SCA NEWS

SOCIETY OF CARDIOVASCULAR ANESTHESIOLOGISTS
Knowledge • Care • Investigation

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PRESIDENT'S MESSAGE

Diversity, Equity, and Inclusion Committee — a Critical Addition to Our SCA Community

Andrew Shaw
MB, FCCM, FFICM, FRCA
President, Society of Cardiovascular Anesthesiologists

DIVERSITY EQUITY & INCLUSION

Dear SCA Community,

I hope you and your families are doing well and staying safe! Last year around this time, Dr. Shernan, our immediate Past President of the SCA, emphasized the importance and urgency of formalizing a diversity, equity and inclusion (DEI) committee within the SCA to address forward-looking issues both within the society and also in perioperative cardiovascular medicine. A year later, I am excited to announce that we have developed and implemented a DEI Committee that is comprised of 20 SCA members from diverse backgrounds. During the past year, the SCA's DEI committee has been actively working to set the foundation for defining and achieving priorities germane to the future of the SCA.

The mission of this committee is to:

"Cultivate and advance diversity, equity, and inclusion in perioperative cardiovascular medicine by promoting increased understanding of unique experiences and perspectives of clinicians, patients, and communities."

For this newsletter, on the first anniversary of Dr Shernan's commitment to DEI within our Society, I have asked the two Chairs of this new committee, Drs. Yafen Laing and Ban Sileshi, along with committee member, Dr. Adam Milam to share their goals and aspirations for the committee with us. Their comments follow below.

Sincerely,

Andrew Shaw

As the Committee Co-Chairs and member of the Diversity, Equity and Inclusion Committee, we would like to reiterate the importance of formalizing the DEI Committee within the SCA by sharing a few important statistics. Healthcare disparities have been well documented, yet they persist despite significant advances in medicine and public healthcare delivery over the last quarter-century. It is well known that identity diversity (race, ethnicity, gender, sexual orientation, religious affiliation) and cognitive or intellectual diversity (e.g., information, knowledge, heuristics) contribute to better outcomes, as different perspectives help inform new and emergent solutions for complex problems.

Continued...

PRESIDENT'S MESSAGE

DIVERSITY EQUITY & INCLUSION

Dr. Yafen Liang
MD
Co-Chair
DEI Committee

Dr. Bantayehu Sileshi
MD
Co-Chair
DEI Committee

Dr. Adam J. Milam
MD, PhD
Committee Member
DEI Committee

In medicine, a diverse physician workforce is associated with improved access to health care, better patient-provider communication, improved patient satisfaction, and eventually, better patient outcomes. However, among anesthesiologists, there are still significant gender disparities (63.4% males vs. 36.6% females) and racial/ethnic groups continue to be underrepresented (9.8%). Data obtained from AAMC from 2019-2020 showed that only 1.3% of the reported fellowship training positions in Adult Cardiothoracic Anesthesia (ACTA) were filled by African Americans, 6.3% by Hispanics, Latino or Spanish origin, and 19.6% by Asians. In comparison, 66.5% of available ACTA Fellowship positions during the same examination period were occupied by Whites. Of note, in the 2019 -2020 academic year, there were only four African American matriculants out of 215 available ACTA fellowship positions. Thus, there is an urgent need to improve diversity, equity, and inclusion within our society and, as such, this concern also applies to DEI in perioperative cardiovascular medicine.

To achieve the above-stated mission, the SCA DEI Committee has created working groups focused on the following four broad goals:

1. Characterize the current composition of the SCA membership, the leadership structure, and the training programs, and propose stepwise commitment to advance diversity within these groups. This goal is the foundation of the committee's work and the data collected will help guide our future endeavors. This goal will be achieved by close collaboration with the SCA executive team, through surveys and building a robust database. The database shall be shared with SCA members, and it will serve as a great tool to raise awareness of DEI and, potentially, support future work initiatives related to DEI in the SCA.

2. Foster evidence-based research on diversity, equity, and inclusion in perioperative cardiovascular medicine, with a specific focus on healthcare equity research. Ideas being considered to achieve this goal include creating a DEI and Health Disparities Research submission pathway for abstracts and posters at the annual SCA meeting, creating a DEI and Health Disparities Research Award for the best abstract/poster at the SCA Annual Meeting, and creating a plenary session or a series of lectures focused on topics essential to DEI. In addition, the committee hopes to create liaison positions from the SCA DEI Committee to the following strategic leadership entities that are focused on research and scholarship in association with the SCA: i) SCA Scientific Planning Committee; ii) SCA Research Committee.

   Lastly, the committee recognizes and appreciates SCA's current Diversity and Inclusion Research Grant and hopes to work with SCA executive leadership to further strengthen and expand SCA programs that support research related to DEI in cardiovascular medicine.

3. Identify and strengthen partnerships with "pipeline" programs and communities, aiming to increase the diversity of the cardiovascular anesthesia workforce. Create and fortify mentorship programs that promote diversity among leaders in cardiovascular anesthesia across all groups that shape the future of perioperative cardiovascular medicine. A good starting place to achieve some

Continued...

"A diverse physician workforce is associated with improved access to health care, better patient-provider communication, improved patient satisfaction, and eventually, better patient outcomes."

of these goals will be surveying underrepresented minority (URM) members of the SCA to understand their current needs and priorities in mentorship and sponsorship.

Creating an SCA DEI Mentorship Grant to support professional engagement and mentoring related to DEI in cardiovascular medicine similar to the ASA Mentoring grant, is an important step. Recognizing the great work WICTA has already done to date surrounding mentorship, the committee hopes to partner with WICTA and continue to expand these efforts to URMs. Lastly, recognizing the desperate need to increase the URM workforce in cardiovascular anesthesia, the committee will work on identifying "pipeline" programs at the residency and medical school level, and to create workshops and programs that will lead to the recruitment of a diverse group of future cardiac anesthesiologists.

4. Nurture and enhance our relationship with the community by actively advocating diversity, inclusion, and understanding through various media platforms. This objective includes creating a special section devoted to DEI within the SCA newsletter, addressing the issues raised in media/journals/publications involving DEI through various social media platforms in a timely fashion.

As a critical addition to our SCA community, the DEI committee will work directly with the SCA Board of Directors to implement the above changes. We thank the members and leaders of the committee for these important initiatives and look forward to working together to bring DEI to the forefront at the SCA! However, we also recognize that effective change requires an ongoing effort, and we are committed to bringing our vision to fruition. We encourage the leaders in the field to help us realize these goals and create a better world that recognizes the role of mutual respect and opportunity as primary components of professionalism.

"Instead of trying to build a brick wall, lay a brick every day. Eventually, you'll look up and have a brick wall." — *Ermias Joseph Asghedom*

ECHO 2022

Missed 2022 Echo Week?

Even if you were unable to attend the 2022 Annual Echo Week, that does not mean you have to miss out on valuable content!

Echo Week will be recorded and provide the opportunity to deepen your understanding of ultrasound and perioperative transesophageal echocardiology with access to nationally recognized experts and content that will enhance your practice. You can access the product anywhere — all while earning CME credits!

Whether you were unable to attend the virtual meeting or want to revisit sessions you missed at the meeting, Echo Week was recorded and provides just what you need. **Register by March 21, 2022,** to access the recording of 2022 Echo Week.

ACCESS ECHO WEEK RECORDING

Register @ scahq.com

to access the recording of 2022 Echo Week

COR-PM 2022

Join Us May 13th for this Personal, Inclusive Conference

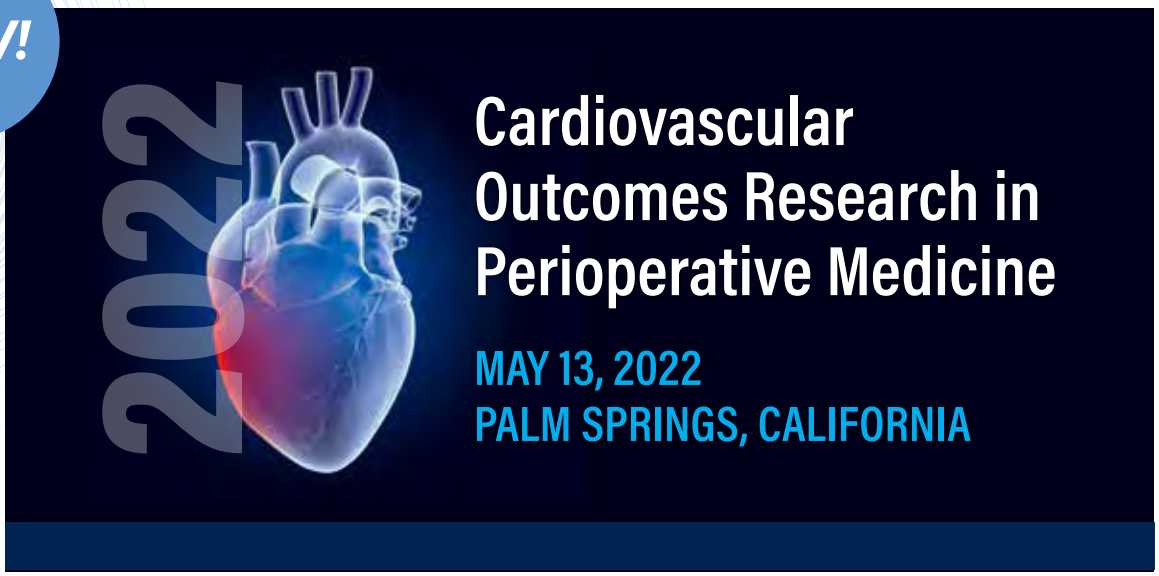
Registration for the first-ever COR-PM conference is now open!

