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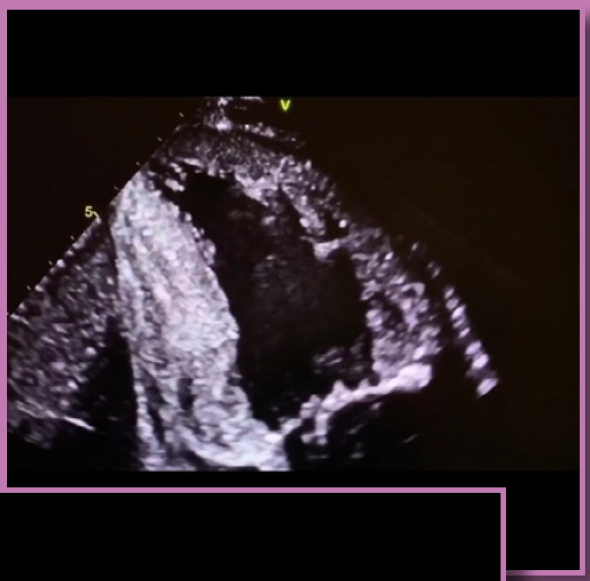

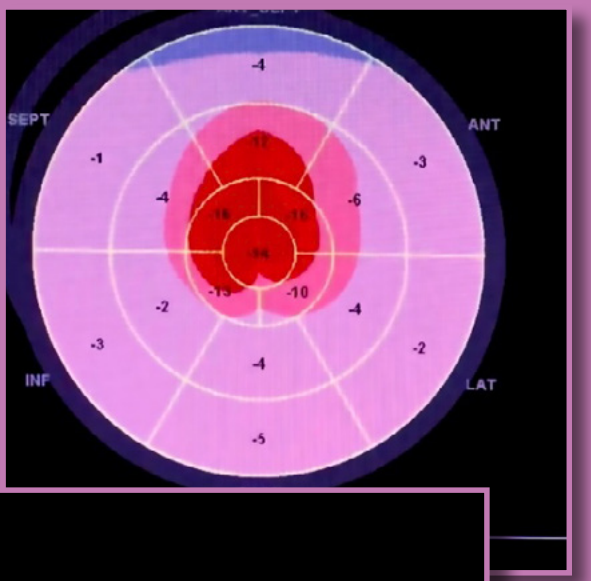

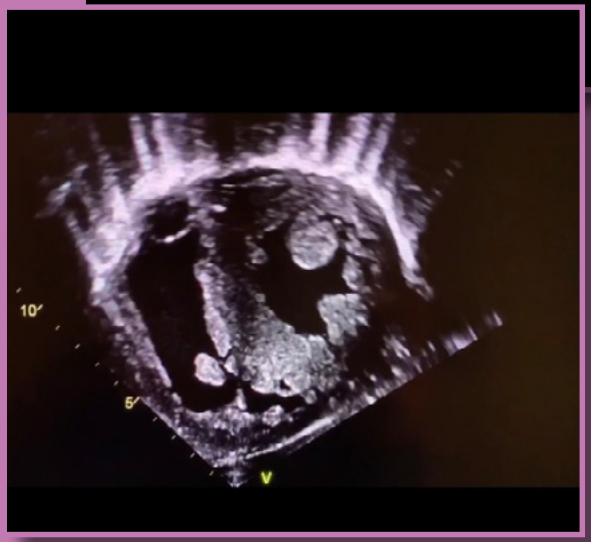

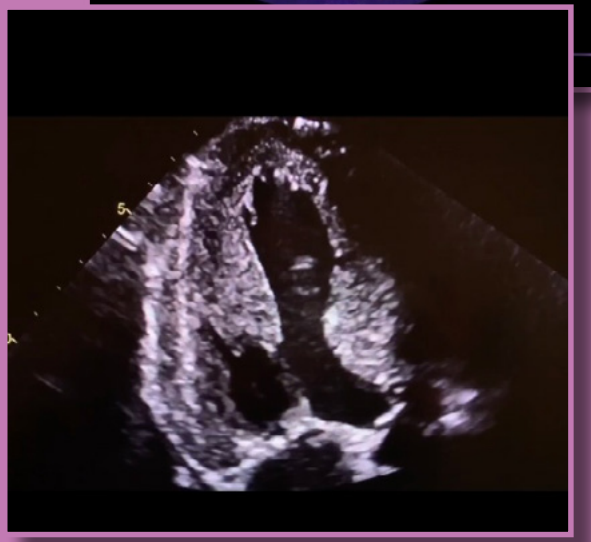

VOLUME 11 ISSUE 4 **APRIL 2022**

2022 EDUCATION CALENDAR

Advanced Echo: Echo Access Virtual Experience

Featuring the best content from Echo Hawaii and State-of-the-Art Echocardiography

Content available now
With access until March 21, 2023.

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JUNE

33rd Annual Scientific Sessions

June 10-13, 2022
Seattle, WA

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10th Annual Echo Florida

October 8-10, 2022
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NOVEMBER

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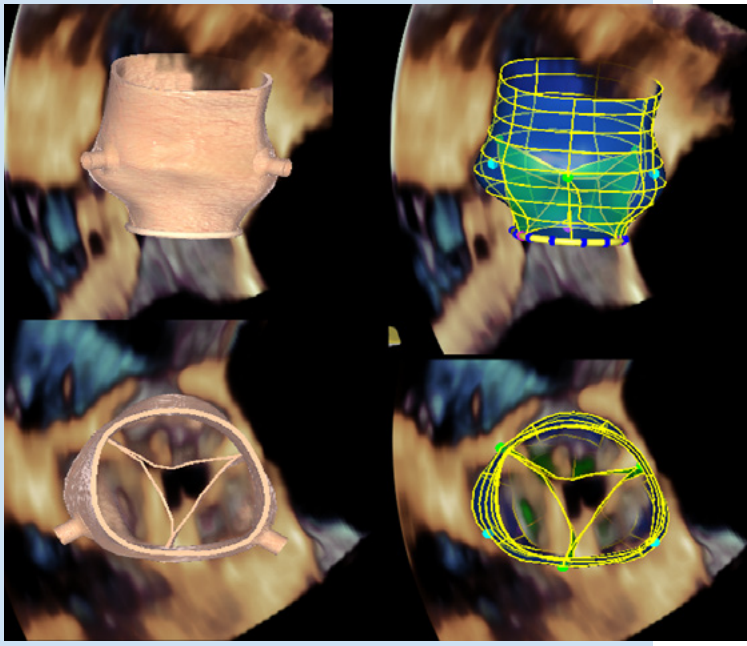
SAVE THE DATE:
November 7-9, 2022

Provided in partnership with ASE and the Society for Critical Care Medicine



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To learn more and register, visit us at ASEcho.org/Education.

This text also appears in the April JASE.
OnlineJASE.com

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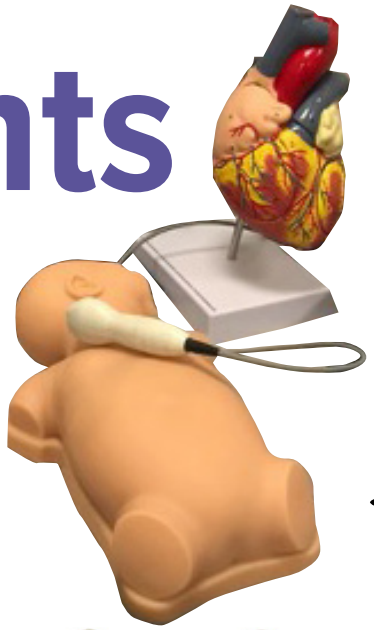

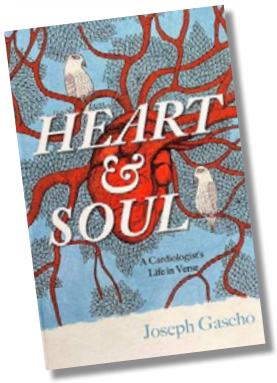

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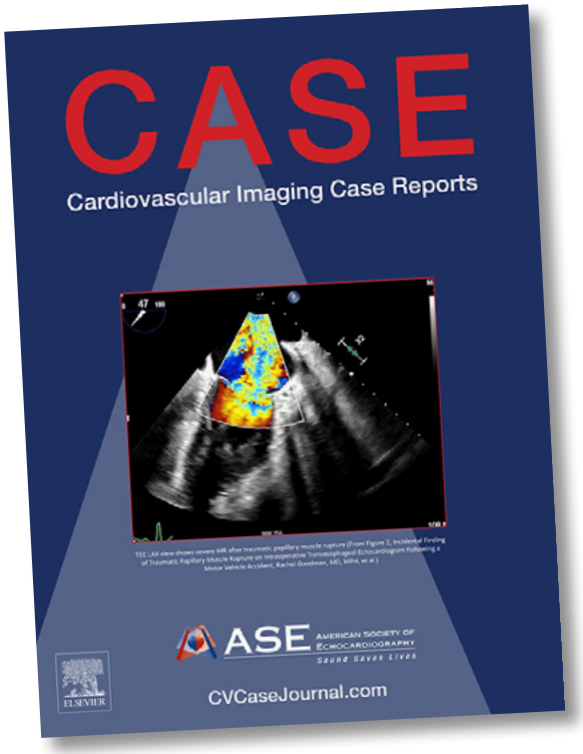
Cover art: "Cherry on Top" Kelly Boegel, ACS, RCCS, RCS, FASE, Hawke's Bay District Health Board, Hastings, Hawke's Bay, New Zealand

EDITORS' NOTE

ASE is very grateful to our members who contribute to *Echo* magazine and values their willingness to share personal insights and experiences with the ASE community, even if they may not be in total alignment with ASE's viewpoint.

CASE GOES MONTHLY - UPDATE 2022

*Contributed by **Raymond Stainback, MD, FASE**, Chief of Non-invasive Cardiology at the Texas Heart Institute at Baylor St. Luke's Medical Center in Houston, Texas and associate professor of Medicine at Baylor College of Medicine, and **Vincent L. Sorrell, MD, FACP (honorary), FACC, FASE, FSCCT, FSCMR, CASE** Editor-in-Chief, is the Anthony N. DeMaria Professor of Medicine, Acting Chief, Division of Cardiovascular Medicine, Chair, Cardiovascular Imaging for the Cardiovascular Service, Program Director, Adult Cardiovascular Fellowship Program, at the University of Kentucky, Gill Heart & Vascular Institute, Lexington, Kentucky, USA. @VLSorrellImages.*



The ASE's online case reports journal, CASE (CVCaseJournal.com), was launched in February 2017 under the direction of Co-Editors-in-Chief Leonardo Rodriguez, MD, FASE and Karen G. Zimmerman, BS, ACS, RDCS, RVT, FASE. CASE has provided a unique platform for peer-reviewed, colorful, and animated presentations of high value imaging cases or case series. CASE was developed in part because case submissions had either been crowded out of most traditional academic journals or not been given the liberal illustration capabilities that CASE allows in a digital environment.

CASE was developed in part because case submissions had either been crowded out of most traditional academic journals or not been given the liberal illustration capabilities that CASE allows in a digital environment.

Imagers LOVE to see and share interesting cases and images, and this would seem to explain the CASE success to date. This past year has ushered in a new phase with a new Editor-in-Chief (EIC), Vincent L. Sorrell, MD, FASE. Vince has assembled a truly remarkable editorial team and editorial board that is worth your review at CVCaseJournal.com. Recently, Dr. Sorrell provided the ASE's Board of Directors with an exciting CASE update as the publication moves from a bi-monthly to a monthly publication starting in May. To celebrate this growth and other CASE developments, I have invited Vince to share his updates for you here.

