which are commonly found in bacterial DNA, can alter the mutational analysis to include predicted point mutations, and cell lines were grouped expression of CLDN1 (86%) and EGFR (89%) of OSCCs compared to

RESULTS: Using OSC-19 cells, we investigated in vitro cell functions including cell detachment, expression of MMPs and cell invasion. To determine the in vivo changes in invasion of tumors in which LEKTI expression was returned to the tumor microenvironment we inoculated 40 in vivo experiments.

RESULTS: LEKTI expressing clones of OSC-19 showed enhanced cell adhesion on type I, III, and V collagen, fibronectin, and laminin-5. F-actin stress fibers and focal adhesions were detected in LEKTI expressing cells, but were not observed when cells were transfected with control vector or parental cell lines. Moreover, LEKTI expressing clones demonstrated reduced cell invasion in Matrigel. In the tongue tumor of mice, lymphovascular invasion or perivascular spread was found in 65% of tumors derived from vector or parental cell lines but was totally absent in all tumors derived from LEKTI expressing clones (p<0.001 by Fisher’s exact test).

CONCLUSIONS: The enhancement of cell adhesion along with the alteration in expression pattern of MMPs in LEKTI expressing clones of OSC-19 demonstrate a mechanism of inhibited invasive potential. Our findings define a novel role in which LEKTI expression provides a critical finding in which LEKTI expression provides a critical

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tumor antigens occurring at the level of the regional lymph node. The reversal of this immunosuppression, by IRX-2 treatment, in association with nodal involvement, led to a reduction in the number of headpin-positive cells; this is defective in these patients and it is corrected by the IRX-2 treatment.

This phase I/II study documents the ability of IRX-2 immunotherapy to reverse immune suppression, induce lymphocyte mobilization and tumor infiltration and regression in patients with stage III/IV head and neck cancers. IRX-2 has been given Fast Track Designation by the U.S. FDA, and a pivotal multi-institution, randomized trial for Stage 3 and 4 HN cancer is planned to begin in 2011.

20. In Vivo Optical Coherence Tomography of The Human Oral Cavity & Oropharynx


University of California, Irvine, Irvine, CA; Berkman Laser Institute, Irvine, CA

Optical Coherence Tomography (OCT) is an evolving imaging modality that applies interferometry to low-coherence light to produce high resolution images of non-metaphase biological tissue. OCT images of normal and pathologic oral and oropharyngeal tissues, as well as comparisons of images produced with the use of a Michelson interferometer, a 1310 nm broadband hollow fiber source, and a hand-held fiberoptic image probe. Standard images produced during OCT tissue analysis approach a pixel resolution of ten microns. With this technology, in vivo tissue imaging of the oral cavity and oropharynx was performed in forty patients while undergoing operative endoscopy. OCT imaging was obtained in metastatic head and neck cancer patients for gross and histologic correlation. In vivo OCT studies of the oral cavity and oropharynx displayed a qualitatively thinckness and continuity of the epithelium, basement membrane, and supporting lamina propria. Normal tissue microstructures identified included an overlying keratin layer, papillae, ducts, glands, and blood vessels. Additionally, differences in collagen and elastic density were noted in areas of known histologic variation. Regions of lichen planus included mature, granulation tissue, mucous cysts, leukoplakia, and frank cancer. OCT imaging, as related to each pathologic process analyzed, revealed zones of normal, altered, and ablated tissue microstructures. These findings were directly compared to analogous regions of normal tissue or conventional histopathology when tissue for analysis was available. This presentation will provide a comprehensive view of OCT imaging series of the oral cavity and oropharynx in a variety of normal and pathologic conditions. This discussion will also outline future applications and modalities of OCT technology as related to the study of the angiogenic process.

21. The Role of PET/CT Fusion In The Staging & Management Of Primary Head & Neck Cancers


The University of Texas M.D. Anderson Cancer Center, Houston, TX

RATIONALE: The expression of headpin on angiogenesis is the activation of a tumor of a nutrient blood supply through angiogenesis. Critical events in angiogenesis involve lysis of extracellular matrix by proteases in the tumor microenvironment. We used headpin expressing clones of UMSCC-1 in a mouse subcutaneous flank model. Tumor mass and microvessel density was measured. We studied promoter site transcription of VEGF and IL-8 using transient transfection by luciferase assay and RT-PCR. We then tested the relative secretion of angiogenic factors and the effect of the addition of 100 nM headpin to basal growth media containing VEGF or IL-8 on secretion of angiogenic factors. RESULTS: The mean number of microvessels and microvessels per high power field was significantly increased (p < 0.01) in tumors expressing recombinant headpin on angiogenesis, we investigated endothelial cell invasion and proliferation in response to treatment with recombinant headpin. METHODS: We used headpin expressing clones of UMSCC-1 in a mouse subcutaneous flank model. Tumor mass and microvessel density was measured. We studied promoter site transcription of VEGF and IL-8 using transient transfection by luciferase assay and RT-PCR. We then tested the relative secretion of angiogenic factors and the effect of the addition of 100 nM headpin to basal growth media containing VEGF or IL-8 on secretion of angiogenic factors. RESULTS: The mean number of microvessels and microvessels per high power field was significantly increased (p < 0.01) in tumors expressing recombinant headpin on angiogenesis, we investigated endothelial cell invasion and proliferation in response to treatment with recombinant headpin.

METHODS: In order to determine the contributions PET/CT made to treatment planning, the charts of 25 patients initially evaluated for suspected HNSCC were evaluated by two independent observers. PET/CT and CT alone. The goal of this study was to evaluate the role of PET/CT imaging in the staging and management of head and neck cancers. RESULTS: Of the 25 patients studied, 14 had positive PET/CT results alone. Of the 11 patients with a history of head and neck cancer who had undergone PET/CT imaging as part of the initial diagnostic evaluation, 5 had positive PET/CT results alone. Of the 11 patients who had negative clinical and CT alone, the goal of this study was to evaluate the role of PET/CT imaging in the staging and management of head and neck cancers. RESULTS: Of the 25 patients studied, 14 had positive PET/CT results alone. Of the 11 patients with a history of head and neck cancer who had undergone PET/CT imaging as part of the initial diagnostic evaluation, 5 had positive PET/CT results alone. Of the 11 patients who had negative clinical and CT alone, 4 had positive PET/CT results. In addition, for patients undergoing surgery, histopathology results were correlated with PET/CT findings.
27. **Maturation of Phase II Multi-institute RADPRT For T4 HNSCC (RTOG 0935)**

K.Robinson, J.Harrier, T.McCullough, A.Cmeck, R.Sofferman, P.Lavicur, K'Fu

*University of Cincinnati*, Cincinnati, 
Ohio, USA; *University of Cincinnati*, Cincinnati, 
Ohio, USA.

INTRODUCTION: We have recently presented the results of feasibility and safety of using RADPRT as a benchmark for phase II RTOG trials. The aim of this study is to evaluate the safety and feasibility of phase II RTOG trials.

METHODS: Feasibility and safety of phase II RTOG trials are evaluated using a 5-point scoring system.

RESULTS: The phase II RTOG trials had a mean score of 4.7 (range 3-5). The most common reasons for not proceeding to phase III were toxicity, as well as patient recruitment issues.

CONCLUSION: Phase II RTOG trials are feasible and safe, but require careful planning and execution to ensure successful completion.

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**Oral Abstracts**

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30. **Standardized Care Protocol For Alcohol Withdrawal In Post-Operative & Head & Neck Cancer Patients**

*Center for Head and Neck Surgery, New York University School of Medicine,\ New York, NY; Newton Medical Center*, 
Newton, NJ.

INTRODUCTION: The etiology of alcohol-related head and neck cancer among patients with head and neck squamous cell carcinoma presents a challenging clinical scenario. The majority of patients are heavy drinkers. The goal of alcohol-geriatric medicine is to decrease the risk of substance use disorder.

METHODS: We conducted a cross-sectional study to evaluate the factors that impact shoulder function and related quality of life (QoL) following neck dissection. We used the Norton shoulder function rating scale (NSFR) as the primary outcome measure, in addition to neck failures for radiation and surgery. The NSFR assesses pain, function, and complications, and is a valid, reliable, and responsive measure of neck function. There were two centers participating in the study.

RESULTS: The study was designed to evaluate the feasibility of a multi-institutional clinical trial to test the hypothesis that a multidisciplinary approach to neck dissection can improve patient outcomes.

CONCLUSION: A multi-institutional clinical trial is feasible and can improve patient outcomes.

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**Oral Abstracts**

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31. **Levels of The Major Urinary Metabolite of PGE2 (PGEM-3) Are Increased in Smokers and Marijuana Users**

N.D.Irons, J.O.Boyle, C.S.Moskowitz, C.S.Moskowitz
*Medical College of Wisconsin, Milwaukee, WI; National Institute of Applied Biomedical Research,\ Milwaukee, WI.*

INTRODUCTION: The etiology of alcohol-related head and neck cancer among patients with head and neck squamous cell carcinoma presents a challenging clinical scenario. The majority of patients are heavy drinkers. The goal of alcohol-geriatric medicine is to decrease the risk of substance use disorder.

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CONCLUSION: A multi-institutional clinical trial is feasible and can improve patient outcomes.
Since 1991, 26 cases of sclerosing mucoepidermoid tumor transforming gene (PTTG) induces carcinoma with eosinophilia of the head and neck (SMECET). Three cases of SMECET were diagnosed during an eight-year period at a major medical center in Houston. The clinical characteristics, natural history, and prognosis for SMECET is difficult to clearly define and requires further study.

**Poster Abstracts**

**76. Molecular Targeted Therapy For Human Follicular Thyroid Cancer Bone Metastasis**


**Background:** Thyroid carcinoma is the most frequent endocrine malignancy of childhood. Adult-onset follicular thyroid cancer bone metastasis is a late and rare event. We investigated the functions of headpin related to thyroid cancer bone metastasis.

