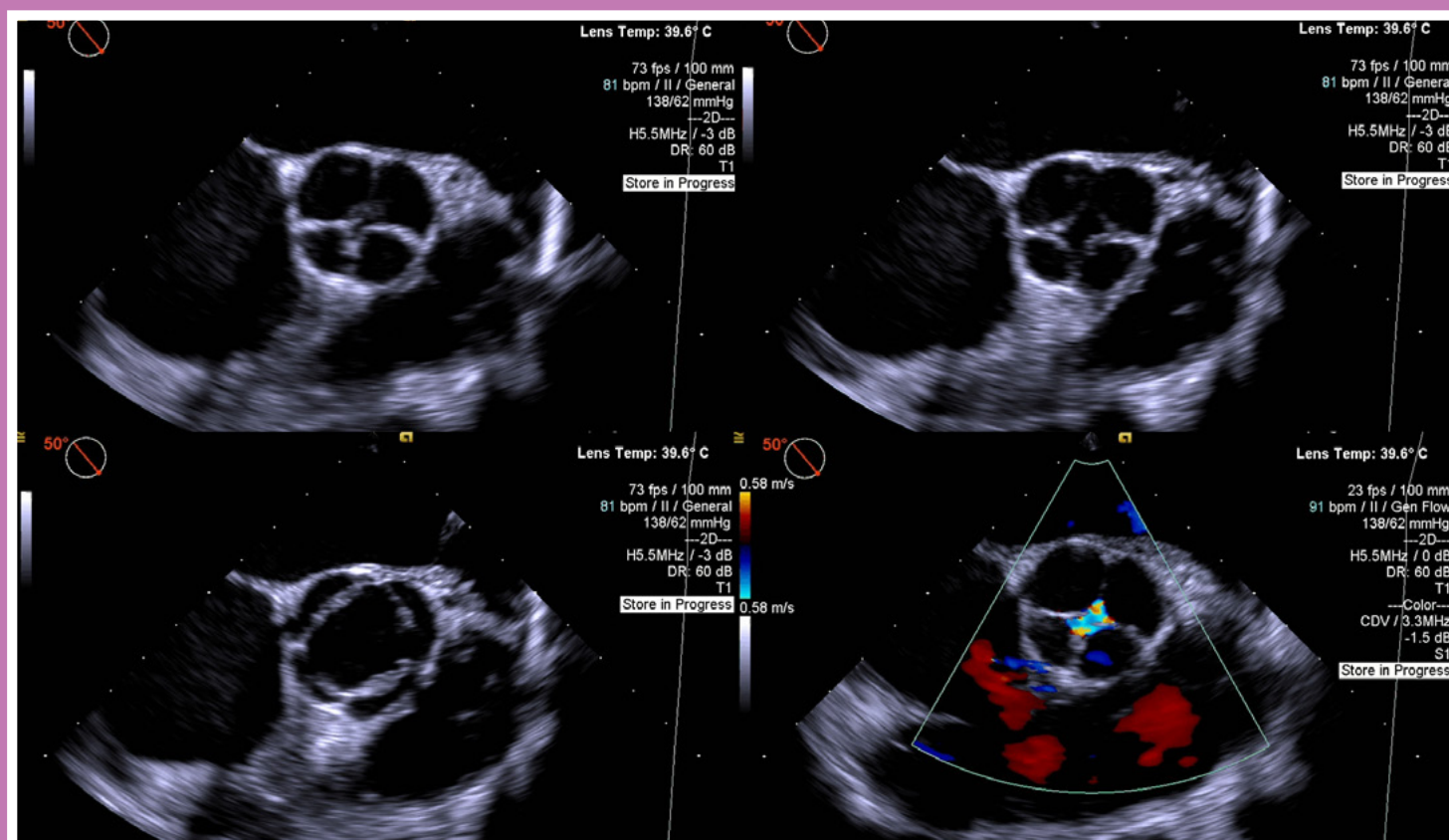


ECHO



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This text also appears in the July JASE.
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Jointly provided by ASE and the ASE Foundation