From the perspective of ASE leadership, the CASE Editorial leadership, and feedback from authors and readers, CASE is doing fabulous! As an online, digital open-access journal, the fate of CASE was certainly not predestined. In fact, many good reports

Vincent L. Sorrell, MD, FACP (honorary), FACC, FASE, FSCCT, FSCMR, CASE Editor-in-Chief

likely never get submitted due to the concerns surrounding publishing costs and lack of understanding about the open access approach to medical journalism in 2022. While the open access business model for CASE allows widespread distribution of interesting cases and education, the cost to publish an accepted paper may be a barrier for some authors. ASE and our publisher, Elsevier, strive to keep costs as low as possible and also provide many opportunities for fee waivers (more to come about this soon).

So, how do we gauge the health of a journal like CASE? We send out surveys across our Society to better understand author and reader satisfaction. We hope that many of you responded to those questions to help us adjust to your feedback. As a model of transparency, we will provide these results to you. We monitor volumes of submissions, understanding fully that authors choose to submit to journals with high recognition and a good overall experience from submission to editor notification of publication status. EIC Note: January 2022 was the month with the highest total volume of CASE submissions since the Journal's founding in 2016.

A major advantage of the digital online publishing format, especially valuable for an imaging-based journal, is the ability to show the videos for all representative figures. We hope that you are regularly taking advantage of these phenomenal CASE examples to use as educational material in your own labs. We monitor the number of times a CASE report is downloaded. For perspective, two CASE reports from the December 2021 issue (Left Ventricular Intramyocardial Dissecting Hematoma and Fatal Sinus of Valsalva Aneurysm and Dissection into the Left Ventricle With Extension to the Interventricular Septum: A Challenging Diagnosis) were downloaded almost 5,000 times by January 2022; in 2021, there were almost 175,000 CASE article downloads overall.

We can also monitor the number of times a CASE report is shared across social media platforms (e.g., Twitter, Facebook, & Instagram). CASE reports are assigned a PlumX score which takes into consideration "downloads, clicks, mentions, blogs, tweets, likes, and citations." EIC Note: watch for a CASE Editorial from me in the future as I dive deeper into this topic.

Another important metric of the success of CASE is the geographic distribution of website visits. Although the United States is the most frequent country, >50% of visits come from outside the USA (e.g., Japan, Brazil, India, United Kingdom, Australia, Canada, China, and many more).

There are many note-worthy developments in CASE that should be mentioned. Most importantly, the bi-monthly Journal is going monthly starting in May 2022. This expansion is a direct reflection of the interest and favorable feedback provided by the Journal readers and ASE membership. The CASE homepage continues to evolve into an educational potpourri with ability to 'search' for any CASE example you might wish to review, opportunities for CME online, short videos from journal authors in the Author Spotlight Series, and fun quizzes including the new format "Unlock the CASE" which tries to challenge readers with unusual echo videos. EIC Note: if you guess the correct answer, you will 'unlock' the CASE and be taken "inside the vault" where you will obtain additional valuable educational material.

Another very exciting development is the brand-new ShowCASE event to be held on June 12, 2022 at the Annual Scientific Sessions in Seattle. This should be a very educational event focused on the top CASE reports from 2021. You will hear directly from the authors of these CASE reports as they vie to be recognized as the COY (Case of the Year).

If you want to compete for the 2022 CASE of the Year and get your invitation to present your CASE at next year's ASE meeting in Washington, DC, go ahead and submit your report soon. If you have never written a case report before and are seeking guidance, email CASE managing editor, Debbie Meyer, at dmeyer@asecho.org or Andie Piddington, CASE deputy managing editor, at apiddington@asecho.org, and they will direct you to available information that will help. I have also written about this in Echo magazine (https://www.asecho.org/echo-vol-10-issue-1/).

I conclude this article about CASE with my motto - ***Remember, every ECHO you see today has a Teaching Point and every Teaching Point is a potential new CASE publication.***

Raymond Stainback, MD, FASE
ASE President

Fireside Chat with Our Pediatric and Congenital Heart Disease Council (PCHD)

Scientific Sessions Co-Chairs David Parra, MD, FASE, and Luciana Young, MD, FASE

*Interview conducted by **Bhawna Arya, MD, FASE**, with contributions by the other PCHD Member at Large members **Pei-Ni Jone, MD, FASE, Neha Soni-Patel, MEd, BSME, RCCS, RDCS(AE/PE), Seda Tierney MD, FASE**, and **Jenni Tresness, RDCS(PE/AE), RDMS(FE), FASE***

***FIRST, WE WOULD LIKE** to take a moment to recognize the loss of a giant within our field, David J. Sahn, MD, FASE, without whom we would not have these amazing sessions to be together and learn from one another.*

Q: You have been working on quite a program for the Scientific Sessions – can you give an overview on how the PCHD sessions are organized? What was your approach to topic selection?

The focus of these sessions is to provide learning opportunities at all levels, for those with beginner and intermediate knowledge as well as for those with advanced knowledge, focusing not only on the basics but also on the latest technologies and innovations. We've also made a tremendous effort to give opportunities to the new and rising stars in our field.

We recognized, early on in our planning, the importance of the participation of the sonographers in our meetings and wanted to make sure they are represented in a more significant way than prior meetings. Our goal this year is to foster a culture of sonographer engagement and incorporation in planning, chairing, and participating as speakers to provide their own knowledge and practicalities to the sessions. You will see an amazing group of sonographer educators acting as moderators and speakers throughout the sessions.

We've been thoughtful about extending invitations to colleagues from different geographical regions, various backgrounds, and experiences. This year you will have the opportunity to attend an exciting new series of lectures from our colleagues in Latin America. We cannot wait to share the experiences in pediatric imaging along our entire continent, from the northern to the southern tip. We are particularly proud of our session on diversity, equity, and inclusion with the field of PCHD imaging.

Jeopardy is always enjoyable at our live sessions along with the debates between experienced echocardiographers. "Nomenclature" was invented during the Pandemic model – to incorporate both of these concepts in a webinar format when we did not have the ability to be together. This was very popular this past year, and we are looking forward to continuing this new tradition in Seattle.

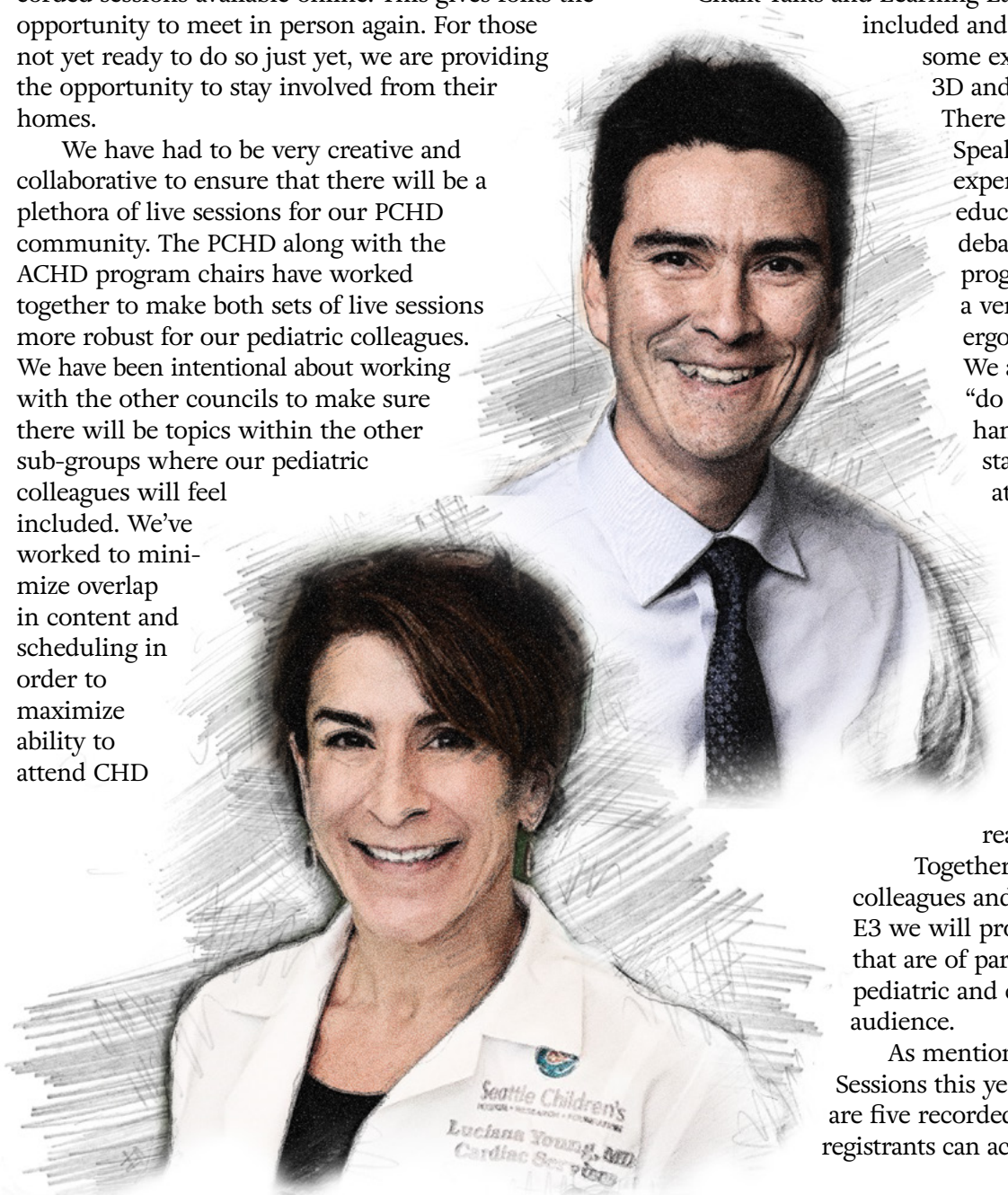
Speaking of the pandemic, cardiac imaging has been significantly impacted by the pandemic and importantly, cardiac imaging has played a vital role in understanding the impact of COVID-19 on our pediatric populations. We have an incredibly informative PCHD Plenary sessions addressing all of these issues: the impact on COVID-19 on our teams and care strategies and the effect the virus has on the

pediatric heart, including MIS-C and myocarditis. This session will be in conjunction with our colleagues from EACVI.

Q: Organizing these sessions has been particularly challenging over these past two years with the shift to Virtual Meetings. This year's Scientific Sessions take a hybrid approach – how have you navigated this for the PCHD sessions?

The Scientific Sessions this year are in person but in a hybrid format, due to the issues related to COVID-19. There will be several live sessions in Seattle and recorded sessions available online. This gives folks the opportunity to meet in person again. For those not yet ready to do so just yet, we are providing the opportunity to stay involved from their homes.

We have had to be very creative and collaborative to ensure that there will be a plethora of live sessions for our PCHD community. The PCHD along with the ACHD program chairs have worked together to make both sets of live sessions more robust for our pediatric colleagues. We have been intentional about working with the other councils to make sure there will be topics within the other sub-groups where our pediatric colleagues will feel included. We've worked to minimize overlap in content and scheduling in order to maximize ability to attend CHD focused topics. For instance, the PCHD and ACHD content will have no overlap, and members can attend all these informative sessions, doubling the number that will be live for our PCHD and ACHD colleagues. Just to give you a flavor of the exciting lectures in the ACHD track sessions we will learn about ACHD Echo in the ICU setting, what to look for in repaired TGA patients during pregnancy, the echocardiogram in the transitioning Fontan patient, and there will also be a session in partnership with the Japanese Society of Echocardiography focusing on ACHD. It is also notable that the Emerging Echo Enthusiasts (E3) Specialty Interest Group will have a section on pediatric imaging as well.



