

AEROSPACE MEDICAL ASSOCIATION FOUNDATION NEWSLETTER

Volume 16 / Spring 2022

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Looking Beyond

Happy Spring to all from *your* AsMA Foundation. Our planet is still trying to shrug off the virus pandemic. Before I retire from the Chair position, I hope I can write a column that doesn't mention it. The Board of Directors and I look forward to a safe and more normal Annual meeting in Reno in May, as well as the chance to see more AsMA members in person again.

Like all institutions, the AsMA Foundation must face new challenges as it grows and as the world changes around it. Elsewhere in this issue Dr. Richard Jennings, founder of the Foundation, speaks of the need for us to look at the future of commercial space travel and the role the Foundation should play making it safer for those who make the journey. I have long had the dream that the Foundation would have the resources to fund educational and research opportunities for young investigators and professionals in this area.

Thirty years ago, human spaceflight (in the US) meant NASA. This is no longer the case, and if aerospace medicine is to remain relevant, we must acknowledge the need to change the way AS professionals are trained and supported. Commercial spaceflight companies will look to whomever will provide the medical support they need, and this will be outside of traditional AS medicine programs if we cannot meet their requirements.

If you're reading this, YOU are the Foundation's best resource. We need not just your financial support, but also your good ideas about how to boost spaceflight research and educational opportunities for the next generation of aerospace medicine professionals. Let us hear from you before or at the Reno meeting- dkbwell@mac.com . As always, your donations are welcome by mail, through registration at the AsMA annual meeting, and through our website at asmafoundation.org.

David K. Broadwell, Chair, AsMA Foundation



THE ASMA FOUNDATION THANKS 2021 DONORS

The Foundation supports AsMA with scholarships, awards and educational opportunities in aerospace medicine and its allied fields through the generosity of members and friends of AsMA. In 2021, 117 individual donors supported the Foundation and contributed \$46,024 to constituent organization endowed funds, named endowed funds, and unrestricted use. We wish to thank the following individuals for helping the Foundation support the Association, aerospace medicine and the allied fields in 2021. The mission of the Foundation could not be possible without your generous support. The Foundation appreciates gifts of any amount, but we will specifically recognize our more generous donors through AsMA Foundation Orbit donor categories unless they prefer anonymity. *While we make every effort to include each donor, if your name was inadvertently omitted from the lists or you are listed incorrectly, please let us know.*

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The Society Heritage Society honors colleagues and friends who make a commitment to the Foundation by will, revocable living trust, life insurance, life-income gift, retirement account designation or a deferred gift arrangement. Qualifying commitments may be of any amount, and may be directed to support existing programs and endowments, qualified new programs of the donor's choice, or may be undesignated. If others meet these criteria, please notify Dr. Broadwell or any of the Board members.

Charles Billings* Jeffrey R. Davis Richard Jennings
David K. Broadwell Walter and Sylvia Goldenrath* Al Parmet
**deceased*

FOUNDATION ANNUAL TREASURERS REPORT FOR YEAR ENDING 2021

Genie Bopp, Foundation Secretary/Treasurer, reports that the Foundation is solid financially with assets on December 31, 2021 totaling \$662,746, up from \$563,540 at the close of 2020. Continued contributions from donors throughout the year as well as during AsMA meeting registration help secure the future of scholarships, awards, research opportunities, and support for AsMA.

The total balance includes assets held for affiliated and constituent organizations and for specific endowed funds. There are now 13 individual funds within the Foundation in addition to the unrestricted fund that supports the Fellows awards and many other activities. The Fund balances as of Dec 2021 are as follows:

Stanley R. Mohler Fund	\$25,964
Space Medicine Association	\$55,882,
Society of NASA Flight Surgeons	\$18,040
Walter & Sylvia Goldenrath Fund	\$138,889
Thomas J. & Margaret D. Tredici Fund	\$51,566
Kris M. Belland Fund	\$39,153
ANS Louise Marshal Fund	\$18,462
Richard & Peggy Trumbo Fund	\$16,936
Richard & Issy Jennings Fund	\$54,843
Anita Mantri Memorial Fund	\$11,328
American Society of Aerospace Med Specialists	\$20,637
Mary Foley Fund	\$17,907
Dr. Mark and Betsy Campbell fund	\$10,571

Each of these funds have guidelines specific to the fund that determine the scholarships, awards or general purposes for which the funds are used. Tufton Capital provides independent, professional management of the investment portfolio for the Foundation’s assets to limit volatility and provide a sound basis for the future of the Foundation. Tufton Capital and Watts Group accountants reported a 13% total return investment for 2021. The Foundation’s asset allocation remains conservative to assure retention of capital with adequate annual income to assure scholarship and award distributions in varying market conditions

Scholarships, awards, and grants in 2021 totaled \$14,015. Both 2020 and 2021 Fellow Awards were distributed in 2021. The 2020 Fellows Award distribution was deferred to 2021 since the candidate presentations were delayed due to reschedule of the meeting in 2020.

