

SPACE MEDICINE BRANCH REPORT

Send information for publication on this page to: Philip J. Scarpa, M.D., M.S.
Mail Code TA-C2
NASA-Kennedy Space Center, FL 32899
(321) 867-6386
philip.scarpa-1@ksc.nasa.gov

President's Message

I would like to thank you all for allowing me to serve you as President of the Space Medicine Branch (SMB) for 2000-2001. I am



supported by my fellow officers, Mr. Lloyd Tripp as Secretary/Treasurer, Dr. Melchor Antunano as President-elect, and Dr. G. Wyckliffe Hoffer as Branch Historian. In addition to the existing Members-at-Large, three more were newly elected, Dr. Volker

Damann, Dr. Chiharu Sekiguchi, and Dr. Nick Kanas who will replace the seat vacated by Mr. Tripp, the new Secretary/Treasurer. I also wish to take this opportunity to thank Dr. James Collier for his service as Secretary/Treasurer for the past 2 years.

I am excited for this upcoming year. My plan is to lay important foundations and set direction to insure that the Society continues in this new century as the premier organization of space medicine in the world. This is not a job for one person and I am enthusiastically supported by several hardworking members, busy professionals in their own careers, who donate their time and talents to the Branch. The meeting in Houston this past year was truly inspiring and served, in part, to make us realize that space medicine has come-of-age as a respected and important area of medicine. This is in large part due to the continuous support and high quality of work in the field by members of this Branch, both past and present. Because of this, I believe the field of space medicine now enjoys a level of stature unprecedented in its history.

This year the Branch will be celebrating its 50th anniversary as a constituent organization of the Aerospace Medical Association (AsMA). In 1950, several interested and dedicated people wished to establish a forum to exchange ideas concerning a new field of medicine involving humans in spaceflight. This field was called "space medicine" and by 1951 they had formed the Space Medicine Branch within the framework of AsMA. The list of founders reads like a who's who of space medicine history. This is impressive when you realize that the SMB was holding its first meetings more than 6 years before Sputnik 1 was launched and 7.5 years before NASA was created. The SMB is planning several activities this year to honor this anniversary. One of these activities, led by our Historian Dr. Wyck Hoffer, will be a targeted appeal to former Presidents and Secretary/Treasurers of the Branch for remembered historical information, or documents, or copies of documents which are currently personally held by them. Another activity, which has already taken place in July, was a visit by the Branch's History Committee to the SMB

archives at Wright State University. This trip resulted in identifying many SMB historical holdings for our members. A similar trip by the History Committee to the AsMA head office archives in Alexandria, VA, is planned for later this year. You will hear more about this from Dr. Hoffer on this page in the next few months, however, I petition any of you that wish to contribute to the SMB archives to please contact Dr. Hoffer at BIO-5, NASA-Kennedy Space Center, FL, 32899, or phone at 321-867-3200 or email at Wyckliffe.Hoffer-1@kmail.ksc.nasa.gov.

Under the direction of our recent president, Dr. Robin Dodge, the Constitution and By-Laws Ad-Hoc Committee has been working diligently to update the SMB Constitution and By-Laws. In its current form, the Constitution is somewhat inflexible and does not fully reflect how the Branch operates. With some needed improvements our Constitution should serve us well into this new century. I have asked the Constitution Committee to ready the proposed draft and make it available to all the membership by this winter so that you may review it before voting on it in the spring. So look out for an announcement on this page or on our web site about this.

To insure the SMB's representation within AsMA, the Executive Committee has appointed Dr. K. Jeffrey Myers as Representative to the AsMA Membership Committee, Dr. Denise Baisden as Representative to the AsMA Nominating Committee, and myself, Dr. Philip Scarpa as Representative to AsMA Council. I have asked Dr. Myers also to retake the reins of the Young Investigator Award subcommittee relieving Mr. Tripp to perform his new Secretary/Treasurer duties. Dr. Myers should continue to make this program a very positive asset to the Branch.

The International Committee, chaired by Dr. Chrysoula Kourtidou-Papadeli, has recently been busy recruiting new members to the SMB in Greece while co-hosting the latest International Academy of Astronautics Humans-In-Space Symposium this past May. The Symposium was a great success and the SMB acquired several new international members.