Chalk Talks and Learning Labs will also be included and pediatric focused – some example topics include 3D and strain imaging. There will also be a live Speaker's Corner where experts will have ad hoc educational sessions or debates, and for our program we have chosen a very important topic on ergonomics and scanning. We are pleased to include "do it yourself, DIY" hands-on scanning stations, where attendees will have the opportunity to scan live models with both normal and congenital heart disease. These sessions will be supervised by experts who can guide the hands-on experience in real-time.

Together with our ACHD colleagues and the content from E3 we will provide 18 live sessions that are of particular interest to the pediatric and congenital cardiology audience.

As mentioned, the Scientific Sessions this year are hybrid. There are five recorded PCHD sessions that registrants can access at their leisure.

Two sessions include recorded lectures and the other three sessions are moderated (five speakers and three moderators per session). The three moderated sessions will be available for on-demand viewing on June 10 while the others will be available July 11 through October 9, 2022.

Q: Any advice for attendees on how to navigate the live and streamed sessions?

As we've mentioned there are more live lectures for our attendees than what is apparent on first glance of the preliminary sessions posted on the website. Let's walk through our offering's day by day.

- We start Friday afternoon with our path-surgical session followed by our Networking meeting that will include the Nomenclature session with a lively discussion on complex cases with our expert panel.
- Saturday begins with a great session on new technologies in echo and imaging, and one of the lectures has been awarded the Kalmanson Award on innovation in research in cardiovascular Doppler. The day continues with two sessions from our ACHD partners with many of our pediatric faculty participating. We know that these lectures will be very important to our daily practice. The E3 sessions will cover the translation of knowledge across generations and provide advice for sonographers on advancing their careers.
- Sunday is our packed day and starts early in the morning with an exciting fetal symposium with lectures and cool cases. The joint session with JSE will follow in the morning and will address an important topic in ACHD. That day we will have our moderated poster presentations and also our first of 2 chalk talks that will discuss the future of QI in pediatric cardiology. The afternoon starts with a great session from our colleagues from TnEcho discussing the role of neonatologists and neonatal targeted echocardiograms. The E3 track has a special session on advice on how young faculty can advance their academic careers. The day ends with the long awaited and always educational and entertaining Pediatric Jeopardy.
- On our last day, the ACHD track has a great session on the multidisciplinary approach to complex ACHD cases. Our track will have the session in partnership with EACVI and will bring again this year the latest on what we have learned and how we can continue caring for our patients in the COVID era. This session will be live streamed to all. Finally, E3 has a wonderful session in CHD including a debate on multimodality imaging and echocardiography. Our second chalk talk will be in the afternoon addressing the education of fellows in the art of imaging. And before the day is over the E3 group will have their networking meeting where our community can meet with the ASE pediatric faculty.

Q: What has been the most enjoyable part of Chairing the PCHD sessions?

Dave: "calls with Luc"; Luc: "working with Dave"

Truly, engaging with the Scientific Sessions and PCHD council team and sharing the work with your co-chair or "partner in crime." It has been a pleasure to develop trust and strong friendships as we work to tackle the challenges of planning and organizing what we hope will be a memorable, unique session. It is an honor to serve our community with the best Scientific Sessions focused on providing the highest level of care for our patients and introducing our junior faculty, trainees, and sonographers to our field.

Q: What has been most challenging?

Navigating the uncertainties of the pandemic has added a new challenge for sure, but we appreciate the creative alternatives developed for this hybrid meeting to be a success by the entire Planning Committee and the arduous work of the ASE staff, particularly Christina LaFuria.

Q: What are you most looking forward to at these Scientific Sessions?

As always, we look forward to seeing the new and exciting research and innovations in our field. But this year in particular, we are so looking forward to meeting in person. Even with the limitations that we are going to encounter-this is the first step towards having the full sessions in person as we knew them next year. This will be one of the first opportunities in over two years, to meet ASE's newest members—sonographers, physicians, and trainees—and to reunite with old colleagues and friends. It really is a great group of people, and we cannot wait to be together in Seattle!

Perioperative Track 2022

Scientific Sessions

*Contributed by **Kimberly Howard-Quijano MD, MS, FASE**, Academic Chief Cardiac Anesthesiology Director Translational Research at University of Pittsburgh/UPMC Medical Center, Chair of the ASE Council on Perioperative Echocardiography (COPE) 2022 Scientific Sessions Perioperative Track and **Jeremy Thaden, MD, FASE**, Chair for Clinical Practice and Quality within the Division of Cardiovascular Ultrasound at Mayo Clinic, Rochester, Co-chair of the COPE 2022 Scientific Sessions Perioperative Track.*

AS SPRING STARTS to peek around the corner, we look forward to the upcoming Scientific Sessions to be held in Seattle, Washington this year. The Council on Perioperative Echocardiography (COPE) has been working hard to create an innovative, cutting-edge program. We are excited to have a superb panel of expert speakers who will cover a wide breadth of echocardiography topics related to perioperative imaging.

To adapt and evolve with the dynamically changing world around us, ASE and the COPE Scientific Sessions planning committee have developed several unique opportunities for meeting attendees to access educational content this year.

To adapt and evolve with the dynamically changing world around us, ASE and the COPE Scientific Sessions planning committee have developed several unique opportunities for meeting attendees to access educational content this year. This exciting new programming will allow ASE members to personalize their Scientific Sessions experience and optimize time for education and networking with:

- In-person, live streaming, and on-demand content
- Hands-on Transesophageal Echocardiography (TEE) Workshop
- Scientific Abstract Presentations within Clinical Educational sessions
- Speaker's Corner – a chance to dive deep with the experts

The perioperative track of the scientific sessions this year will have an emphasis on clinical application of ultrasound imaging. With panels and educational sessions that will discuss how echocardiography can help guide clinical decision making and positively impact patient care. There is also a renewed commitment to incorporate abstract presentations within clinical sessions, in order to weave together cutting-edge science with clinical educational content.

In-person meeting attendees will have access to a wide variety of live sessions such

New this year, we will also be offering a hands-on TEE workshop as part of the perioperative education track.

as, the "Great Debates in Perioperative Echocardiography" session, where a panel of experts will debate whether to "Clip it or Snip It" – surgical versus interventional repair for mitral regurgitation – and whether 3D quantification is helpful in an era of 2D-driven echocardiography guidelines. Our faculty will take a case-based approach in highlighting the role of imaging to optimize patient care during the session entitled "Perioperative Case Dilemmas" and will explore the importance of echocardiography in predicting patient outcomes during the session "Prediction – Can We See the Future?"

Virtual participants will be able to view a live stream of our exciting featured session: "Hot Topics in Structural Heart Disease." In this session our speakers will be covering all aspects of ultrasound for structural heart including, ultrasound-guided vascular access, what's new in left atrial appendage occlusion devices, updates for imaging in percutaneous tricuspid valve procedures, and much more. Virtual attendees will also have access to an additional, completely unique, set of on-demand programming. On-demand sessions specific to the perioperative track include: "The Achy Breaky Heart: The Role of Echocardiography in Diagnosis and Risk Stratification," "Imaging Challenges in the Era of COVID," "So Much Strain!! Perioperative Applications of Strain Imaging," "Updates in Secondary Mitral Regurgitation Diagnosis and Management," and much more!

New this year, we will also be offering a hands-on TEE workshop as part of the perioperative education track. This workshop will be an exciting opportunity to work in small groups with experts using TEE datasets and state-of-the-art machines and software to perfect or practice your skills in intraoperative echocardiography. This workshop will include content on contrast echocardiography, intraprocedural application of MPR in the operating room or cardiac catheterization lab, advanced strain imaging for TEE, and perioperative 3D quantification for the mitral and aortic valves. Additionally, participants can follow up this TEE workshop with one of the DIY acquisition rooms to work the same skills on TTE datasets and live models as well. Another new addition this year that will be available exclusively to in-person attendees is the "Speakers Corner" – this new session will feature an expert who is available following featured talks, outside the lecture hall, where meeting participants will have the opportunity to ask in-depth questions in a small group setting and dive deeper into the session topics that were discussed.

We are looking forward to seeing you at the Scientific Sessions June 10-13th. We hope you will be as excited about the wonderful educational and innovative content as we on the planning committee are!

Introducing the ASE Council on Cardiovascular Sonography

KEITH COLLINS, MS, RDCS, FASE, Chair, ASE Council on Cardiovascular Sonography Steering Committee

Keith is currently Lead Cardiac Sonographer, overseeing New Technology at Northwestern Memorial Hospital in downtown Chicago, Illinois. His focus is on the training, implementation, and continuing education, particularly using 3D, strain, and contrast imaging. Now serving his second term on the ASE Board of Directors, first as Member-at-Large and now as Council on Cardiovascular Sonography Chair, Keith sees the importance of individual Council growth and the synergism of Council collaboration for common ASE goals.

Keith's entry in ultrasound is unique, in that he started studying neuroscience, receiving a graduate degree in Autonomic Pharmacology. After working in drug discovery at Abbott and bench science in schizophrenia research, he moved to Chicago and joined Dr. Lang's lab at the University of Chicago doing animal research. After scanning mice, rats, and pigs, he moved on to humans as a clinical sonographer, with a passion for 3D, contrast, and research. After nearly 20 years, Keith moved to Milwaukee and as Advanced Imaging Educator, helped to advance 3D scanning and develop their structural heart program. Now in Chicago, Keith joined a team of ASE standouts and past presidents, including Drs. Rigolin, Thomas, Narang, and Shah. He enjoys staff development and education with his sonographer colleagues, Milica Marion, Brian Fey, and Maddie Jankowski.

With the University of Chicago team as a model, Keith has been very active in ASE. At the State-of-the-Art conferences and at Scientific Sessions, Keith helped develop computer-based learning labs. After serving on multiple committees (Contrast Zone, Education, Nominations, etc.), Keith was the Sonographer Chair for the virtual 2021 ASE Scientific Sessions. As a sonographer, Keith will continue to represent sonographer concerns and goals at Executive Committee level.

Why do you volunteer for ASE?

I was fortunate to have passionate physicians and sonographers as mentors, pulling me into the ASE family of colleagues and friends. I started by speaking at the ASE Scientific Sessions, exposing me to those as passionate about echo, in research, education, and as a career. I still recall the force-of-nature, Peg Knoll, pulling me by the sleeve to apply for a committee or to accept a talk. When planning the Scientific Sessions, I hope to pay it forward by encouraging younger sonographers and giving them new opportunities at ASE.

Serving on committees and then Councils helped me understand the influence my voice could have in the field. Sonographers are active and respected by their physician counterparts in trying to advance the field. By volunteering in ASE, I bring attention to the hard work, struggles, and passion of my sonographer co-workers. Whenever I feel I've overextended myself or fear I'll miss a deadline, I think of the dedication of my lab buddies and am motivated. Representing sonographers' views at higher levels of leadership has been beyond gratifying professionally and personally. PLUS, I get to meet and work with amazing people from around the U.S. and the world!

MONET STRACHAN, ACS, RDCS, FASE, Chair- Elect, ASE Council on Cardiovascular Sonography Steering Committee

Monet Strachan began her career as a sonographer in 1994 and in 1996 joined University of California San Diego Medical Center where she worked for 25 years. Recently she transferred to UCSF as Director of Echocardiography Programs. She is registered in both adult and pediatric echocardiography (RDCS, AE, PE) through ARDMS and holds her advanced cardiac sonographer (ACS) credentials through CCI. She is involved with teaching echo students, cardiology fellows, and junior faculty. As a long time and active member of the ASE she has served on several committees, task forces, served a three-year term on the Board of Directors and is currently the chair-elect for the Council on Cardiovascular Sonography Steering Committee. She is an author of numerous articles, consensus statements, position statements, and guidelines papers. She has authored or co-authored several book chapters.

Why do you volunteer for ASE?

I volunteer for the ASE for many reasons. I appreciate all the help and guidance I have received throughout my career by my many mentors. Volunteering through ASE gives me an opportunity to pay it forward. Beyond that, it allows me to collaborate with some of the most remarkable cardiovascular professionals from around the world.