The program will:

- Advance your understanding of high-quality clinical outcomes research within the T2-T4 translational spectrum.
- Provide mentorship capacity for early- and mid-career participants by providing a small-sized conference that permits "face time" with recognized leaders in the field, including Drs. PJ Devereaux, Dan Sessler, Jessica Spence, Monica Vavilala, Eric Sun, and many more.

Click here **to view the agenda, registration rates, and hotel information.**

NEW!



Register @ scahq.com

TAS 2022

Calling All Thoracic Anesthesiologists!

The Thoracic Anesthesia Symposium (TAS) Planning Committee invites you to join the world of non-cardiac anesthesiologists from around the world for the 2022 TAS meeting on May 13, 2022, in Palm Springs, California.

A focus on dramas, traumas, experts, and controversies, along with everyday challenges in the chest.

Thought leaders provide a deep-dive exploration of new topics in thoracic surgery and anesthetic challenges.

Hands-on workshop format! Focus on your clinical interests and explore what is new with an interactive experience with the authorities in the field.

At the SCA Thoracic Anesthesia Symposium you can:

- **Choose** 3 in-person workshops and register for an optional live PBLD for a conference experience tailored to YOUR educational needs.
- **Network** with 200 other professionals in anesthesiology to help you gain insight into your practice and career.
- **Connect** with our exhibitors to learn about new products and programs.

Click Here to view the preliminary agenda, registration rates and hotel information.

YOUR REGISTRATION AWAITS!

TAS 2022

Join us for these in-person workshops

Thoracic Anesthesia Symposium Highlights

In-Person Workshops Offered:

Critical Procedure Skills Workshop

Moderators: **Emily Teeter, MD, FASE & Lavinia Kolarczyk, MD, FASA**
Jason Long, MD, MPH
William Rosenblatt, MD
Andre Denault, MD, PhD
Amanda Kleiman, MD

Lung Isolation

Moderator: **Javier Campos, MD**
Dionne Peacher, MD
Yasmin Maisonave, MD
Diana Anca, MD

Regional Anesthesia

Moderator: **Rebecca Klinger, MD**
Angela Pollak, MD
Alicia Warlick, MD

Thoracic Ultrasound: Diagnosis and Management

Moderator: **Massimiliano Meineri, MD, FASE**
Hyun Joo Ahn, MD, PhD
Nazish Hashmi, MD

REGISTER TODAY FOR TAS 2022

Register now for this one- day event to maximize your virtual interaction between attendees and faculty!

To view the TAS agenda, visit: TAS Meeting Agenda

SCA 2022

Don't Delay — Register NOW for the 2022 Annual Meeting & Workshops!

May is right around the corner and we are excited to see you all in Palm Springs, CA for the 2022 Annual Meeting and Workshops from May 14-17.

Join your fellow members for the latest cardiothoracic anesthesia information through fantastic plenary sessions, panel discussions, pro-con debates, hands-on workshops, mentoring sessions, and problem-based learning sessions.

Look forward to:

- Amazing content delivered by experts in cardiothoracic anesthesiology, interventional cardiology and cardiothoracic surgery.
- Experts will provide didactics, small group breakout teaching and high-yield discussions.
- Problem based learning discussions, scientific abstracts, and workshops are planned to optimize attendee learning and connection on critical cardiothoracic anesthesiology topics.
- Attendee networking, idea-sharing and exhibits.

This year, in-person you can:

- Attend live discussion sessions to help you discover up to date practice pathways and innovations in the field.
- Register for Workshops and PBLDs tailored for YOUR educational needs.
- Network with 1,200 other professionals in anesthesiology to help you gain insight into your practice and career.
- Connect with industry and exhibiting companies to learn about new products and programs.

Don't miss out — Register Today!

REGISTER TODAY FOR SCA

SCA 2022

Workshops offered at an additional cost

Annual Meeting Highlights

Pocus Workshop

Saturday, May 14, 2022

Shahzad Shaefi, MD
Megan Chacon, MD
Benjamin Tuck, MD
McKenzie Hollon, MD
Brad Coker, MD
Sheela Pai Cole, MD, FASE
Vidya Rao, MD, FASE
Laeben Lester, MD
Ravi Joshi, MD
Massimiliano Meineri, MD, FASE
Brandon Smoller, MD
Walker Thomas, BA, FASE, RDCS
Abirami Kumaresan, MD
Austin Adams, MD

Professional Development Workshop

Saturday, May 14, 2022

Emily Methangkool, MD, FASE
James Abernathy, MD, MPH
David Reich, MD
Lavina Kolarczyk, MD, FASE
MaryBeth Brady, MD, FASE
Maya Hastie, MD
Jonathan Leff, MD
Douglas Shook, MD, FASE
Thomas McLoughlin, MD
Andrew Shaw, MB, FRCA
Christopher Troianos, MD
Maxime Cannesson, MD, PhD
Mark Taylor, MD, FASE
Gordon Morewood, MD
Peter Panzica, MD
Kathryn Glas, MD, FASE
Stanton Shernan, MD, FASE, FAHA

Perioperative Pacemaker and Implantable Cardioverter Defibrillator Management Workshop

Saturday, May 14, 2022

Candice Montzingo, MD, FASE
Michael Essandoh, MD, FASE
Brett Cronin, MD
Jonathan Leff, MD
Reed Harvey, MD
Annemarie Thompson, MD
Adam Dalia, MD, FASE
Kimberly Howard-Quijano, MD, MS, FASE
David Morgan, MD
Emily Methangkool, MD, FASE
Eric Nelson, DO
Timothy Maus, MD, FASE

SCA 2022

SCA 2022

Workshops offered at an additional cost

Regional Workshop

Saturday, May 14, 2022

Jennifer Hargrave, DO
Stephanie Ibekwe, MS, MD
Himani Bhatt, MD
Tiffany Williams, MD
Brett Wakefield, MD
Abimbola Faloye, MD
Michael Grant, MD
Daniel Tolpin, MD
Benu Makkad, MD
Jessica Brodt, MD
Samhati Mondal, MD
Marta Kelava, MD

Interventional Workshop

Sunday, May 15, 2022

Jenny Kwak, MD
Nadia Hensley, MD
PingPing Song, MD, MS
Choy Lewis, MD
Jeffrey Songster, MD
Jacques Neelankavil, MD
Carly Peterson, MD, FRCPC
James Lee, MD
Austin Adams, MD
Megan Chacon, MD
Charles Nyman, MBBCh
Renata Ferreira, MD

Advance TEE Workshop

Sunday, May 15, 2022

Adam Dalia, MD, FASE
Kelly Ural, MD
Alina Nicoara, MD, FASE
Andrej Alfirevic, MD
Stanton Shernan, MD, FASE, FAHA
Douglas Shook, MD, FASE
Feroze Mahmood, MD, FASE
Kathirvel Subramanian, MD, MPH, FASE
Andra Duncan, MD
Nikolaos Skubas, MD, FASE, FACC, DSc
Sharon McCartney, MD

3D TEE Workshop

Tuesday, May 17, 2022

Jiapeng Huang, MD, PhD, FASE
Michele Sumler, MD, MA, FASE
Alina Nicoara, MD, FASE
Charles Nyman, MBBCh
Nikolaos Skubas, MD, FASE, FACC, DSc
Anne Cherry, MD
Reed Harvey, MD
Korrin Scott Ford, MD, FASA
Natalie Silverton, MD
Laeben Lester, MD
Nelson Thaemert, MD