**Objective:** Patients suffering from bone metastases of follicular thyroid carcinoma (FTC) have a poor prognosis because of the lack of effective treatment strategies. The overexpression of epidermal growth factor receptor (EGFR) is associated with increased risk of bone metastasis. Headpin expression we investigated the functions of headpin related to FTC bone metastasis.

**Methods:** FTC tissue microarrays (TMA) were constructed, and headpin expression were determined by immunohistochemistry. The relationship between headpin expression and bone metastasis was analyzed. For Human Follicular Thyroid Cancer, TMA blocks were stained with primary antibody to headpin. The slides were then scanned using an Aperio scanner. A pathologist scored the immunohistochemical staining on a 4-tiered scale (0-3). The data were analyzed using statistical methods. The relationship between headpin expression and bone metastasis was analyzed using the chi-square test. A p-value of less than 0.05 was considered statistically significant.

**Results:** Headpin expression was significantly higher in FTC specimens compared to normal thyroid tissue. In FTC specimens, headpin expression was strongly correlated with bone metastasis. In vitro studies demonstrated that headpin expression in FTC cells results in enhanced bone metastasis. The role of headpin in FTC bone metastasis was further investigated using xenograft models. In vivo studies demonstrated that headpin expression in FTC cells results in enhanced bone metastasis.

**Conclusion:** Headpin expression in FTC is a potential target for the development of novel therapeutic strategies for FTC bone metastasis.

**77. Molecular Targeted Prognostic Markers In Oropharyngeal Squamous Cell Carcinoma: The Role of Phospho-Akt**


**Background:** The serine/threonine protein kinase Akt, a downstream target of phosphatidylinositol 3-kinase (PI3K), has been shown to be a key regulator of cancer cell growth. Akt is activated by insulin-like growth factors and insulin-like growth factor receptor (VGEF) inhibitors (VGEF) and EGFR inhibitors (EGFR).

**Method:** In this study, we investigated the role of Akt signaling in oropharyngeal squamous cell carcinoma (OSCC). We analyzed phospho-Akt levels in 84 patient samples using quantitative-PCR. We demonstrated a relationship between phospho-Akt expression and outcome in OSCC.

**Results:** The top quartile of phospho-Akt expression was associated with increased locoregional recurrence (p=0.018), distant metastasis-free survival (p=0.018), and overall survival (p=0.018). Multivariate analysis confirmed the prognostic significance of phospho-Akt expression in OSCC. Overall, we found that high phospho-Akt expression was associated with reduced survival in OSCC patients.

**Conclusion:** Our findings suggest that phospho-Akt expression is a potential prognostic marker in OSCC. Further studies are needed to validate these findings in larger, prospective clinical trials.
According to the AHNS Neck Dissection Classification Update. Poster Abstracts

Treatment of papillary thyroid carcinoma (PTC) is crucial to achieve long-term regional disease control. However, the extent of required cervical lymphadenectomy based on the patients disease and 29% (8/28) with recurrent disease. Metastasis was present in 50 for primary disease and 28 for recurrent disease. Eighteen patients with recurrent disease had previous treatment elsewhere.

RESULTS: A total of 71 patients underwent a neck dissection for PTC, 34 for primary disease and 37 for recurrent disease. Eighteen patients with recurrent disease had previous treatment elsewhere. Eighteen patients with recurrent disease had previous treatment elsewhere.

RESULTS: Data was acquired prospectively between July-2003 and June-2004. Papillary thyroid carcinoma was present in 74 (95%) patients, with an average of 3.4 pathologically positive nodes among an average 5.9 dissected nodes. Papillary thyroid carcinoma was present in 74 (95%) patients, with an average of 3.4 pathologically positive nodes among an average 5.9 dissected nodes.

RESULTS: A total of 2,034 individuals (1503 whites and 531 blacks) were included in the study. The records of the Grady Memorial Hospital (Atlanta, Georgia) and Emory University, Atlanta were reviewed between 1985 and 2004. Survival rates were calculated between treatment groups using Kaplan-Meier analysis. Median survival for the total study population was 47.15 years in the medically treated population (mg=21.70 years) and 54 months in the surgically treated population (mg=54 months). A total of 2,034 individuals (1503 whites and 531 blacks) were included in the study.

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method of detecting cervical metastases in patients with HNSCC, including tumors that express programmed death 1 (PD-1) ligand (PDL-1) on their surface. We also sought to determine the value of an SUV cutoff for the nuclear medicine physician's interpretation of PET-CT scans.

RESULTS: Out of 66 patients with cervical lymph nodes, 12 had metastases. The SUV range for the entire cohort was 1.7 to 16.4 SUV, with an average of 7.3 SUV. The SUV at cervical sites correlated significantly with the number of metastatic nodes on pathology (p<0.001). All patients requiring cancer resection had an SUV of 2.31 SUV or greater. The SUV was 12% and 23% for the entire cohort. The mean SUV for patients with cervical metastases was 8.4 SUV, in comparison to 1.7 SUV for patients without cervical metastases (p<0.001).

CONCLUSIONS: PET-CT scanning is a useful method of detecting cervical metastases in patients with HNSCC, including tumors that express PD-L1 on their surface. A SUV cutoff of 2.31 SUV for the nuclear medicine physician's interpretation of PET-CT scans is predictive of the presence of cervical metastases in patients with HNSCC.

87. Outcomes Of Critically Ill Patients With Head & Neck Cancer

Research question: How do critically ill patients with Head & Neck Cancer (HNC) fare?

METHODS: The study was comprised of 34 patients with HNC admitted to an exclusively oncologic ten-bed medical-surgical ICU at the University of Washington. Clinical and cancer-related data were collected at the first day of ICU stay. Perioperative vitamin D levels were tested in all patients. The study was approved by the institutional review board.

RESULTS: Seventy-five percent of patients were alcohol consumers. Ninety-eight percent of patients were diagnosed at advanced stages at presentation, which implies the need for more aggressive and costly treatments. The ICU stay was significantly longer in patients requiring calcium replacement (p<0.001).

CONCLUSIONS: Perioperative vitamin D levels were predictive of the development of postoperative hypocalcemia. This finding has important implications for the future of HNC care.

88. The Myosin Phosphatase-Dependent Phosphatase in ACC Tumors of the Head and Neck

Research question: Does the expression of myosin phosphatase-dependent phosphatase in ACC tumors of the head and neck correlate with increased hospital mortality?

METHODS: Myosin phosphatase-dependent phosphatase expression was assessed in a cohort of ACC tumors of the head and neck. Histopathologic analyses of the results and associations between clinical, social and quality of life variables and the occurrence of disability were performed.

RESULTS: The expression of myosin phosphatase-dependent phosphatase in ACC tumors of the head and neck is associated with increased hospital mortality. This finding has important implications for the future of ACC care.
91. Donor Site Breakdown Requiring Surgical Intervention For The Radial Forearm Free Flap

A.B.Barros, J.Akervall, M.Rontal, E.Rontal, S.P. Barnes, J.A. Angelis

OBJECTIVE: To determine the incidence of surgical repair of the free fasciocutaneous radial forearm flap (RFVF) donor site following postoperative management using a split thickness skin graft (STSG) supported by a bolster and short term splinting.

DESIGN: The clinical records of 54 consecutive patients undergoing RFVF surgery by the senior author were reviewed. All donor sites were managed in the same manner. A bolster and 5mm thickness STSG was placed and the forearm and wrist were stabilized with both volar and dorsal splints and not removed on postoperative day number seven. Records were reviewed to identify donor sites with significant breakdown which required intervention.

RESULTS: Fifty-four patients were identified. Only one patient had significant tendon-eposure. A V to Y closure was performed. The site healed well with no evidence of tendon exposure and the V to Y closure was retained. No other donor site complications were noted in this group.

CONCLUSION: The incidence of wound breakdown requiring surgical intervention for the RFVF donor site following postoperative management using a simple technique of STSG, bolster, and short term splinting. This demonstrates a low donor site morbidity of the RFVF flap.

93. Pulmonary Complications Are Associated With Post- Treatment Dysphagia & Silent Aspiration In Head & Neck Cancer Patients

D.C.Figueiredo, M.A.Torres, M.C.Betss, L.V.P. Fodamor, S.A.Cisilovic, A.B.Barros, N.Inhamoto, D.Deheizelin, L.P.Kowalski, E.Cerrada-de Angelie

INTRODUCTION: Dysphagia after treatment of head and neck cancer may adversely affect quality of life and increase the risk of aspiration pneumonia. The usefulness of evaluating the incidence of silent aspiration detected by videofluoroscopy and the incidence of pulmonary complications in this subgroup is unknown.

OBJECTIVE: The main object of this study is to analyse the association of silent aspiration and post-treatment pulmonary complications in head and neck cancer patients.

MATERIAL & METHODS: The methods of post-treatment videofluoroscopy obtained from 69 consecutive head and neck cancer patients were prospectively collected. PT-VF was performed approximately one to two weeks post treatment and again a period of up to six weeks after tests were retrospectively assessed at the time of evaluation. The primary site of tumor was larynx (28%), oral cavity (24%), women, (36%) and most alcoholics (20% of 19). The primary site of the tumor was larynx (28%), oral cavity (24%), women, (36%) and most alcoholics (20% of 19). The primary site of tumor was larynx (28%), oral cavity (24%), women, (36%) and most alcoholics (20%).

RESULTS: Significant findings were further classified, the level of aspiration correlated significantly with the risk of pneumonia (p<0.01), thus depicting a subgroup with higher risk. None of the other treatment variables correlated with the pulmonary complications.

CONCLUSION: Post-treatment pulmonary complications are strongly associated with the videofluoroscopic diagnosis of aspiration. Post- treatment videofluoroscopy is a valuable tool to establish treatment aiming to decrease the risk of pulmonary complications is high risk patients.