ELAINE SHEA, ACS, RCCS, RCIS, FASE, Immediate Past Chair, ASE Council on Cardiovascular Sonography Steering Committee

Elaine started her career in 1988 at Alta Bates Summit Medical Center in Berkeley and Oakland California where she worked as a Cardiac Sonographer and Cardiac Cath lab Technologist. She currently serves as the manager for the Cardiovascular Service Line/ Interventional Radiology/EEG departments. She also serves as the dyad for the Co-Management Cardiovascular Service line for the Bay Area Sutter region. Elaine has served as the Chair of the Adult, Congenital, and Cath lab Exam Committees through CCI as well as Past President. She continues to volunteer as an exam committee member for the RCCS credential. She has been a member of ASE since 2001 and has served on several committees to include FASE, Guidelines and Standards, Nominations, Council on Cardiovascular Sonography Nominating Task Force, and most recently, the Echo Lab Medical and Technical Directors Leadership Forum.

She has served as the Chair for the ASE Sonographers Council Steering Committee and as a member of the ASE Board of Directors and has been part of the Scientific Sessions faculty and an abstract grader since 2006.

Why do you volunteer for ASE?

I volunteer for ASE because I believe in their mission and goals and am passionate about the cardiovascular community. ASE is an inclusive organization who believes in value and quality and service to the profession and public. They are the leaders in developing partnerships and meeting the educational needs of the ultrasound communities. They advocate for education for patients, healthcare providers, and payers. I appreciate that ASE gives me a "voice" to help support the cardiac ultrasound community that I serve.

KEN HORTON, ACS, RCS, FASE- Member at Large

Ken is an Advanced Cardiac Sonographer (ACS) currently working at the Intermountain Heart Institute in Utah. He is a retired Navy Chief Hospital Corpsman. He has served as the Secretary of the ASE Executive Committee and is a Past-President of Cardiovascular Credentialing International. Ken has extensive experience with image support of structural heart interventions, quality assurance, echo education and he enjoys mentoring.

Why do you volunteer for ASE?

Ken is grateful for the life-long friendships he has made with people around the country through volunteering with ASE. When not at work Ken is usually in his backyard enjoying his garden and 8000-gallon Koi Pond.

MELISSA WASSERMAN, RDCS, RCCS, FASE, Guidelines and Standards Committee Representative

Melissa Wasserman RDCS, RCCS, FASE, is the Satellite Operations Sonographer Lead at the Children's Hospital of Philadelphia. She oversees outpatient echocardiography technical operations across the CHOP satellite enterprise, and continues to image as much as possible. She is the Guidelines & Standards Representative to the Council on Cardiovascular Sonography and is part of the second class of the ASE Leadership Academy. She also serves on the ASE Foundation Annual Appeal Committee, the CASE Editorial Board, the Living Guidelines, and Women in Echo Workgroup. Melissa is also the co-chair of the upcoming Pediatric and Congenital Heart Disease Virtual Experience Course September 17-18, 2022.

Why do you volunteer for ASE?

I volunteer for ASE because it's my professional home where sonographer education, research, and career growth are promoted and encouraged.

DANIEL BOURQUE, MS, RCS, ACS, FASE- Member at Large

Daniel Bourque, MS, RCS, ACS, FASE, is the lead cardiac sonographer and educator for Orlando Regional Medical Center, providing both hands-on and didactic training to cardiology and critical care fellows. Mr. Bourque's duties also include technical director and quality improvement coordinator for the echo lab at ORMC. These responsibilities include bi-monthly teleconferences, protocol and training development, and back scanning for complex pathology. Daniel serves as an adjunct instructor at the Gulf Coast School of Ultrasound and has been an invited speaker to ultrasound society meetings on a national basis. Mr. Bourque's areas of interest include teaching and training, structural heart assessments, and the utilization of 3D technology.

Why do you volunteer for ASE?

The chance to help an organization like ASE is a distinguished honor. Volunteering allows for professional growth through collaboration with professionals and physicians, involvement in educational opportunities, and most importantly, to take information obtained through involvement and bring it back to the lab. By volunteering you can be a part of an organization that helps both the sonographers and the patients we care for through research and education.

ASHLEE DAVIS, BSMI, ACS, RDCS, FASE-Member at Large

Ashlee is currently the Chief Technologist of the Cardiac Diagnostic Unit at Duke University where she has worked as a Cardiac Sonographer since 2008. Ashlee has been active in the American Society of Echocardiography serving on multiple committees, writing groups, and was honored to be part of the first inaugural class of the ASE Leadership Academy. I addition to ASE, she is involved in the CCI ACS writing committee, SDMS, and local echo societies giving talks and participating in annual meetings.

Ashlee received her Bachelor's Degree in Medical Imaging from the University of Oklahoma. She is proud to hold both ACS and RDCS registries. Through the connections she has made in the small world of Echocardiography, Ashlee has been able to travel all over the country and internationally, teaching others about echo. Ashlee has spoken at national conferences, worked with Dr. Joe Kisslo teaching people to "Think in 3D," been invited to contribute to publications in journals and textbooks, traveled to Rwanda to help patients with rheumatic heart disease, and had the opportunity to participate in many echo research projects. Ashlee is excited to be involved in the future of echocardiography.

Why do you volunteer for ASE?

I volunteer for ASE because through volunteerism in this community I get back way more than I give. With every volunteer opportunity I have been involved in, I have learned more than I thought, gained a new skill (improving my writing, learning about organization budgeting, gaining leadership experience, etc.), networked with others in the field, and above all made incredible friends. This community is the most encouraging and supportive group of people I could ever ask for. Whether it be questions about scanning, pathology, lab protocols, or just non-echo related life, they are always there to help. I would not be where I am today without having jumped into volunteering with ASE many years ago. It has been one of the most influential parts of my career to date. I look forward to many more years of involvement with ASE!

CAROL MITCHELI, PhD, ACS, RDMS, RDCS, RVT, RT(R), FASE, FSDMS-2022 Scientific Sessions Co-Chair and Education Committee Representative

Dr. Carol Mitchell is an associate professor (CHS), ultrasound educator, and researcher at the University of Wisconsin-Madison. She is a faculty member in the Division of Cardiovascular Medicine within the Department of Medicine and has an affiliate appointment with the Department of Medical Physics. Dr. Mitchell's research focuses on i) utilizing ultrasound to characterize the structure and tissue composition of the arterial wall and atherosclerotic plaque, ii) developing imaging and measurement protocol to extract texture features from ultrasound images of the arterial wall and plaque, iii) utilizing existing ultrasound technology in novel ways to study hemodynamics and their relationships to cardiovascular disease and cognition, and iv) development of interactive learning modules to be used to enhance inter-professional knowledge of non-invasive testing procedures and improve ultrasound measurement and analyses techniques. The long-term goal of using these ultrasound parameters is to develop tools for assessing risk for and monitoring treatment of cardiovascular disease and cognitive impairment through monitoring changes in both clinical ultrasound and quantitative ultrasound parameters and to develop interactive learning tools for teaching ultrasound imaging techniques.

MADELINE JANKOWSKI, ACS, RDCS, FASE- Member at Large

Madeline Jankowski, ACS, RDCS, FASE, is a sonographer and research associate studying echocardiography and artificial intelligence at Northwestern University in Chicago, Illinois. She is an active member and volunteer for both ARDMS and ASE. She is currently the ARDMS Chair of the Adult Echocardiography Examination Assessment Committee and loves seeing the process of how the exams are created. At ASE, Madeline is a member-at-large of the Council on Cardiovascular Sonography and the Scientific Sessions Planning committee, and also a member of the 2nd Cohort of the Leadership Academy.

Why do you volunteer for ASE?

I love volunteering with ASE because it opens so many new doors for learning and connection. Being involved with these opportunities makes me feel like I'm making a difference in the field and being a voice for sonographers, as well as strengthening my career and expertise.

KATHY OLEJNIK, BS, RDCS, ACS, FASE- Member at Large

After Kathy Olejnik graduated from Saint Joseph College in West Hartford, Connecticut with two bachelor degrees - in biology and mathematics - her plan was to attend medical school and hopefully one day become a neuro-surgeon. Life however had very different things planned but just like William Mulligan said: "You can dance in the rain or sulk in the rain. It will rain regardless." Life isn't always easy but it still goes on. It doesn't wait for anyone. After having two rather urgent back surgeries her dream of becoming a surgeon or even attending a medical school at that point got crushed.

Moving fast forward...In 2006 Kathy started Cardiac Ultrasound training at Hoffman Heart Institute at Saint Francis Hospital in Hartford, CT with Richie Palma. Upon completion of that training, she briefly worked for a small community hospital in Connecticut and then in 2010 joined Yale New Haven Hospital in New Haven, CT and been working there until present time.

In 2017, Kathy passed an Advanced Cardiac Sonographer exam and in 2019 became a Fellow of the American Society of Echocardiography (FASE). Her biggest passion in life is traveling. Kathy has traveled for the last 30 years and so far, visited 35 countries, some of them multiple times but there are many, many more places on her very extensive bucket list. Some of the places Kathy dreams of visiting one day are Australia, New Zealand, Tasmania, and Fiji. Her other dream is to own a coffee shop one day, hopefully soon.

Why do I volunteer for ASE?

I have an extremely curious personality and in most cases I speak my mind and that might be why I really wanted to volunteer for ASE. To have a voice. To speak about things that worry me. To voice my ideas. To learn and to hear others' ideas and thoughts. Maybe to even question some things. To become more involved on national as well as (hopefully one day) international level. This is a great profession and a great field to be working in. As you may have already noticed I love quotes and the wisdom they contain. One of my favorite quotes when it comes to dreams and goals are: The size of your success is measured by the strength of your desire, the size of your dream and how you handle dissapointment along the way – Robert Kiyosaki.

Volunteering is a great opportunity and every person is capable of making a difference. If you don't agree with my statement perhaps the Dalai Lama's words will convince you...."If you think you are too small to make a difference, try sleeping in a room with a mosquito". You too can make a difference if you are willing to speak your mind.

The Evolution of Neonatal Hemodynamics and the Role of ASE in Cultivating Growth Within the Field

*Contributed by **J. Lauren Ruoss, MD**, Assistant Professor and Director of the Neonatal Point-of- Care Ultrasound Program at the University of Florida, email: lruoss@ufl.edu; **Wyman W. Lai, MD, MPH, FASE,** Assistant Division Chief of Cardiology at Children's Hospital of Orange County Specialists, Co-Chair Neonatal Hemodynamics TnEcho Specialty Interest Group; **Patrick McNamara, MB, BCh, FASE,** Division Chief of Neonatology, University of Iowa; Co-Chair Neonatal Hemodynamics TnEcho Specialty Interest Group*

THE GROWTH OF the field of Neonatal Hemodynamics represents a natural evolution to further optimize clinical care and scientific knowledge in Neonatology. The intrinsic developmental vulnerability of the sub-population of critically ill preterm and term infants places them at increased risk of disease-dependent hemodynamic instability and cardiopulmonary maldevelopment. Recent evidence of heart failure and severe hypertension in adults who are born prematurely highlights the societal importance of optimizing neonatal cardiovascular care, understanding disease mechanisms in common neonatal problems (e.g., pulmonary hypertension, heart dysfunction), and maximizing scientific engagement in the field[1]. The publication of the American Society of Echocardiography (ASE) Guidelines for Targeted Neonatal Echocardiography (TNE) in 2011[2] was a pivotal step in cultivating the growth of this expert model of hemodynamic care. The subsequent 10 years have witnessed expansion both in terms of new clinical programs, scientific advancement, and innovation.