SCA 2022

SCA 2022

Thank You

to Our Annual Meeting Exhibitors

PLATINUM

Edwards

EXHIBITORS

ANESTHESIOLOGY NEWS

Envision PHYSICIAN SERVICES

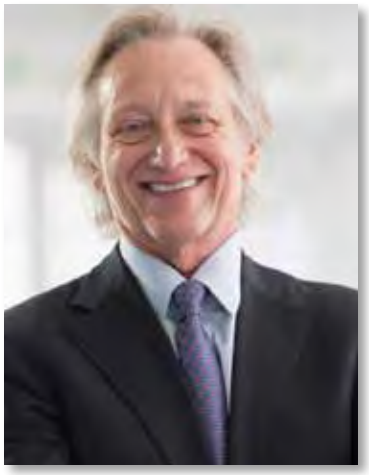
La Jolla Pharmaceutical

SCA 2022

SCA 2022

Join Us Monday, May 16th

Introducing — The 2022 Keynote Lecturer: Dr. Brian Bolwell, MD, FACP



Developing Physician Leaders

Brian Bolwell, MD, is Director of Physician and Leadership Development of Jack, Joseph and Morton Mandel Global Learning and Leadership Institute at the Cleveland Clinic. He is responsible for guiding the overall professional development of physician leaders across the organization. He oversees the talent review and succession planning processes for Cleveland Clinic professional staff. He will also lead the redesign of search committees to fill key Cleveland Clinic leadership positions, to ensure the hiring and promotion of the most qualified physicians and scientists.

Dr. Bolwell has been a practicing hematologist/oncologist for more than 30 years, and for the last ten years had served as Chairman of Cleveland Clinic Cancer Center and Taussig Cancer Institute. He has authored more than 450 articles and abstracts, concerning bone marrow transplantation, lymphoma, and other hematologic malignancies. Dr. Bolwell has served as a grant reviewer for the National Cancer Institute on multiple occasions. He has also served on leadership committees for the American Society of Hematology and the Center for International Bone Marrow Transplantation Research. In 2019, he was the recipient of the Cleveland Clinic Lerner Humanitarian Award, the most prestigious honor bestowed upon Cleveland Clinic physicians.

Dr. Bolwell is a Professor of Medicine at Cleveland Clinic Lerner College of Medicine. Dr. Bolwell completed his undergraduate degree at Harvard University and medical degree from Case Western Reserve University. He completed an internal medicine residency at University Hospitals of Cleveland and a hematology/oncology fellowship at the Hospital of the University of Pennsylvania.

The 2022 Keynote Speaker will take place Monday, May 16, 2022, at 11:00 AM.

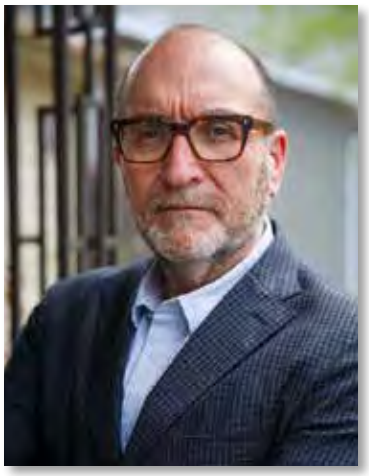
Make sure to **register** for the Annual Meeting to hear Dr. Brian Bolwell, MD, FACP

SCA 2022

SCA 2022

Join Us Sunday, May 15th

Introducing — The 2022 Annual Meeting Earl Wynands Lecturer: Dr. Eric Jacobsohn, MBChB, MPHE, FRCPC



(Un)Professional Behavior in the Cardiac Theatre: Surely Not Problematic in 2022?

Dr. Eric Jacobsohn, MBChB, MHPE, FRCPC, is Professor of Anesthesiology, Pain and Perioperative Medicine in the Max Rady College of Medicine, University of Manitoba, Canada. He is an Associate Dean in the Max Rady College.

Dr. Jacobsohn completed his medical school training at the University of Cape Town in 1984. After an internship, he immigrated to Canada in 1986, where his practiced as a rural family physician until 1989. He then trained in anesthesia at both Dalhousie University and University of Manitoba, followed by cardiac anesthesia and critical care fellowships at the University of Manitoba and Mayo Clinic. He earned a Masters' Degree in Medical Education at the University of Illinois in Chicago and accepted his first position in cardiac anesthesia and critical care at University of Chicago. After a brief return to Canada, he became the Chief of Cardiothoracic Anesthesia at Washington University School of Medicine, St Louis, a position he held until 2006, when he returned to Manitoba as the Professor and Chair of Anesthesiology. After two terms, he assumed his role as an Associate Dean.

Dr. Jacobsohn is a clinician in critical care and cardiac anesthesiology and is an active researcher. As Chair of the Canadian Perioperative Anesthesia Clinical Trials Group (2017 - 2021), he oversaw growth of this organization that fosters collaborative multidisciplinary research in Canadian anesthesia departments. He publishes extensively and collaborates with many international groups. He was the recipient of the Canadian Anesthesiologist Society's Teaching Award in 2017. In 2019, the Royal College of Physicians and Surgeons of Canada selected him as one of their "Prix d 'excellence" or Canadian Specialists of the Year.

Despite administration and research, it is his diverse clinical engagement that keeps him most fulfilled at work. He is an avid family man, and with his son, is a burgeoning whisky trader and entrepreneur.

The 2022 Earl Wynands Lecture takes place Sunday, May 15, 2022.

Make sure to **register** for the Annual Meeting to hear Dr. Eric Jacobsohn, MBChB, MPHE, FRCPC

SCA 2022

SCA 2022

Fellow and Resident Program

The **Fellow and Resident Program** at the 2022 Annual Meeting & Workshops enables fellows and residents to attend incredible educational sessions specifically designed for the trainee.

Highlights

Problem Based Discussion – Mission Possible Residents (limited space)

Saturday, May 14, 2022
1:00 – 2:00 PM
Interested in attending the Fellow and Resident PBLD, click here to sign up during the registration process.

Mentor and Mentee Round Table (limited space)

Saturday, May 14, 2022
6:00 – 7:00 PM
Interested in attending as a mentee, click here to sign up during the registration process.

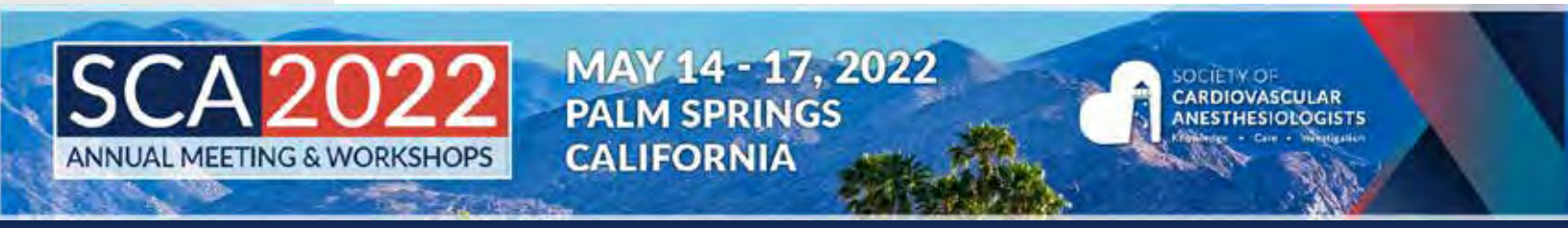
Fellow and Resident Poster Sessions

Saturday, May 14, 2022
10:00 AM – 11:00 AM
11:00 AM – 12:00 PM
1:00 PM – 2:00 PM
5:00 PM – 6:00 PM

Fellow and Resident TEE Review Session

Moderators: Tara Brakke, MD, FASE & Jacques Neelankavil, MD
Tuesday, May 17, 2022
2:30 – 5:30 PM

To learn more about Fellow and Resident programs, visit the Annual Meeting Agenda.



SCA 2022 Elections — Voting is Now Open!

The 2022 online elections for SCA leadership positions are open through March 9. The candidates are running for the following positions:

- **Director-at-Large** (2 positions available)
- **Early Career Board of Director** (2 positions available)
- **CME Committee** (1 position available)

Voting members received a personalized link for the online election system via email. If you did not receive this email and you believe this to be an error, please contact Denise Herdrich at dherdrich@veritasamc.com.

