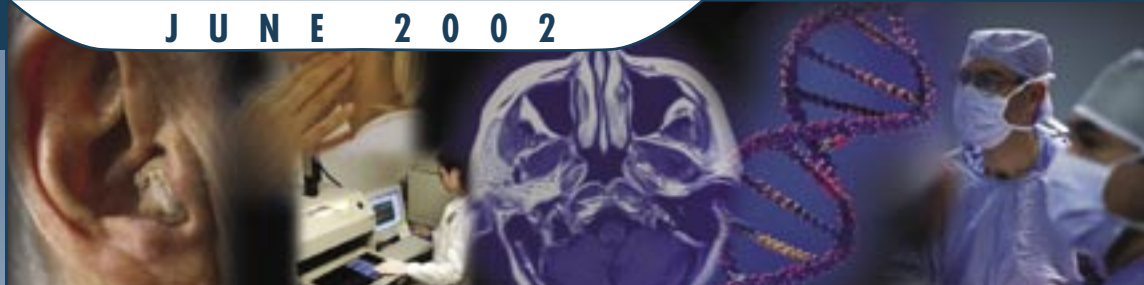




THE IOWA WAY

Department of Otolaryngology—Head and Neck Surgery

J U N E 2 0 0 2



Welcome to the inaugural edition of *The Iowa Way*. Produced by the Department of Otolaryngology—Head and Neck Surgery at The University of Iowa, this newsletter is designed to keep you—our colleagues and friends—apprised of the latest in patient care and research developments. Highlights of this first issue include:

- A message from Bruce Gantz, M.D., department head
- Opening of the new Otolaryngology Institute
- Faculty and resident profiles
- Upcoming events and courses
- Research updates
- Alumni notes

Molecular Otolaryngology Research Laboratories focus on hereditary hearing loss

Research in the Molecular Otolaryngology Research Laboratories (MORL) is focused on hereditary hearing loss. Most commonly, when hearing loss is inherited, it is inherited as an isolated trait, without other co-inherited abnormalities. This type of inherited hearing loss is called 'non-syndromic' hearing loss. It is extremely heterogeneous, and although the exact number of 'deafness-causing' genes is not known, epidemiological estimates put the figure at 60 to 100. Faculty in the MORL

have localized or collaborated in the localization of more 'deafness-causing' genes than any other laboratory in the world.

Interestingly and unexpectedly, although there are many genes that cause autosomal recessive hearing loss, research done in the MORL and other laboratories around the world has shown that mutations in one gene, called GJB2, account for half of all moderate-to-profound congenital deafness. Most babies born with this type of deafness carry a "common" mutation, known as the 35delG mutation. Research done in the MORL has shown that the carrier rate for this mutation in the

Midwest United States is 1:40. The carrier rate for all GJB2-deafness-causing mutations is 1:33.

Because GJB2-related deafness is common, tests developed by the MORL to detect the most common GJB2-deafness-causing

mutation are now being used by many hospitals in the United States. This development represents a significant advance in the medical diagnosis of non-syndromic hearing loss, which until the availability of this test was a diagnosis of exclusion.

Our studies on autosomal dominant non-syndromic hearing loss have focused on large families segregating for deafness. In one family from Michigan, we determined that hearing loss is due to mutations in a gene called COL11A2. Interestingly, persons in this family with inherited hearing loss are protected from presbycusis and do not develop age-related deafness as easily as persons without a COL11A2 mutation. This observation suggests that presbycusis may be related partially to wear-and-tear



*Richard J.H. Smith, M.D.,
director of the Molecular
Otolaryngology Research
Laboratories*



*Changing Medicine.
Changing Lives.™*

Continued on page 4

Dear Colleagues:



Bruce J. Gantz, M.D., F.A.C.S.

Welcome to the first edition of *The Iowa Way*, a newsletter developed by the Department of Otolaryngology–Head and Neck Surgery—at The University of Iowa. The purpose of the newsletter is to inform colleagues and friends of new developments in patient care, research, and achievements of our residents and faculty.

The UI Department of Otolaryngology is one of the oldest in the United States (founded in 1922) and one of the most comprehensive in the world. It is situated in one of the largest university-owned teaching hospitals in the country. *U.S. News & World Report* has consistently rated this department among the top three Otolaryngology programs in the United States for the past 10 years. The department was rated #2 in 1999, 2000, and 2001.