FEBRUARY

35th Annual State-of-the-Art Echocardiography

February 17-20, 2023

*Westin Kierland Resort & Spa
Scottsdale, AZ*

Jointly provided by ASE and the ASE Foundation



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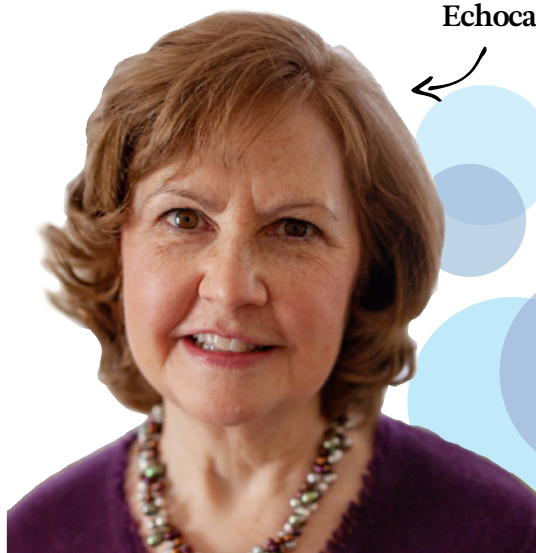
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Cover art: "Quadracuspid Aortic Valve" by Christopher Gans, MD, University of Illinois at Chicago Hospital, Chicago, Illinois

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.

ASE – HOME FOR ALL CARDIOVASCULAR ULTRASOUND USERS

*Contributed by **Stephen H. Little, MD, FASE**, Cardiology Fellowship Program Director at Houston Methodist Hospital, System Director for Structural Heart, Professor of Medicine, Weill Cornell Medical College, Cornell University, and Adjunct Professor at Rice University in the Department of Bioengineering*

The American Society of Echocardiography (ASE) - is a professional Society for users of cardiovascular (CV) ultrasound. Currently, we have over 16,000 members with 79% based in the United States, and 21% international. As an organization of professionals, ASE is unique because of the highly diverse interests of its membership. Comprised of students, sonographers, technologists, physicians, veterinarians, engineers, and research scientists, ASE is truly a home for all users of CV ultrasound. This broad and diverse member group is the focus of the ASE mission statement:

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

“

ASE is in a period of remarkable growth. As a direct result of strategic goals set in 2018, the effort to attract all users of cardiac ultrasound has been highly successful.

In considering the broad diversity of our membership, the obvious question is, why would so many individuals with different needs and perspectives join the same Society? Pondering that question, it becomes evident that our professional diversity is both a fundamental strength and one of the principal challenges for our Society. From my own experience, and from discussions with ASE friends and colleagues, ASE membership means different things to different people. The professional needs and concerns of one member may be quite different from another. As a Society for all users of CV ultrasound, how do we identify the most common interests and concerns across this wide-ranging landscape of professional practice? As in all large organizations with complex challenges, solutions are usually founded in communication.

In contemplating the needs of our membership, I often consider my own journey within ASE. I joined ASE as a cardiology fellow over 20 years ago. At that time, membership gave me access to the educational content I wanted - namely, the Journal of the American Society of Echocardiography (JASE). In my early career, I continued to seek access to JASE to read updates about rapidly developing fields, and