The SMB web site, www.asma.org/html/constitu.htm, will be upgraded this year to include a larger history section with more scanned documents and a list of our SMB archive holdings, an additional database to include SMB business meeting speakers, an education section, links to space medicine research, and a complete listing of the current membership (names only).

The future of space medicine looks bright. With the Russian Service Module successfully docked to the burgeoning International Space Station (ISS) this past July, NASA and the ISS program now have a "go" to proceed with several backlogged ISS assembly flights. The ISS program, a consortium of 16 nations building a permanent habitation in space,

will undertake an ambitious schedule of 18 U.S. and Russian launches including 9 space shuttle flights by October 2001. A series of missions with challenges and difficulties not seen since landing humans on the Moon. Permanent ISS habitation is scheduled to begin with the crew of Expedition 1 before the end of this year. A key element of future space medicine research, the U.S. laboratory module, Destiny, will then launch in early 2001. With long-term habitation of the ISS, we can now attempt to fully answer the questions concerning the effects of long-duration spaceflight on the human body.

Answers we need in order to go back to the Moon, or onto Mars and elsewhere.

In terms of Mars exploration, the recent evidence of the potential for liquid water on the planet further begs the question of whether Mars now has or had life. The discovery and usefulness of liquid water should also further our efforts in the development of a human Mars base. One upcoming mission related to this is the Mars 2001 Orbiter. Slated for launch this April to reach Mars by the end of 2001, the mission should expand our information about Martian water as well as help to characterize the radiation-related risks to human exploration. Another mission to Mars, Mars 2003, plans to land two rovers to further analyze the geology of the Martian surface for evidence of current or past liquid water. Human habitation of Mars is not as far off as some may think. It will be the understanding of the Martian environment along with work on closing the life support system cycles and developing effective countermeasures to the effects of long-duration space habitation that will be essential elements of any human mission to Mars. Areas which our Branch members are actively working.

The experimental results of shuttle flight STS-95, the mission with Senator John Glenn, were published this year. The review of these results which help to correlate spaceflight and the aging process should be of interest to our members. The commercial development of space, e.g. United Space Alliance, MirCorp, Spacehab, Lunacorp, Sealaunch, X-Prize, etc., where private companies have taken over traditionally governmental activities in the space arena, is rapidly increasing. In apparent congruence with the Commercial Space Act of 1998, which encourages NASA to seek commercial users of the ISS, the future may see a philosophical change in how space exploration is conducted where funding may be supplied in part, or entirely, by private enterprise. The prospects of human spaceflight performed by commercial spacecraft, as iterated by Dr. Antunano during our recent SMB business meeting, brings to the forefront the issues involved in developing medical standards for commercial spaceflight passengers and crew. Issues that soon must be taken on by space medicine specialists as commercial vehicles

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are becoming reality. In response, the Federal Aviation Administration is developing a list of research needs for space medicine for the near future.

During this year as we work on some of these activities and plan for our upcoming meeting, I welcome and encourage your input. Please let me hear from you (see address above) or you may contact the Secretary/Treasurer at 3701 Olde Willow Drive, Beavercreek, OH 45431, or phone 937-255-5742, or email Lloyd.Tripp@wpafb.af.mil. I also encourage you to participate in one or more of our Branch's committees. The list of committee chairs can be found on our web site. There are enough things to do and you can make a difference as our Branch history has proven.

This will be a busy and exciting year. I look forward to working with you all to help ensure the continued success of our Branch as we celebrate its half century mark while taking our first steps into this new millennium.

Philip J. Scarpa, M.D.
2000-01 President

YOUNG INVESTIGATOR AWARD

The Space Medicine Branch's Young Investigator Award is presented to an investigator who is the first author of an outstanding paper (slide or poster session) in the area of aviation and/or space medicine presented at the current or previous scientific meeting of the Aerospace Medical Association. In addition to being the first author, the work must be original and the investigator must be presenting at the AsMA annual scientific meeting for the first time.

The award is intended to encourage young investigators new to the field of aerospace medicine. The applicant must submit a draft manuscript of their presentation to the chairperson of the Awards Committee. To be considered for the 2001 award, manuscripts must be submitted by the end of March 2001 to:

Jeffrey Myers, M.D.
SMB, Young Investigators Award
Chair
P. O. Box 540305
Merritt Island, FL 32954
Phone: (407) 867-2026
Jeffrey.Myers-1@kmail.ksc.nasa.gov

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