The SCA Nominating Committee, chaired by Immediate Past President Dr. Stanton K. Shernan, is pleased to endorse the following candidates for the 2022 election cycle:

Director-at-Large Candidates

Jacob T. Gutsche, MD

University of Pennsylvania

Dr. Gutsche is an Associate Professor of Anesthesiology and Critical Care at Penn. He is dual trained in cardiac anesthesiology and critical care medicine and serves as the clinical director of cardiovascular critical care within the Penn health system and the co-medical director of the Penn Lung Rescue Program. In addition, Dr. Gutsche performs many administrative roles with the University of Pennsylvania health system including associate chief medical officer of critical care for the Penn Health System. Dr. Gutsche has published numerous articles on the care of cardiovascular surgery patients. Dr. Gutsche has been an active and involved member of the Society of Cardiovascular Anesthesiologist (SCA) since 2011 and has served on the SCA Newsletter, CME, and Nominations Committee. Dr. Gutsche is actively involved in SCA meetings including workshops and PBLD's. Dr. Gutsche also serves as the co-chair of the SCA ECMO Working Group.

David McIlroy, MD, MBBS, FACZCA

Vanderbilt University Medical Center

Dr. McIlroy completed his medical education and anesthesia training in Melbourne, Australia (2001) before joining faculty at The Alfred Hospital in Melbourne. He is board certified in perioperative TEE and has an extensive background in clincal research, including the ANZCA Clinical Trials Newtwork. From 2008-12 Dr. McIlroy served as Assoicate Professor of Anestehsiology in the cardiac division at Columbia University, New York, before returning to Australila to continue his career in cardiac anesthesia and further develop his clinical trials expertise. In 2019, he was recruited to Vanderbilt University Medical Center in Nashville, TN, where he currently serves as Associate Professor of Anesthesiology and Medical Director of Vanderbilt's Perioperative Clinical Research Institute. He has been a member of the SCA since completing fellowship in 2001, serving as a member of the SCA's Research Committee since 2017 and a member of the AKI Working Group since 2018.

Director-at-Large Candidates

Danny Muehlschlegel, MD, MMSc, MBA, FAHA, FASA

Brigham and Women's Hospital, Harvard Medical School

Ever since I attended my first SCA meeting as an intern in 2003, I have been extremely passionate about the SCA. It has afforded me tremendous growth, both professionally as well as personally. The Board of Director's position that I am running for will enable me to give back and help others by continuing to steer the SCA in a direction that serves all of its members, regardless of gender, race, professional designation, country, or seniority. My strengths include my service and leadership experience in the SCA, leadership, finance, and governance expertise, a long tradition of multidisciplinary collaboration, and a strong sense of the importance of diversity and integrity in leadership. My roles within the SCA have included: Current Chair of the Research Committee, Chair of the Atrial Fibrillation Working Group, member Scientific Program Committee, member SCA/STS Database Sub-Committee, and member of the Women in Cardiothoracic Anesthesia (WICTA) Advisory Board.

Daryl Oakes, MD

Stanford University

Dr. Oakes is a Clinical Professor at Stanford School of Medicine with over 15 years of clinical experience in cardiothoracic anesthesiology. She is program director for the Stanford adult cardiothoracic anesthesiology (ACTA) fellowship and directs the Stanford Anesthesiology Perioperative Echocardiography Services. Dr. Oakes is also Associate Dean of Post Graduate Medical Education and the Stanford Center of CME. The focus of her academic work has been the education and training of anesthesiologists at all levels of practice. She lectures nationally on a range of topics related to transesophageal echocardiography, cardiothoracic anesthesiology, and education. Dr. Oakes is a passionate mentor to both trainees and colleagues and has created multiple programs to support physician professional development. She co-founded and chairs the SCA Women in Cardiothoracic Anesthesiology (WICTA) Special Interest Group and was recently recognized for her work supporting women medical professionals with the 2021 Women in Medicine (WIM) #SheForShe Award.

Nanette M. Schwann, MD, FAHA

Lehigh Valley Health Network

Dr. Nanette Schwann is Professor at USF College of Medicine and Vice Chair of Education & Research at Lehigh Valley Health Network. She is also a member of the Board of Directors of A5 Phymed Healthcare Group, LLC. Dr. Schwann is a nationally know cardiac anesthesiologist and thought leader on specialty care, health care policy, and patient safety. Dr. Schwann is board certified in Anestesiology, Critical Care Medicine and Perioperative Echocardiography. She is past Director of Clinical Research at Drexel College of Medicine, and Director of Research for the Institute for Women's Health & Leadership in Philadelphia. She serves on a few industry advisory boards and foundations. Dr. Schwann serves as the founding Chair of the SCA's Clinical Practice Improvement Committee. Her leadership has led to the dual publication of two major SCA clinical practice advisories. Under her tutelage, three additional clinical practice advisories are currently in progress.

Voting is now open

Director-at-Large Candidates

George Semien, MD, MPH, MSc, FASE, FASA

University of Mississippi Medical Center

George Ashley Semien is a 6th generation native of rural Louisiana. He was raised on a cattle farm. Upon graduating high school, he attended the University of Rochester where he was accepted to medical school prior to matriculation to college via the Rochester Early Medical Scholars Program. He completed his anesthesia training also at the University of Rochester. He has practiced cardiac anesthesiology in private practice, for private equity, non-profit organizations and academia. George completed an MPH (concurrent with medical school) and an MSc in Health Economics, Policy and Management from the London School of Economics. He enjoys spending time traveling, exercising and with his husband, family, and friends. He also serves the National Council for the University of Rochester College of Arts and Sciences and the nonprofit Outmycloset which supports homeless LGBTQ+ youth.

Annemarie Thompson, MD

Duke University

Dr. Thompson is a Professor of Anesthesiology and Medicine and Director of the Anesthesiology Residency Program at Duke University. She has been an SCA member for nearly 15 years with prior service on the Scientific Program Committee and Guidelines Subcommittee and served as Director for the SCA Fellow-Junior Faculty Program Committee for four years. She has been an Echo Week faculty member, workshop presenter, and program committee member. She is currently a member of the ERACS Task Force and is finishing a term on the Board of Directors. Her clinical practice is in cardiothoracic anesthesiology and critical care and she is actively involved with perioperative medicine leadership at Duke. Dr. Thompson's clinical research interests have been in echocardiography and evidence-based decision support in clinical practice with an emphasis on perioperative medicine in both cardiac and noncardiac surgery.

Early Career Board Director

Jessica Brodt, MBBS, FASA

Stanford University

Dr. Jessica Brodt is a cardiac anesthesiologist at Stanford University. She is currently serving her first term as an Early Career member of the Board of Directors, in which she has engaged with Board members, committee chairs and SCA members, to promote the mission and goals of the Society. She collaborates with colleagues outside the SCA to strengthen initiatives and collaborative efforts, notably ASRA and ERAS Cardiac Society. Beyond her roles in SCA, Dr. Brodt is currently the Quality Director for the Stanford Division of Cardiac Anesthesia, recipient of the 2019 SCA/IARS Mid-Career Research Grant, and Vice-Chair for the ASRA RACER Special Interest Group. These roles augment her role on the Board of Directors but never compete for time – Dr. Brodt has attended 100% of Board meetings during her term. Dr. Brodt identifies her core values as fairness, compassion, honest communications, and enjoying family and outdoor activities outside the OR.

2022 SCA Elections

Early Career Board Director

Theodore Cios, MD, MPH, FASA, FASE

Hershey Medical Center

Dr. Theodore J Cios, MD MPH FASA FASE is an adult cardiothoracic anesthesiologist at Penn State Health Hershey Medical Center. He obtained his medical degree from the Ohio State University after which he completed residency and fellowship training at Penn State. As an Associate Professor, he serves as the Program Director of the Adult Cardiothoracic Fellowship and is heavily involved with teaching and has a number of peer-reviewed publications on topics pertaining to cardiothoracic anesthesia and echocardiography. Dr. Cios has sat on a number of committees at Penn State including the University Faculty Senate and Chaired an Institutional Review Board. He has been on SCA committees since 2017 as a member of the Clinical Practice Improvement Project Sub-Committee and will continue to serve on the Guidelines and Standards Sub-Committee into 2023. He has given several national and international lectures and serves as a manuscript reviewer for a number of journals.

Adam A. Dalia, MD, MBA, FASE

Massachusetts General Hospital

I am currently a cardiothoracic anesthesiologist at the Massachusetts General Hospital and Assistant Professor at Harvard Medical School. I have served on several committees over the past several years at both the local and national level. I have served on the SCA Economics Committee for three years and am currently serving as Vice-Chair; I also serve on the SCA Annual Meeting Scientific Program Planning Committee. Utilizing my knowledge and expertise from business school and the Harvard Business School healthcare delivery course, I have been an integral part of the Economics Committee at the local level (Massachusetts Anesthesiologist Society) and the national level (Society of Cardiovascular Anesthesiologists). I have been engaged in my specialty through political activism advocating for patient safety and quality standards. With this background, I believe I would be a great fit for the Early Career Board of Director position.

