

80th AsMA Annual Scientific Meeting Westin Bonaventure, Los Angeles, CA "The Future is Not What it Used to Be"



Call for Papers

You are cordially invited to join colleagues and friends in celebrating AsMA's 80th birthday in the city of Los Angeles, CA. The theme for AsMA's 2009 Annual Scientific Meeting is "The Future is Not What it Used to Be."

The brilliant author and futurist, Arthur C. Clarke, coined this phrase almost half a century ago. He was addressing the notion that despite the greatest of zeal and technological prowess, the future that our civilization was shaping remained in flux; that our expectations were not necessarily reflected in what was to come. Indeed, during the heady days of the 1950s and 60s, we were certain that by the time of the new millennium, we would be well on our way to the planets, having conquered most if not all of the predicted aeromedical challenges. Our present reality...their future...reveals otherwise. So what, then, do we in aerospace medicine and human factors today envision as our new set of futures? This question sets the theme for our May 2009 Annual Scientific Meeting in Los Angeles. Sessions will address the following: How will current and predicted technologies help to expand human capabilities, and in doing so, further minimize the negative impacts on performance due to human limitations? How will the more effective integration of humans with systems, both manned and unmanned, enable aeromedical/human factors specialists to better prevent and respond to mishaps? As our futures have changed, how have (and will) our educational, scientific and technological responses to newly identified and predicted aeromedical challenges likewise changed?

Our 80th birthday year promises to be a year of exciting change both in aerospace medicine and AsMA. Help us to shape our future by submitting an abstract for the May 2009 Annual Scientific Meeting.

AsMA Abstract Submission Process

Abstracts for presentations can be submitted in one of three formats: Slide (PowerPoint), Poster, or Panel (PowerPoint presentations) format. Panels, as well as proposals for debates and non-traditional forums for scientific information exchange, will be considered on a case-by-case basis. Accepted abstracts will be published in *Aviation, Space, and Environmental Medicine*.

All abstracts must be submitted via the electronic submission system linked to the association's web site: www.asma.org and click on the link to the abstract submission site--available on the AsMA home page on or about **1 August, 2008**. You will need to register as a user on this site; however, if you have entered in a previous year, your username and password will be the same.

Authors with questions regarding the abstract submission process should contact AsMA directly at (703) 739-2240, x101 (Ms. Pam Day); or e-mail pday@asma.org.

Individual slide (PowerPoint) presentations are limited to 15 minutes (including 5 minutes for Q&A). Poster sessions are assigned a display space (4 x 8 ft boards) for 2.5 hours; the au-

Deadline: October 31, 2008

thors are expected to be present for at least 90 minutes during that time.

Please note: **Presenters (including panelists) are required to register for the meeting.** (Registration limited to the day of presentation will be available on-site.) The presenter's current e-mail and mailing address are required for online submission. Registration forms will be available online and will be mailed to the contact author for each accepted abstract.

Please note: The following information is required during the submission process: Abstract title, presenting author information (including complete mailing and e-mail addresses), topic area (from list provided on back of form), contributing authors and their e-mails and institutions, abstract (LIMIT: 300 words) and educational objectives (the Accreditation Council for Continuing Medical Education-ACCME-requires a brief sentence on the speaker's learning objectives for the audience). In addition, one multiple choice question and answer will be required for each slide and panel presentation. Read instructions online for further details. [Technical Note: It is possible to paste the text for an abstract from a Word or WordPerfect document; however, any special characters must be coded using the special character html tags on the submission site.]

Deadlines

The deadline for online submission of abstracts is 6:00 p.m. Eastern Daylight Time on **October 31, 2008**.

Financial Disclosure/Conflict of Interest/Ethics

Abstracts will not be accepted without a financial disclosure/conflict of interest form. The form is part of the submission website. The presenting author must agree to comply.

Scientific presentations at AsMA-sponsored events will adhere to the highest standards of scientific ethics, including appropriate acknowledgment or reference to scientific and/or financial sources. Presenters must avoid the endorsement of commercial products in their abstracts and during their presentations. There should be no advertisements on Posters, AV, or handout materials.

Permissions and Clearances

It is the author's responsibility to obtain all necessary permissions and clearances prior to submission of the abstract. AsMA assumes no liability or responsibility for the publication of any submitted material.

Presentations

Slide and Panel presentations (see **Panels** on next page) will be organized by topic area and presented during 90-minute blocks of time. Individual slide (PowerPoint) presentations are limited to 15 minutes (including 5 minutes for Q&A). **Poster** sessions are assigned a display space (4 x 8 ft boards) for 2.5 hours; the authors are expected to be present for at least 90 minutes during that time.

Please note: The Scientific Program Committee strives to honor the presenter's desires regarding presentation format, but occasionally, reasons such as space limitations or dissimilar content with other abstracts may result in displacement of an otherwise acceptable abstract. In such cases, authors will be offered an alternative presentation format, i.e., a presentation requesting slide format will be offered a change to poster format if space is unavailable. Assignment of an abstract to either a poster or a slide presentation will be recommended by the Scientific Program Committee, but the final decision will be made by the Program Chair.