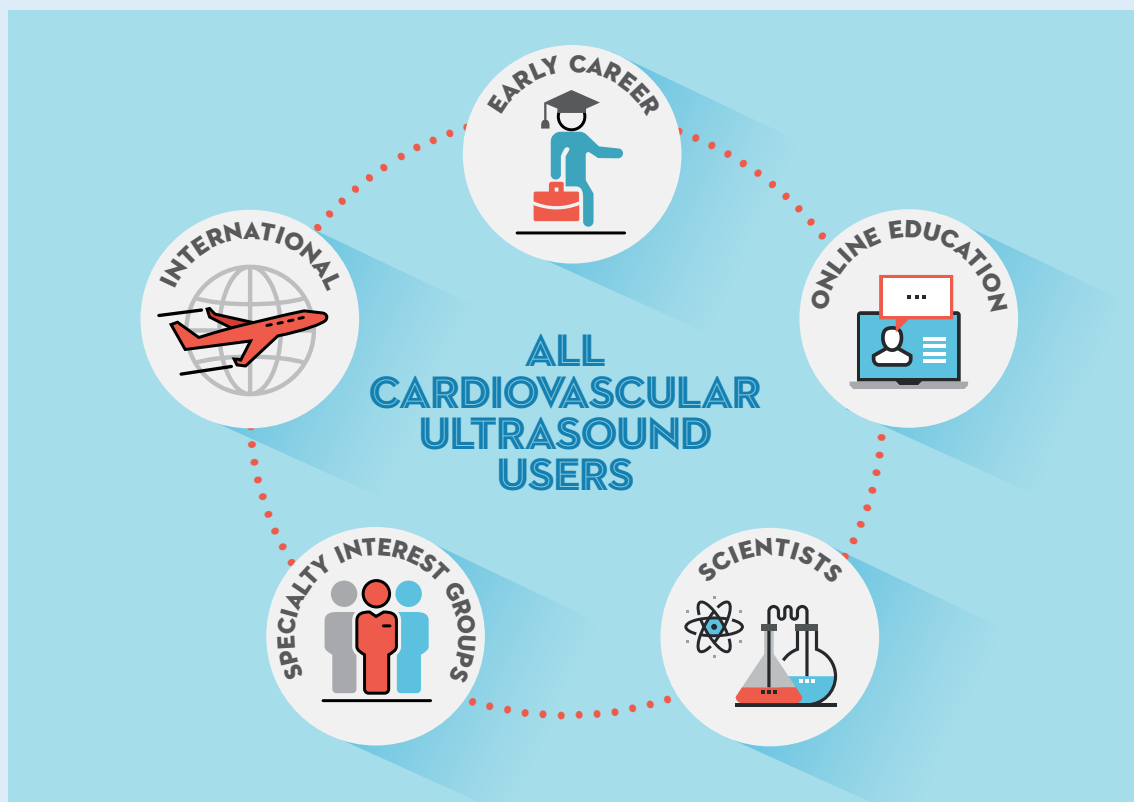


Figure 1. The expanding focus of ASE.

to occasionally publish original research with colleagues. But I also began to appreciate the professional value (and fun) of the ASE Annual Scientific Sessions. For many years, this meeting with colleagues and friends from around the world has been the highlight of every spring. As the gray hairs developed, I became more involved in ASE's efforts to produce guidelines and standards. Working with an incredible group of volunteers, we focused on the production, dissemination, and evolution of practice recommendations for our Society. More recently, I've come to appreciate the efforts and expertise of the advocacy work performed by ASE. As I learn about the internal and external challenges to all cardiac imaging, and the monumental work performed by our ASE advocacy experts, it has become clear to me that the political advocacy performed by ASE may be one of the least visible, yet most important activities performed by our Society.

I know that my personal journey within ASE has been unique, but I suspect that most of our members could describe an evolution

of engagement within ASE – depending on their career stage and professional focus. And that is one of the most remarkable things about our Society; That ASE can mean so many things to so many people, and that those things can change over time.

ASE is in a period of remarkable growth.

As a direct result of strategic goals set in 2018, the effort to attract all users of cardiac ultrasound has been highly successful. To accommodate all the varied interests within “the big tent of echo,” ASE began to recognize specialty interest groups; created more online educational content to attract early career members; continued to welcome more international members with targeted efforts at translation and dissemination of our practice guidelines and new inter-societal

“ASE is in a period of remarkable growth. As a direct result of strategic goals set in 2018

agreements with international echo societies. Today the ASE brand is recognized globally as the home for excellence in CV ultrasound. (Figure 1)

However, this expansion of the echo tent has been associated with some new challenges. A more diverse membership requires a more complex structural organization to remain relevant and responsive to the needs of its members. Thankfully most of these challenges were adroitly anticipated by the recent leadership of our Society, and a remarkable series of steps have already been taken to further strengthen ASE. As a sample of the innumerable actions taken by our recent past presidents; Jonathan Lindner reinvigorated our interest in scientific research and promoted its value within the ASE; Madhav Swaminathan illuminated the diversity, inclusion, and equity principals at the bedrock of our Societal values; Judy Hung led us all through the worst of the global pandemic and guided our collective pivot into the virtual world of engagement; and Ray Stainback began the complex work of committee and working group reorganization while responding to pandemic-induced challenges – such as the great resignation of the healthcare workforce. Contributing to all these successes has been Robin Wiegerink, CEO of ASE, and her incredible management team at ASE headquarters supporting every aspect of ASE activity. As I embark on my presidency year, I know I will lean on each of these remarkable leaders, and we will all benefit from their sustained guidance.

