President’s Page

“The road we took over the last year has been challenging, rewarding, educational, and exciting. I have attempted to reintroduce all of us to AsMA’s great diversity of scientific expertise—physicians, nurses, physiologists, bioenvironmental engineers, industrial hygienists, environmental health practitioners, human factors specialists, psychologists, and other professionals—that constitutes our extended family from 76 different nations. The relationships formed by our membership have created the foundation for much collaboration and continue to solidify our organization as the world leader in Aerospace Medicine.

Your Executive Committee has been diligent in the pursuit of changing our tax-exempt status from a 501(c)(6) Trade Association to a 501(c)(3) Charitable Scientific and Educational Organization status. Our application has been accepted by the IRS and we should have an answer by the end of this year. The benefits to our organization and members are that once approved, AsMA will continue as a tax-exempt organization at the federal level and more importantly, our members of the Association will be able to deduct a portion of their annual dues as a charitable donation. The Association will also be able to accept other charitable donations to further our educational and scientific missions. Our financial manager, selected last year, has continued to grow our savings in a conservative and prudent manner. Additionally, we have allocated funds for our new website and phase one will be demonstrated at our Scientific Meeting. This project has been my number one goal for our Association over many years and I am very pleased that it was started under my watch.

With the Theme of our Scientific Program being “Evolving Travel Medicine Issues: A Global Concern,” we could not have two more talented Lecturers. Our 58th Louis H. Bauer Lecture will be presented by Dr. Martin Cetron, M.D., Director for the Division of Global Migration and Quarantine (DGMQ) at the U.S. Centers for Disease Control and Prevention (CDC). On Thursday morning our 47th Harry G. Armstrong Lecture will be given by Dr. David O. Freedman, Professor of Medicine and Epidemiology and Director of the global GeoSentinel Surveillance Network, University of Alabama, Birmingham, Department of Medicine. They will provide their insight into a multitude of global concerns and future capabilities that we will need to keep our world as safe as we can.

I thank all of our Corporate and Sustaining Members that share our Association’s objectives or have benefitted from its past or current activities for providing financial resources that have sustained our organization. I want to thank Jeff Sventek and his staff at our Home Office, all the members of our Executive Council, and my relief as President, Dr. Glenn Merchant, for all the support, critical thinking, and camaraderie which has made this last year a most productive, enjoyable, and beneficial year to our extended Aerospace Medical Association Family. Finally, my family and I thank you for allowing me to be your President over this past year and I hope to see everyone in Chicago next year. The road we have traveled has made all the difference.

Fanancy Anzalone, M.D., M.P.H.
NSBRI Honors Senator Hutchinson and Wins 5-Year Extension of Cooperative Agreement with NASA

The National Space Biomedical Research Institute (NSBRI), recently honored a Senator with the Pioneer Award and also received an extension on a cooperative agreement it has with NASA. NSBRI, funded by NASA, is a consortium of institutions studying the health risks related to long-duration spaceflight and developing the medical technologies needed for long missions. NSBRI’s science, technology, and education projects take place at more than 60 institutions across the United States. NSBRI’s Pioneer Award, in its fourth year, recognizes individuals whose efforts and accomplishments have blazed new trails on behalf of the Institute, its partnership with NASA, and the space biomedical community at large.

Space Research Institute Honors Senator Hutchinson with Pioneer Award

In recognition of her ongoing support of the nation’s human spaceflight program, U.S. Senator Kay Bailey Hutchison is the 2012 recipient of the National Space Biomedical Research Institute’s (NSBRI) Pioneer Award. The senior senator from Texas was honored recently during the official opening in March of a new 16,400-square-foot Consolidated Research Facility that NSBRI shares with the Baylor College of Medicine’s Center for Space Medicine (CSM). The facility includes office space, four laboratories, meeting rooms, and science and education collaboration areas.