Panels

Panels are invited or organized groups of abstracts submitted for presentation. They may be either informational or scientific in scope. Note: An overall abstract describing the purpose of the panel MUST be provided along with individual abstracts for EACH presentation. The organizer (chair) of the panel is responsible for ensuring that all abstracts within his/her panel are properly submitted. An overall panel password and topic area must be given to each presenter and used throughout the submission process.

After the panel is submitted, it is **mandatory** that the panel organizer contact the Scientific Program Committee Panels Chair, Arleen Saenger (arleen.saenger@faa.gov) and provide the following information: Panel title, chair(s), topic area, group password, order and length of each presentation, day and time preference (if any), and AsMA Committee or Constituent organization sponsor (if any). Panels will be scheduled for 90-min periods. A proposed schedule must accompany all panel submissions.

Acceptance Process

Abstracts will be reviewed by a minimum of three members of the AsMA Scientific Program Committee. Acceptance will be based on the abstract's originality, relevance, and scientific quality. Criteria for rejection include, but are not limited to, insufficient, inconsistent or ambiguous data; commercialism; or reviews of previously published literature. (NOTE: It is insufficient to state, "Results will be discussed.") Presenters are limited to one senior-authored presentation (except for panel presentations) without prior permission of the Scientific Program Committee Chair, Philip Scarpa at: philip.j.scarpa@nasa.gov. Following review by the Scientific Program Committee that meets in November, all contributors will receive a notification of acceptance or rejection by e-mail and may check the abstract's status on the submission web site.

Abstract Withdrawal

Once an abstract has been accepted, it is expected that one of the authors will be able to attend the meeting and make the presentation as scheduled. Withdrawing abstracts is strongly discouraged. However, if necessary, a request to withdraw an abstract should be sent to:

Philip Scarpa, M.D., the Scientific Program Chair, at philip.j.scarpa@nasa.gov; and Pam Day at pday@asma.org. The request for withdrawal must include the abstract title, authors, and confirmation number (for approved abstracts), reason for withdrawal, as well as the correspondent's name, address, telephone, fax, and e-mail.

Due to publishing deadlines, withdrawal notification should be received by **January 15, 2009**. As abstracts are published in *Aviation, Space and Environmental Medicine* before the scientific meeting, a list of abstracts withdrawn or not presented will be printed in the journal following the annual meeting.

TOPIC AREAS: (These will be listed on a drop-down menu on the submission site. They are used to organize the abstracts into sessions. All abstracts within a panel must use the same topic area.)

1. Acceleration / Escape / Impact
2. AeroMedical Transport / Air Evacuation
3. Aerospace Human Factors
4. Aerospace Human Systems Integration (Manned and Unmanned) and Performance
5. Aerospace Physiology
6. Air Transport Medicine
7. Aviation Medicine
8. Exercise Physiology
9. Flight Safety/Accident Investigation
10. Health Promotion and Wellness Programs
11. History of Aerospace Medicine
12. Hyperbaric Medicine
13. Medical Standards / Aircrew Health
14. Neurophysiology / Vision
15. Occupational / Environmental Medicine
16. Performance / Psychology / Psychophysiology
17. Space Medicine
18. Other Related Topics

SAMPLE ABSTRACT:

CEREBRAL BLOOD FLOW REGULATION DURING ORTHOSTATIC HYPOTENSION

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Introduction: The squat-stand test (SST) elicits marked hypotension, with decreases in mean arterial pressure (MAP) of *30%, similar to that observed in astronauts post-spaceflight. While the central cardiovascular effects of the SST are well established, the responses of cerebral blood flow (CBF) and cerebral autoregulation (CA) have not been investigated. CA refers to the ability of the cerebral vasculature to regulate CBF regardless of changes in arterial blood pressure (BP) within an autoregulatory range (70-140 mmHg). A poor correlation between changes in MAP and CBF velocity (CBFV) indicate the maintenance of CA. We hypothesized that the decrease in arterial BP during the SST would be sufficient to compromise CA, resulting in a strong correlation between the reductions in MAP and CBFV. Methods: Nineteen subjects (12 males, 7 females), performed a SST consisting of a 4-min squat, followed by 4-min of stand. Non-invasive measurements of MAP (Portapres™) and middle cerebral artery blood flow velocity (Vm; transcranial Doppler) were obtained on a beat-to-beat basis. The relationship between reductions in MAP and Vm was assessed over the first 10 s of stand via regression analysis. Time to recovery was calculated from the moment of stand to the restoration of MAP and Vm. Results: During the squat-to-stand transition MAP decreased by a maximum of $36 \pm 2\%$ (104 ± 3 mmHg to 67 ± 3 mmHg, $p < 0.001$) and Vm decreased by $32 \pm 3\%$ (67 ± 3 cm/s to 46 ± 3 cm/s, $p < 0.001$). However there was a poor correlation between Vm and MAP ($R^2 = 0.21 \pm 0.05$), indicating normal CA. Normal CA was also reflected by a shorter time to recovery for Vm (11.3 s), compared with 15.3 s for MAP ($p < 0.001$). Discussion: Severe orthostatic hypotension, similar to that experienced by astronauts post spaceflight, does not alter CA despite significant reductions in MAP and CBF.

Learning Objectives: 1. The relationship between orthostatic hypotension (similar to that experienced by astronauts post spaceflight) and cerebral autoregulation will be discussed.