Communication within our membership is always important, and even more so in time of significant change. Over the next few months, I will use this forum to highlight the current ASE structure of governance, councils, and committees to demystify the operations of our Society, but also to highlight opportunities for each member to become fully engaged in the wide variety of our efforts. In the ‘big tent of echo,’ every ASE member should feel valued and connected - to the leadership, and to each other.

I could not submit my first message as ASE president without commenting upon a feeling of

immense gratitude. I am grateful to inherit the leadership of this Society at a time when our membership is growing, we are fiscally sound, we enjoy an excellent reputation globally, we are slowly emerging from a global pandemic, and we have just begun to again meet in person and socialize together - a fundamental goal of any professional Society.

“

In the ‘big tent of echo,’ every ASE member should feel valued and connected - to the leadership, and to each other.

Stephen H. Little,
MD, FASE
ASE President



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

Highlights from the POCUS and Critical Care Echocardiography Track at the

ASE 2022 Scientific Sessions

Contributed by ASE 2022 POCUS/CCE Track Co-chairs and Critical Care Echocardiography Council Steering Committee Members at Large, **Nova Panebianco, MD, MPH**, University of Pennsylvania, Philadelphia, PA and **José L. Díaz-Gómez, MD, FASE**, Baylor St. Luke's Medical Center, Texas Heart Institute, Houston, TX



Unprecedented interest, with over 800 ASE members selecting Critical Care Echocardiography as a topic of interest, drove the momentum for the SIG to rapidly meet the criteria to become an ASE Council.

IN 2019, THE ASE Critical Care Echocardiography Special Interest Group (CCE SIG), led by Dr. Arthur Labovitz (recipient of the 2022 ASE Physician Lifetime Achievement Award), was created to address the desire of ASE membership

to have a forum for discussion and development around this topic. ASE members of the National Board of Echocardiography Critical Care Echocardiography Board Exam Writing and Certification Committee served as the founding leadership for this SIG and have propelled the agenda

of this burgeoning branch of ASE. Unprecedented interest, with over 800 ASE members selecting Critical Care Echocardiography as

a topic of interest, drove the momentum for the SIG to rapidly meet the criteria to become an ASE Council.

Starting July 1, 2022, the CCE SIG officially became a council, which endows it with a leadership structure and administrative support that will advance the agenda of the expert council members. Not since 2009, has such a group met the strict ASE criteria for transition to a council. Despite the rarity of a SIG reaching council level, it is not surprising that CCE met the standards given that CCE requires special training to provide expert, quality-driven, cutting-edge care to the most complicated patients. This is a paramount concern to many ASE members, and a significant impetus for cross-collaborative membership by our multidisciplinary colleagues. Additionally, the success of the Examination of Special Competence in Critical Care Echocardiography (CCEeXAM) amplified the awareness of CCE, and the role of point-of-care ultrasound (POCUS) to our ASE constituency.

While POCUS and CCE are not synonymous, they share the common strategy where ultrasound is performed by the provider to answer clinical questions in real-time. A dedicated multispecialty POCUS/CCE track at ASE 2022 in June brought together an outstanding group of experts representing a diverse number of societies and professional groups beyond ASE including the Society of Critical Care Medicine, the American College of Emergency Physicians, the Society of Cardiovascular Anesthesiologists, the Canadian Internal Medicine Ultrasound Society, Doctors Without Borders, WINFOCUS (World Interactive Network Focused On Critical UltraSound), amongst many others. These exceptional sessions, five live, and three on-demand, focused on expert didactics, first-hand experiential interactions, and open dialog to share important established and controversial information in the rapidly evolving field of POCUS/CCE.

Below is a summary of the live and on-demand sessions that were designed to engage all attendees.

ON JUNE 10, the evolution from SIG to CCE Council was described in detail with the participation of influential POCUS & CCE leaders from diverse backgrounds. The 90-minute session began with a presentation about the history of the POCUS/CCE SIG which was followed by an illuminating talk on the unique value of intersocietal collaboration through POCUS and CCE. Next, an essential understanding of non-cardiology POCUS/CCE practitioners and the vision for CCE council guidelines were discussed. Lastly, the future of POCUS and CCE in the clinical practice and a Q&A period closed out the live session, which was later followed by a live meet and greet CCE SIG networking session.