The Neonatal Hemodynamics Targeted Neonatal Echo Specialty Interest Group (NHTS) was established in 2020 to maximize the collaborative potential of the relationship between neonatologists with hemodynamic expertise and the broader ASE community. The international growth of neonatal hemodynamics programs and TNE performed by neonatologists has challenged the fundamentals of neonatal intensive care training and our approach to hemodynamic disturbances through prospective research and clinical innovation. Collaboration with ASE has enabled further standardization and recognition of this developing field, providing an avenue for cultivation of knowledge and scientific discovery across disciplines. ASE has provided a path for collaboration between disciplines to work cohesively, further advancing the field of Neonatology and understanding of cardiovascular consequences of prematurity. We are excited about the growth of our Specialty Interest Group, with increased access to hemodynamic educational activities, opportunities for highlighting junior members, and international collaboration through research.

Growth of Neonatal Hemodynamics Programs: Neonatal hemodynamics programs are based on a high degree of rigor in training standards and strong collaboration between neonatologists with advanced hemodynamics expertise ("Hemodynamic Consultants") and pediatric cardiologists with expertise in echocardiography. While the use of TNE is increasing internationally, robust and standardized training on cardiopulmonary interactions and physiology are lacking[3-6] and should be incorporated into a neonatal hemodynamics program. The traditional approach to hemodynamic care was based on targeting individual symptoms, thereby perpetuating diagnostic imprecision with the potential for therapeutic harm. In addition, there is increasing evidence of ventricular maldevelopment and other deleterious effects of prematurity into adulthood[1]. Understanding with greater precision the changing physiologies with a focus on long term

cardiovascular consequence is needed to maximize the risk-benefit relationship of intervention.

The pillar of neonatal hemodynamics programs is the "neonatal hemodynamics consultation" of which TNE is one element. Hemodynamics consultants perform a "comprehensive integrated assessment" using serial echocardiograms in conjunction with clinical assessment and an in-depth understanding of neonatal pathophysiology and cardio therapeutics[7]. While different centers have different pathways for training, there is a common goal to provide expert and integrated care to neonates with disease based and symptom based hemodynamic disturbances (**Table 1**). It is important to highlight that TNE is distinct from point- of-care ultrasound (POCUS) by virtue of the extent of the training and knowledge, comprehensive nature of the echocardiography assessment, and the depth of application of cardiopulmonary physiology as part of the hemodynamic consultation (**Table 2**). There are now more than 30 neonatal hemodynamics programs across Canada, the United States of America, Mexico, and Europe. The impetus for the growth of these programs is the need for rapid evaluation, individualized approach to neonates with hemodynamic disturbances, and the call for standardization through research. These centers range from centers with established training and research programs, to those launching a neonatal hemodynamics consultation service. The establishment of academic collaborations [e.g. Neonatal Hemodynamics Research Center (NHRC)] provides educational opportunities, research endeavors, and shared knowledge[4]. The exponential growth of these programs allows for further establishment of academic collaborations providing educational and research opportunities[4, 8]. The interactive interface through ASE enables members of this growing field to be kept abreast of opportunities in the neonatal hemodynamics community and engage with experts around the world in various disciplines.

Hemodynamics Education Activities of the NHTS: Members of the NHTS have access to a broad range of educational activities from neonatal hemodynamics centers and experts from all over the world (**Figure 1**). Our interface enables a unique avenue to access recorded webinars on neonatal hemodynamics, highlight sentinel papers, and access to protocols regarding neonatal hemodynamics from various programs. The specific content is relevant to pediatric cardiologists, sonographers, neonatologists, and other professionals interested in neonatal cardiovascular/hemodynamic illnesses and the role of TNE in guiding knowledge acquisition and clinical care. Our goal is to provide a welcoming avenue where those in the neonatal hemodynamics community can present and discuss educational material in a collaborative environment.

TABLE 1. Indications for Neonatal Hemodynamics Consultation

Symptom Based Indication	Disease Based Indication
Neonatal "Shock" • Aid in delineating biventricular systolic vs diastolic dysfunction • Guide management: cardiogenic medications, fluid management, ventilatory management	**Patent ductus arteriosus significance** • Early assessment (< 7 days after birth) • Serial assessment to guide management • Assessment: arterial (post-ductal aorta, celiac or middle cerebral artery. Doppler profiles, mitral valve E:A, pulmonary vein S' and D' wave, LVO:RVO, LA:Ao, PA Doppler
Acute hemodynamic decompensation of unclear etiology • Evaluate for pericardial effusion, catastrophic intracranial hemorrhage, and central line position • Evaluate for common neonatal morbidities: supportive vs pathologic PDA, acute pulmonary hypertension, biventricular dysfunction	**Chronic Pulmonary Hypertension** • Evaluate for indirect evidence of pulmonary hypertension (LV eccentricity index, MPA flow, RVET:PAAT, RV: LV area) • Assessment of residual shunts or LV diastolic heart failure (IVRT, E: e', E:A ratio, LA:Ao ration) • Evaluate for acquired pulmonary vein stenosis
Suspected acute pulmonary hypertensive crisis • Evaluate pulmonary artery pressure (EI, TR jet, shunts) and pulmonary vascular resistance index (RVET:PAAT) • Evaluate for PDA supportive disease (e.g. LV dysfunction, RV dysfunction with restrictive PDA)	**Special populations** • Neonatal hypoxic ischemic encephalopathy • Transitioning physiology of extreme premature neonate • Congenital diaphragmatic hernia • Status post trans-catheter closure of the PDA (PICCOLO)

*** Serial assessment for symptom-based and disease-based indication secondary to changing neonatal physiology*

PDA: patent ductus arteriosus; RV: right ventricle; EI: eccentricity index; TR: tricuspid valve regurgitation; RVET:PAAT: RV ejection time:PA acceleration time; LV: left ventricle; IVRT: isovolumetric relaxation time; Mitral valve E:A: early:active filling; S': (systolic), D': (diastolic); RVO: right ventricle output; LVO: left ventricle output; LA:Ao: Left atrial: aortic diameter; PA; pulmonary artery; MPA: main pulmonary artery.

Hemodynamics mentorship: The NHTS provides numerous ways for junior members, trainees, and sonographers to engage with experts in the field, be recognized through our social media platforms, and improve the scientific rigor of research. The NHTS supports young investigators to discuss their ideas in an open forum. In addition, a conceptual pathway to enhance the rigor of neonatal hemodynamics science and increase academic engagement is currently being discussed through NHTS. New hemodynamics faculty are oftentimes the pioneer in their center and have limited access to clinician investigators with experience in mentoring prospective echocardiography-based research. NHTS members who seek feedback on neonatal hemodynamics research protocol may reach out to SIG executives. We are optimistic that through this pathway NHTS may enhance the quality of research methodology, increase scientific rigor, and cultivate high-quality new echocardiography-driven hemodynamics knowledge. Finally, the NHTS also offers an opportunity for researchers to announce their trial to the ASE community and international followers through social media platforms.

Future Activities: It is now over 10 years since the publication of the inaugural TNE guidelines for training and clinical practice. A writing group has been convened under the leadership of Drs. McNamara and Lai to update the guidelines and ensure the recommendations are consistent with training efforts, clinical practice, and contemporary scientific knowledge. The projected timeline for the updated guidelines is completion in Fall of 2022 for future publication. The development of echocardiography simulators and web-based apps provide a novel opportunity to modernize learning (**Figure 2**). The incorporation of advanced echocardiography techniques (e.g., tissue Doppler imaging, strain analysis) into standardized imaging protocols, based on new knowledge requires thoughtful consideration. In Canada, an application for approval of a one- year fellowship in Neonatal Hemodynamics and TNE as an Area of Focused Competency Diploma by the Royal College of Pediatrics has been submitted. In the United States, a local GME accredited one-year fellowship in Neonatal Hemodynamics is offered at the University of Iowa. We are optimistic that new accredited programs will be established in academic centers across the U.S. over the next five-10 years. Finally, NHTS welcomes submissions to Echo magazine from all Specialty Interest Group members, and the NHTS executive committee would be delighted to discuss any ideas with members.

TABLE 2. Targeted Neonatal Echocardiography

	Targeted Neonatal Echo
Image acquisition	Advanced neonatal hemodynamic assessment • Initial imaging is a comprehensive assessment • Full echo by pediatric cardiology prior to discharge (timing of echo by pediatric cardiology determined by institution)
Utility	Hemodynamics Consultation for symptomatic and disease-based pathology • Qualitative/quantitative assessment of biventricular systolic/diastolic function and acute/chronic pulmonary hypertension • Markers of patent ductus arteriosus significance, integrated evaluation for "neonatal shock"
Guidelines for training	ASE and EAE (2011, Mertens et al.) European Society of Pediatric Research (2016, de Boode et al.) European Special Interest Group (2018, Singh) Updated ASE guidelines for TnEcho (in process 2023)
Certificate of completion of training	ASE/EAE (2011) • 4-6 months in pediatric cardiology echo lab • 4-6 months in neonatal hemodynamics program with advanced trainer • Total duration of training 1 year • Perform / Interpret 150 echo • Maintenance: > 100 echo/year
Inter-disciplinary collaboration	Neonatology, Pediatric Cardiology, Sonographers

ASE: American Society of Echocardiography; EAE: Association for European Pediatric and Congenital Cardiology; TnEcho: targeted neonatal echocardiography

FIGURE 1.

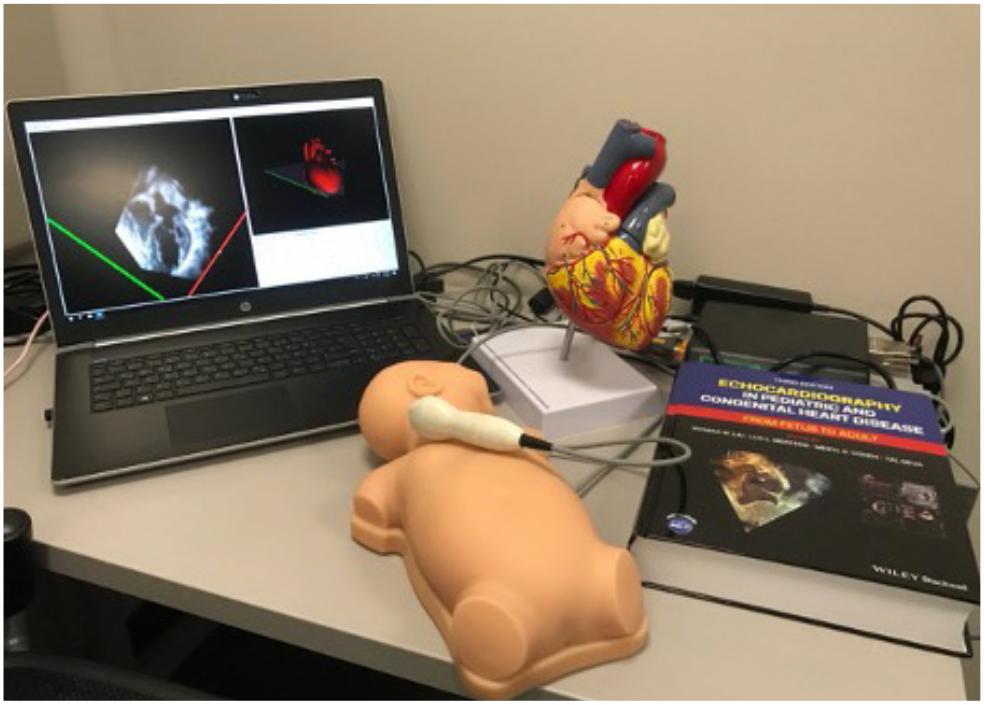
Neonatal Hemodynamics and TNE SIG

Education
- Updates on neonatal hemodynamics Apps and conferences
- Guideline development
- Access to sentinel papers
- NHTS annual live webinar
- Access to TNE and Hemodynamics protocols
- Interactive case discussions

Mentorship
- Engagement with the executive committee and international experts
- Submit research protocols for review to improve scientific rigor
- Opportunities for junior members to participate in social media platforms, webinars, and publications

Innovative Research
- Interactive interface to join multicentered studies
- Forum to discuss novel ideas to further the field of neonatal hemodynamics
- Access to neonatal hemodynamics collaboratives supporting innovative research

FIGURE 2. Neonatal Echocardiography Simulator



Echocom Simulator: Picture courtesy of the University of Iowa's Neonatal Hemodynamics Program.