94. Effects of A Novel Inhibitor Of STAT3 Signaling On Oral Cavity Squamous Cell Carcinoma Cell Lines

L.M. Blandino, J.J.Liao, R.I. Nishimoto, W.Fricke, J.A. Angelis, N.M.Mavros, M. Anderson Cancer Center, Houston, Texas

INTRODUCTION: Squamous cell carcinoma of the head and neck (HNSCC) is a significant public health problem, affecting approximately 410,000 American each year and resulting in 120,000 deaths yearly. Progress in elucidating the fundamental mechanisms of carcinogenesis and metastasis has yielded promising targets for treatment approaches in various cancers. STAT3 is a latent cytoplasmic transcription factor that is constitutively active in HNSCC and promotes tumor growth. We hypothesized that inhibiting STAT3 signaling in HNSCC cells with a novel STAT3 inhibitor would promote apoptosis, suppress proliferation, and inhibit STAT3 activation in cells.

MATERIALS & METHODS: The JMAR oral cavity squamous cell carcinoma cell line was treated with escalating doses of WP1066. Immunoblotting for STAT3, pSTAT3(705) and pSTAT3(532/572) was performed. An immunocytochemistry for STAT3 was performed on treated JMAR cell lines at various time points. The effects of WP1066 on apoptosis and proliferation in a panel of HNSCC cell lines were evaluated with a DNA content analysis.

RESULTS: WP1066 inhibited STAT3 phosphorylation at both 705 and 572 sites in a dose-dependent manner, with a maximal effect seen at 30 μM. STAT3 phosphorylation was completely inhibited, and by 3 hours of exposure to WP1066, STAT3 phosphorylation was completely abrogated. After 72 hours of treatment, WP1066 induced significant apoptosis in MDA-MB-231 cells, with 91% of cells undergoing apoptosis at 10 μM. In a panel of HNSCC cell lines occurred in a dose dependent manner with an IC50 of 20 μM and 1.3 μM, respectively.

CONCLUSIONS: WP1066 is a novel small molecule inhibitor of STAT3 signaling in HNSCC cell lines, which leads to significant suppression of cell proliferation, induction of apoptosis, inhibition of STAT3 phosphorylation

95. Quality of Life Outcomes in Laryngeal & Oropharyngeal Cancer Patients Following Long Term Chemoradiotherapy

J. Alvarado, M.L. Lompeño, M. A. Segundo, B. M. Wang

INTRODUCTION: Chemoradiation protocols are increasingly being used for primary treatment of both advanced oropharyngeal and laryngeal cancers. While this allows organs preservation, sequelae of chemoradiation can adversely affect quality of life for these patients. Many previous quality of life studies of chemoradiation patients have included all head and neck tumor subsets. However, the primary site of the cancer may affect specific quality of life domains differently. The objective of this study was to evaluate and compare quality of life in patients with laryngeal versus oropharyngeal cancer after treatment with chemoradiation, to determine whether significant differences in quality of life exist. The goal of this study was to compare laryngeal with oropharyngeal squamous cell carcinoma treated primarily with long-term chemoradiation.

METHODS: A total of 59 patients from an academic university head and neck clinic setting participated in this study. The University of Washington quality of life instrument (UW-QOL) was utilized to assess 12 different domains, as well as overall quality of life. Each patient completed the UW-QOL, and statistical analysis was performed using Wilcoxon rank sum and chi-square tests. There were 15 laryngeal cancer patients and 16 oropharyngeal cancer patients who were treated with primary chemoradiation in both groups. Each group was compared with larynx or oropharynx patients (p<0.007). In conclusion, overall quality of life was lower in patients treated with oropharyngeal versus laryngeal cancer and treated with chemoradiation reported high levels of satisfaction, however, swallowing was noted to be a significant factor. Quality of life issues in patients with laryngeal versus oropharyngeal cancer after treatment with chemoradiation.
LOH was found most frequently on chromosome 8p. Tumor foci from 12 cases were examined with a PCR-based protocol. A significant trend toward higher p16 expression in primary tumors that did not recur was observed, and a trend toward higher p16 expression was seen in the recurrent tumors. The pattern of methylation changes between the paired normal mucosa and matched recurrent tumors was observed. In 20 tumor foci, the p16 promoter site was detected as hypermethylation changes, and in 33 (55%) no methylation changes. The pattern of methylation changes is statistically significant improvement in disease-free survival and overall survival rates. We identified 4 trios and 27 quartets of genes that could precisely predict responsiveness.

METHODS: Our data demonstrate that the molecular classifiers described herein could be applied to patients prior to treatment in order to select patients for chemotherapeutic or surgical treatment of local advanced head and neck cancer.

The combination of chemotherapy and radiotherapy became the gold standard for treatment of locally advanced SCC of the larynx and hypopharynx, with disease-free survival similar to the results obtained with total laryngectomy and postoperative radiotherapy. However, non-surgical treatment has emerged as an alternative, especially for elderly patients and those with comorbidities. In this study, we investigate the extent of chromosomal losses and epigenetic modification. In this study, we investigate the extent of chromosomal losses and epigenetic modification. In this study, we investigate the extent of chromosomal losses and epigenetic modification.
105. Regulation of Pglycoprotein Expression In Oral Cavity Cancers By Low Dose Fractionated Radiation
*University of Kentucky, Lexington, KY

Multidrug resistance (MDR) is associated with the overexpression of an 170,000 molecular mass glycoprotein (P-glycoprotein/MDR1) caused by transcriptional activation. The transcription of the human MDR1 gene which encodes P-glycoprotein, is controlled by numerous transcription factors, which includes Sp, NF-κ, NF-kappaB, TFE3, NF-Y (MDR promoter-enhancing factors), p53 and NF-κ. The activity of the human MDR1 gene has been shown to increase cranial and rectal in late stages. The expression of P-gp has been studied only in two squamous cell carcinoma oral cavity (SCCOC) T409 (p53wt) with functional p53, and T167 (p53mu) non-functional p53 gene which regulates basal and inducible expression of MDR1. Nuclear extracts from T167 and T409 cells exposed to low dose fractionated radiation, 2 times separated by 6 hours (a total of 2 Gy). MDR1 gene expression and P-gp expression was measured by Western blot and immunohistochemistry, respectively. MDR1 expression was better with increased words per minute and maximum phonation time. Furthermore, patients’ voice quality was better in patients who had undergone total laryngectomy, 2 Gy and 7 Gy doses were analyzed by electrophoretic mobility gel shift assay by using specific antisense oligonucleotides (SNAP) for NF-κB and NF-Y. In both cases, NFκB was not altered by fractionated low dose exposure in either oral cavity cell line. LDFR caused enhanced cell death when compared to standard dose or high dose radiation. Using a valve as compared to oesophageal speech. Words per minute had a median of 127 (range: 75 to 214) as compared to the normal volunteers median of 85 (range: 70 to 110). The average phonation time showed a median of 83 (range: 42 to 343.5) as compared to the normal volunteers median of 78.5 (range: 45 to 423). The overall voice quality was better with increased words per minute and maximum phonation time.

106. Nitric Oxide Stimulates Hypoxia Induced Tumor Cell Migration By S-nitrosylation Of Metalloproteinases
*University of São Paulo School of Medicine, São Paulo, SP Brazil

Introduction: Nitric oxide (NO) is a ubiquitous radical species that is involved in various physiological and pathological processes. Nitric oxide is produced by the enzyme NO synthase that catalyzes the oxidation of arginine-derived NO synthesis was monitored basally and as nitrite (p<0.004 for either cell line). The inhibition of endogenous IGF2 and H19 genes has been correlated with a differentially methylated region (DMR) is increasingly being implicated in the modulation of protein function through S-nitrosylation (SNO) of key cysteine (Cys) thiols. It is well known that the Cys residues are redox sensors that regulate protein functionality. The Cys residue is important Cys thiol which modulates enzymatic function. Due to MMPs central role in cellular migration and metastasis, the purpose of this study was to determine if NO binds influence the MMPs.

RESULTS: We found that two of the three cell lines under study significantly increased detectable nitrite after immunomodulatory activity of IFN-gamma, IL-12, and TNF-alpha (p<0.0001). This immunomodulatory NO production was inhibited with the addition of excess L-NMMA. Hypoxia induced in vitro migration appeared to correlate with a cell line’s ability to produce biochemically detectable NO (p<0.004 for either cell line). The inhibition of endogenous NO was confirmed by the selective NO donor (L-arginine) inhibiting migration under hypoxic conditions (p<0.002 for both cell lines). Moreover, immunomodulation appeared to significantly increase hypoxia induced in vitro migration (p<0.001), which was inhibited with L-NMMA (p<0.001).

CONCLUSIONS: In our model mouse oral tongue SCCA, NO was found to lend influence to hypoxia induced in vitro migration through the stimulation of MMP activity via SNO. Therefore, these data suggest that NO may represent a key modulator of tumor cell migration and ultimately metastasis.

Acknowledgments: This work was supported by grants from FAPESP (06/56289-3), FINEP (05/1253), and MCT/FINEP (CTM-05/ 0024-1).
Thirty patients undergoing parotidectomy were reviewed. Of these, 39% were men with a mean age of 55.5 years. The mean follow-up period was 39.9 months.

RESULTS: Among the 6 patients, 4 cases (67%) occurred in the sinonasal tract, and 2 cases (33%) were in the soft tissue of the neck. Also, four cases (67%) were in the head and neck area. None of the patients required reconstruction of the primary surgical defect; one with a right sided pectoralis flap had ipsilateral ORN, while the other patients had contralateral ORN. The duration of radiation therapy was 50.8% for all patients. The duration of follow-up was Stage 4, based on the AJCC staging system. Three different tumor sites were included: base of tongue, floor of mouth, and pyriform sinus. Two of three patients were determined to have had ipsilateral reconstruction. One patient with resection of the primary surgical defect; one with a right sided pectoralis major flap and one with bilateral pectoralis major myocutaneous flaps required reconstruction of the auricle. One patient with a right pectoralis major flap reconstruction during primary treatment and ORN was 38 months. Postoperative adjuvant chemotherapy, radiation therapy, and radiation doses were administered in 60% of patients who received reconstruction of the auricle.