- **From POCUS/Critical Care Echocardiography Specialty Interest Group to Critical Care Echocardiography Council: A Transformative Intersocietal Collaboration. History of the POCUS/CCE SIG**
 - The Value of Intersocietal Collaboration Through POCUS and CCE
 - Understanding Non-Cardiology POCUS/CCE
 - Vision for CCE Council Guidelines
 - The Future of POCUS and CCE in the Clinical Practice

ON SUNDAY MORNING JUNE 12, a 90-minute session entitled “Innovation Through Collaboration: Tackling POCUS Training and Education from a Multispecialty

Perspective” intended to break down silos and allow for open, collaborative, and constructive dialog regarding the reality of heterogeneous POCUS/CCE user groups, confusing nomenclature, scaling of education, development of documentation standards, and how to bridge gaps in our shared goal to provide quality and safe patient care.

- **Innovation Through Collaboration: Tackling POCUS Training and Education from a Multispecialty Perspective.**
 - POCUS Training, Credentialing, Documentation: Emergency Medicine, Critical Care Medicine, Internal Medicine, and Cardiology perspectives.

ON THE AFTERNOON OF JUNE 12, the CCE council engaged a panel of experts to demonstrate the multispecialty application of POCUS in a continuum of care for the critically ill presenting with shock and cardiorespiratory failure— critical care without walls or silos. The speakers guided the session participants through cases of undifferentiated shock, dyspnea, and cardiac arrest and demonstrated how the application of CCE can narrow the differential diagnoses, guide resuscitation, and be used to assess the effect of interventions. The session closed with a forward-thinking discussion from the perspective of cardiology and intensivists on the application of CCE.

- **Multispecialty POCUS in A Continuum of Care for the Critically Ill**
 - Case 1: The Shocky Patient
 - Case 2: The Dyspneic Patient
 - Case 3: The Cardiac Arrest Patient
 - Moving Forward – Cardiologist’s Perspective
 - Moving Forward – Intensivist’s Perspective

ON MONDAY, JUNE 13, an outstanding chalk talk by a cardiologist-intensivist demonstrated how harnessing the power of Doppler to assess congestion in visceral organs represents the natural progression and evolution of critical care ultrasonography. It represents a paradigm shift in thinking— a focus on venous excess or congestion – a significant contributor to organ dysfunction that is often neglected.

- **What is the Volume Status of My Patient: How POCUS Can Help?**

MONDAY AFTERNOON the popular “Great Debates” series tackled detailed presentations on the controversial spectrum of TEE in the application of cardiac arrest



in specific in-hospital settings (OR, ICU, and ED).

- **Transesophageal Echocardiography During Cardiac Arrest Resuscitation**

- Resuscitative TEE in the Operating Room
- Resuscitative TEE in Intensive Care Unit
- Resuscitative TEE in Emergency Room

Although the success of the live POCUS/CCE sessions is a favorite memory now, be sure to visit the on-demand sessions of ASE 2022 for ongoing access to additional informative lectures featuring what is happening in the POCUS/ CCE field today. This year's international speakers bring their unique focus in **POCUS in Low-Resource Settings: A Perspective from the Field. A Personalized Utilization of Either POCUS or Comprehensive Echocardiography in Special Populations** can guide practitioners to maximize ubiquitous clinical applications. If you are interested in new technology including artificial intelligence, virtual reality, augmented reality, or what is coming down the pike in hand-held technology then don't miss **The Emerging Technology in POCUS and CCE**. Lastly, to address concerns that POCUS adoption may be outpacing safeguards, please view the very relevant session, **Hidden and Evident POCUS Diagnostic Difficulties: It Is Not the Case of Diagnostic Errors**.

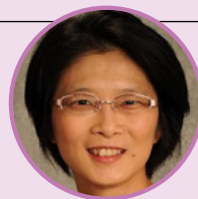
We encourage all of you to consider joining the ASE CCE Council as we continue together to forge a collaborative multidisciplinary pathway forward!

For those who were able to attend this year's ASE Scientific Sessions, thanks for joining us! It was a pleasure meeting you and sharing your CCE/POCUS experiences. For those of you attending virtually, we sincerely hope you found viewing the sessions rewarding. For all of us, with so much having been offered at this year's ASE Scientific Sessions, we are fortunate to have continued access to the content through the ASE Learning Hub! We encourage all of you to consider joining the ASE CCE Council as we continue together to forge a collaborative multidisciplinary pathway forward!