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HISTORY, *it should not be a* MYSTERY

Much has been written about the importance of History. In the 18th century, Irish Statesman Edmund Burke is purported to have said "Those who don't know history are destined to repeat it." In his book The Life of Reason, published in the early years of the 20th century, the philosopher George Santayana (who was born in Spain but spent much of his life in the U.S.), wrote "Those who cannot remember the past are condemned to repeat it." In a 1948 speech to the House of Commons, Sir Winston Churchill paraphrased Santayana, noting that "Those who fail to learn from history are doomed to repeat it."

Contributed by **Alan S. Pearlman, MD, FASE**, ASE Past President, and Editor-in-Chief, Emeritus, Journal of the American Society of Echocardiography (JASE)

I am not a trained historian; my interest in history stems mostly from the reality that I've celebrated a large number of birthdays. Nevertheless, I am struck that those who do not know history might have a fuzzy understanding of how we got to this point, and an overly narrow view of where we may be headed.

Hence, I was delighted to learn that current ASE leaders were quite interested in looking back in order to look forward. I would note that ASE was founded in 1975, and the first leaders of the Society were in their 40s, and the membership numbered in the hundreds. As the years have gone by, ASE has grown substantially, and many of our newer members are currently in their 20s, 30s, and 40s. However, our founders are now in their 80s, and I suspect that while some of our younger members have heard their names, they don't know very much about the people who founded ASE, or why it made sense to do so, or what our field of echocardiography was like in the "early days." I was not present in Indianapolis in the fall of 1975 when the American Society of Echocardiography was founded (I was living

I was delighted to learn that current ASE leaders were quite interested in looking back in order to look forward.

in Lyon, France in the midst of a research fellowship), but I remember seeing my first echocardiogram in 1971 and recall that at that time echocardiographic findings were of little practical interest and viewed by many with skepticism. The times have changed dramatically; echocardiography is now the most widely used cardiac imaging modality and used routinely to help manage patient care.

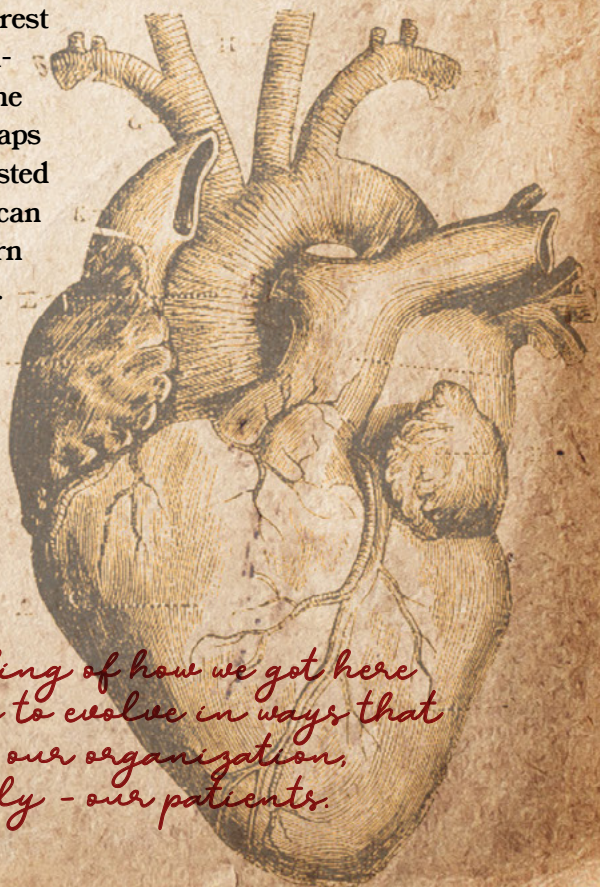
Current ASE President Ray Stainback, MD, FASE, had some excellent suggestions for "a process honoring the historical aspects of ASE." He and other ASE leaders noted that the expansion of ASE's ECHO magazine to a monthly format would provide the means to disseminate a series of articles focusing on this topic. The co-editors of ECHO magazine, Meryl Cohen MD, FASE, and Ben Eidem MD, FASE, were equally enthusiastic and asked me to help with this project.

I suspect that as we gain some experience in preparing a series of articles about relevant developments in our field and our organization, this project will evolve over time. As I've thought about it, some articles might focus on specific leaders and the issues they faced during their terms of service. However, we might also choose to focus on more general topics (for example, how and why the first ASE Councils were founded and who played a major role in their evolution, or the ways in which the field of echocardiography has evolved over nearly 70 years). As noted earlier, a clearer understanding of how we got here may help us continue to evolve in ways that benefit our profession, our organization, and – most importantly – our patients.

So, with that background, this is the first in a series of articles that address historical aspects that should be of interest to ASE members, and to those who are not yet members – but ought to be. Over time, I hope to include some photographs and the results of interviews (and – perhaps – video recordings of those interviews so that interested members not only can read about the details, but also can see the principals and hear their voices). As we learn how best to do this, we will see how the project evolves.

We may not be able to cover every area of potential interest but would be delighted to hear from members who might want to learn more about specific topics. Email us at dmeyer@asecho.org. We would give these ideas our careful consideration, and would try to address them when feasible.

Stay tuned.



a clearer understanding of how we got here may help us continue to evolve in ways that benefit our profession, our organization, and – most importantly – our patients.

RECOGNIZING ASE's 2022 AWARD WINNERS

ASE is proud to support the Cardiovascular Ultrasound Community through recognition of outstanding service, research, and training. We hope you enjoy reading about amazing careers of the 2022 ASE Award Recipients who will be recognized on Saturday morning at the ASE 2022 Scientific Sessions.

LIFETIME ACHIEVEMENT AWARDS

ASE Lifetime Achievement Awards recognize individuals who have had a lifetime of outstanding achievements in the field of cardiovascular ultrasound and have served as role models through service, research, and teaching. These individuals have a career in cardiovascular ultrasound spanning at least 25 years and are recognized at local, national, and international levels.

PHYSICIAN LIFETIME ACHIEVEMENT AWARD

Arthur J. Labovitz, MD, FACC, FACP, FCCP, FASE, FAHA
Naples Cardiac & Endovascular Center
Naples, Florida

Dr. Arthur Labovitz is the recipient of the 2022 Physician Lifetime Achievement Award recognizing his numerous contributions to echocardiography and celebrating his nearly 40-year career as a renowned clinician-researcher, mentor, and volunteer.

A recognized leader in cardiovascular medicine, Dr. Labovitz's areas of expertise include the diagnosis and treatment of heart disease and clinical research, cardiovascular imaging, valvular heart disease, atrial fibrillation, antithrombotics, diastolic heart failure, Transesophageal Echocardiography (TEE), and stroke.

In his home state of Pennsylvania, he completed his undergraduate training at Pennsylvania State University in University Park and earned his medical degree from Hahnemann Medical College in Philadelphia.

After completing his Cardiology Fellowship at Saint Louis University Hospital in 1983, Dr. Labovitz went on to serve as the hospital's Director of Echocardiography and Noninvasive Hemodynamics, the Director of Cardiology Fellowship Training, and Division Chief. He has also previously served as both the Director of Cardiology Fellowship Program and the Chair Department of Cardiovascular Sciences at the Morsani College of Medicine at the University of South Florida and the Director of Noninvasive Cardiology at Tampa General Hospital. For more than 30 years, he was the Echo Lab Director at both Saint Louis University and the University of South Florida.

In addition to his many professional accomplishments, Dr. Labovitz has also been an active member and longtime leader in a variety of healthcare-related organizations. He served on ASE's Board of Directors from 1995-1997; was Vice Chair for ASE's Industry Roundtable Partners from 2010-2012; and has chaired and been a member of numerous committees, writing groups and task forces, including Education, Scientific Sessions, Guidelines & Standards, and Advocacy, to name a few. In 2020, he helped establish the ASE's Critical Care Echo Specialty Interest Group. Serving as Co-Chair of the new group, he has actively engaged the community, recruiting and setting this new body of enthusiasts to become a Critical Care Council in July of 2022. He is also a founding member and Past President of the National Board of Echocardiography (NBE) and has been instrumental in organizing NBE's recent critical care exam. He is a diplomat of the American Board of Internal Medicine and is board certified by the subspecialty Board of Cardiovascular Disease, Nuclear Cardiology, and NBE.

Dr. Labovitz's other notable honors include the American Heart Association's Hugh McCulloch Award in 2007 for his outstanding contributions to the treatment of heart disease and was the recipient of an endowed Chair in Cardiology. He has led and participated in more than 100 clinical research studies and has published over 400 scientific articles, books and book chapters. Dr. Labovitz likes to travel, golf and spend time with his wife Terese and three children Adrianne, Brent, and Jennifer. He is also an avid gardener, which he enjoys sharing with his eight grandchildren.

SONOGRAPHER LIFETIME ACHIEVEMENT AWARD

Carol Mitchell, PhD, RDMS, RDCS, RVT, RT(R), ACS, FASE
University of Wisconsin, Madison, Wisconsin

Dr. Carol Mitchell is the recipient of the 2022 Sonographer Lifetime Achievement Award recognizing her many accomplishments and exceptional capabilities as a sonographer, instructor, and leader in the field of echocardiography. She is deserving of this honor for the many ways she has helped advance the role sonographers play in providing quality patient care and for her many contributions to ASE.

Dr. Mitchell has an ardent love for education. She started her career as a radiology technologist and was eventually registered in nearly all ultrasound modalities—abdomen, OB/GYN, vascular technology, breast, neurosonography, fetal, pediatric, and adult echocardiography. After earning a BS in Health Occupations Education from the University of Iowa College of Liberal Arts, she attended the University of Missouri at Kansas City where she earned both a MA in Education with emphasis in Curriculum and Instruction and an interdisciplinary PhD in Education. She is currently a faculty member in the Division of Cardiovascular Medicine within the Department of Medicine and has an affiliate appointment with the Department of Medical Physics at the University of Wisconsin Madison.

A shining example of scientific pursuit, Dr. Mitchell is first author or co-author of more than 65 peer-reviewed articles, 12 book chapters, and her own book Adult Echo Review: A Q&A Review for the ARDMS Specialty Exam, Edition 2. Additionally, she is the Principal Investigator or Collaborator in many grant awards. Her research is primarily focused on vascular ultrasound and atherosclerosis.

A prolific teacher and education researcher, Dr. Mitchell has won numerous awards. In 2006, she received the Society of Diagnostic Medical Sonography (SDMS) Distinguished Educator of the Year and then four years later, ASE honored her with the Cardiac Sonographer Distinguished Teacher Award. Some of her other honors include SDMS's Joan P. Baker Pioneer Award and Employee of the Month and Employee of the Year while working at St. Luke's Hospital in Kansas City.

Dr. Mitchell is a valuable member of ASE. She served as ASE's Treasurer from 2018-2021 and has volunteered in many other leadership roles on councils, committees and task forces. She has been instrumental in helping ASE strategize and create adaptive learning models and resources that provide quality cardiovascular education that is accessible by all members—including physicians and sonographers. She led the establishment of the Advanced Imaging for Sonographers: Echo Access course and the Sonographer Education Curriculum in 2021. Dr. Mitchell is a professional and passionate sonographer, educator, and leader, and ASE is happy to recognize and celebrate her many contributions to the field of cardiovascular ultrasound. Known for her sincere and upbeat attitude, Dr. Mitchell enjoys running, yoga, and watching her son play hockey and golf in her free time.