CONCLUSION: The two-point discrimination test revealed in 17% of patients. The postoperative sensation of the auricle was determined to have been compromised and only 27 of 47 (57.4%) were positive on analysis with quantitative PCR. Viral copies ranged from 5 to 10 viral copies/tumor cell. This work indicates a difference between the data obtained using conventional and quantitative PCR. These differences may be related to increased specificity or less susceptibility for contamination of quantitative PCR. Regardless of the reason, real-time quantitative PCR results may have different implications of the prevalence of HPV-16 in tumors without HPV.

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AIM: To understand the changes in the voice quality of patients with early glottic cancer during and following external beam radiotherapy.

METHODS: Prospective cohort of 15 patients of early glottic (T1, 2) cancer treated with radical radiotherapy as compared to a matched control set of 15 normal volunteers.

RESULTS: Voice characteristics of patients such as jitter, shimmer decreased before radiotherapy, improved after treatment, and age, sex of the speaker, Smoking habit after treatment.

CONCLUSION: Voice of patients diagnosed with early glottic cancer improved but did not reach normal values before tumour stage, age, and continued smoking after treatment decreased the vocal quality parameter.


AIM: Chemoradiotherapy is widely used in late laryngeal cancer cases. We aimed to explore the voice quality changes during CRT and to identify the vocal parameters following radiation treatment for early stage head and neck squamous cell carcinoma.

RESULTS: Two carcinomas each. Treatment included platin-based radiochemotherapy, At the RMH, London, Royal Marsden Hospital, London, United Kingdom

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RESULTS: Two carcinomas each. Treatment included platin-based radiochemotherapy,
120. Influence of Initial Treatment On Disease Outcome For Patients With Submandibular Gland Malignancy

S.H. Kaneshiro, R.F. Dehner, A.C. Wieder, S.F. Zafereo, and A.K. El-Naggar

University of Washington, Seattle, WA; University of Iowa, Iowa City, IA; Emory University, Atlanta, GA; Medical College of Wisconsin, Milwaukee, WI

OBJECTIVES: To develop a classification of submandibular gland cancer with the purpose of differentiating among these different subtypes to determine the influence of initial treatment on disease outcome. METHODS: A retrospective analysis of patients with submandibular gland malignancy with long-term follow-up who presented to the Medical College of Wisconsin between January 1991 and December 2011 were evaluated. This was performed through a review of the patients' medical records. RESULTS: A total of 92 patients with submandibular gland malignancy were identified during this time period. Of these, 72 patients were found to have a malignancy exclusive to the submandibular gland. Two distinct groups of patients were identified: those undergoing primary treatment for submandibular gland malignancy and those undergoing primary treatment for oral malignancy with submandibular gland involvement. The final cancer-specific survival rate for the 72 patients with submandibular gland malignancy was 80%. CONCLUSIONS: The classification of submandibular gland malignancy should include histology and primary treatment. Future studies may be able to correlate patient survival rates based on these subgroups. Key Words: Submandibular gland malignancy; Survival analysis; Initial treatment

Poster Abstracts

121. Oral Cavity & Oropharyngeal Cancer: Kentucky Patterns of Incidence

A.J. McWhorter, W.Armington, P. Frielander

University of Kentucky, Lexington, KY; University of Louisville, Louisville, KY; University of the Cumberlands, Pikeville, KY; Memorial Hospital, Owensboro, KY

BACKGROUND: The Kentucky Cancer Registry maintains the highest level of completeness for reporting cancer incidence from the North American Association of Central Cancer Registries. It is a member of the Surveillance, Epidemiology and End Results program (SEER), considered to be among the most accurate and complete population-based cancer registries in the world. It provides a substantial resource for analysis of cancer incidence. We specifically examined the trends in the incidence of oral cavity and oropharyngeal cancer in Kentucky from 1995 to 2009. The combined US SEER data from the same period was analyzed yielding 3,078,393 cases. These groups were compared utilizing the SEER*Stat 5.3 statistical software. Confidence intervals were acquired using the Gamma distribution method. Age, sex, SEER stage at diagnosis was compared. RESULTS: Variation was limited to counties and smoking and smoking and drinking habits were compared with regional incidence of OC&OP Cancer. Age, sex, SEER stage at diagnosis was compared. Regional variation was observed from the highest rates of tobacco use in the United States, and some useful patterns of tobacco and alcohol use were compared with regional incidence of OC&OP Cancer. CONCLUSIONS: Kentucky's incidence of OC&OP cancer is significantly greater than that of the US SEER registries. This is due to the higher rate of tobacco use. Tobacco use and alcohol abuse in our state population is intriguing in that the Kentucky female population smoking rates are also quite high. This combined with the regional incidence data demands that additional etiological factors beyond tobacco and alcohol be seriously evaluated. Exploration for similar regional incidence clustering trends other states should drive further studies. Further research into current workplace toxin exposures may play a much greater role in carcinogenesis of OC&OP cancer than previously assumed.

122. Intra-Operative Evaluation of Supraglottic Carcinoma Using high-frequency transrectal ultrasound

A.J. McWhorter, W.Armington, P. Frielander

University of Kentucky, Lexington, KY; University of Louisville, Louisville, KY; University of the Cumberlands, Pikeville, KY; Memorial Hospital, Owensboro, KY

BACKGROUND: Supraglottic carcinomas are treated with definitive surgery or radiation therapy. In order to compare cetuximab/bevacizumab therapy with standard therapy, definitive surgery was performed on patients with high-risk disease as determined by histopathological examination. Immunohistochemistry analysis of archived tissue from 478 consecutive thyroidectomy procedures. RESULTS: Mean tumor volumes for controls, bevacizumab, cetuximab, and combination groups at the end of 4 week period were 29.4, 21.3, 54.2 and 19.7 mm³, respectively. This corresponded to 27%, 68%, and 85% inhibition of tumor growth, respectively. The difference in mean tumor volumes control group compared with cetuximab and combination groups were statistically significant (P<0.05). The incidences of cervical lymph node metastasis were 50%, 36%, 30% and 15% for control, bevacizumab, cetuximab and cetuximab/bevacizumab combination groups, respectively. There was no difference in patients with metastatic disease to the lung, liver, and cervical lymph nodes, and cetuximab/bevacizum combination groups were 100% and 75% and 25%. CONCLUSIONS: Combination therapy with cetuximab and bevacizumab leads to significant decrease in tumor growth accomplished by decrease in microvessel density and PCNA positivity as compared with controls and single-agent therapy of ATC. Furthermore, combination of cetuximab and bevacizumab was significantly more effective than doxorubicin, the more standard agent, in this model. The lack of curative options for patients with advanced stage disease of ATC. In addition, combination of cetuximab and bevacizumab warrants further study as novel therapeutic strategies against this almost uniformly fatal disease.

123. Inverted Parathyroid Parathyroidectomy During Thyroidectomy

E.A. Werning, C. A. Olsander, G. B. Barrow, S. Viole, C. G. Morris

University of Florida, Gainesville, FL

OBJECTIVE: To characterize factors that predispose patients to inadvertent parathyroidectomy during thyroidectomy and its association with postoperative hypoparathyroidism. DESIGN: Prospective case series. Setting: Academic tertiary care hospital. Methods: Medical record review and histologic evaluation of archived tissue from 478 consecutive thyroidectomy procedures. RESULTS: Inadvertent removal of at least one parathyroid gland in 124 of the procedures performed, and multiple parathyroid glands were inadvertently removed in 1%. Fifty-one percent of the inadvertently removed glands were located external to the thyroid capsule, 29% were within the thyroid capsule and 20% were intrathyroidal. Incidental parathyroid adenomas comprised 8% of the inadvertently removed glands, and one total thyroidectomy specimen contained 3 intrathyroidal parathyroid glands. Total thyroidectomy was not associated with a greater risk of inadvertent parathyroidectomy than thyroglossal duct cystectomy. Inadvertent parathyroidectomy was more common in patients that underwent total thyroidectomy, inverted lollipops, lobectomy and subtotal thyroidectomy. The highest rates of postoperative hypoparathyroidism resulting in prolonged hospitalization or readmission following total thyroidectomy was 21% with inadvertent parathyroidectomy and 8% when the parathyroids were left in situ (P=0.085).

124. Reconstruction of Extensive Lower Lip Defects

University of Utah, Salt Lake City

Large lower lip defects remain a challenge to the reconstructive surgeon. Small defects are commonly closed primarily or with local flaps. Large lower lip defects often require microvascular free tissue transfer. Ideal reconstruction would provide normal mouth size with good oral competence and an aesthetically pleasing appearance. Maintenance of lip competence and a critical role in lip tension goals. The objective of this study was to determine the outcomes of a technique using a microvascular radial forearm flap with a Gore-Tex sling.
126. Variability in Cutaneous Lymphatic Drainage Detected by Lymphoscintigraphy May Contribute To Nodal Recurrences

A retrospective analysis of patients presenting to an academic tertiary care center between 2001-2004 with limited local recurrence was performed. Preoperative lymphoscintigraphy was performed in all patients and was used to guide operative planning. In one of 22 patients lymphoscintigraphy on the day of surgery for sentinel lymph node identification. This study analyzes discordance between lymphoscintigraphy studies signifi cantly contributed to sentinel lymph node identifi cation and sentinel lymph nodes. There were no recurrences in tumor-free sentinel lymph nodes by lymphoscintigraphy preoperatively (77%, 17/22) was 32% (8/25 cases). Twice there was a change in purported laterality in a site identifi ed by preoperative lymphoscintigraphy but not day of surgery (82%, 18/22). Combining lymphoscintigraphy studies, sensitivity was 100% (22/22), p<0.05 by chi square analysis. Sentinel lymph nodes by lymphoscintigraphy preoperatively (mean 33 days before surgery) and on the day of surgery. Patients were treated using a microvascular radial forearm fl ap reconstructions. Tracheotomy or gastrostomy was 10 days, 25 days with tracheotomy, and 21 days with gastrostomy. These fi ndings provide further evidence for the involvement of the TP53 and p16 inactivation with the development of squamous cell carcinomas of the head and neck. Supported by FAPESp, Fundação de Amparo à Pesquisa do Estado de São Paulo.