NSBRI President and CEO Dr. Jeffrey P. Sutton said that Hutchison is deserving of the Pioneer Award because of her contributions to the advancement of human spaceflight, including space biomedical research. Hutchison, who has announced her retirement at the completion of her current term, was first elected to the Senate in 1993 and has developed the reputation of being a staunch supporter of NASA’s human spaceflight program. She currently serves as the Ranking Republican Member of the Senate Committee on Commerce, Science, and Transportation, which oversees space exploration. She also held the chairmanship of the Science and Space Subcommittee of the Commerce Committee during the 109th Congress. In 2005, she was the primary author and sponsor of the NASA Authorization Act that designated the International Space Station as a National Laboratory.

For more, please see the press release and images at www.nsbri.org/newsflash/indivArticle.asp?id=454&articleID=160.

NASA Extends Cooperative Agreement with NSBRI

NASA announced recently that it awarded a 5-year extension of its cooperative agreement with the National Space Biomedical Research Institute. Under the extension, the institute and NASA’s Human Research Program will continue biomedical research in support of a long-term human presence in space. The period of performance for this 5-year option begins Oct. 1. It will extend the cooperative agreement through Sept. 30, 2017. The initial base period of the agreement began in March 1997 and continued through Sept. 30, 1997. Three 5-year options were exercised in 1997, 2002, and 2007.

For more information, please visit the press release at www.nasa.gov/home/hqnews/2012/mar/HQ_C12-013_NSBRI_Extended.html.

National Air and Space Museum’s Trophy Awarded to Burt Rutan and the Cassini-Huygens Flight Team

The 2012 Smithsonian’s National Air and Space Museum Trophy was awarded in the Lifetime Achievement category to Burt Rutan and in the Current Achievement to the Cassini-Huygens Flight team. They were presented their awards March 21 at a black-tie dinner in Washington, D.C.

Established in 1985, the award recognizes outstanding achievements in the fields of aerospace science and technology and their history. As in past years, Trophy winners receive a miniature version of “The Web of Space” (http://www.nasm.si.edu/research/aeo/trophy/nasm.htm), a sculpture by artist John Safer.

Rutan has designed and built some of the most exciting machines ever to fly. His revolutionary lightweight, durable, and efficient air- and spacecraft have broken numerous world records, including the first nonstop flight around the world without refueling (Voyager) and first privately developed reusable sub-orbital spacecraft (SpaceShipOne). To date, five Rutan aircraft are in the museum’s collections. Rutan’s companies—Rutan Aircraft Factory andScaled Composites—have produced an eclectic range of homebuilt, research, civilian, and military aircraft that have changed construction and engineering, solved specific aeronautical problems and captured the imagination of the aerospace industry and the world.

Arriving at Saturn in 2004, Cassini has been chronicling Saturn and its satellites and rings. The discoveries made by this mission continue at a fantastic pace. The Cassini-Huygens team has far exceeded the planned primary mission duration and objectives, taking maximum advantage of this invaluable asset. Further, by careful management of spacecraft resources, the mission may continue for years, thus allowing the Cassini-Huygens Flight Team to answer scientific questions far beyond those conceived at the mission’s onset.

More information about the National Air and Space Museum’s Trophy and a complete list of past winners are available at www.nasm.si.edu/research/aeo/trophy/nasm.cfm.

Journal of AAOS Highlights

Below are highlights of new research articles appearing in the March 2012 issue of the Journal of the American Academy of Orthopaedic Surgeons (JAAOS). Each news highlight includes a link to the study abstract. For the full table of contents, please visit the AAOS journal (http://jaaos.org/content/current).