Interview with Dr. Lisa Hornberger

ASE Scientific Sessions, Seattle, 2022

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



This prestigious award gives us all a moment to acknowledge and celebrate an individual with documented lifelong exemplary contribution to the advancement of the field of Echocardiography in Pediatric and Congenital Heart Disease.

The biennial Founders' Award for Lifetime Achievement in Echocardiography for Pediatric and Congenital Heart Disease was presented to Lisa Hornberger, MD, FASE, this year.

This prestigious award gives us all a moment to acknowledge and celebrate an individual with documented lifelong exemplary contribution to the advancement of the field of Echocardiography in Pediatric and Congenital Heart Disease.

Dr. Hornberger is currently a Professor of Pediatrics and an Adjunct Professor of Obstetrics & Gynecology, Pediatric Cardiology and the Section Head of Pediatric & Fetal Echocardiography at the University of Alberta, Canada. We are all in awe of her tremendous scholarly productivity and leadership in our field and how she still has been able to push her hobbies and many talents forward, and all this while raising a family.

She kindly agreed to answer some of our questions to share her perspectives with us.

Q: If you weren't a cardiologist, what would you be? Or what did you want to be when you grew up?

A: Being a fetal and pediatric cardiologist is my passion, and I cannot imagine another career, really. However, if I had to pick another vocation, I would probably be a professional musician...fortunately, I chose the former and won't quit my day job.

Q: Tell us about one of the most meaningful trips you've ever taken?

A: I have most enjoyed trips where I have had the opportunity to share experiences and see my colleagues at work in pediatric and fetal cardiology and obstetrics in other parts of the world. Probably one of the most insightful was early in my career visiting my colleague Krishna Kumar ("KK") in Kochi, Karala India. He worked in an amazing facility, Amrita Institute, that provided charitable medical services to a large proportion of its patients. I witnessed the amazing and creative services provided by the cardiologists who had far more patients and far fewer resources than available in North America, and yet they managed to provide excellent, high quality, and holistic care.

Q: What is something that most people would be surprised to learn about you?

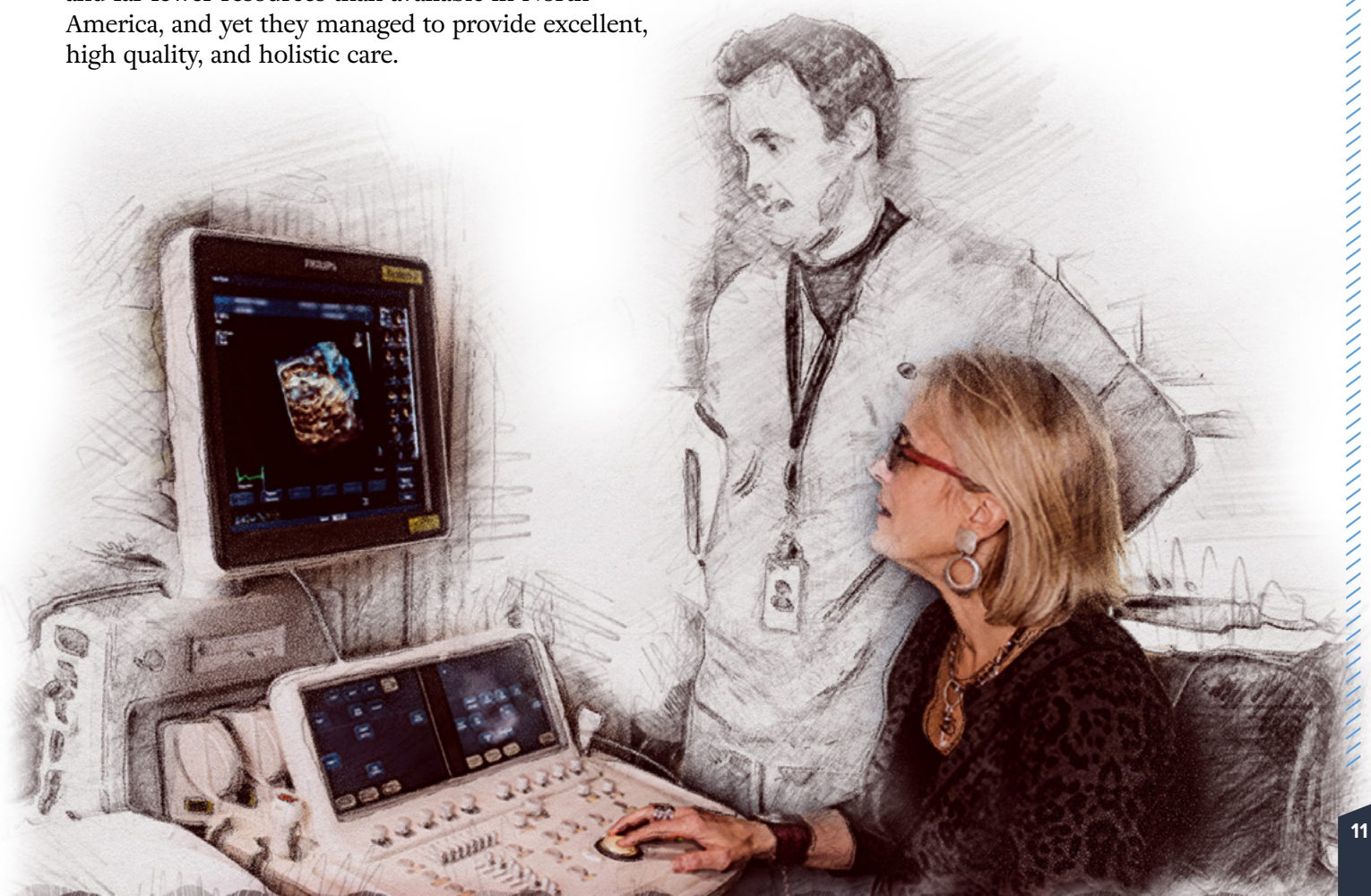
A: I like to pretend I can scat especially when listening to Ella Fitzgerald recordings! And I wish could sing and write lyrics like Joni Mitchell... my all time favorite since the 80s.