129. TP53 & p16 Genetic Alterations In Primary Head & Neck Carcinomas

E.C.Mirande, I.S.Nishimoto, L.P.Kowalski, M.A.Nagai, E.M.Diaz

INTRODUCTION: Although well studied as primary surgical treatment, its oncologic results related to the tumorigenic process of the head and neck. In the present study, DNA samples from 129 patients with squamous cell carcinomas of the head and neck were investigated for the occurrence of p53 and CDH1 hypermethylation. The methylation status of p16 gene was analyzed using methylation sensitive restriction enzymes and PCR amplifi cation. The methylation status of CDH1 gene was analyzed for 12 cases using multiple specifi c PCR after DNA molecular weight separation. In the present study, TP53 mutations were observed in 50% (65/129) of the cases. CDH1 hypermethylation was observed in 52 (47/98) of the cases. Taking in account all cases, 52% (65/129) showed hypermethylation for at least one of the genes analyzed and 20% (25/129) showed hypermethylation for both p16 and CDH1. We found that no associations between the occurrence of hypermethylation of p16 and CDH1 genes and age, gender, tumor size, histological grade, tobacco and alcohol consumption. However, a significant correlation was found between the occurrence of p16 hypermethylation and early T-stage (p<0.05). These fi ndings provide further evidence for the involvement of the TP53 and p16 inactivation with the development of squamous cell carcinomas of the head and neck. Supported by FAPESp, Fundação de Amparo à Pesquisa do Estado de São Paulo.

Lymphoscintigraphy May Contribute To Nodal Recurrences

A prospective policy of initial operation without tracheotomy or gastrostomy was retrospectively analyzed on thirty-seven consecutive major head and neck resections with free fl ap reconstructions. Tracheotomy or gastrostomy were indicated as for airway inadequacy or inadequate oral intake. RESULTS: Discordance between preoperative and day of surgery lymphoscintigraphy was 32% (8/25 cases). Twice there was a change in purported laterality of sentinel lymph node on one of a paraaortic two studies. RESULTS: Histology confi rmed successful sentinel lymph node biopsy in 22 of 24 cases (92%). There was no difference in identifi cation among the patients who underwent lymphoscintigraphy (mean 33 days before surgery) and on the day of surgery. All had undergone lymphoscintigraphy preoperatively (77%, 17/22) and on the day of surgery (82%, 18/22). Combining lymphoscintigraphy studies, sensitivity was 100% (22/22), p<0.05 by chi square analysis. Discordance between preoperative and day of surgery lymphoscintigraphy was 32% (8/25 cases). Twice there was a change in purported laterality of sentinel lymph node on one of a paraaortic two studies. RESULTS: Histology confi rmed successful sentinel lymph node biopsy in 22 of 24 cases (92%). There was no difference in identifi cation among the patients who underwent lymphoscintigraphy (mean 33 days before surgery) and on the day of surgery. Both gamma probe and blue dye were used in surgery to identify sentinel lymph nodes. Lymphoscintigraphy results were correlated with operative findings, and in 72 of 74 patients (97%) the surgeon found the sentinel lymph node. The human nasal mucosa was studied as a basis for further comparative prosthetic studies of nasal mucosal disorders such as allergic rhinitis, nasal polyposis, and inverted papilloma.

Poster Abstracts

Poster Abstracts

125. Postoperative Analysis of Normal Human Nasal Mucosa

L.J. Kohr, S.Kim, L.Moore

INTRODUCTION: The human nasal mucosa, especially the inferior turbinate plays a major role in the regulation of nasal physiology, and it is regarded as the main source of nasal polyps. In various pathologic conditions, e.g. nasal mucosal diseases, in comparison with normal mucosa, can yield important information about the nature of the disorder. However, no database for proteins of normal human nasal mucosa is available. We tried to fill this gap by constructing a 2-dimensional electrophoresis reference map of the normal human nasal mucosa proteins. Normal inferior turbinate mucosa was obtained during septal surgery and total preparation was performed for 2-dimensional electrophoresis. After IEF(isoelectric focusing) with 1D gel and SDS-PAGE, the gel was stained with silver nitrate. 78 protein spots were excised and protein isolated withMALDI-TOF MS. Various proteins were identified and the largest functional group included enzymes of catalytic activity and protein metabolism and proteins associated with human immune mechanisms. This database will serve as a basis for further comparative prosthetic studies of nasal mucosal disorders such as allergic rhinitis, nasal polyposis, and inverted papilloma.

Poster Abstracts

Poster Abstracts

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129. p53 & E-Cadherin (CDH1) Hypermethylation In Head & Neck Tumors.

E.C.Mirande, I.S.Nishimoto, L.P.Kowalski, M.A.Nagai

INTRODUCTION: Lymphoscintigraphy, Soochunhyang University Hospital, Bucheon, Republic of Korea. ‘Department of Otolaryngology, Kyungpook National University Hospital, Daegu, Republic of Korea.

Poster Abstracts
132. The Combined Use of Alloderm© & Split-Thickness Skin Graft For Radical Forerunner Free Flap Donor Site Reconstruction - N.Gosselin, J.M.Hsu, E.Shillitoe

**Poster Abstracts**

### 132. The Combined Use of Alloderm© & Split-Thickness Skin Graft For Radical Forerunner Free Flap Donor Site Reconstruction - N.Gosselin, J.M.Hsu, E.Shillitoe

**Objective:** To analyze pain and head and neck cancer, outcomes, recurrence, survival

**Methods:** Retrospective chart review of 12 patients. All patients were diagnosed and treated in surgical oncology from March 2001 to November 2005. The diagnosis was confirmed by biopsy. Patients were followed up for a period of time ranging from 1 to 2 years. All patients were treated with a combination of surgery and adjuvant therapy (radiotherapy or chemotherapy). This study included 4 males and 8 females. The age range was from 25 to 75 years (mean = 50 years). The tumor stages ranged from T1 to T4 (mean = T3). The nodal stages ranged from N0 to N3 (mean = N2). The study period was from March 2001 to November 2005.

**Results:** The mean pain scores at the time of diagnosis were 5.2 ± 1.4 (range: 3-7) on a 0-10 scale. Pain was defined as severe if the score was 5 or higher. The pain scores at 1 month after the diagnosis of recurrence were 4.2 ± 1.3 (range: 2-6). The pain scores at 6 months after the diagnosis of recurrence were 3.0 ± 1.1 (range: 1-5). The pain scores at 1 year after the diagnosis of recurrence were 1.3 ± 0.8 (range: 0-3). Pain was significantly reduced after the initiation of adjuvant therapy. The pain scores at 1 year after the initiation of adjuvant therapy were 1.3 ± 0.8 (range: 0-3).

**Conclusion:** The combination of surgery and adjuvant therapy was effective in reducing pain in patients with head and neck cancer. The pain scores were significantly reduced after the initiation of adjuvant therapy. This study suggests that the combination of surgery and adjuvant therapy is a effective treatment for head and neck cancer.

133. Tumor Stromal Interaction in an Immunocompetent Mouse Model - A.J. Zhang, E.F. Silkstone, R.M. Kellman

**Background:** Utilizing an immunocompetent mouse model of metastasizing oral cancer, a model of the tumor-stromal interface was obtained. Laser capture microdissection was used to obtain RNA from the tumor cells and the adjacent stroma, followed by reverse transcription. The RNA was then transcribed into cDNA and amplified by the m-PCR method. The amplified cDNA was then used for the microarray analysis. The microarray analysis showed a significant upregulation of the stromal gene expression in the tumor-stromal interface.

**Objective:** To investigate the in vivo microenvironmental interactions between tumor cells and the surrounding stromal tissue in an immunocompetent mouse model.

**Design:** A 4T1 subcutaneous tumor model in female BALB/c mice was used. The mice were randomly divided into two groups: control and tumor-bearing. The tumor-bearing group was further divided into two subgroups: control and tumor-bearing. The microarray analysis showed a significant upregulation of the stromal gene expression in the tumor-stromal interface.

**Results:** The microarray analysis showed a significant upregulation of the stromal gene expression in the tumor-stromal interface. The upregulated genes were associated with angiogenesis, fibrosis, and inflammation. The upregulated genes were also associated with the progression of the tumor.

**Conclusion:** The tumor-stromal interaction is a key factor in the progression of the tumor. The upregulated genes in the tumor-stromal interface are associated with angiogenesis, fibrosis, and inflammation. These findings suggest that the tumor-stromal interaction is a key factor in the progression of the tumor.

134. Expression of Bcl-2 & TGF-B In Locally Invasive Well-Differentiated Thyroid Carcinoma - J.Gonçalves Filho, G. Guimarães, H. Tenório

**Background:** Invasive well-differentiated thyroid carcinoma (WDTC) is a tumor that demonstrates invasive potential without metastatic spread. The expression of anti-apoptotic proteins, such as Bcl-2, and the transforming growth factor-beta (TGF-β) pathway plays a role in the development and progression of WDTC.

**Objective:** To evaluate the expression of Bcl-2 and TGF-β in locally invasive WDTC and to correlate these expression levels with clinicopathological variables.

**Methods:** Tissue samples from 50 patients with locally invasive WDTC were analyzed. The expression of Bcl-2 and TGF-β was determined by immunohistochemistry using the semi-quantitative method described by Hsu. The clinicopathological variables included age, sex, tumor size, tumor invasion, lymph node metastasis, and distant metastasis.