RICHARD POPP EXCELLENCE IN TEACHING AWARD

Gregory J. Ensing, MD, FASE
University of Michigan, Ann Arbor, Michigan

Dr. Gregory Ensing was selected to receive the 21st Annual Richard Popp Excellence in Teaching Award because of his passion for education, love of echocardiography, and his ability to combine the two to inspire students, colleagues, and other industry professionals.

When describing Dr. Ensing's teaching style, one of his Fellowship trainees said, "While some teach in a way as to highlight what they know, Dr. Ensing lives to help others on the road to understanding." He teaches all levels of learners. He has helped train more than 100 practicing pediatric and adult cardiologists and is proud to have mentored many gifted sonographers, dozens of imaging focused adult and pediatric cardiologists, several echocardiography lab directors, and multiple pediatric ASE leaders. Many of his pediatric cardiology mentees have exceled to leadership roles at their own institutions.

Dr. Ensing's academic interests include two- and three-dimensional echocardiographic definition of the anatomy of complex congenital heart disease, intraoperative assessment of surgical repair, and Doppler assessment of cardiac physiology. His seminal publications address detailed Doppler assessment of cardiac physiology, handheld echocardiographic screening for rheumatic heart disease, and the echocardiographic assessment of genetic diseases. His understanding of echocardiography and his ability to share that knowledge with others results in quality cardiac images, better trained cardiologists, and ultimately, optimal patient care.

After graduating from DePauw University in Greencastle, Indiana, with a Bachelor of Arts in Psychology, Dr. Ensing earned his medical degree from Loyola University Chicago Stritch School of Medicine. He completed his postdoctoral training and started his first instructor position at the Mayo Clinic in Rochester, Minnesota. In the early 90s, he moved to Indianapolis for a faculty position at the Indiana University School of Medicine before heading north to Ann Arbor, Michigan, to work at the University of Michigan School of Medicine. He directed or co-directed the school's Pediatric Echocardiography Laboratory for more than 20 years and is currently a Clinical Professor of Pediatrics in Pediatric Cardiology.

In addition to being an enthusiastic educator of echocardiography, Dr. Ensing is also a dedicated ASE volunteer and has served on the ASE Board (2017-2019) and as the Chair of several committees and the Pediatric and Congenital Heart Disease Council. He is a recipient of the Morris Green Pediatric Teaching Award at Indiana University and the inaugural Dennis Crowley Pediatric Cardiology Teaching Award at the University of Michigan.

When not working as a cardiologist, teacher, or mentor—Dr. Ensing spends his time as an amateur landscape photographer, an enthusiastic tennis player, and a devoted husband and supportive father to his wife and their two adult children.

FOUNDERS' AWARD FOR LIFETIME ACHIEVEMENT IN ECHOCARDIOGRAPHY FOR PEDIATRIC AND CONGENITAL HEART DISEASE

Lisa Hornberger, MD, FASE
Stollery Children's Hospital, Edmonton, Alberta, Canada

Dr. Lisa Hornberger is receiving the 2022 Founders' Award for Lifetime Achievement in Echocardiography for Pediatric and Congenital Heart Disease recognizing her nearly 30-year career dedicated to clinical, educational, and research activities related to fetal and neonatal cardiovascular health and disease.

After graduating from Point Loma Nazarene College in San Diego, California, she attended the University of California San Diego (UCSD) for medical school and to complete her pediatric residency. While at UCSD, under the guidance of her career mentor and longtime friend Dr. David Sahn, she was introduced to research in pediatric and fetal echocardiography. She moved to the East Coast to complete her Pediatric Cardiology Fellowship, a Research Fellowship, and a faculty instructor year at Harvard Medical School and Boston Children's Hospital.

Dr. Hornberger has served as the Director of Fetal Cardiac Programs at internationally recognized institutions in the United States and Canada—including Boston Children's Hospital, The Hospital for Sick Children in Toronto, the University of California San Francisco (UCSF) Children's Hospital & Medical Center, and most recently the University of Alberta (UA), Stollery Children's Hospital in Edmonton. Her strengths in advocacy, image training, research, and clinical program building were apparent in each of these positions as well as through her leadership role in the NA Fetal Heart Society. At Boston Children's, she developed skills in early and endovaginal fetal echocardiography, which played a role in starting some of the first early fetal echocardiography programs in North America.

Since 2008, Dr. Hornberger has worked at UA as the Professor of Pediatrics and the Founder and Director of the Fetal & Neonatal Cardiology Program in Pediatric Cardiology at Stollery Children's Hospital & Perinatal Clinic, Royal Alexandra Hospital/Lois Hole Hospital for Women. She is also the Senior Fellowship and Scholarship Oversight Director in Pediatric Cardiology, section head of Pediatric Echocardiography, and an active Program Advisor for the Women's & Children's Research Institute.

Dr. Hornberger's research has spanned clinical, population, health services, and basic science research pillars through strategic collaborations with local, regional, national, and international colleagues. She has published over 170 peer-reviewed manuscripts and co-authored textbooks and chapters in the clinical and fundamental sciences focused on the early fetal diagnosis, evolution, management, and outcomes of fetal and neonatal structural, functional, and rhythm-related cardiovascular disease. Additionally, she has given invited lectures on fetal and congenital echocardiography topics at major national and international meetings, including a memorable Fireside Chat in Oregon at ASE 2014 with Dr. Sahn, who recently passed away but was instrumental in the evolution of pediatric and fetal echocardiography.

In between work commitments, Dr. Hornberger enjoys spending time with her husband Dr. Ian Adatia and their three lovely daughters Bella, Jacqui, and Becca. One of her greatest passions is singing with the Baby Blues Sound Collective, a band comprised of healthcare workers from around the world who care for infants and children with congenital heart disease.

OUTSTANDING ACHIEVEMENT IN PERIOPERATIVE ECHOCARDIOGRAPHY

Annette Vegas, MD, FASE
Toronto General Hospital, Toronto, Ontario, Canada

The Council on Perioperative Echocardiography selected Dr. Annette Vegas as the 9th recipient of the Outstanding Achievement in Perioperative Echocardiography Award for her accomplished, well-respected career as a perioperative echocardiographer and for her important contributions to this specialty in echocardiography.

Dr. Vegas earned her medical degree from McGill University in Montreal before heading southwest to the University of Toronto to complete her anesthesia residency and several Fellowships in Clinical Anesthesia, Cardiovascular Anesthesia, and Transesophageal Echocardiography (TEE).

In 1994, Dr. Vegas became an attending staff anesthesiologist at Toronto General Hospital (TGH), where she continues to practice in the operating room and cardiovascular intensive care unit. She is the Director of Perioperative Echocardiography at TGH, Consultant Staff at the Toronto Congenital Cardiac Centre, and has a cross appointment in the Interdepartmental Division of Critical Care Medicine at the University of Toronto.

Her clinical interests are cardiac anesthesia, adult congenital heart disease, and TEE. In addition to authoring an impressive list of books, book chapters, and articles on echocardiography, she has served as the developer and lead clinical content expert for Virtual TEE (http://pie.med.utoronto.ca)—a free, online teaching aid for medical educators and trainees learning TEE. This educational tool is available in nine languages, receives nearly 275,000 visitors annually from over 180 countries, and is endorsed by the European Association of Cardiovascular Imaging. She is also an original organizer of the largest TEE meeting in Canada—the TGH TEE Symposium—which is celebrating its 20th year.

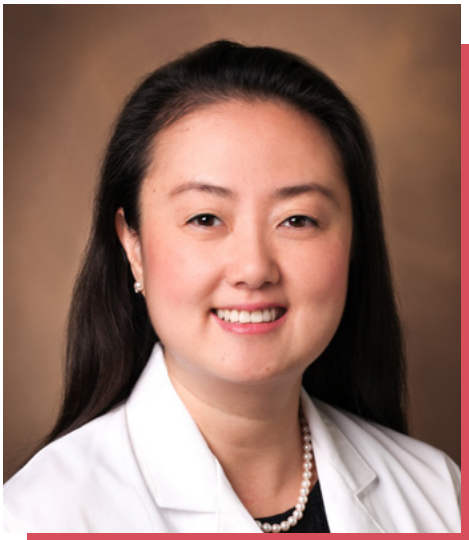
Dr. Vegas inspires and elevates her students and colleagues by providing stimulating and challenging learning environments that encourage interactivity and collaboration. She says her teaching philosophy is comprised of three interrelated components—knowledge transfer, knowledge acquisition and knowledge application. She has received numerous teaching and education awards in her career. Most recently, she received the Dr. John Bradley Award for Excellence in Teaching from the University of Toronto, which is awarded to faculty with a long history of commitment and dedication to instruction.

In addition to her involvement with ASE and achieving the Fellow of the American Society of Echo (FASE) designation in 2010, she is a member of many professional associations including the European Association of Cardiothoracic Anesthesia and Intensive Care (EACTAIC), Society of Cardiovascular Anesthesiologists (SCA), and the International Anesthesia Research Society, to name a few. Since 2015, she has served on the EACTAIC's Representative Council as Canada's Elected Representative and in 2019, the SCA recognized her with its "AWEsome Woman" (Anesthesiology Women of Excellence) distinction.

When not working in Toronto or traveling to deliver a lecture at an international meeting, Dr. Vegas enjoys the solitude of completing challenging crossword and jigsaw puzzles. She is also a passionate Montreal Canadiens fan and an avid hockey card collector.

COUNCIL ON CIRCULATION & VASCULAR ULTRASOUND LUMINARY AWARD

Esther (Soo Hyun) Kim, MD, MPH, RPVI, FASE
Vanderbilt University Medical Center,
Nashville, Tennessee



The Council on Circulation & Vascular Ultrasound (CAVUS) is pleased to present Dr. Esther Kim with the inaugural CAVUS Luminary Award for her many contributions to the scholarly, educational, and clinical endeavors in the fields of circulation and vascular ultrasound. Dr. Kim completed her undergraduate studies and earned her medical degree from Duke University in Durham, North Carolina, and her Master of Public Health degree from the University of North Carolina-Chapel Hill School of Public Health. She moved north to Baltimore, Maryland, to complete her medical internship and residency at Johns Hopkins Hospital and went on to complete her Fellowships in Cardiovascular Medicine and Vascular Medicine at the Cleveland Clinic in Ohio, where she was a staff physician for eight years. Today, she lives in Nashville, Tennessee, where she is a Professor of Medicine, the Director of the Arteriopathy Clinic, and the Medical Director of the Vascular Laboratory in the Vanderbilt Heart and Vascular Institute at Vanderbilt University Medical Center.

Dr. Kim's robust number of publications, national presentations, and editorial responsibilities make her a noteworthy contributor to the field. In addition to authoring an impressive list of peer-reviewed publications and reviews, Dr. Kim has given over 100 invited lectures on vascular imaging. She is also an Associate Editor for the journal, Vascular Medicine, and a member of the Intersocietal Accreditation Commission Vascular Testing Board of Directors.

She is an active member of numerous professional organizations, notably the American Heart Association, the Society for Vascular Medicine (SVM), the Society for Vascular Ultrasound (SVU), and ASE. Dr. Kim has served ASE as the past chair of the CAVUS Council, a member of the Board of Directors from 2015-2017, and on numerous committees and task forces, including the Governance Task Force and the Guidelines & Standards, Public Relations, Membership Steering, and Scientific Sessions Program Committees, to mention a few. She was also an author on the ASE document "Recommendations for the Assessment of Carotid Arterial Plaque by Ultrasound for the Characterization of Atherosclerosis and Evaluation of Cardiovascular Risk." Dr. Kim also chaired the writing committee for the 2020 SVM/SVU "Consensus Statement for the Interpretation of Arterial and Venous Doppler Waveforms," a document that will standardize reporting in vascular labs across the world.