The 14 faculty each bring unique talents and special skills to the department, allowing treatment of patients with many conditions including: dizziness of vestibular origin, facial plastic and reconstructive surgery, head and neck cancer, otology, voice disorders, rhinology and sinus disease, difficulties swallowing, tumors of the auditory nerve and skull base, molecular genetics of hearing and laryngeal disorders, and cochlear implant research. In addition to five residents per year for four years, we have four research trainees who spend two years in research before the start of clinical training. We have two highly competitive ACGME accredited fellowships in Otology/Neurotology and Pediatric Otolaryngology and a world-class Head and Neck Microvascular fellowship. The department prides itself in both excellent training of medical professionals and state-of-the-art patient care. Our faculty co-

mitment is to produce better practitioners of otolaryngology, more critical observers, and an increase in the number of teacher-investigators.

In this first edition, we would like to introduce you to our current faculty, outgoing residents, and newest residents, highlighting areas of medical interest. Future editions will highlight various aspects of our specialty services and research laboratories, along with research awards and recent publications. Please send along any thoughts you might have regarding our work. We would also like to hear from alumni regarding your recent accomplishments that could be published in future newsletters.

I would like to sincerely thank all of our many alumni and friends who have provided generous support for the department over the years. Your help and commitment to the work we do plays a vital role in helping the department sustain its mission of service to the people of Iowa and beyond.

A handwritten signature in black ink that reads "Bruce J. Gantz". The signature is written in a cursive, flowing style.

Bruce J. Gantz, M.D., F.A.C.S.
Professor and Head

Opening of New Institute

On Monday, February 28, 2000, patients visiting University of Iowa Hospitals and Clinics for specialized otolaryngology care were served in the Department of Otolaryngology's new accommodations, which occupy the second level of



New Otolaryngology Institute main reception area.



Specialized pediatric examining room.



Specialized surgical suite.

the Pomerantz Family Pavilion.

The move comes 75 years after the Department of Otolaryngology-Head and Neck Surgery first began serving patients in the General Hospital.

The 40,000-square-foot institute is among the largest of its kind and is truly a premier, world-class facility. Among its special features are separate reception areas and examination rooms for different groups of patients, including a location for pediatric patients. Faculty now use advanced technology in state-of-the-art examination rooms to capture medical images of the ear, nose, and throat; show the images to patients; and archive the images for use during return visits.

"These features are highly innovative," said Bruce Gantz, M.D.

"Our high-quality insti-

tute offers patients the opportunity to participate in research trials involving the most advanced care possible."



The Department of Otolaryngology's new accommodations occupy the second level of the Pomerantz Family Pavilion.

Clinical research centers include:

- A Balance Disorders Center staffed by specialists in the diagnosis and treatment of patients with vertigo and balance problems. The center offers a wide array of treatment options and features customized physical therapy programs to meet the unique needs of each patient;
- A Cochlear Implant Center, featuring the most advanced technology for profoundly deaf patients, both adult and pediatric. UI Health Care's otolaryngology team has been an international leader in the development of new cochlear implant technologies;
- A Voice and Swallowing Center, featuring two highly-specialized evaluation rooms, three speech-language-swallowing therapy rooms, and laryngeal image processing;
- Specialized centers for craniofacial reconstruction, counseling of patients regarding hereditary hearing loss, and an outcomes center for patients with head and neck cancer.

Educational components include high-technology systems for teleconferences with physicians in Iowa and elsewhere around the world, comprehensive library facilities, a conference room seating 100, and a computer room library and resource center.

"Our high-quality institute offers patients the opportunity to participate in research trials involving the most advanced care possible."

—Bruce J. Gantz, M.D.

Otolaryngology researchers receive grant to continue cochlear implant research

Bruce Gantz, M.D., professor and head of otolaryngology; Jay Rubinstein, M.D., assistant professor; and Richard Tyler, Ph.D., professor and director of research, on behalf of a large multi-project team, have received a five-year, \$10 million



Adult cochlear implant recipient (right) participating in research testing.

award from the National Institute on Deafness and Other Communication Disorders (NIDCD).