Q: What hobbies do you enjoy outside of work?

A: Singing, gardening, hot yoga, running, skiing, hanging with my girls, Ian, and our menagerie of pets (dogs, cats, and birds).

Q: Do you have a favorite movie or book? One that you could read/watch over and over?

A: I have many favorites – largely romantic comedies with my family – nothing terribly serious. One of our favorites is "Peace, Love & Misunderstanding." Jane Fonda plays this amazing old





Lisa in India.

hippie who teaches her daughter, a high-level city lawyer, and grandchildren to enjoy life, friends, and family – what is most important in life. We have watched it over and over.

Q: Was there a moment/event/case that you remember being the pivotal point in your life that led you into cardiology?

A: In my last semester of my first year as a medical student at University of California San Diego (UCSD), I had an opportunity to work for six weeks in a lab or clinical area to get research exposure. I spent three weeks in a cardiovascular animal physiology research lab and then three weeks in pediatric and fetal cardiology running around with David Sahn. After the second day with David, I was pretty much hooked. David gave me opportunities for clinical and research exposure in fetal cardiology, when it was still in its infancy. By the end of my medical school education, I had presented three or four abstracts at large North American meetings and published my first paper on the utility of color Doppler in ventricular septal defects for which I received honors with distinction at my graduation. David placed my hood on me in the graduation ceremony. For the next few years, I continued to do fetal cardiology research with David as a pediatric resident at UCSD, met leaders in the field, and the rest was history. David was essentially my career mentor and provided advice through tough times.



Lisa Hornberger with a BraveHeart patient and the Stollery BraveHearts.

Q: Do you have a favorite quote or saying that you use regularly?

A: Not “regularly” but a quote I think about often and have posted in my office is by Nelson Mandela, “It is what difference we have made in the lives of others that will determine the significance of the life we lead.” My own personal quote I have used with trainees in performing fetal echocardiograms is “Never be comfortable and always have an open mind, this is how you make new discoveries.”

Q: What motivates you?

A: I get excited when I see students, trainees, and junior colleagues engaged and enthusiastic about their research and, even better, when they have an accepted abstract or manuscript and are recognized for their work! In research, knowing you are onto something exciting and of great value in the care we provide is also highly motivating. My colleagues get a bit worried when I am excited to talk to them...it usually means I have another idea for collaborative research.

Q: If you could only eat one meal for the rest of your life, what would it be?

A: That would be impossible! I enjoy far too many types of foods and flavors and in fact enjoy cooking – life would be boring!

Q: What three things do you think the most of each day?