AWARD DISTRIBUTIONS

Awardee	Amount	Fund	Scholarship/Award
Girgla Taania	\$750.00	General	AMSRO Diversity
Musashe Vincent	\$ 2,000.00	Goldenrath	Goldenrath award
Purvis Nina	\$ 750.00	Mohler	2021 Mohler
David Jason	\$1,000.00	Belland	Mantri
Valencia William	\$500.00	SNFS	SNFS
Mange Ami	\$500.00	SMA	SMA Davis
Anderson Sierra	\$750.00	SMA	SMA Undergrad
Epstein Ari	\$500.00	SMA	SMA KBR postdoc
Shinojima Ari	\$1,265.00	Tredici	Tredici Award
Hong Michelle	\$1,000.00	General	2020 Fellows 2nd place
Schwartz Hansjorg	\$2,000.00	General	2020 Fellows 1st place
Combs Elizabeth	\$2,000.00	General	2021 Fellows 1st place
Venus Marion	\$1,000.00	General	2021 Fellows 2nd place

2021 ASMA FELLOWS SCHOLARSHIP WINNERS ANNOUNCED

The AsMA Fellows Scholarship Committee is pleased to announce their selection of the 2021 scholarship winners.



Elizabeth Combs

The 1st place winner was Elizabeth Combs for her presentation and published manuscript on "Physiological and Cognitive Performance in F-22 Pilots During Day and Night Flying."

The 2nd place winner was Dr. Marion Venus for her presentation and manuscript on "Short and Long Haul Pilots’ Rosters, Stress, Sleep Problems, Fatigue, Mental Health, and Well-Being."



Dr. Marion Venus

The AsMA Fellows scholarship is funded by the AsMA Foundation and is presented annually to two AsMA members who are students in an aerospace medicine residency program, graduate program in aerospace medicine (Master or Ph.D.), medical certificate or aerospace diploma course, or in a full time education/training program in the allied fields of nursing, physiology, human factors, psychology, ergonomics, and engineering. Selection criteria include delivering a slide or poster presentation as a first author at the AsMA Annual Scientific Meeting and then submitting a manuscript as first author for publication in the Aerospace Medicine & Human Performance (AMHP) journal based on the same topic and/or material covered in the slide or poster presentation. The 1st and 2nd place winners are selected by the AsMA Fellows Scholarship Committee based on the highest scientific value, originality, quality and relevance of the applicant's presentation and AMHP manuscript related to the field of aerospace medicine (including allied scientific disciplines). Special consideration is given to applicants who are at an early stage in their career development. The scholarship monetary awards are used for the purpose of underwriting, in whole or in part, the cost of registration fees, transportation, hotel accommodations, or any other valid fees or expenses incurred by the winners in relation to their attendance at one or more scholarly meetings on topics related to aerospace medicine.

Four candidates delivered presentations at the 2021 AsMA meeting in Denver, Colorado (first eligibility requirement). Three candidates submitted manuscripts that were approved for publication in the AMHP journal (second eligibility requirement). These three candidates were considered the final eligible candidates for the 2021 scholarship.

Melchor Antunano, M.D., M.S., Chair, Fellows Scholarship Committee.

MARK AND BETSY CAMPBELL CREATE AN ENDOWMENT TO SUPPORT FUTURE INVESTIGATORS IN THE SPACE SURGICAL ASSOCIATION

Dr. Mark Campbell has been a leader in developing operative intervention capabilities for exploration spaceflight and a driver in the formation of the Space Surgery Association (SSA), an AsMA affiliate organization. The SSA is an international organization of surgeons and other physicians, procedural medicine specialists, and engineers working to develop capabilities to perform operative care in microgravity. In December 2021, Dr Campbell and his wife Betsy signed a landmark agreement with the Foundation creating and funding the Mark and Betsy Campbell Endowed Fund to support the SSA Future Researcher Award.