Spine Patient Outcomes Research Trial (SPORT) Provides Lessons in Treatment and Care

The Spine Patient Outcomes Research Trial (SPORT) is the first comprehensive study to look at the effectiveness of different treatments for low back and leg pain. It was designed to provide data and outcomes to guide doctors and their patients in their treatment choices for three common spinal disorders: intervertebral disk herniation (IDH), degenerative spondylolisthesis (DS), and lumbar spinal stenosis (LSS). The results from the trial, which began in 2000, are already having a strong impact on orthopaedic practice and the appropriate role of surgical intervention, according to a review on SPORT appearing in the March issue of the JAAOS (http://jaaos.org/content/20/3/160.abstract). Treatment of spinal disorders, both surgical and nonsurgical, comes at a high cost to insurance providers, hospitals, and society. However, the assessment of patient-generated outcomes has produced cost-effectiveness data supporting surgical treatment for these conditions, as they provide significant value to the patient over the long term. Most patients, according to the trial results, knew where their condition was headed. Those who noted improvement, or who felt that their symptoms were tolerable, recognized the value of waiting further, while those who felt no significant relief knew they needed surgical care. All primary outcomes “significantly favored surgical treatment” for IDH, DS, and LSS. However, both surgical and non-surgical treatment for IDH resulted in significant relief of low back and leg pain. Surgery was much more effective over non-surgical treatments in treating DS and LSS symptoms.

New Study Urges Orthopedic Surgeons to Proactively Diagnose, Treat Vitamin D Deficiency

A literature review in the March issue of the JAAOS (http://jaaos.org/content/20/3/123.abstract) looks at the role of vitamin D in JAAOS, see p. 545.
bone and joint health development, maintenance and function, and at the importance of diagnosing and treating vitamin D deficiency (known as hypovitaminosis D or low vitamin D). Adequate levels of vitamin D are associated with higher bone mineral density, lower rates of osteoporosis-related fractures, and improved neuromuscular function. Vitamin D is obtained through diet and exposure to sunlight, however, a supplement is often necessary to maintain adequate levels. According to the National Health and Nutrition Examination Survey, approximately 30% of Americans have less than adequate vitamin D levels (less than 20 ng/ml); the number increases to more than 70% when using a more stringent cutoff (less than 30 ng/ml). There is a growing debate on just how much vitamin D children and adults need to prevent vitamin D deficiency, but the known effects of deficiency on bone health is of particular interest to orthopedic surgeons and their patients. The study authors recommend that orthopedic surgeons, in partnership with primary care physicians, play an active role in diagnosing and treating patients with potential vitamin D deficiency. Correcting low vitamin D levels may improve the results of treatment for a variety of orthopedic conditions.

Study Outlines Treatments, Complications for Stress Fractures of the Tibia, Foot, and Ankle

In competitive athletes, stress fractures most often occur in the tibia (shinbone), foot, and ankle, leading to considerable delay in return to play. A literature review article, “Stress Fractures About the Tibia, Foot, and Ankle,” appearing in the March issue of the JAAOS (http://jaaos.org/content/20/3/167.abstract), outlines the many factors that can affect these types of injuries, including a person’s general health, blood supply, training regimen, and foot anatomy. The location of a stress fracture injury can impact the course of treatment and how quickly the injury heals. High-risk fractures, such as those to the anterior tibia, navicular (midfoot), proximal fifth metatarsal (foot), and medial malleolus (ankle), may require surgery. Surgery also may be recommended for individuals needing to return to play quickly following a stress fracture injury. Cast immobilization, weight-bearing restrictions, and medication for pain control generally work well with low-risk fractures. However, more research is needed on other non-surgical treatment methods, such as pulsed ultrasound and extracorporeal shock wave therapy (ESWT), to confirm effectiveness.

CivilAviationMedicalAssociation

CAMA Sunday May13th, 2012
Atlanta Hilton Hotel.
Salon E, 0900-1200 hrs.

Topic – The Value of the Private Pilot Medical Assessment

Panel
Dr. Hugh J. O’Neill, President CAMA
Dr. Fred Tilton, Federal Air Surgeon
Dr. Sally Evans, Chief Medical Officer UK CAA
Dr. David Salisbury, Director CAM, Canada
Dr. Tony Evans, Chief Medical Officer, ICAO
Dr. Jack Hastings, Consultant Neurologist, FAA
Dr. David Bryman, Senior AME, Arizona

No registration required and everyone is welcome.