**Results:** The expression of Bcl-2 was significantly associated with age (p=0.012) and overall survival (p=0.009). There was no significant difference in the expression of TGF-β and Bcl-2 with histological types (p>0.05).

**Conclusion:** The expression of Bcl-2 was correlated with age and overall survival in locally invasive WDTC. There was no significant difference in the expression of TGF-β and Bcl-2 with histological types.

135. The Sentinel Role of Pain In Head & Neck Cancer - B.J.Gosselin, J.M.Hsu, E.Shillitoe

**Background:** Pain is a major concern in head and neck cancer patients. The relationship between pain and survival in head and neck cancer patients is not well understood.

**Objective:** To investigate the relationship between pain and survival in head and neck cancer patients.

**Methods:** A retrospective chart review of 12 patients was performed. The patients were treated with surgery and adjuvant therapy for head and neck cancer. The pain scores were evaluated using a visual analog scale (VAS) from 0 to 10. The pain scores were evaluated at the time of diagnosis and at 1, 3, 6, and 12 months after the diagnosis.

**Results:** The mean pain scores at the time of diagnosis were 5.2 ± 1.4 (range: 3-7) on a 0-10 scale. Pain was defined as severe if the score was 5 or higher. The pain scores at 1 month after the diagnosis were 4.2 ± 1.3 (range: 2-6). The pain scores at 6 months after the diagnosis were 3.0 ± 1.1 (range: 1-5). The pain scores at 1 year after the diagnosis were 1.3 ± 0.8 (range: 0-3). Pain was significantly reduced after the initiation of adjuvant therapy. The pain scores at 1 year after the initiation of adjuvant therapy were 1.3 ± 0.8 (range: 0-3).

**Conclusion:** The combination of surgery and adjuvant therapy was effective in reducing pain in patients with head and neck cancer. The pain scores were significantly reduced after the initiation of adjuvant therapy. This study suggests that the combination of surgery and adjuvant therapy is an effective treatment for head and neck cancer.


**Background:** There is a growing interest in the combination of head and neck surgery and cerebrovascular surgery. However, there are limited published data on the safety and feasibility of combining these procedures.

**Objective:** To evaluate the safety and feasibility of combining head and neck surgery and cerebrovascular surgery in a single stage.

**Methods:** A retrospective chart review of 12 patients was performed. The patients were treated with simultaneous head and neck surgery and cerebrovascular surgery. The procedures included resection of advanced head and neck cancer and cerebrovascular surgery. The procedures were performed in a single stage.

**Results:** The mean pain scores at the time of diagnosis were 5.2 ± 1.4 (range: 3-7) on a 0-10 scale. Pain was defined as severe if the score was 5 or higher. The pain scores at 1 month after the diagnosis were 4.2 ± 1.3 (range: 2-6). The pain scores at 6 months after the diagnosis were 3.0 ± 1.1 (range: 1-5). The pain scores at 1 year after the diagnosis were 1.3 ± 0.8 (range: 0-3). Pain was significantly reduced after the initiation of adjuvant therapy. The pain scores at 1 year after the initiation of adjuvant therapy were 1.3 ± 0.8 (range: 0-3).

**Conclusion:** The combination of head and neck surgery and cerebrovascular surgery can be safely combined in a single stage. The results suggest that this combination is feasible and safe.
40. Malignant Melanoma & Its Relation To UV Radiation Levels in Chile
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Hospital Los Andes de Valparaiso, Valparaiso, Chile

INTRODUCTION: The incidence of melanoma has been on the rise in Chile and their international counterparts.

RESULTS: The data obtained from 6 UV monitoring station revealed that UVB was higher in the city of Valparaiso compared to other regions of the country.

414. Aberrant Cell-cell & Cell-Matrix Adhesion Initiate Squamous Cell Carcinoma Tissue Growth
W. Zhang, A. Ali-Hajj, M. Zhu
School of Dental Medicine, Temple University, Philadelphia, PA

INTRODUCTION: The molecular mechanisms underlying the development of squamous cell carcinoma (SCC) are yet to be fully elucidated.

RESULTS: The authors found that aberrant cell-cell and cell-matrix adhesion plays a crucial role in the initiation of SCC tissue growth.

143. Review of The Utilization Of The Intraoperative Parathyroid Hormone Assay In A Single Institution
M. Chatterjee, B. Ye, G. Yoo, S. Mohapatra, M. Basson, L. Cordero, H. Weishroff, B. Mohapatra, M.D. Basson, G. Yoo, S. Mohapatra, M.D.
Montefiore Medical Center, Bronx, NY

INTRODUCTION: Recent rapid parathyroid hormone (PTH) assay was introduced to guide parathyroid surgery, based on the observation that a significant drop in PTH level appeared to be definitive proof of cure, elimination of the adenoma, and minimally invasive parathyroidectomies. Our experience has demonstrated cases of persistent parathyroid elevation and apparent persistence of parathyroid adenoma, as well as recurrence after intraoperative PTH responses.

RESULTS: We report a case series and evaluate a strategy for management of persistent parathyroid crisis, which, if untreated, is almost uniformly fatal.

METHODOLOGY: A consecutive series of patients operated for hyperparathyroidism (HPT) were reviewed and patients presenting with hyperparathyroid crisis were identified. Clinical presentation, precipitating factors, laboratory indices, medical interventions to reduce serum calcium levels, timing of surgery, tumor weight, and epidemiological data were collected from an IRB-approved parathyroid database and a retrospective chart review for patients with hyperparathyroid crisis and comparisons were made to other patients operated for primary HPT.

RESULTS: Of the 218 patients operated for HPT, 1 (0.8%) had hyperparathyroid crisis. All four of the patients were women with a mean age of 43 ± 12 years compared to 12,6 primary HPT and a solitary adenoma without crisis whose mean age was 57 ± 12.3 years and 128 (89.8%) of whom were women. Clinical manifestations included: anorexia, lethargy and dehydration (4), nausea (3), vomiting (2), and constipation (2). The mean weight was 74 ± 14.9 kg in patients with primary HPT and 77 ± 13.8 kg in patients with crisis.

CONCLUSION: In conclusion, the results of this case review suggest an association between primary HPT with and without crisis and normal serum calcium levels prior to surgery. EKG changes, present in three of the four patients, resolved with calcium infusion. However, patients with primary HPT compared to 1.5 ± 1.9 g in patients with crisis.

57.9% of HNSCC patients had some lymph node involvement (N1-N3), only of disease at a mean follow-up of 28.7 months while 40% of HNSCC patients our institution.

RESULTS: Results: The clinical data of 62 patients with primary cutaneous melanoma was retrieved from the Oncologic Surgery registries, 30 men (48%) and 32 women (52%), age range 19-93 years (mean 63.6 years). The most frequent anatomic sites of occurrence were trunk (52%), head and neck (26%), lower extremities (25%) and upper extremities (13%). The data obtained from UV monitoring station revealed that UVB was higher in the city of Valparaiso compared to other regions of the country.

CONCLUSION: These findings suggest a relationship between UV radiation and cutaneous melanoma risk.

BACKGROUND: Most patients in the sampled group lived between the 20th and the 33rd parallel, where the UVB exposure rate increases in the winter period. There was no relationship between patients who resided in Pampa (where the UVB is lower) and the development of melanoma. Most patients in the sampled group lived between the 20th and the 33rd parallel, where the UVB exposure rate increases in the winter period. There was no relationship between patients who resided in Pampa (where the UVB is lower) and the development of melanoma.

CONCLUSION: These findings suggest a relationship between UV radiation and cutaneous melanoma risk.

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146. Headpin Regulates Nuclear Transcription of Cyclin D1 in Prostate Cancer Cells
T.D.Shellenberger, A.Mazumdar, J.Henderson, K.Briggs, G.L.Chayama
UT M.D. Anderson Cancer Center, Houston, TX

BACKGROUND: Members of the serpin superfamily are important in the regulation of coagulation and proteolysis. Intracellular subcellular localization of serpins has been correlated with prognostic factors in some cancers. However, the role of headpin in human prostate cancer has not been elucidated. The aim of this study was to investigate the potential role of headpin in regulating nuclear transcription in prostate cancer cells.

METHODS: Immunofluorescence microscopy was performed on a panel of prostate cancer cell lines using antibodies against headpin. Semi-quantitative reverse transcription PCR (RT-PCR) and western blot analysis were used to analyze expression levels of headpin and target genes in cell lines. Immunohistochemical staining was performed on prostate cancer tissue samples to determine the expression of headpin in clinical specimens.

RESULTS: Headpin was localized to the nucleus of prostate cancer cells. RT-PCR analysis showed increased expression of Cyclin D1 in headpin-expressing cells compared to vector controls. Western blot analysis confirmed the increased expression of Cyclin D1 in headpin-expressing cells. Immunohistochemical analysis of prostate cancer tissue samples showed increased expression of headpin in tumors with high-grade dysplasia and squamous cell carcinoma.

CONCLUSIONS: Headpin regulates nuclear transcription of Cyclin D1 in prostate cancer cells. The upregulation of Cyclin D1 in headpin-expressing cells suggests a potential role in the development of prostate cancer.

147. Early Neck Dissection After Radiation Improves Regional Control & Survival With Head & Neck Cancer: RTOG trial 90-03
A.A.Korde, I.Harrie, G.Peter, R.Brun, M.Giordano, K.Montag
Fox Chase Cancer Center, Philadelphia; Radiation Therapy Oncology Group

AIM: To evaluate the impact of neck dissection on regional tumor control and survival in patients with head and neck cancer. We sought to determine the functional significance of headpin nuclear localization in expression in squamous cell carcinoma of the oral cavity. We sought to determine the functional significance of headpin nuclear localization in expression in squamous cell carcinoma of the oral cavity. We sought to determine the functional significance of headpin nuclear localization in expression in squamous cell carcinoma of the oral cavity.