Dr. Campbell has a long history of supporting young members of AsMA and particularly the members of AMSRO. Regarding AMSRO and the SSA, he states, "The group is very enthusiastic and have numerous innovative ideas that they are attempting to express via scientific studies, presentations at the Annual Scientific Meeting, and through journal publications. Because of their unique demographics, Betsy and I thought that this would be a great target group to benefit from a young researcher scholarship/award." Dr. Campbell chose to endow this award now while still actively practicing surgery to assure its future growth and direction. In part, Dr. Campbell thinks that financial support for this field is needed now, but he also knows the importance of early career recognition. "I remember when I first started doing research in this field and how many people helped me to accomplish my goals at that time. Not only financially, but more importantly with encouragement and affirmation of effort."

As spaceflight moves beyond low-Earth orbit and the diversity of space travelers expands, interventional surgical techniques will become increasingly necessary. Congratulations to Dr. Campbell and Betsy for their leadership in the SSA. Their endowment of this fund will encourage and support in perpetuity AsMA's young

members as they study and develop future space operative capability. Others who are interested in this fascinating and evolving aspect of Aerospace Medicine are encouraged to support the Fund.

THE SPACE MEDICINE ASSOCIATION ESTABLISHES THE JOHN B. CHARLES RESEARCH FELLOWSHIP

AsMA members were saddened by the untimely passing of Dr. John B. Charles in February, 2021. A longtime member of AsMA, former council member, chair of the history committee, and former president of the Space Medicine Association (SMA), John made significant contributions to the practice of Space Medicine with his research and leadership. He was both a mentor and friend to countless AsMA members. John was a scientist, researcher, diplomat, leader, space nerd, environmentalist, historian, and an introvert who could easily have been a comedian. Those who knew John remember him for his kind and generous nature, his fantastic sense of humor and incredible memory. John was always glad to see you and make you feel seen. He will be greatly missed.

To honor Dr. Charles' leadership and scientific contributions to Space Medicine, the SMA established the JB Charles Research Scholarship which will be awarded at the annual SMA luncheon. John's friends and colleagues have already donated over \$10,000 to get it started. John devoted his life to space medical research—please consider honoring him with a gift to this fund to assure that it can be given in perpetuity.

Did you know that donations to the JB Charles Fund or any of the other Foundation scholarship funds through PayPal are quick and easy? PayPal enables credit card donation with or without a PayPal account. Donations can be sent to any of the funds by specifying the Fund name in the notes of your donation. Just visit www.asmafoundation.org, Ways to Give, and click the DONATE NOW button. An important new PayPal feature has arrived: if you do have a PayPal account, you can choose to give through the AsMA Foundation [paypal.com/giving](https://www.paypal.com/giving) fund which will be transferred to the Foundation with no fees.

FOLEY ENDOWMENT PANEL PRESENTS WOMEN IN SPACE: LESSONS ON LEADERSHIP

A second historic panel of the Mary F Foley Endowment will be held during the 92nd AsMA Annual Scientific Meeting in Reno. The Endowment was established through the AsMA Foundation and is sponsored by The Aerospace Nursing and Allied Health Professional Society (ANAHPs). Designed to perpetuate the legacy of Mary Foley, this educational event gains momentum, and the 2022 panel will honor outstanding women leaders in space medicine.

The panel will portray leadership dynamics of women who persevered through adversity with courage and determination. The qualities and virtues of these extraordinary women serve as models of excellence to influence, inspire and shape the next generation of leaders. Among these leaders is a Russian cosmonaut who was the first and youngest woman to fly solo in space; the first woman to be commander of a Space shuttle, and the first African American woman to fly into space. Also, to be honored is a cancer survivor from St. Jude Children's Hospital and crew member on the recent Inspiration4 commercial orbital spaceflight. These women and more will be recognized for their endless ambition, bravery, curiosity for exploration and discovery of the unknown.

The Foley Endowment fund has grown to \$18,000. The generosity of our membership is empowering the AsMA Foundation to bring value to the AsMA community through enriching experiences such as educational events, mentorship, leadership development, role modeling, collaboration among disciplines and fellowship.

If you wish to support this important initiative, we welcome your contributions. Please send charitable contributions, earmarked for the Foley Endowment, to the AsMA Foundation, 320 S. Henry St., Alexandria, VA 22314. We greatly appreciate those who have already supported this cause that honors women in aerospace medicine, perpetuates the legacy of Mary Foley and encourages others to emulate the leadership attributes demonstrated by these outstanding individuals.

AEROSPACE MEDICINE STUDENT & RESIDENT ORGANIZATION DIVERSITY SCHOLARSHIP



Congratulations to the 2021 recipient of the AMSRO Diversity Scholarship Program, Taania Girgla! Taania is in her final year as an MD/MPH student at the University of Michigan looking forward to a residency in anesthesiology, with future plans for critical care and aerospace medicine.