MeetingsCalendar


May 13, 2012;CAMA Sunday; 9 AM to 12 noon, Atlanta Hilton Salon A, Atlanta, GA. The topic will be “The Value of the Private Pilot Medical Assessment.” No registration is required and everyone is welcome.


June 20-23, 2012;Undersea and Hyperbaric Medical Society’s 45th Annual Scientific Meeting; J. W. Marriott Desert Ridge Resort & Spa, Phoenix, AZ. For more info, please visit www.uhms.org.

July 1-5, 2012;Flying Physicians Association’s 58th Annual Meeting; Denver, CO. For more info, please visit www.fpadrs.org/mt_detail.cfm?pk=95.

October 4-6, 2012;the Civil Aviation Medical Association’s (CAMA) Annual Scientific Meeting; San Diego Marriott La Jolla, La Jolla, CA. The theme for this year’s meeting is “Taming the Complex Aeromedical Examination: Flight Physician Preparedness.” For more information, please see CAMA’s website: www.civilavmed.com.

October 22-24, 2012;50th Annual SAFE Symposium; Grand Sierra Resort and Casino, Reno, NV. Please see the Call for Papers on the SAFE Symposium page; deadline for abstract submission is June 15, 2012.

October 31, 2012;Autonomic Disorders & Syncope Workshop; Paradise Island, Bahamas. For info, contact: Anita Zeller, AAS Executive Secretary, American Autonomic Society, Phone: 952-469-5837, Fax: 952-469-8424; or visit www.americanautonomicsociety.org.
The Neurosciences and the Practice of Aviation Medicine

Edited by Anthony N. Nicholson

"The editor and the assembled authors have accomplished a masterful task in relating the neurosciences to the practice of aviation medicine. This volume lays out the anatomical and functional basis in the nervous system for most of the neurological diagnoses which may be encountered in the care and qualification of those who would fly. From the neurological examination through common problems such as headache, vision and hearing reduction, hypoxia and disorientation, to the more complicated states of sleep, wakefulness, consciousness and awareness of the airman, the causes are outlined and then the reader is led to the qualification decision. This volume should be a welcome addition to the library of all the disciplines involved in aviation medicine, and particularly to physicians in the practice of aviation medicine."

—Charles Berry, Past President, Aerospace Medical Association

Remember!

Council Meetings are open to all members of the AsMA. Your input and attendance are always welcome. Our next meeting will be on Sunday, May 13, at 9:00 a.m. in rooms 304/305 of the Atlanta Hilton.

FAA International Aero Medical Examiner Seminar
Berlin/Germany
23 – 26 August 2012

Application form and further details under www.flugmed.org or www.eusam.org
QinetiQ Is Newest Corporate Member

QinetiQ, a company with offices in the UK, North America, and Australia, is the most recent company to become a Corporate and Sustaining Member of AsMA. QinetiQ offers technical, engineering, and advice-based services, including testing and evaluation of equipment, electromagnetic compatibility and environmental testing, information technology, and facility management and range design. Their products include unmanned aerial vehicles and military ground-based robots. Their experienced teams have won awards such as the 2010 Sir Arthur Clarke Award for Team of the Year and a Team Gold Medal from the Royal Aeronautical Society.

QinetiQ also recently received accolades from the Polish armed services for their training Polish Army personnel in the maintenance and operation of the unmanned vehicles QinetiQ delivered to them. They have also provided specialist design and advisory services to Fincantieri, an Italian ship builder, in support of development of an onboard escape system for the Italian Navy’s newest submarines. QinetiQ also recently completed the supply and service support to two international ranges in Australia and Norway, the first time that QinetiQ has provided that service in Norway. This marked another step in expanding QinetiQ’s expertise to new international markets. For more information visit them at www.qinetiq.com.