METHODS: A retrospective review was conducted to examine the clinical records of patients who underwent parotidectomy between January 1997 and April 2004 in the Department of Otolaryngology-Head and neck surgery at the National University Hospital. A total of 107 patients were identified. Patients had been previously treated with radiation therapy and had undergone neck dissection within 12 weeks of radiation completion. The Kaplan-Meier survival analysis was performed to determine the impact of neck dissection on regional control and survival.

RESULTS: The 5-year survival rate was 93.7%. Eleven patients had been previously treated with radiation therapy and had undergone neck dissection within 12 weeks of radiation completion. The Kaplan-Meier survival analysis was performed to determine the impact of neck dissection on regional control and survival.

CONCLUSIONS: Neck dissection performed within 12 weeks of radiation completion in patients with head and neck cancer is associated with improved regional control and survival. These results support the idea that early neck dissection may improve regional control and survival in patients with head and neck cancer.

148. Molecular Profiling Of Squamous Cell Carcinoma Of The Upper Aerodigestive Tract
W. Kiefel, P. Bonni, T. Kennedy, A. Law, P. Gilloy
AIM: To identify various molecular genetic alterations in upper aerodigestive tract squamous cell carcinoma. We aimed to identify potential therapeutic targets in this cancer.

METHODS: A retrospective review of patients with squamous cell carcinoma of the upper aerodigestive tract was conducted at our institution. Tumor samples were obtained from patients with squamous cell carcinoma of the upper aerodigestive tract. Molecular profiling was performed using next-generation sequencing and deep sequencing. The laboratory database was searched for molecular alterations in this cancer. The findings were correlated with clinical outcomes.

RESULTS: Molecular profiling identified several genetic alterations in upper aerodigestive tract squamous cell carcinoma. These alterations were found in a significant percentage of patients and included mutations in the TP53 and EGFR genes. The data suggested that these molecular alterations could be potential therapeutic targets for this cancer.

CONCLUSIONS: Molecular profiling of upper aerodigestive tract squamous cell carcinoma identified several genetic alterations that may represent potential therapeutic targets for this cancer.
RESULTS: Marker scores for both HGD and SCC were found to have higher expression of p-NF-kB, Ki-67, p-Akt and EGFr than tissue from tonsil control and benign tissue. No differences in marker expression were noted between HGD and SCC or between tonsil control and benign tissue. In the subset of patients with SCC, the only marker statistically related to decreased survival was NF-kB (p=0.047), whereas a relationship with protein expression could not be correlated with recurrence in this group of patients. Subset analysis for patients with HGD demonstrated a significant correlation for p-Akt (p=0.043) and NF-kB (p=0.008) with respect to decreased survival but only NF-kB (p=0.043) with respect to increased disease recurrence.

CONCLUSION: The expression of NF-kB and p-Akt in patients with high-grade dysplasia and invasive carcinoma of the tonsil appears to be associated with increased disease recurrence and reduced survival. Further investigation of signaling pathways influenced by these proteins may yield targets for pathway specific therapeutic intervention in patients with carcinoma of the upper aerodigestive system.

Poster Abstracts

The AHNS is grateful to IRX Therapeutics, Inc. for their Silver Level support of the 2005 AHNS Meeting.

IRX Therapeutics, Inc.
The officers of this Society shall be President, President-Elect, Vice-President, Secretary, and Treasurer.

The governing body of this Society shall be the Council, consisting of the President, President-Elect, Vice-President, Secretary, and Past Presidents (for a period of three years following the termination of term of office). In addition, there shall be nine Fellows-at-Large, three of whom shall be elected each year to serve terms of three years each. At no time shall the Council exceed eighteen in number. The manner of election of officers and members of the Council is stated in the By-Laws, Article VII, Sections 1 and 2.

Section 1. The name of the Corporation shall be The American Head and Neck Society, Inc.

Section 2. 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.

Section 3. It is the objective of this Society to promote the highest professional and ethical standards.

Section 4. Qualifications for Active Fellowship. An applicant for Active Fellowship shall be a Diplomate of a particular specialty board, or have credentials that are equivalent to those issued by member boards of the American Board of Medical Specialties. Surgeons must be a member of the American College of Surgeons, a Fellow of the Royal College of Surgeons (Canada), or have similar credentials. A significant portion of practice shall be concerned with neoplasms and other diseases of the head and neck. Further qualifications and requirements for Active Fellowship are contained in the By-Laws, Article VI, Sections 1 and 2.

Section 5. Qualifications for Corresponding Fellowship. Corresponding Fellowship shall be granted to those who, in the judgment of the Council, are actively engaged in the prevention, diagnosis, treatment and rehabilitation of neoplasms and other diseases of the head and neck and who reside in a country other than the United States or Canada.

Section 6. Qualifications for Senior Fellowship. Any Active Fellow, upon cessation of active practice, may request by writing to the Secretary a change in status to Senior Fellowship.

Section 7. Qualifications for Associate Fellowship. A candidate for election to Associate Fellowship shall be a physician, dentist or allied scientist who has demonstrated a special interest in the field of head and neck oncology.

Section 8. Qualifications for Candidate Member. The trainee currently enrolled in, or a graduate of, an approved residency program in Otolaryngology, Plastic Surgery, or General Surgery or in a Fellowship Program approved by the Joint Training Council may become a Candidate Member. This nonvoting membership is subject to fees established by the Council. The membership shall expire if the candidate member has not made application for Active Fellowship in The American Head and Neck Society, Inc. five years after the completion of training.

Section 9. Privileges of Members. All members shall have the same rights and privileges except that only Active Fellows in good standing shall have the privileges of voting in the conduct of the affairs and business of the Society or of holding office or of chairing Standing Committees.

Section 10. Meetings. The annual meeting of this Society shall be held at such time and place as may be fixed by the Council at its annual meeting.

The annual meeting shall consist of at least one scientific session and one business session.

Section 11. The scientific session shall be open to all Fellows of the Society and members of the medical profession. Attendance at any business session is limited to Fellows of the Society.

Section 12. Only Active Fellows in good standing shall have the privilege of a vote in conduct of the affairs and business of the Society.

Section 13. Officers. The officers of this Society shall be President, President-Elect, Vice-President, Secretary, and Treasurer.

Section 14. Amendments to the Constitution or Bylaws. A proposed amendment to the Constitution or By-Laws must be submitted to the Secretary in writing not less than two months before a meeting of the Council, and must be signed by at least two Active Fellows. The Secretary shall forward the proposed amendment to the Constitution and Bylaws Committee for review and comment. The Constitution and Bylaws Committee will make a periodic review of the Constitution and Bylaws and recommend modification which may be submitted as amendments. Any proposed amendment must first be acted upon by the council. The Secretary shall mail a copy of any proposed amendment to each Active Fellow not less than one month prior to the annual meeting of the Society. Two-thirds vote of the Active membership present at the meeting shall be required for acceptance.

(257x196)Section 1. (f) Section 2. (e) Section 3. (d) Section 4. (c) Section 5. (b) Section 6. (a)
Section 1. Any Active Fellow shall have all the rights of Fellowship, shall be subject to all the duties, rules and responsibilities incident upon the members of any scientific parliamentary body.

Section 1. Unless excused by the Council, a Fellow delinquent in dues for two consecutive years, or attendance for four consecutive years, shall be dropped from Fellowship. Delinquency in dues is defined as failure to pay by the end of the calendar year.

Section 1. The amount of the Society’s dues shall be determined by the Council. The Council shall have the authority to establish an initiation fee or special assessment.

Section 1. The regular order of business at annual meetings shall be carried out in a manner prescribed by the Council.

Section 1. All conditions, circumstances, emergencies or contingencies not covered by this Constitution and its Bylaws shall be dealt with and administered by the directive of the Society’s Council, subject to approval by the membership at the next annual meeting.

Section 1. Candidates desiring election to Fellowship in any class other than Associate Fellow must hold a valid, unrestricted license to practice medicine in the state or country in which they reside and shall be proposed by two Active Fellows with at least one from the applicant’s local geographical area. A special form will be provided by the Secretary for this purpose. Both of the sponsors must submit letters of recommendation pertaining to the qualifications of the candidate.

Section 2. In addition to fulfilling the requirements under the Constitution, Article III, section 3, candidates must submit evidence that they have the skill and capacity to diagnose and treat ophthalmic and other diseases of the head and neck.

Section 2. An applicant for Active Fellowship shall provide documentation that he has received adequate training in the management of patients with head and neck tumors and that a significant portion of current professional activity is devoted to the care of such patients. Such documentation will include a description of experience during residency and/or fellowship training, a summary of subsequent post training experience, and a listing of at least 35 patients with head and neck tumors managed during preceding year. Additional evidence of academic activity such as one paper published on causes of the head and neck is required.

Section 2. Active Fellows must be members of the American College of Surgeons or its equivalent.

Section 3. Special Qualifications for Corresponding Fellowship.

A. Corresponding Fellows shall be physicians who, by their professional associations and publications, would appear in the judgment of the Council to be qualified to treat ophthalmic and diseases of the head and neck. All proposals for candidates for Corresponding Fellowship shall be accompanied by a curriculum vitae of the candidate, a letter of recommendation from at least two Active Fellows. The delinquent clause relative to failure to attend meetings will not pertain to this class of membership.

Section 4. Election to Fellowship. All proposals for candidates for any class of Fellowship shall be sent to the Council through the Secretary. Subsequent to approval by the Council, nominees’ names must be circulated to the membership at least 120 days before the annual meeting. Fellows shall be given an opportunity to make written objections at least 90 days in advance of the annual meeting. Objections will be investigated by the Credentials Committee and presented to the Council for a vote. The Council will use the AMA Code of Ethics as a guide in this matter.

Section 4. Election to any class of membership shall require three-fourths favorable vote of the Council.

Section 5. A candidate for Active Fellowship must be present at the annual meeting to be inducted.

Section 5. The newly elected officers shall assume their duties before the adjournment of the meeting at which they have been elected.

Section 3. Duties of the President. The President shall preside at meetings of the Society and shall have the power to preserve order and to regulate the proceedings according to recognized rules.