Nadia B. Hensley, MD

Johns Hopkins School of Medicine

Dr. Nadia Hensley is appreciative for the opportunities in disseminating knowledge, advancing research, and increasing the quality of care that being an active SCA member for the past several years has afforded her. She is deeply honored to be nominated for the Early Career Board of Directors and is seeking a position. Dr. Hensley believes she can be the voice of those SCA members who are junior anesthesiologists and how the SCA may meet their specific needs and interests. Dr. Hensley enjoys serving on the Quality and Safety Leadership Committee, the Blood Conservation Working Group and Scientific Program Committee. In each of these committees, Dr. Hensley works with many SCA members that continue to inspire her through their passion for educating and expertise in cardiovascular research. Dr. Hensley would love to continue serving as Early Career Board of Directors and would like to thank members for their consideration.

Voting is now open

Early Career Board Director

Stephanie Ibekwe, MD, MPH

Baylor College of Medicine

Stephanie Ibekwe is an assistant professor of cardiovascular anesthesiology at Baylor College of Medicine at Ben Taub Hospital, a level 1 trauma hospital in Houston, Texas. Stephanie received her Doctorate of Medicine and Masters of Public Health from the University of Texas Health Science Center at San Antonio. She completed her anesthesiology residency training at Emory University and later completed a fellowship in cardiovascular anesthesiology at Johns Hopkins University. Stephanie focuses on the intersection of the business of medicine and quality improvement and safety in healthcare. Her career aspirations are to improve access to quality care while simultaneously enhancing perioperative efficiency through the use of patient centered care programs. She focuses on utilizing Enhanced Recovery after Cardiac Surgery protocols to enhance care delivery, utilize current interventions for improved patient care, and to perform analyses of care delivery. She is an active member of the Society of Cardiovascular Anesthesiologists.

Sergey Karamnov, MD

Brigham and Women's Hospital

I am a cardiothoracic anesthesiologist at the Brigham and Women's Hospital and the co-director of the Fellow Research Program at my department. I have dedicated much of my career to the SCA mission of enhancing patient care through education and research. I am a current member of the SCA Research Committee, which has taught me how to better serve patients through cutting-edge research. I have mentored close to 20 residents and fellows to achieve their academic goals, many of whom have received SCA scientific awards. I was named 2021 Mentor of the Year by my department. As an immigrant to this country, I understand firsthand the importance of representation. If privileged to be elected to the SCA Board, I will proudly advocate for the underrepresented and junior members with an emphasis on career development and education. If these issues resonate with you, I would be humbled by your support. Thank you!

Michael A. Mazzeffi, MD, MPH, MSc, FASA

George Washington University School of Medicine

Michael Mazzeffi is currently the director of cardiac critical care and executive vice chair in the department of anesthesiology at George Washington University in Washington, DC. He has been actively involved in the SCA since finishing his fellowship training in 2013. He previously worked at the University of Maryland School of Medicine for 8 years where he was a cardiothoracic anesthesiology fellowship director and the division chief for critical care medicine. Currently, he chairs the SCA's ECMO working group and is a member of the quality, safety, and leadership committee. Clinically he practices both cardiothoracic anesthesiology and cardiac critical care. He has an active clinical research program related to hemostasis and coagulation, which has been funded by two SCA grants. If elected as a board member, he will support the SCA's missions of education, faculty development, international and cross-societal collaboration, and greater diversity equity and inclusion in the society.

2022 SCA Elections

Early Career Board Director

Sharon McCartney, MD, FASE

Duke University

After completion of medical school at the University of Miami Miller School of Medicine in 2010, I went to Duke University for residency training in Anesthesiology, ACTA fellowship, and Critical Care Anesthesiology fellowship, culminating my training in 2016. I then joined the faculty as an Assistant Professor at Duke University starting in 2016 and work as a cardiothoracic anesthesiologist and intensivist. My clinical time is spent primarily with cardiothoracic surgical patients across all perioperative spectrums. I have particular clinical and research interests in perioperative echocardiography and advanced heart failure therapies and am committed to advancing perioperative care in our heart failure population. On a personal note, I am married and have 3 children (ages 12 years old, 9 years old, and 1 year old) and am often a mentor to young female trainees who want to start a family but also have a successful career.

Samhati Mondal, MBBS, MD

University of Maryland School of Medicine

Samhati Mondal is an Assistant Professor at the University of Maryland School of Medicine. Dr. Mondal completed medical school from the University of Calcutta. She has completed two anesthesiology residencies – from the University of Delhi followed by from Metrohealth, Case Western Reserve University. Additionally, she pursued two advanced fellowships in Liver Transplant and Cardiothoracic anesthesiology from the Cleveland Clinic and The Johns Hopkins University respectively. Dr. Mondal has authored more than 30 manuscripts, spearheaded many outcomes research as principal and co-investigator and led industry sponsored clinical trials at her site. She has also developed many quality improvement guidelines in the department. She also plays important roles at national platforms such as ASA and SCA including serving as a panelist, speaker, facilitator of posters, reviewer of PBLDs and social media liaison. Outside of work, Dr. Mondal loves to spend time with her two beautiful children, traveling, writing, and serving the community.

Peter Neuburger, MD, FASE

NYU Grossman School of Medicine

Dr. Peter Neuburger is an Associate Professor of Anesthesiology at the NYU School of Medicine. He is an active member of the SCA, serving as Chair of the Bylaws Committee and a speaker at the 2021 Annual Meeting. Dr. Neuburger contributes to our Society's special interest groups, serving as a mentor in the Women in Cardiothoracic Anesthesia Professional Development Mentoring Program, and Director of Communications for the Regional Anesthesia for Cardiothoracic Enhanced Recovery SIG. He is a Fellow of the American Society of Echocardiography, has lectured at the ASA and other national meetings, and serves on the Editorial Board for JCVA. Dr. Neuburger would be honored to serve the Society as an Early Career Representative on the Board of Directors. His record of involvement speaks to his commitment to the Society and despite his unsuccessful bid for this position two years ago, he respectfully expresses his ongoing desire to serve.

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Voting is now open

Early Career Board Director

Richard Sheu, MD, FASE

University of Washington

Richard Sheu, MD, FASE, is an assistant professor of Anesthesiology and Pain Medicine and the Associate Program Director of the Adult Cardiothoracic Anesthesiology Fellowship at the University of Washington School of Medicine. He is also the Director of Perioperative Echocardiography and oversees the clinical practice of various echocardiography modalities in the surgical and transcatheter setting. He has established close partnerships across specialties and developed numerous institutional policies and processes during his tenure. Recognized as one of the few anesthesiologist pioneers in the field of interventional echocardiography, he has been invited to speak at multiple national and international conferences and held Council positions in both the Society of Cardiovascular Anesthesiologists and American Society of Echocardiography. He is known as an award-winning educator and dedicates much of his time to brain-storming innovations and effective teaching strategies.

Bantayehu Silehi, MD

Vanderbilt University Medical Center

Dr. Bantayehu (Ban) Sileshi received his medical degree from Johns Hopkins University and is a fellowship trained Cardiothoracic Anesthesiologist. He is currently an Associate Professor and is the Program Director of the Adult Cardiothoracic Anesthesiology Fellowship at Vanderbilt University Medical Center. His clinical areas of interest include perioperative cardiac implantable device management, and perioperative transesophageal echocardiography. Dr. Sileshi is a co-principal investigator of the ImPACT Africa project, which aims to improve anesthesia training programs in East Africa, by implementing the following four components: simulation training, training of the trainer's course for anesthesia educators, ImPACT learning management system, and an electronic perioperative outcomes measuring tool. The ImPACT program has been successful in transforming anesthesia programs in Kenya, Ethiopia, and Tanzania. As a member of the SCA, Dr. Sileshi has served as a poster and PBLD moderator, member of International Committee, and currently serves as Chair of Diversity, Equity, and Inclusion Committee.

Emily G. Teeter, MD, FASE

University of North Carolina, Chapel Hill

Dr. Emily Teeter is Associate Professor of Anesthesiology at UNC Chapel Hill. Her service to the SCA includes Chair of the Enhanced Recovery after Thoracic Surgery Working Group and membership on the Thoracic Anesthesia Symposium Planning Committee. At UNC, she serves as Assistant Residency Program Director, and chairs both the Clinical Competence Committee and Residency Recruitment Committee. Her areas of interest include Enhanced Recovery after Thoracic Surgery, intraoperative transesophageal echocardiography, and point-of-care ultrasound. An Atlanta native, Dr. Teeter is a graduate of Dartmouth College and the University of Virginia School of Medicine. She completed residency training at UNC and cardiothoracic fellowship at Duke University.