AOPA Files FAA Request

The Aircraft Owners and Pilots Association (AOPA) and the Experimental Aircraft Association (EAA) recently jointly filed a request for an exemption with the Federal Aviation Administration that, if granted, stands to increase the level of safety and significantly reduce a substantial economic and regulatory burden for pilots who fly recreationally. Currently, FAA regulations require all pilots to hold at least a third-class medical certificate to exercise the privileges of a private or recreational certificate. AOPA and EAA are asking the FAA for an exemption to that rule which would give pilots who fly recreationally the option of getting a third class medical or, instead, participating in a recurrent online education program that will teach them how to self-assess their fitness to fly.

This exemption request has been built upon substantial evidence obtained over the past 20 years, most recently proven through the successful medical safety standards allowed for under the sport pilot certificate, which currently uses the driver’s license medical standard in lieu of an FAA medical certificate. In the 7 years since the sport pilot driver’s license medical standard was established, the National Transportation Safety Board (NTSB) has not attributed a single accident in that category to medical deficiency.

ETC’s NASTAR® Announces New Training Programs

The National Aerospace Training and Research Center (NASTAR® Center) announced new space training and public experience courses in preparation for upcoming commercial spacelfights anticipated to commence in 2013. NASTAR Center’s space training courses include both new and redesigned programs to prepare passengers, pilots, flight physicians, emergency responders, and the general public for space.

The NASTAR Center space courses include lessons learned from previous training sessions and improved hands-on exercises and advanced spaceflight simulation exposures in flight simulators built by parent company Environmental Tectonics Corporation (ETC). Lessons learned are incorporated from over 240 NASTAR Center commercial spaceflight trainees which the NASTAR Center has successfully trained since its inception in 2007.


Wyle Cyber Security Expert Gives Speech

A Wyle expert on cyber security was one of several speakers making presentations at a Military Cyber Security conference running in March in the Washington, D.C. area. Shawn Anderson, director of Wyle’s Information Assurance Academy, gave a presentation titled “Cyber Assurance, Testing and Training.” Sponsored by the Technology Training Corporation along with the American Institute of Engineers, the event drew together more than 100 of the nation’s top experts on cyber security. Presenter topics included “Army Cyber Skills Gap, Where We Are, Where We Need to Be,” “Data Security Challenges” and “The Threat Landscape: Understanding Different Adversary Classes.” Wyle’s Information Assurance Academy serves the defense community by providing the training and certification testing necessary to assure compliance with the Department of Defense Directive 8570.01.

Mayo Clinic Explores New Ways to Predict and Control Seizures

Mayo Clinic and partners from the University of Pennsylvania School of Veterinary Medicine, the University of Minnesota College of Veterinary Medicine and College of Pharmacology, the Perelman School of Medicine at the University of Pennsylvania, and NeuronVista Corporation have been awarded a grant from the National Institute of Neurological Disorders and Stroke, a division of the National Institutes of Health (NIH). The research involves studying new ways to predict and control epileptic seizures in dogs and people.

Epilepsy affects approximately 1% of the human population, with an estimated 50 million people worldwide currently suffering from the disorder. The hallmark of epilepsy is the seizure—a sudden and often violent event that strikes patients without warning. The goal of the research is to use information gleaned from real-time electroencephalograms (EEG) to consistently detect impending seizures, and develop methods of preventing these seizures through use of fast-acting drug therapies.

—To read more, please see www.mayoclinic.org/news2012-rst/6738.html.

Gentex Facility Visited by Senator

Gentex’s manufacturing facility in Carbondale, PA, was toured by Senator Toomey, a member of several Senate caucuses. The Senator and company leadership also discussed the past, current, and future efforts of Gentex employees to develop, design, and manufacture personal protection and situational awareness products and systems for U.S. armed forces, including ground, aircrew, and special operations forces. Highlights of the visit also included an overview by Gentex’s President L. Peter Frieder, Jr. about the company’s long-standing success with defense and aerospace products, capabilities and technologies, and a tour by Gentex Chief Operating Officer L.P. Frieder, III, to observe and discuss with employees in the aircrew helmet assembly area their efforts to deliver products to customers whose lives depend on them.