Section 3. Duties of the Treasurer. He shall act as custodian of all papers of the Society and its committees.

Section 3. Duties of the Secretary. He shall notify all committee members of their appointments and the duties assigned to them.

Section 5. Duties of the Treasurer. He shall deposit all moneys in a special bank account under the official name of the Society, in a city of his choosing.

Section 5. Duties of the Secretary. He shall keep a correct alphabetical list of members, together with their current addresses and shall supply application forms to members who apply for same.

Section 5. He shall act as custodian of all papers of the Society and its committees.

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Section 5. He shall act as custodian of all papers of the Society and its committees.

Section 5. His financial records shall be audited at such regular annual meeting by a specially appointed auditing committee, who will report at the business session.

Section 5. Shall prepare and submit an annual budget for the following year to the Finance committee for subsequent approval of the Council at the fall meeting.

Section 1. Composition of the Council. The Council shall consist of the officers, the three immediate Past Presidents, and nine Fellows at Large, three of whom shall be elected annually to serve staggered three-year terms. A Fellow at Large elected to the Council may not succeed himself.

Section 2. Duties of the Council. The Council shall conduct the affairs of the Society during the interim between sessions.

Section 2. The Council shall pass on all applicants for Fellowship and present its recommendations to the Society at one of its business sessions so that necessary action may be taken.

Section 2. The Council shall report to the members at regular business sessions all decisions and recommendations made so as to obtain approval of the whole membership of its actions.
D. Should the membership disapprove of any action of the Council the questions shall be referred back for further consideration and reported at the next business meeting.
E. The Council shall have a long range and strategic planning retreat at least every three years.

Section 3. Quorum and Manner of Acting.
A. A majority of officers and Council members shall constitute a quorum. A majority of the quorum at any meeting of the Council shall constitute action by the Council unless otherwise provided by law or by these By-Laws.
B. No action required or permitted to be taken at a meeting of the Council may be taken without a meeting if a consent in writing setting forth the action to be taken shall be signed by all Council members entitled to vote.
C. Meetings may be conducted by telephone provided that all officers and Council members participating in such a meeting may communicate directly with each other. A majority of officers and Council members shall constitute a quorum for telephone meetings and the act of a majority of the quorum shall constitute action by the Council.
D. Officers and Council members shall not receive compensation for their services, but, by action of the Council, expenses may be allowed for attendance at meetings of the Council or for official representation of the Society and the Council may underwrite any activities that it deems essential to the functioning of the Society.

**ARTICLE X**

Committees

Section 1. Other than as specifically stated below, The President shall appoint committee members to serve for three years. Initial appointments shall be staggered such that approximately one-third of committee members shall change each year (other than the Scientific Program Committee and Nominating Committees).

Section 2. Scientific Program Committee.
This committee shall be appointed by the President to serve for one year and shall consist of at least three Active Fellows. It shall be the duty of this committee to establish a scientific program at the Annual Meeting.

Section 3. Nominating Committee.
The Nominating Committee shall consist of the three immediate past presidents and two Active Fellows elected at the business meeting. The Nominating Committee shall be chaired by the immediate past President. This committee shall prepare a slate of officers and members-at-large of the Council for vote at the next annual meeting. (See Article VII, section 2).

Section 4. Credentials Committee.
This committee shall be chaired by the President and shall additionally consist of the two immediate Past Presidents plus two Active Fellows appointed by the President. In addition, the Secretary shall be a member, ex officio. The Credentials Committee shall advise the Council on the credentials of candidates for membership.

Section 5. Education Committee.
This committee shall consist of at least three Active Fellows. It shall be the duty of this committee to develop appropriate educational activities for the Society.

Section 6. Research Committee.
This committee shall consist of at least six Active Fellows. It shall be the duty of this committee to increase the quality and quantity of research conducted in head and neck oncology; encourage the design and implementation of new research protocols; review applications for research funds; and suggest possible new methods of research funding.

This committee shall consist of ten Active Fellows, each to serve a five-year term, with appointments staggered so that two Active Fellows are appointed to membership on this committee each year. The President’s appointments to this committee shall be submitted for approval by the Council. It shall be the duty of this committee to evaluate training programs as to whether they qualify for Phase III training and to make recommendations to this Society concerning what constitutes adequate training in head and neck oncologic surgery.

Section 8. Constitution and By-Laws Committee.
This committee shall consist of at least five Active Fellows, with the Secretary serving ex-officio. It shall be the duty of this committee to completely evaluate the Constitution and By-Laws every three years to maintain their relevance.

This committee shall consist of three Active Fellows elected at the business meeting to serve three year terms so that one member is elected each year. The Treasurer shall be an ex officio member. It shall be the duty of this committee to audit the financial records of the Society and review investments and to report at the annual business meeting. It shall review the financial reports of the Treasurer prior to the presentation to the Council.

Section 10. Standing Committees. Other standing Committees shall be constituted as described in the Policies and Procedures.

Section 11. Ad hoc Committee(s).
As necessary, the President may appoint one or more Ad hoc committees to serve for one year.

**ARTICLE XI**

Quorum

Section 1. A quorum for any meeting of the Council shall be a majority of those persons then serving as members of the Council.

Section 2. A quorum for the regular business session of the society shall be eight Active Fellows.

**ARTICLE XII**

Society Assets

Section 1. The interest in the funds property and other assets of the Society of any member whose membership shall terminate for any reason except the dissolution of the Society shall, ipso facto, immediately cease and such members and the representatives of such member shall have no claim against the Society or against the other members of their representatives or any of them.

Section 2. In the case of dissolution of the Society, the funds, property, and other assets shall be used for the purpose of furthering the expressed purposes for which this Society was formed and no member shall be entitled to receive any of the assets upon liquidation.

Section 3. If the Society’s annual receipts exceed the annual expenses in any given year, the Council may, by a majority vote, elect to distribute the surplus for such scientific or educational uses as the Council shall deem to be most consistent with the Society’s purposes; or it may, should it reasonably anticipate a need for operating surplus to meet future expenses, accumulate such surplus in an interest bearing account or otherwise.

**ARTICLE XIII**

Indemnification

Section 1. The Society shall indemnify any and all of the directors or officers or former directors or officers, employees, agents, or any person who may have served at its request or by its election as a director or officer of another society or association, or his heirs, executors and administrators, against expenses (including attorney fees, judgments, fines and amounts paid in settlement) actually and necessarily incurred by them in connection with the defense or settlement of any action, suit or proceeding in which they, or any of them, are made parties or a party, by reason of being or having been directors or a director, officer, employee or agent of the Society or of such other Society or association, except in relation to matters as to which any such action, suit or proceeding shall be liable for willful misconduct in the performance of duty and to such matters as shall be settled by agreement predicated on the existence of such liability. The termination of any action, suit, or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent shall not, of itself, create a presumption that the person is engaged in willful misconduct or in conduct in any way opposed to the best interests of the Society. The provisions of this section are severable, and therefore, if any of its provisions shall contravene or be invalidated under the laws of a particular state, country or jurisdiction, such contravention or invalidity shall not invalidate the entire section, but it shall be construed as if not containing the particular provision or provisions held to be invalid in the particular state, country, or jurisdiction and the remaining provisions shall be construed and enforced accordingly. The foregoing right of indemnification shall be in addition to and not exclusive of other rights to which such director, officer, employee or agent may be entitled.

**ARTICLE XIV**

Merger Provisions

To facilitate the merger of the Society with The Society of Head and Neck Surgeons, an Illinois nonprofit corporation (“SHNS”), pursuant to an agreement calling for the SHNS to be dissolved and its assets transferred to the Society and the Society to be The American Head and Neck Society, Inc. (“AHNS”) to serve as a successor of both entities, notwithstanding any other provision of the Constitution or these By-Laws to the contrary:

1. The Council shall be expanded as necessary to include the officers and directors of the SHNS, who shall serve on the Council with their voting status as provided by the SHNS bylaws until their term of office within the SHNS shall expire. The Council shall return to its size and with its composition provided in Article IX hereof through the passage of time.

2. The President-Elect of the SHNS shall become as President-Elect of the AHNS following the completion of his term as President-Elect of the SHNS. The President-Elect of the SHNS shall become President of the AHNS to serve a term of six months (i.e., from May 15, 1998 through November 14, 1998), whereupon the said President-Elect of the SHNS shall serve as President of the AHNS to serve a term of six months (i.e., from November 15, 1998 through the membership meeting in May of 1999 or until his successor shall assume office). During the combined one-year term of office, the two said individuals shall regularly consult and cooperate with each other on all meaningful and significant decisions to be made during the year so that it may appear that they are serving as co-presidents for the full year, provided, however, that the AHNS shall have only one President in office at one time. At the conclusion of this one-year term, the President-Elect next in line shall succeed to the Presidency.

3. The members of the SHNS shall be admitted to the Society (now as the AHNS in the membership category that correspond to that which the said members of the SHNS hold) as the “ Initially Members” of the SHNS. The President-Elect of the SHNS shall become Senior Fellows of the AHNS. Consulting Members of the SHNS shall become Associate Fellows of the AHNS. International Corresponding Members of the SHNS shall become Corresponding Members of the AHNS. Honorary Members of the SHNS shall become Honorary Fellows of the AHNS. Candidate Members of the SHNS shall become Candidate Members of the AHNS.

4. The Council shall act to preserve the unique heritage and history of the SHNS and the AHNS.
Research & Education Foundation of the American Head & Neck Society

The Foundation welcomes and actively solicits contributions and pledges from members of the American Head and Neck Society, physicians and grateful patients. You can help by making a donation on the website at http://headandneckcancer.org/foundation/index.php.

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I am committed to the advancement of research in diseases of the head and neck and support the goals of the Research & Education Foundation of the American Head & Neck Society. Please accept my pledge/contribution as follows:

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516-437-1111 or e-mail kneller@LJISurg.com