“Having grown up in Malaysia, India, and now the US,” Taania shares some of the challenges she faced growing up with constant relocations. “I stuck out in crowds; my accent was mocked...” She remembers this perpetual motion as being a setback in her education at first; “Over time though, I realized that every change opened my doors to the subtler, but more essential, diversity of ideologies, values, and experiences, and I began to embrace change as a learning asset and use it to develop my own multifaceted identity. ...[T]oday, I am proud to say I have three beautiful places to call home.”

Her experiences with many cultures inspired her to pursue public health, soon realizing that “health professionals do not often reflect those whom they serve,” which eventually motivated her to organize a national Diversity in Medicine conference and to take point in her medical school’s Doctors of Tomorrow outreach program “to expose underrepresented minority students to careers in medicine and provide them with the skillset needed to help pursue this path.” This two-handed approach would turn out to be a hallmark of Taania’s burgeoning career; she conscientiously provides those who look up to her not only with inspiration, but also with actionable direction as a genuine mentor.

She would soon receive some direction of her own. Though a lifelong lover of space and medicine, Taania only discovered aerospace medicine during her first year of medical school. Prior to meeting anyone within the field itself, Taania recalls her dream of becoming a flight surgeon getting “met with a skeptical look and a chuckle... I am not what most envision when they think of these traditionally male-dominated, White-dominated, ‘rugged’ and ‘risky’ careers.” Her passion could not be swayed, but there were times when she internalized the doubt that she would ever actually fulfill her vision. “Perhaps somewhere along the way, others’ voices became a subconscious voice...” Fortunately, she stuck to her goals and was able to meet a handful of students through the Aerospace Medical Association who took her under their wings and helped ignite her journey into aerospace medicine.

She has worked diligently not only to explore this field that had been shared with her, but also to expand it: she began her involvement in aerospace medicine with the idea to create a space medicine elective so that

knowledge could be shared with students earlier in their careers; she forged Michigan's statewide AMSRO chapter to create a community of resources for people beyond her own university; and she now mentors other students in order to—as her mentors at AsMA once put it—“pay it forward to others trying to make their mark too.” Taania reports that “students often reach out to me to ask how to enter the field,” citing what they believe to be barriers like “finances, being international, and feeling not represented due to their gender, size, or skin color.” She helps these students find their own launchpads, whether through encouraging Zoom calls or giving interviews for foreign high schoolers' class projects. Enroute toward her own goals, it has become another goal of hers “to empower others from various walks of life... and give a voice to their ideas like someone once did for me.”

In her free time, Taania enjoys the outdoors, reading, Bollywood movies, and new challenges, citing current examples as “training for a triathlon and learning how to make macarons at home!” She was recently accepted for medical student clerkships with NASA and SpaceX, and the AMSRO Diversity Committee looks forward to tremendous things in Taania's future, including the mentorship component of the scholarship program wherein Taania will develop research opportunities in space physiology while continuing to light the way for future students who may be facing the same setbacks that she turned into assets.

For questions about the AMSRO Diversity Scholarship Program, please direct questions to AMSRO.Diversity@gmail.com.

COMMERCIAL SPACEFLIGHT FOUNDATION INITIATIVE

The Foundation strives to support the Association and the field of Aerospace Medicine within the constraints of our funding. Much of this effort is directed toward AsMA's younger members to support their achievements and opportunities in the field. Commercial spaceflight is an area that is rapidly expanding and offers many opportunities for Aerospace Medicine, yet the funding for research seed money, rotations with companies, and formal educational/training programs is extremely limited. Aerospace Medicine residency programs are constrained by lack of CMS (Medicare/Medicaid) funding and have relied on funding by the military and NASA that meets their specific medical support needs. Similarly, the FAA has supported training in aviation medicine through its AME program and other training opportunities for students and residents. Commercial spaceflight funding for those in the Aerospace Medicine field is currently limited although several companies allow student and resident rotation opportunities. Funding for Aerospace Medicine residency programs and activities are relatively constrained, but better-funded programs without aerospace medicine expertise are eager to engage.

Commercial spaceflight will require considerable Aerospace Medicine and clinical medicine support as it dramatically expands the flight rate and participation opportunities for passengers with diverse backgrounds and medical limitations. The Foundation wants to assure that Aerospace Medicine remains an important part of providing safety, mission success, and a trained workforce for commercial spaceflight. We can accomplish this by supporting our young members, such as those in AMSRO, as they do rotations with companies, attend symposia, perform research and publication, and obtain education in this field. A good example of a previous successful cooperative effort includes the FAA COE-CST that had minimal seed funds from the FAA but leveraged university support, the NSBRI, and partner companies such as ETC to do pioneering work in commercial spaceflight access for individuals with medical challenges.