Early Career Board Director

Adam J. Milam, MD, PhD*

Mayo Clinic

Adam J. Milam, MD, PhD is a Senior Associate Consultant in the Department of Anesthesiology and Perioperative Medicine at Mayo Clinic-Arizona. Prior to starting this position, he completed his cardiothoracic anesthesiology fellowship at Cleveland Clinic and residency at Cedars-Sinai Medical Center. Prior to medical school, he obtained a Doctor of Philosophy in Public Health from the Department of Mental Health at Johns Hopkins Bloomberg School of Public Health. Dr. Milam has been actively involved in several national and state societies including the American Society of Anesthesiologists, the Society of Cardiovascular Anesthesiologists, the National Medical Association, and the California Society of Anesthesiologists; he serves on committees for each of these organizations. He also is engaged in research, Dr. Milam's research is rooted in practices, policies, and interventions to address health disparities and health inequities. He has published over 80 peer-reviewed publications and has more than 75 national, international, and invited presentations.

Toby Beth Steinberg, MD*

Medical University of South Carolina

Dr. Toby Steinberg grew up in a suburb outside of Philadelphia. She attended the University of Michigan for undergraduate education and graduated with honors with a Bachelor of Arts in psychology. She attended the Medical University of South Carolina in Charleston for medical school, and then moved back to Philadelphia for residency in anesthesiology and fellowship in cardiothoracic anesthesiology at the Hospital of the University of Pennsylvania. Upon completing her training, she returned to Charleston as an Assistant Professor of Cardiothoracic Anesthesia at the Medical University of South Carolina. In her free time, she enjoys cooking, boating, yoga, and enjoying Charleston's wonderful food scene.

**Not endorsed by the Board of Directors*

Continuing Medical Education (CME) Committee Candidates

Andaleeb Ahmed, MD, MPH

Lahey Hospital and Medical Center

Andaleeb Ahmed is a Clinical Assistant Professor at Tufts, working at Lahey Hospital and Medical Center in Burlington, MA. He obtained his Cardiac Anesthesiology fellowship at Beth Israel Deaconess Medical Center, Boston, MA. He is the recipient of the Early Career Investigator Award, 2018. He graduated medical school in 2004 from University College of Medical Sciences, Delhi, India and completed his MPH from East Tennessee State University, 2007. He completed an Internal Medicine residency from Good Samaritan Hospital, Baltimore, MD (2010) and then completed an Anesthesiology residency from Penn State, Hershey, PA, 2013. He is dual boarded certified in Anesthesiology and Internal Medicine and is certified in Advanced PTEeEXAM. His clinical expertise includes Cardiac Anesthesia, 3D TEE, and POCUS. He loves to teach residents and create engaging online cardiac anesthesia content on various social media outlets and is a member of SCA's Social Media Sub-Committee and Research Committee.

Voting is now open

Continuing Medical Education (CME) Committee Candidates

Jenny Kwak, MD, FASA, FASE

Loyola University Medical Center

Jenny Kwak, MD, FASE is Chief of Cardiothoracic Anesthesiology at Loyola University Medical Center and Associate Professor at the Loyola University Stritch School of Medicine. Her Chicago roots pulled her to Loyola after completing her training at Brigham and Women's Hospital. Dr. Kwak has volunteered on SCA committees for 13 years, including the ACTA Program Directors Committee and Newsletter Sub-Committee. She is active with the Blood Management Working Group and Scientific Program Committee. Her contributions to the Journal of Cardiothoracic and Vascular Anesthesia and the American Board of Anesthesiology also support her nomination. While dedicated to the broad scope of cardiac anesthesia, as a hemophilia mom, she has a special interest in patient blood management. As an educator and member of the Scientific Program Committee, Dr. Kwak is interested in CME and the changing climate of how CME is provided.

Mathew Varghese Patteril, MD, FRCA, AFFICM

University Hospitals of Coventry and Warwickshire

Dr. Mathew Patteril is a Consultant Anesthesiologist at the University Hospitals of Coventry and Warwickshire UK. He qualified from University of Kerala, India in 1989. He trained in anesthesia & ICM in UK. He did his Cardio-thoracic and Critical care fellowship from Duke University Medical Centre, USA. His clinical interests are mainly cardiothoracic anesthesia. He was the Lead for regional anesthesia research network and a member of the National CRN Anesthesia Specialty board (2014-2016). He is currently the National examiner for British Society of Echocardiography (TEE section). He is an international committee member of SCA, editorial board member of Journal of Anesthesia. He has held the posts of the CD (chairman) of the department and Deputy lead for revalidation and appraisal. He was a council member of the Association of Anesthetists (2017-21) and chaired the independent practice committee and core topics. His hobbies are basketball and culinary pursuits.

Ali Salehi, MD, FASA

Ronald Reagan UCLA Medical Center

I was born in Tehran, Iran. I attended Shahid Beheshti (National) University of Medical Sciences in Tehran, Iran and obtained my medical degree in February 1994. I passed my USMLE examinations and came to the United States of America. I completed an internship in General Surgery and a residency in Anesthesiology at Temple University Philadelphia, Pennsylvania. Subsequently I completed a fellowship in Cardiothoracic Anesthesiology at the Cleveland Clinic Cleveland, OH. I am board certified and a diplomat by the American Society of Anesthesiologists and the National Board of Echocardiography. I have been practicing anesthesiology and cardiac anesthesiology at Ronald Reagan UCLA Medical Center at David Geffen School of Medicine for the past 17 years.

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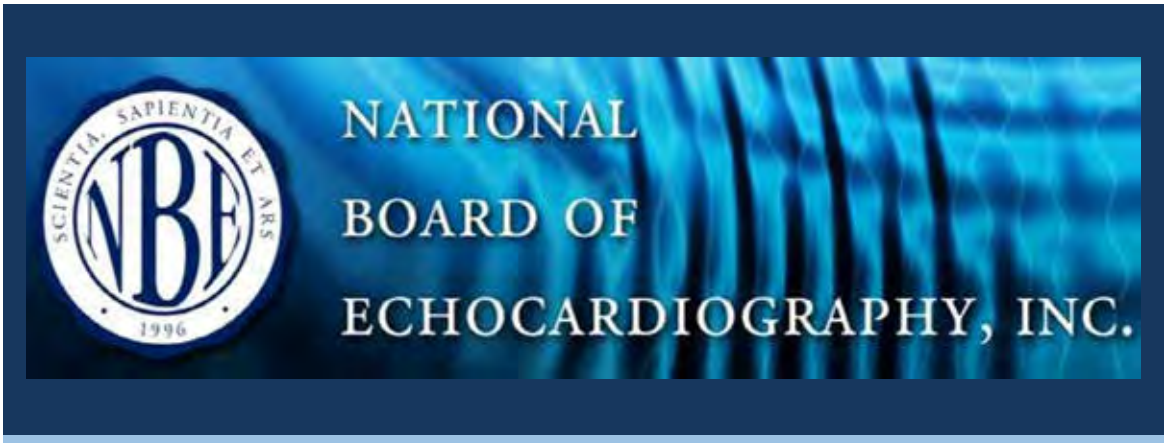

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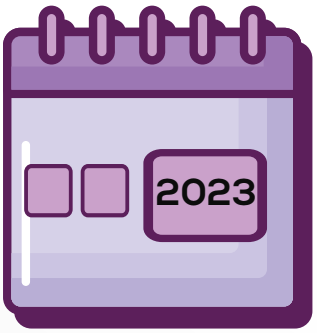

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THE SCA DOCMATTER COMMUNITY

Connect with Your Peers Easier and More Efficiently with DocMatter

The SCA has partnered with DocMatter to bring you a member resource designed to help you save time: the SCA DocMatter Community!

SCA members are now able to connect with your peers easier and more efficiently than ever before — you have been paired with a member of the DocMatter Team to provide technical support, as well as personalize your experience based on your specific clinical interests and assist with helping qualified members find Discussions to which you can lend your expertise. You can even dictate what you'd like them to post to the SCA DocMatter Community on your behalf!

The SCA DocMatter Community is an online environment built specifically for physicians and allied health care professionals to learn, collaborate by specialty area, mentor, share career advice, and otherwise network with your peers. The SCA DocMatter Community should be reminiscent of in-person or virtual SCA educational events, in that it is moderated, organized, and supported by a team of professionals to help you save time and find your cohort.