Dr. Kim has dedicated her career to the care of patients with uncommon arterial disorders, including fibromuscular dysplasia and spontaneous coronary artery dissection (SCAD). She is the Principal Investigator and Chair of the Steering Committee for the iSCAD Registry, the largest multi-center registry for SCAD patients in the United States.

On the weekends, you can find Dr. Kim refining her cooking skills, serving at her church, or sitting on the sidelines watching Little League baseball. She is indebted to the love and support given by her husband, Charles, and her boys, Jack and Daniel.

MERITORIOUS SERVICE AWARD

Neil J. Weissman, MD, FACC, FASE
MedStar Health, Washington, District of Columbia

Dr. Neil Weissman is being honored with the 2022 Meritorious Service Award for his more than two decades of exemplary leadership and ongoing volunteer work with ASE and for his significant contributions to the field of echocardiography.

Dr. Weissman is an ASE all-star. Since joining the organization in 1994, he's held a number of noteworthy volunteer and leadership positions. He served as President from 2014-2015 and has chaired or co-chaired a large number of committees and task forces. He also served as Chair of two successful Echo Hawaii courses. He conceived of, and implemented, the ASE Leadership Academy as a way of growing the future leadership of the Society and assuring that they develop the necessary skills to effectively lead ASE into the future. He continues to serve on the Leadership Academy Oversight Committee and is also currently the Chair of the Governance and Compliance Committee and the Co-Chair of the Sonographer Leadership Five-Year Strategic Planning Committee.

Transformative, impactful, strategic, generous, and caring are a few of the adjectives that can be used to describe Dr. Weissman's contributions to ASE. He has helped reframe ASE's overall strategic and operational direction, overhaul its governance structure to be more inclusive, stabilize its organizational infrastructure, and embrace its growing and diverse constituency. When not going above and beyond as a volunteer, Dr. Weissman works as an internationally recognized cardiologist. He earned both his undergraduate degree and medical degree from Cornell University and completed an Internal Medicine internship and residency at The New York Hospital in New York City. Dr. Weissman conducted his Clinical Research and Cardiac Ultrasound Fellowships in the Cardiac Unit at Massachusetts General Hospital in Boston. Today, he works as the Chief Scientific Officer for MedStar Health in Washington, DC and Maryland, and Professor of Medicine (Cardiology) at Georgetown University School of Medicine.

His research interests include the use of cardiovascular ultrasound imaging in clinical trials and the development of artificial intelligent applications for imaging. He has served as the Principal Investigator or imaging core lab for hundreds of national and international multi-center trials, served on several national organizations and editorial boards, and written hundreds of original reports published in peer-reviewed journals. ASE thanks Dr. Weissman for the immeasurable amount of time and energy he's spent advancing the Society and the field of echocardiography. While Dr. Weissman embraces his professional career, he is most proud of his son David, a rising junior at William & Mary. As a resident of Annapolis, Maryland, Dr. Weissman enjoys spending as much time as possible on the water, often accompanied by his trusty German Shepard Max, who he rescued from the local ASPCA in 2020.

ASE MENTORSHIP AWARD

Karen G. Zimmerman, BS, ACS, RDCS (AE, PE), RVT, FASE
Henry Ford Health System, Detroit, Michigan

Ms. Karen Zimmerman is receiving the 2022 American Society of Echocardiography Mentorship Award in recognition of her leadership in the field of echocardiography and exceptional commitment to mentorship within ASE. Her career has largely centered on the unheralded task of one-on-one mentoring. Hundreds of students, residents, fellows, practitioners, and authors in the fields of cardiology, anesthesiology, sonography, critical care, cardiac surgery, and veterinary medicine have benefited from Ms. Zimmerman's mentorship and guidance.

Ms. Zimmerman is perhaps best known as a founding Editor-in-Chief of the ASE journal CASE. She is the first woman and first sonographer to serve as Editor-in-Chief for ASE. Ms. Zimmerman started as the self-taught sole sonographer and educator for a small rural northern Michigan hospital. When it closed, she transferred to Munson Healthcare and ascended to the position of Advanced Imaging Specialist. She eventually left the relative affluence and security of the large regional system and accepted the position of Coordinator of Quality and Education for the Echocardiography and Vascular Program at the West Virginia University School of Medicine. As sole instructor, she created and firmly established their School of Echocardiography. In 2019, Ms. Zimmerman joined Henry Ford Health System, a large healthcare network providing care for many of Michigan's most impoverished. She is the Clinical Quality Facilitator and is responsible for system-wide image acquisition, sonographer education, quality assurance, and guideline compliance. She is also a Cardiovascular Research Foundation consultant.

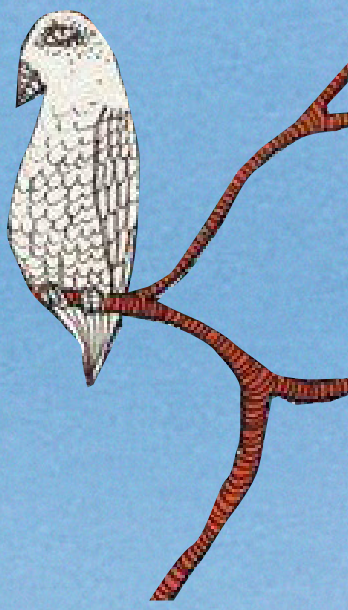
As a fierce advocate for ASE, Ms. Zimmerman has served on the Council on Perioperative Echocardiography, Education Committee, and Sonography Council as well as various writing groups and special projects. She is on the Michigan Society of Echocardiography steering committee and Michigan American College of Cardiology (ACC) Cardiovascular Team. Ms. Zimmerman has been an invited faculty member for the ASE Scientific Sessions, ASE Echo Hawaii, and regional and state national meetings hosted by the ACC and American Association for Thoracic Surgery. She has authored and acquired images for manuscripts, textbooks, and editorials that have been published in the anesthesiology, cardiology, and sonography literature.

Profession aside, Ms. Zimmerman cherishes her three distinctly unique, hardworking, creative, and insightfully wise children and three wonderful grandchildren. She enjoys the great city of Detroit with its rich music and cultural experiences, and her log cabin sanctuary up north.

Ms. Zimmerman strongly encourages each mentee to seek their full potential and instills in them the confidence to do so. She has never lost sight of her humble beginnings and remains exceptionally committed to the less fortunate, those for whom English is a second language, and first-time imagers and authors from all over the world. Like all great mentors, she is humble and fully committed to the team: "Hopefully, we can make a difference."

TO MY PATIENTS

Contributed by **Joseph Gascho, MD**, Emeritus Professor of Medicine and Humanities,
Pennsylvania State University College of Medicine



You gaze upon the image on the monitor
made up of bits of sound that bounce from probe
through skin to heart then back again
and think it shows what broke your heart.

But hearts are fickle things,
have reasons of their own
that you and I will never know.

Medicine—and cardiology—are all about seeing, taking in data, interpreting it, and then doing something. One of first things that is done after something has been seen—for example, a stenosed mitral valve on echo—is writing down what was seen, in objective, scientific terms: "calcified immobile mitral valve leaflets with a pressure half time of 310 msec." The description is precise enough that anyone reading it has a good idea of what was seen.

But there may be more that was "read" when the mitral valve stenosis was noted—information associated with that abnormality but not visible to any viewer. Perhaps when the mitral lesion is noted, the observer remembers the first time she saw it as a first-year fellow and didn't recognize it and was scolded by the attending. Or perhaps another observer remembers his beloved grandmother who had a sore throat when she was ten (no one knew it was strep) and went on to develop mitral stenosis and died from it. Both these observers could write down a lot more than a description of the diseased mitral valve. Of course, they don't.

For me, poetry is writing about those other things, not just about the diseased mitral valve, but about the imagined feelings of the physician reader (maybe me!) or the patient with the bad mitral valve. How will the diagnosis affect them? And what I write may be about other things than what I see on a monitor in the echo lab. It may be what I see when I examine my life, both my life right now and memories of my past life.

This writing could be in the form of prose, but for me poetry works best. Poetry is a kind of distillation of the words, putting them down in a form that is more memorable, perhaps, in the form that the reader will tend to make associations with the words and conveyed thoughts that he or she would not make were the words written in prose.

The metaphor of echocardiography fits very well with poetry for me. I "look" at an image, or at a memory in my life. This looking is to me like the probe that sends the ultrasound waves through the chest wall toward the heart. Then, something happens, I receive back a reflected image. And then I record what the image looks like to me. That record is in the form of a poem, for me.

My book, *Heart & Soul*, *A Cardiologist's Life in Verse* has recently been published (Figure 1). The poems in this book are about those echoes that come back to me as I examine my life and career as a cardiologist. I benefit from this. These written reflections bring back memories about my past. I suppose those reflections also shape my life and actions, perhaps make me act in a different way than had I not reflected and written about those reflections.

But I hope that these written reflections, in the form of poems, resonate with others as well—physicians, other healthcare workers, and laypersons. Each physician has their own unique life story: how they came to be a physician, the process of becoming a physician, the rigors of residency and fellowship, the choosing of a specialty and perhaps a subspeciality, their career after finishing training, the range of experiences, the mistakes, the triumphs—all different than mine. But I hope that reading about my journey will jog their memory, let them reflect on their journey. And for laypersons—I think they often have no idea what a physician's journey is like. Reading a descriptive story would educate them, but a description in poetry form will perhaps give them a sense "beyond the factual" about that journey. Perhaps it will help them when they visit their physician, will help them understand how a physician acts, how a physician handles the meting out of a bad diagnosis.

TO MYSELF

You gaze upon the image on the monitor.
Made up of bits of sound that bounce from
probe through skin to heart then back again
and think it shows what broke your heart.

I only wish there was a tool
I could use on me not you
to look inside not heart but soul
so I could know for what it yearns
so I could learn to make it whole.

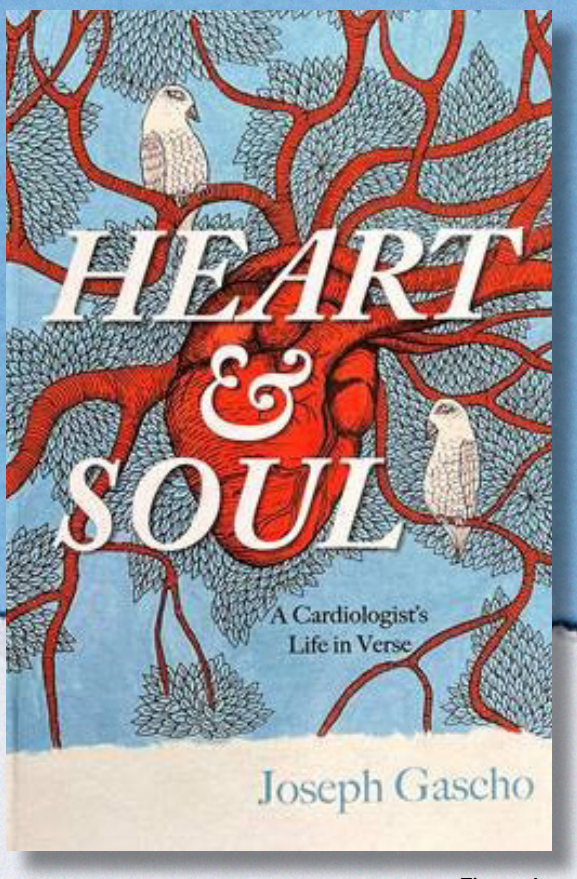


Figure 1

Heart & Soul , A Cardiologist's Life in Verse by Joseph Gascho, MD
jgascho@pennstatehealth.psu.edu

ECHO

ASE'S MISSION

To advance cardiovascular ultrasound and improve lives through excellence in education, research, innovation, advocacy, and service to the profession and the public.

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