This is the fourth NIDCD grant that the Iowa Cochlear Implant Program has received from the National Institutes of Health. The cochlear implant project at The University of Iowa began in 1981 with the availability of single channel implants. Since then,

over 400 children and adults have been implanted with a variety of multi-channel devices.

The new grant money will allow researchers to continue to identify the factors that determine why some individuals benefit to a greater extent from the implant than others; to determine whether two implants enable the user to hear better than one; to develop and evaluate new signal processing for speech perception and music appreciation; and to study the expansion of selection criteria including adults with more hearing and infants.

Hereditary hearing loss research

Continued from front page

on the tectorial membrane, opening additional avenues of research.

In another large multi-generational family from Ohio with late-onset deafness, we found that hearing loss results from a mutation in a gene called Eyes-Absent 4 (EYA4). EYA genes (three others are known) guide development, and the finding that mutations in EYA4 are associated with non-syndromic late-onset deafness is an exciting and unexpected finding we are continuing to explore.

In conjunction with our sister laboratory in Belgium, we maintain the Hereditary Hearing Loss Homepage (<http://dnalab-www.uia.ac.be/dnalab/hhh/index.html>), which provides research scientists world-wide with an up-to-date resource describing hearing loss loci and cloned deafness-causing genes. Our long-term efforts to localize, clone, and elucidate the function of these genes will open new avenues in the habilitation and treatment of persons with hearing impairment.

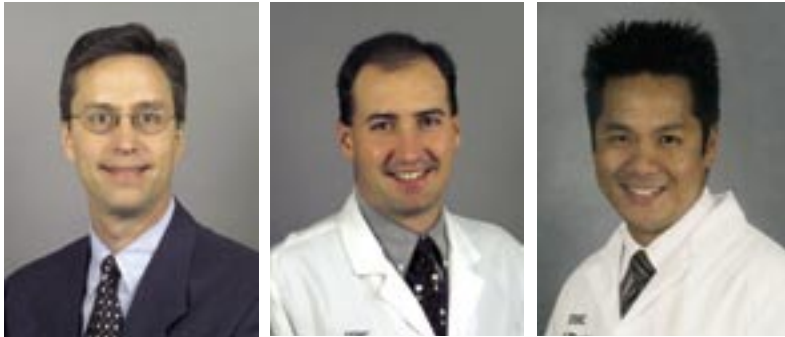
—Richard J. H. Smith, M.D.

Alumni News

Please send us information that we can share with your colleagues. Short articles will be published as space allows.

Send to:

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Douglas K. Trask, M.D. Russell B. Smith, M.D. Jose M. Manaligod, M.D.

Three new staff members join our world-renowned program

Douglas K. Trask, M.D., Ph.D., Assistant Professor

Dr. Trask received his medical training from Dartmouth Medical School and completed a residency in Otolaryngology–Head and Neck Surgery at the University of Michigan Medical Center. His research training includes a Ph.D. from The Ohio State University and a post-doctoral fellowship in microbiology and molecular genetics at Dana-Farber Cancer Institute, Harvard Medical School. His current research interests include improving detection and treatment of head and neck cancers and understanding the process of metastasis in these tumors.

Russell B. Smith, M.D., Assistant Professor

Dr. Smith received his medical training from the University of Missouri-Columbia. After completing a residency in Otolaryngology at the University of Missouri Hospital and Clinics, he furthered his training with a fellowship in Head and Neck Surgical Oncology/Head and Neck Reconstruction in the Department of Otolaryngology–Head and Neck Surgery at University of Iowa Hospitals and Clinics. Smith remained on staff at UI Hospitals and

Clinics after his fellowship. His clinical interests include head and neck oncology, reconstruction, and endocrine surgery. His research interests include salivary gland neoplasms, thyroid carcinoma, and microvascular free tissue transfer in patients with head and neck reconstruction.

Jose M. Manaligod, M.D., Assistant Professor

Dr. Manaligod received his medical training from the University of Illinois College of Medicine at Chicago. He then completed a residency in Otolaryngology–Head and Neck Surgery and a fellowship in Pediatric Otolaryngology through Children’s Hospital of Iowa located at University of Iowa Hospitals and Clinics. After completing his fellowship, Manaligod was an assistant professor in the Department of Surgery/Division of Otolaryngology and the Department of Pediatrics at the University of Kentucky College of Medicine. His clinical interests are general pediatric otolaryngology, pediatric sinus disease, and airway reconstruction. Manaligod’s research focuses on the molecular genetics of voice and airway disorders.