—To read more, please see www.gentexcorp.com/default.aspx?pageid=4965.

Become a Corporate Member of AsMA!

Benefits include:
- Link from our website to yours
- Subscription to, special news section, and advertising discount in AsMA’s Journal
- Exhibit space and registration discount at AsMA’s Annual Scientific Meeting

For more information, please call Gloria Carter at (703)739-2240, ext. 106, gcarter@asma.org; or Yvette DuBois at undersearave@surfbest.net
Wilfredo Rodríguez-Jiménez, B.S., an Aerospace Medical Association (AsMA) and Aerospace Medicine Student & Resident Organization (AMSRO) member, was this year’s winner of the AMSRO Scholarship. Mr. Rodríguez-Jiménez, who is from Orocovis, PR, is a medical student at the University of Puerto Rico, currently under a study license to pursue a Master’s degree in Human Factors & Systems at Embry-Riddle Aeronautical University, Daytona Beach Campus. After completing the Master’s and M.D. programs, he hopes to join a Residency Program in the field of Aerospace Medicine and Internal Medicine. He will use the AMSRO Scholarship to attend the 83rd Annual Scientific Meeting of the AsMA in May. His award will be presented by Dr. Anzalone during the Opening Ceremonies at the Hilton Atlanta Hotel in Atlanta, GA, on Monday, May 14, 2012.

Kjell Lindgren, M.D., M.P.H., a former University of Texas Medical Branch (UTMB) Preventive Medicine & Community Health (PMCH) Aerospace Medicine resident, was recently selected as a crewmember for the NASA Expedition 42/43 launching in November 2014. Dr. Lindgren was awarded his M.P.H. degree in August 2007 and completed the residency in June 2008. He went on to be a UTMB/Wyle flight surgeon contractor for NASA Johnson Space Center. He was selected in June 2009 as one of 14 members of the 20th NASA astronaut class. He graduated from Astronaut Candidate Training that included scientific and technical briefings, intensive instruction in ISS systems, Extravehicular Activity (EVA), robotics, physiological training, T-38 flight training and water and wilderness survival training. Dr. Lindgren is an Associate Fellow of AsMA and serves on the Corporate and Sustaining Member Committee.

For photos, see UTMB PMCH’s news at http://pmch.utmb.edu/about/pmchnews/12-03-22/Lindgren_selected_as_crewmember_for_2014_NASA_Expedition.aspx.

New Members

Baggot, Lee A., M.D., Wright-Patterson AFB, OH
Garner, Jason, Capt., USAF, M.D., Las Vegas, NV
Hansen, Gilbert R., M.D., Bellevue, NE
Keillor, Jocelyn, Ph.D., Ottawa, ON, Canada
Murphy, Richard R., M.D., Mukilteo, WA
Nugent, Nathan Z., Maj., CE, Gulf Breeze, FL
Piitulainen, Simo E., M.D., Helsinki, Finland
Vasileios, Moutevelis, M.D., F.S., Kalamata, Greece
Virgil, Sandra T., Huber Heights, OH
Winterbottom, Marc D., Wright-Patterson AFB, OH

The George Washington University—Medical Faculty Associates:

Fellowship in Extreme Environmental Medicine (FEEM)

- Requirements: Completed residency or graduate medical studies recognized by the Accreditation Council for Graduate Medical Education (ACGME).

- The duration of the fellowship is one or two years. Candidates may choose to pursue a Masters degree concurrently. Entry into the program begins each academic year but can be conducted on a rolling basis if desired.

- Areas of focus for this fellowship include hyperbaric medicine, diving medicine, aviation medicine, aerospace medicine, wilderness medicine and disaster medicine.

For more information on the fellowship and to apply, please visit www.gwemed.edu/feem

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