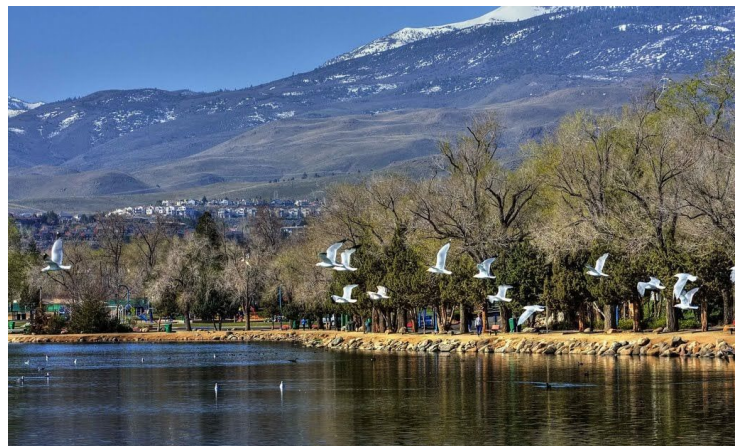
The Foundation understands that companies and individuals support programs that advance their own interests as well as benefit others. We want to hear what AsMA members, AMSRO, and commercial spaceflight companies consider to be the opportunities for young AsMA members that would add value to future commercial operations. It is our duty to solidify the role of aerospace medicine expertise and safety culture programs in the international commercial spaceflight community, but we can't do it without a voice.

Funding for these programs will depend on their value to these new companies. The Foundation would like to help in expanding more diverse passenger access and assuring medical safety in flight. Certainly, there is hope that this field that is dominated by entrepreneurial spirit, agile companies, and individuals of means can attract funds to support AsMA Foundation programs and inspire young investigators, students, residents, and nurses. Please contact any of the Board with your ideas or meet with us in Reno. It is our dream that Aerospace Medicine leadership working in partnership and creatively with the international commercial spaceflight industry and interested donors can make a difference for this exciting new field.

PLANS FINALIZED FOR THE RICHARD B. “DICK” TRUMBO PREVENTIVE MEDICINE RUN/WALK IN RENO

Plans are complete for the Richard “Dick” Trumbo 5K Preventive Medicine Fun Run/Walk scheduled for 6:00 AM on Monday, May 23, 2022 in Reno, Nevada. Jeffrey Sventek, Executive Director of AsMA, and the advanced planning team have developed a scenic course employing a one-mile path that surrounds Virginia Lake that is also just a short walk from the host Peppermill Resort.

The first AsMA 5k Fun Run was organized by the AsMA Deputy Executive Director, Dick Trumbo, in 2001 and was conducted beside the Truckee River in Reno! The 2022 Trumbo 5K event in Reno will occur 21 years after Dr. Trumbo organized the first AsMA 5K Fun Run. The Run/Walk is partially funded through the Foundation by an endowed fund that has been generously supported by Peggy Trumbo and friends and colleagues of Dr. Trumbo.



We hope you will be able to attend the AsMA 92nd Annual Scientific Meeting and also hope many of you will choose to celebrate the 21st anniversary of the Trumbo 5K Fun Run/Walk.

FOUNDATION BOOTH IN RENO

The AsMA Foundation will be hosting a booth in the display area at the annual scientific meeting in Reno. Members of the Board will periodically staff the booth and hope to answer any questions that AsMA members may have. We seek input from members regarding needs the Foundation may address or suggestions to improve the Foundation's function in the future.

SUPPORTING THE AsMA FOUNDATION

The AsMA Foundation supports aerospace medicine and its allied fields through scholarships, awards, grants, and other activities. Named individual and constituent organization endowed funds have been created to support awards, scholarships, and events in perpetuity, but unrestricted gifts are also appreciated. It is easy to support the Foundation: donations may be in cash, securities, bequests, life insurance, savings bonds, retirement plan assets, or real estate. Those that designate future gifts to the Foundation will be added to the Heritage Society if desired. Many types of gifts can limit tax liability, but it is prudent to consult a tax advisor. For more Foundation information, visit the [AsMA website](#).

CONTACTING THE FOUNDATION

AsMA Foundation
320 S. Henry St.
Alexandria, VA 22314

The best philanthropy is not just about giving money but giving leadership. The best philanthropists bring the gifts that made them successful – the drive, the determination, the refusal to accept that something can't be done. Tony Blair

Thank You for Supporting the AsMA Foundation

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Alexandria, VA 22314

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