Current Faculty

Otology/Neurotology/ Skullbase Surgery

Jay Rubinstein, M.D.



Dr. Rubinstein is a graduate of the Medical Scientist Training Program at the University of Washington, Seattle. He received an M.D. in 1987 and a Ph.D. in Bioengineering in 1988. He has been an Assistant Professor in the Department of Otolaryngology since 1995 and holds a joint appointment in the Department of Physiology & Biophysics.

received an M.D. in 1987 and a Ph.D. in Bioengineering in 1988. He has been an Assistant Professor in the Department of Otolaryngology since 1995 and holds a joint appointment in the Department of Physiology & Biophysics.

Rhinology/Sinus

Scott Graham, M.D.



Dr. Graham graduated from Medical School in Adelaide, Australia, in 1981 and completed his internship at The Royal Adelaide Hospital the following year.

He joined The University of Iowa in 1989 as a Fellow in Facial Plastic and Reconstructive Surgery and Head and Neck Oncology. He has been at The University of Iowa since that time, first as an Associate and now as an Assistant Professor.

Head and Neck Oncology

Henry Hoffman, M.D.



Dr. Hoffman received his M.D. from the University of California, San Diego in 1980. He completed a Head and Neck Surgery

Fellowship and obtained a Masters degree in Microbiology at the University of Michigan. He joined The University of Iowa as Director of the Head and Neck Oncology

Division and Director of the Voice Clinic as an Assistant Professor in 1990 and has been an Associate Professor in that position since 1993.

Gerry Funk, M.D.



Dr. Funk is a graduate of the University of Chicago Pritzker School of Medicine, receiving his M.D. in 1986. He completed

a residency program in both General Surgery and Otolaryngology at the University of Southern California, Los Angeles County Medical Center from 1987 to 1991. In 1992, he joined the department as an Assistant Professor. Funk presently serves as an Associate Professor, specializing in oncologic and microvascular reconstructive surgery.

Facial Plastic and Reconstructive Surgery

John Canady, M.D.



Dr. Canady completed his M.D. in 1983 and his M.S. in 1988 at University of Iowa Roy J. and Lucille A. Carver College

of Medicine. He completed an internship in general surgery in 1984 at LaCrosse Lutheran Hospital in LaCrosse, Wisconsin; a residency in otolaryngology in 1988 at University of Iowa Roy J. and Lucille A. Carver College of Medicine; and a residency in plastic and reconstructive surgery in 1990 at the University of Kansas, Kansas City, Kansas.

Albert Cram, M.D.



Dr. Cram completed his M.D. in 1969 at the University of Nebraska College of Medicine. He completed an internship in

1970 at Immanuel Medical Center, Omaha, Nebraska; a surgery residency in 1974 at University of Iowa Roy J. and Lucille A. Carver College of Medicine; and a plastic surgery fellowship in 1987 at The University of Chicago.

Al Aly, M.D.



Dr. Al Aly received his M.D. degree from Georgetown University. He completed two years of general surgery residency at UCLA,

four years of Otolaryngology-Head and Neck Surgery residency at Vanderbilt University, a Facial Plastic & Reconstructive Surgery fellowship at the University of California Irvine, and a Plastic and Reconstructive Surgery residency at the University of Miami. Currently, he is an Assistant Professor of Plastic and Reconstructive Surgery in the Departments of Otolaryngology and Orthopaedic Surgery.

Pediatric Otolaryngology

Richard Smith, M.D.



Dr. Smith is a graduate of Baylor College of Medicine, Houston, where he received an M.D. in 1977. In 1983, he completed a clinical fellowship in pediatric otolaryngology at the Hospital for Sick Children in London, England, and studied genetics at the Institute of Hearing Research in Nottingham.

Currently, he is a Professor in the Department of Otolaryngology and a Professor in the Interdepartmental

Genetics Ph.D. Program. In addition, Smith is the director of the Molecular Otolaryngology research Laboratories (MORL).

Nancy Bauman, M.D.