The SCA DocMatter Community helps Members start open, in-depth, clinical and research-based Discussions with questions on cases, the latest research, emerging technologies, best practices, or other topics of interest among your fellow SCA Members. You can use any procedural video, journal article, or other point-in-time educational event as the basis for group dialogue on the topic - like a mini-meeting session — and keep the Q&A going all year long, so member interactions do not need to be limited to a couple of times a year.

Some popular posts during Community launch:

- Is it necessary to do TEE for every CABG patient?
- Prophylaxis to reduce Atrial Fibrillation after cardiac surgery
- Thymectomy in a myasthenic patient

We look forward to hearing what you think and seeing your posts in the SCA DocMatter Community!

SCA MEMBER CORNER

AWEsome Woman Interview

Kelly Ural, MD, FASA

Ochsner Health System, New Orleans, LA

Dr. Ural completed her anesthesiology residency at Ochsner Medical Center in 2010 and continued her training with a fellowship in Adult Cardiothoracic Anesthesiology at Cleveland Clinic. Upon completion, she joined the faculty at Ochsner Medical Center in the section of Adult Cardiac Anesthesiology. In her first year as staff, she was chosen by the residents as "Best Didactic Teacher" and was a finalist for Ochsner Health System's "New Physician of the Year" award. In 2013, she was the proud recipient of the SCA's Kaplan Leadership Development Award.

Dr. Ural has a strong commitment to resident and fellow education. She became the ACTA fellowship program director at Ochsner in 2014, and in 2019, she transitioned to her current role as core residency program director. Among her accomplishments in these roles have been the creation of new educational opportunities in the areas of TEE and POCUS, and development of a formalized staff mentorship program.

She remains highly active in several national committees. She currently serves as a member of the SCA scientific program committee and the SCA Blood Management Committee. She has been the communications liaison for the SCA WICTA Special Interest Group since 2018. She also serves on the ASA Educational Track Sub-Committee on Cardiac Anesthesia. Her scientific interests are in the areas of anticoagulation and blood conservation. She lives in New Orleans with her husband and three children.

1. What led you to become a Cardiovascular/Thoracic Anesthesiologist?

As a resident, I strongly admired the skillset of the cardiac anesthesiologists I trained under. I felt they were best equipped to handle any situation and quickly noticed they were the group others turned to when looking for help. Once I started doing my rotations in this area, I knew there was nothing else I wanted to do. I loved the case complexity, the cardiopulmonary physiology, and the use of perioperative echo to guide decision making.

2. How did you hear about the SCA?

The history of the SCA is rooted right here in New Orleans! In 1979, the cardiac anesthesia group at Ochsner led the charge in joining forces with other regional cardiac anesthesia groups to form the SCA. During residency, I was lucky to do a few cases with Dr. Robert Marino, one of the founding members of the SCA and Dr. Don Harmon who spoke at the very first SCA meeting. Dr. Harmon was a huge mentor for me and my desire to be as competent and fearless as he was in even the most stressful situations was a large reason I went into this field.

3. What roles have you held for the society?

My first role in the society was as a member of the ACTA Fellowship Program Director's Council. It was a great way to network and learn from other program directors. Currently I serve as the WICTA communications liaison and am also a member of the SCA Scientific Planning Committee, and the Blood Management Committee.

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4. What is one of your greatest achievements as a cardiovascular/thoracic anesthesiologist?

My first major project as a staff anesthesiologist was to improve our department's crossmatch to transfusion ratio. Our research showed that our transfusion rates for first time sternotomy CABG and single valve cases was quite low. Despite this, we were preparing multiple units of blood for these patients. By demonstrating the low rate of transfusion, we converted to a system where patients with low risk of transfusion now only receive a type and screen, decreasing cost and preserving resources.

5. Do you have any advice for fellows and residents?

Take advantage of the many resources available to you to learn and improve your practice. You'll never have another time in your career to focus so much on your education. You owe it to yourself to give 100%. Stay late for the case, go to the meeting, read the article your staff handed you, and at the end of every case, ask how you can improve! The trainees who actively seek feedback get the best feedback.

6. Have you experienced any difficulties as a woman in the field?

I am so fortunate to work for an organization that promotes and champions women to leadership positions. My colleagues and administration have been incredibly supportive.

I have three children and with each pregnancy and subsequent maternity leave I worried about derailing my goals or appearing less "career-focused" than my colleagues. Some of this was in my head, but some of it was based on comments I would hear about others who recently got pregnant or were taking time off. Ultimately you must push past that! If women must choose between having children and having a career, we're going to lose a lot of talented physicians. It feels major at the time, but, that time off is very short compared to the long productive career I hope to have.

7. Do you have any advice for other women in the field?

There are a lot of jobs out there. Before you take a job, find out as much as you can about the culture. Look to see how many women are currently in leadership roles. If you're in a job where the environment is toxic to women – find a new one. Figure out where your passion lies and what opportunities are important to you. Say yes to those but learn that it's OK to say no to those things that will require a lot of time and energy without much benefit. Women are often targeted for these "opportunities"

And JOIN WICTA! I am so proud of what this group has accomplished in a short period of time. There have been programs on professional development, research project development, mentorship...and we're just getting started! It's a great way to connect with other women in our field and you never know what those relationships can lead to. It's a great network, especially if you're in a small group and don't have many other female colleagues for support.

8. How do you balance work and personal life?

The simple answer is – I don't. For me, "balance" implies constantly weighing family and career and keeping both in check – that's just not reality. I worked hard to be a cardiac anesthesiologist and I owe it to myself, my patient's, and my colleagues to be 100% present when I am here. I don't overly apologize to my kids when I get called in or miss something. They know that I'm helping take care of people and we all take turns (myself and my colleagues) to do that.

Conversely, when I'm not at work, they get 100% of my focus and I don't feel bad

about saying "No" to some professional asks because there's only so much time in the day. I try hard to make the events that I can, and I don't feel guilty about the money I spend on housekeeping, grocery delivery, etc. since those things allow me more time to do the things I care about. There's always going to be a challenge balancing family and career, but these aren't unique to women and aren't unique to those with jobs in medicine. Do the best you can and don't waste time on regretting.

9. What is something you enjoy doing outside of work?

I love traveling and I love being active. The best vacations for me combine the two. I'm also a huge fan of my peloton because it's a quick way to get a workout in without leaving home.

10. Would you change anything about the path you took to get to where you are now?

I wish I had been more actively engaged in research early on and sought mentorship in this area. Although it's never too late, the farther we get away the more intimidating it can be to jump back in. I would advise those interested in research to really take advantage of "early career" awards and look for opportunities to collaborate with those more seasoned.

11. What was the best piece of advice you received?

You can't eat the elephant all at once. You will often feel overwhelmed. Take a step back, figure out what needs to be tackled right away, and what can wait. Then, just take one small bite at a time.

Lung Transplantation for Chronic Obstructive Pulmonary Disease: A Call to Modify the Lung Allocation Score to Decrease Waitlist Mortality

Hull TD, Leya GA, Axtell AL, et al. *J Thorac Cardiovasc Surg*. 2021 Dec, Online Ahead of Print.

Reviewers:

Ashley Virginia Fritz, DO
Archer Kilbourne Martin, MD
Division of Cardiovascular and Thoracic Anesthesiology
Mayo Clinic College of Medicine, Jacksonville, Florida

Background

The International Society for Heart and Lung Transplantation (ISHLT) publishes an annual registry describing characteristics and outcomes of patients undergoing cardiothoracic transplantation. Recipient, donor, and surgical characteristics are gathered, with results showing the impact of factors such as etiology of end-stage lung disease (ESLD) and surgical approach (single [SLT] versus double lung transplantation [DLT]) on overall outcomes.[1] When choosing to perform an SLT or DLT, several considerations are undertaken by the transplant team, including the balance of impact on outcomes versus waitlist mortality.[2] In this study, colleagues from the Massachusetts General Hospital examined the influence of a surgically restricted (DLT only) versus unrestricted (SLT or DLT) listing in order to identify predictors of waitlist mortality.

Methods

This is a United Network for Organ Sharing (UNOS) database, retrospective study evaluating waitlist mortality and post-transplant survival in patients undergoing lung transplantation for chronic obstructive pulmonary disease (COPD) in the United States between 2005 and 2018. Waitlist mortality was analyzed in the context of listing for DLT only versus non-restricted listing, with posttransplant mortality analysis performed in patients who met inclusion criteria within the study period. Exclusion criteria included the following: recipients with alpha-1-antitrypsin deficiency, bronchiectasis, younger than age 18 years, multi-organ transplantation, and retransplantation.[2]

Results

A total of 6,740 patients were listed for lung transplantation during the study period, with 3,689 patients with an unrestricted listing versus 3,051 patients with a restricted for DLT listing. Waitlist death was significantly higher in the restricted group versus unrestricted group (5.9% versus 4.0%, $p < .001$).