Dr. Bauman received her M.D. from Wayne State University in 1988. She completed her internship in General

Surgery at St. John's Hospital in Detroit, Michigan in 1989 and completed her residency in Otolaryngology at The University of Iowa in 1993. She completed a fellowship in Pediatric Otolaryngology at The University of Iowa and the University of Sydney. Dr. Bauman joined The University of Iowa faculty in 1994 as an Assistant Professor in the Division of Pediatrics and was promoted to Associate Professor in 1999.

AWARD

Henry T. Hoffman, M.D., Director of Head and Neck Oncology and the Voice Clinic, has been elected by the American College of Surgeons Board of Regents to a 10-year appointment on the Commission on Cancer. The Commission on Cancer is a consortium of professional organizations dedicated to reducing the morbidity and mortality of cancer through education, standard-setting, and the monitoring of quality.

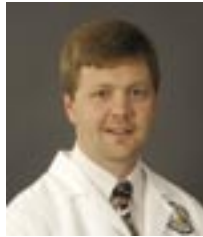
Outgoing senior residents

John Lee, M.D.

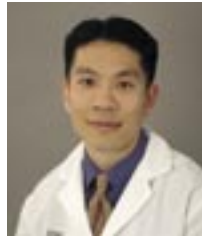
Dr. Lee received his medical degree from the University of Minnesota School of Medicine in Minneapolis, Minnesota in 1995. On July 1, 2002 Lee will continue as an Assistant Professor in the Department of Otolaryngology at The University of Iowa. His area of interest consists of general otolaryngology with a special emphasis on respiratory papillomatosis and cancer biology. Lee will operate a research lab focusing on the papilloma virus and related diseases of the head and neck.

Achih Chen, M.D.

Dr. Chen received his medical degree in 1995 from University of Iowa Roy J. and Lucille A. Carver College of Medicine. He completed a general surgery internship at Butterworth Hospital, Michigan State University before joining The University of Iowa as an Otolaryngology Post-Doctorate Research Fellow in 1996. After the



John Lee, M.D.



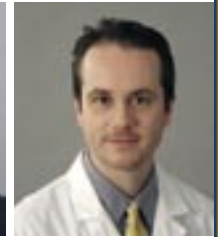
Achih Chen, M.D.



Matthew Brown, M.D.



Christopher Garvey, M.D.



Matthew Morgan, M.D.

completion of his current residency, Chen will begin a facial plastic surgery fellowship in Beverly Hills with Dr. Frank Kamer.

Matthew Brown, M.D.

Dr. Brown received his medical degree from University of Iowa Roy J. and Lucille A. Carver College of Medicine in 1996. After completing his medical degree, he spent one year with Molecular Otolaryngology Research Labs and completed a surgical residency in Phoenix. After completion of his current residency, Brown plans to return to Des Moines where he will be joining his father and other otolaryngologists in a private setting practicing the full scope of otolaryngology-head and

neck surgery.

Christopher Garvey, M.D.

Dr. Garvey received his medical degree from Penn State College of Medicine. Garvey has accepted a position at a private multi-specialty group in Beloit, Wisconsin. He will join that group after completion of his current residency.

Matthew Morgan, M.D.

Dr. Morgan received his medical degree in 1997 from University of Iowa Roy J. and Lucille A. Carver College of Medicine. Morgan will be joining Mercy Ear, Nose and Throat in Des Moines after completion of his current residency.

Incoming senior residents

Parker Chamberlin, M.D.

Dr. Chamberlin received his medical degree from the Medical College of Virginia in Richmond, Virginia. He has a strong interest in both pediatric otolaryngology and otology. In addition, Chamberlin is interested in the contribution of genetics to hearing loss.

Eric Johnson, M.D.

Dr. Johnson received his medical degree in 1998 from Albany Medical College. Johnson is looking forward to a career in the general practice of otolaryngology. He has particular interests in otology and pediatric otolaryngology and an outside interest in the history of otolaryngology.

Wyman McGuirt, M.D.

Dr. McGuirt received his medical degree from Wake Forest University School of Medicine in Winston-



Parker Chamberlin, M.D.



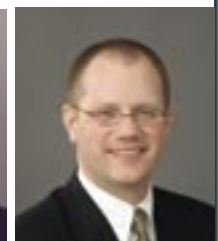
Eric Johnson, M.D.