Patients who were restricted had lower lung allocation score (LAS), younger age, higher baseline oxygen requirements and higher mean pulmonary arterial pressures ($p < .001$ for all variables). When examining recipient survival at 1-year, it was similar between surgical approach, with differences arising at 3 years post-transplantation. Overall survival was longer in DLT versus SLT, with the benefit seen with a diverse set of statistical analyses.

Discussion

Perioperative management of lung transplantation should be tailored to etiology of ESLD, and this principle should be applied within the entire process from initial listing

to post-transplantation surveillance.[3] While transplantation teams have discretion within surgical listing, the standardized LAS system can significantly impact the process for recipient waitlist times. Prior to 2005, donated organs were distributed based on waiting list time and recipient-donor matching, with a systemic bias towards allocating to recipients with COPD. Subsequently, the implementation of the LAS system, which has addressed some of these inequities by emphasizing recipient urgency, has reduced waitlist times across most etiologies of ESLD. However, this relative delay on the waitlist for COPD patients may lead to preferential listing for SLT versus DLT by transplant centers.[2]

The authors note that their findings support the notion of improved survival in COPD patients for DLT, yet there is an increased waitlist mortality in patients listed exclusively for this surgical approach. Finding the balance between waitlist mortality and post-transplant survival in patients with COPD is challenging, particularly in the LAS era, and the authors call for a potential modification of the LAS system to tip the balance of risk-benefit in listing back to COPD patients favor.

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Computational Analysis of Virtual Echocardiographic Assessment of Functional Mitral Regurgitation for Validation of Proximal Isovelocity Surface Area Methods

Qin T, Caballero A, Hahn R, McKay R, and Sun W. *J Am Soc Echocardiogr* 2021;34(11):1211-23

Reviewer:

Jared Feinman, MD, FASE
Associate Professor
Hospital of the University of Pennsylvania
Philadelphia, PA

Background

The assessment of mitral regurgitation (MR) severity using Doppler echocardiography remains challenging despite the continued advances in ultrasound technology and computational power that have occurred over the past decade. While there is no agreed-upon "gold standard" methodology for the grading of MR severity using Doppler, the proximal isovelocity surface area (PISA) is one of the most used techniques.[1,2] Despite this, the accuracy of the PISA calculation relies on a series of geometric assumptions – namely that regurgitant flow occurs through a small orifice on a flat plane and that this flow is always perpendicular to the hemispherical isovelocity shells. In practice, these assumptions lead to errors when calculating PISA in patients for several reasons included malalignment of the Doppler angle with the direction of flow and the dynamic nature of the effective regurgitant orifice area (EROA) size over the course of the systolic phase of the cardiac cycle.[3] The inaccuracy of the PISA calculation is exacerbated in those patients with functional mitral regurgitation (FMR), due to a more elliptical or crescentic shape of the regurgitant orifice that can lead to a significant underestimation of the EROA and regurgitant volume (RVol).[4] To overcome these limitations, several variations on the classic PISA measurement have been proposed, including multiplane two-dimensional (2D) measurements, three-dimensional (3D) PISA, and integrated PISA, but few of these have been compared head-to-head in any systematic manner. As such, the goals of this study were to create and validate computer phantom models to allow the accurate measurement of FMR reference values, perform virtual PISA measurements on these models using 2D and 3D PISA as well as peak and integrated measurements, and finally determine the accuracy of these different PISA measurements and identify potential sources of error.

Methods

The authors created five computer models of FMR using data from a real patient and used these to calculate 3D blood flow to accurately measure MR flow rate and RVol. They then simulated the measurements that would normally be obtained using echocardiography by projecting the true velocity data along the direction of a simulated ultrasound beam, recreating the Doppler angle effect. The true PISA contour was calculated using the true velocity field, while 2D and 3D PISA contours were obtained using the simulated Doppler velocity field. Regurgitant flow rates were then calculated at four time points over the course of systole and compared to the reference values. Finally, RVol was calculated using both peak (measured only at the time of maximum MR) and integrated PISA (derived from four PISA measurements made over systole). The 2D PISA measurements that were assessed in this study

included traditional hemispherical (HS) PISA, hemiellipsoid (HE) PISA, hemicylindrical (HC) PISA.

Results

The authors found excellent correlation in the measurement of regurgitant flow rate between both the true PISA (r=0.99, p<.001) and 3D PISA (r=0.97, p<.001) and the reference values. The former was found to consistently overestimate the regurgitant flow (bias = 32.3 +/- 35.3 mL/sec, p<.001) when compared to the reference value, while the latter consistently underestimated it (bias = -24.4 +/- 55.5 mL/sec, p <.001). Both HE (r = 0.91, p<.001) and HC (r = 0.88, p< .001) PISA measurements had good correlation with the reference values, with less underestimation for HC PISA (bias = -24.1 +/- 85.4 mL/sec vs -55.7 +/- 96.6 mL/sec). The weakest correlation was seen for single plane 2D PISA measurements, with the best performance occurring when the 2D PISA was obtained from the simulated apical 4-chamber TTE view (r = 0.82, p< .001). Single plane 2D PISA significantly underestimated the MR flow (bias = -65.5 +/- 107.3 mL/sec, p<.001) and this effect was magnified as MR severity worsened.

Like the findings for regurgitant flow, RVol values correlated with the reference values best in 3D PISA, followed by HE and HC PISA, while the correlations of all of the 2D single plane PISA measurements were weak. Accuracy of the RVol calculation followed the same pattern and could be improved in all PISA calculations by using integrated PISA over peak PISA.

Discussion

Potential sources of error in the PISA measurement have been identified at each step in the formula. First, when the actual regurgitant orifice does not match the circular orifice assumed in the PISA formula, as is the case in FMR, regurgitant flow will be significantly underestimated. This can be largely overcome by using 3D PISA, which makes no geometric assumptions about the shape of the regurgitant contour. Using a 2D approach, HE PISA and HC PISA can partially overcome this issue by assuming a PISA contour that takes up a larger portion of the true regurgitant orifice but is not as accurate as 3D PISA.

This was borne out in the results of this study, which found the greatest accuracy in regurgitant flow measurement in 3D PISA, followed by HC PISA and HE PISA. Unfortunately, all the methods of PISA calculation mentioned in this study are subject to underestimation error due to the angle of the Doppler beam. This is even true of 3D PISA, which has been shown to underestimate actual PISA by up to 30-40% in previous studies.[5,6] This mirrors the authors' findings in this study, which showed that 3D PISA underestimated the reference PISA area by 35.2 +/- 13.1%.

The direction of flow at the PISA contour also creates error, in that only velocity measurements that occur perpendicular to the PISA shell will contribute to the true flow velocity, while in practice flow that occurs tangentially to the PISA contour is also incorporated into the aliasing velocity measurement. This leads to an overestimation of the flow rate and EROA,[7,8] and explains why the true PISA obtained in this study overestimated the reference regurgitant flow by 32.3 +/- 35.3 mL/sec. Thus, the underestimation of the PISA created by Doppler angle error is somewhat offset by the overestimation that occurs due to the direction of regurgitant flow.[9]

Finally, the use of peak PISA to calculate RVol will create error due to variations in the regurgitant flow throughout systole. This is seen in both FMR and degenerative MR (DMR). Previous studies have shown as much as a threefold increase in EROA over

the systolic phase of the cardiac cycle in MV prolapse.[10]

Thus, peak PISA may lead to an overestimation of the RVol in DMR with mid- to late-systolic jets and an underestimation in bimodal FMR.[11,12] Not surprisingly, the present study showed greater accuracy for all investigated PISA methods when using integrated PISA instead of peak PISA measurements.

Based upon the findings of this study, all available methods of determining regurgitant flow and volume using PISA are subject to errors that will lead to underestimation of the severity of disease. This can be overcome somewhat by using 3D PISA, which is more accurate than any of the studied 2D methods. If 3D PISA is unavailable to the echocardiographer, 2D PISA measurements can be improved by using a multiplanar PISA such as HC or HE PISA. Finally, using an integrated PISA will help alleviate errors created by dynamic MR, but this method is limited by a lack of software automation for integrated PISA at the present time.

Limitations of the current study include that only type IIIb FMR was modeled, and the findings may not be consistent across other etiologies of FMR or DMR. In addition, all the calculations were performed using computer models of human anatomy and flow dynamics, and thus do not consider other sources of error that often occur during in vivo imaging, like acoustic shadowing and the presence of ultrasound artifacts.

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