Wyman McGuirt, M.D.



Robert Thomas, M.D.



Douglas VanDaele, M.D.

Salem, North Carolina, in 1996. McGuirt has a particular interest in the field of molecular genetics and has co-authored numerous studies in this area. He feels strongly that his exposure to research has fostered his clinical diagnostic and treatment skills.

Robert Thomas, M.D.

Dr. Thomas received his medical degree from the Ohio State University. His medical interests include immunodeficiencies in sinusitis. He has worked in conjunction with immunologists and has researched

the incidence of immunodeficiencies in chronic sinusitis.

Douglas VanDaele, M.D.

Dr. VanDaele received his medical degree in 1996 from University of Iowa Roy J. and Lucille A. Carver College of Medicine. His primary clinical interest is laryngeal physiology especially as it relates to swallowing disorders. VanDaele also has a clinical interest in the pathophysiology of extraesophageal manifestations of gastroesophageal reflux disease.

Upcoming Events

Iowa Basic Science Course in Otolaryngology: A Course for Otolaryngology Residents

Department of
Otolaryngology–
Head and Neck Surgery
The University of Iowa
Iowa City, IA
July 2–August 15, 2002

Under the instruction of Robert Morecraft, Ph.D., the Head and Neck Anatomy Section consists of anatomy lectures and supervised cadaver dissection. Individual assistance is offered in each daily laboratory session. The Anatomy Section is held afternoons daily for the first three weeks of the course (60 hours). Morecraft is currently an Associate Professor in Anatomy and Structural Biology at the University of South Dakota School of Medicine. He has instructed the Anatomy Section of the Basic Science Course for the past 16 years.

This series consists of approximately 150 lectures (220 hours) delivered by specialists from University of Iowa Roy J. and Lucille A. Carver College of Medicine, Departments of Anesthesia, Dentistry, Dermatology, Internal Medicine, Neurology, Ophthalmology, Otolaryngology, Pathology, Pediatrics, Pharmacology, Radiology, and Surgery. The

Lecture Series will review the following as they apply to Otolaryngology: Allergy, Anatomy, Anesthesia, Audiology, Biochemistry, Craniofacial Deformities, Dentistry, Epidemiology, Evoked Responses, Genetics, Immunology, Instrumentation, Nutrition, Oncology, Pharmacology, Physics, Physiology, Psychoacoustics, Radiology, Research Design, Speech Pathology, Statistics, and Trauma.

Areas of focus will include Anatomy, Audiologic Science, Basic ENT, Craniofacial Deformities and Cosmetic Surgery, Diagnostic Radiology, Mandibular Wiring Techniques, Oncology, Oral Pathology, Otology, and Physiology of the Ear.

Coordinators:
Russell B. Smith, M.D.
Richard S. Tyler, Ph.D.
Jay T. Rubinstein, M.D.

10th Annual Conference on Management of the Tinnitus Patient: For Patients and Professionals

Department of
Otolaryngology—
Head and Neck Surgery
The University of Iowa
Iowa City, IA
*Thursday–Saturday,
September 26–28, 2002*

This conference is intended for otologists, audiologists,

psychologists, and nurses who provide clinical management services for patients with tinnitus. The conference will also provide information to patients who have tinnitus, their family, and friends, but it will NOT include individualized diagnosis and treatment. The purpose of this conference is to provide a review of current evaluation and management strategies for the treatment of tinnitus. Upon completion of the program, the participant will be able to discuss the management of tinnitus and the tinnitus patient.

Special Guest of Honor
Richard Salvi, Ph.D.
Hearing Research Laboratory
University of Buffalo

Homecoming Clinical Conference (Iowa v. Purdue)

Friday–October 4, 2002
*Saturday morning, October 5,
2002*

Come for the clinical conference and stay for the game!

Roger Crumley, M.D., will be our guest speaker for the October 4th Homecoming Clinical Conference. Dr. Crumley is an Iowa Alum and Chairman at the University of California Irvine Department of Otolaryngology–Head and Neck Surgery.

Please note that the Iowa Academy of Otolaryngology will be held in conjunction with this clinical conference.

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The Iowa Way is published periodically by the Department of Otolaryngology–Head and Neck Surgery at The University of Iowa for friends, colleagues, and alumni.

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