A: I think about my family, especially my three girls, wanting to be sure they are happy and fulfilled. I think about my next deadline or challenge at work whether that be making sure a patient is managed and does well, research, or administrative deadlines. Finally, I consider what I need to do for the commitments I have made to trainees and students.

Q: What was your first job?

A: I used to clean house and house sit while in high school and college to help pay for my education.

Q: Do you collect anything?

A: Lots! (Maybe too much.)

Q: What accomplishment are you most proud of in your life?

A: My daughters/family. I am also proud of the work I have done in fetal and neonatal cardiology/echocardiography and am thrilled and humbled to have been the recipient of the ASE Founders' Lifetime Achievement Award! Having supervised and mentored many undergrad, medical, graduate students, and clinical trainees in research through the years. It has kept me feeling young.

With the echo team.



Lisa with her family.



Lisa with her dad and daughters at the 2022 ASE Foundation Gala



Lisa with the Fetal Heart Society Members

The Sonographer Career Ladder

Contributed by **Neha Soni-Patel, MEd, BSME, RCCS, RDCS(AE/PE), and Monet Strachan, ACS, RDCS, FASE**



THE SONOGRAPHY CAREER has been a chameleon of the medical field. It started out with mere dots on a screen and now is a modality that can render 3D printouts to help plan complex heart repairs. In the earlier years of ultrasound, it was not uncommon for sonographers to learn on the job with no formal training. Today, this on-the-job training is generally unheard of in the field. The sonographer graduates of the 2020s are vastly different from those in the 1990s. Over the years, the educational requirements have become more stringent as the complexity of the exams continue to grow. Many educational programs now result in an AS or BS degree and some even a master's degree. The potential of sonographer development has grown beyond the clinical lab. This changed exam complexity and educational shift has led to a need for a more organized structure for

sonographer growth. Sonographers are now researchers, industry representatives, educators, volunteers, and in leadership.

A sonographer's career path is as varied as every patient who walks into a room. Sonographers can grow to become managers, supervisors, and administrators. But what is career development? Is it simply a path upwards? What about the sonographers who want to continue to scan and enjoy the clinical aspect of their job? Sonographer career pathways versus career fulfillment is an important aspect to discuss.

Many sonographers graduate with different goals in mind. Some want a steady job in which they can become an expert, but really don't seek a managerial role. Others desire advanced education and begin to inventory the possibilities of growth ranging from clinical roles, leadership pathways, and jobs in industry while investigating the level of education that each role will likely require. Rather than climbing a career ladder, sonographers search out fulfillment in the profession. They seek out activities that make them feel valued and validate the knowledge they have gained through their experiences. As sonographers attain higher degrees in education, they look for opportunities in alignment with their educational growth. Many organizations have set up clinical ladders for sonographers to address the need for recognition of these advance degrees,

A sonographer's career path is as varied as every patient who walks into a room. Sonographers can grow to become managers, supervisors, and administrators.

credentials, or advance level of expertise. This recognition may translate to the retention of talent within the organization and attract higher level recruits. Creating an environment where workers are able to move towards career advancement often leads to overall improved job satisfaction.

These ladders (Figure 1) start with the newest sonographers who have the least experience and are straight out of school. As time progresses, sonographers gain more experience and begin finding their niche in the echo world. Some favor interventional cardiology while others migrate towards research. Some are attracted to leadership. To promote this growth each advancement is recognized by moving up a sonographer career ladder. Figure one is a simplified description of the sonographer career ladder.

Sonographer career development can also occur in the form of volunteerism. The clinical sonographer may not seek out a leadership position but want to be a part of a larger system to direct the sonography career or field. Volunteerism in the local community, national and international medical missions, and sonographer advocacy are some ways a sonographer can contribute to feel fulfilled. The sonographers of the 1990s have seen this profession grow from the

The sonographers of the 1990s have seen this profession grow from the inside out and they have been part of this process.

inside out and they have been part of this process. They have educated newer sonographers and volunteered their time when there was no recognition of contribution. They did it to leave a legacy. Their efforts inspired other sonographers to join in and do something even bigger and better.

With their increased education and advancement in imaging technologies, the Advanced Cardiac Sonographer (ACS) exam was developed. This credential demonstrates the advanced knowledge and expertise the sonographer possesses. This designation supports sonographers career advancement and interest in specialty roles. Some of the roles often filled by a level four sonographers may include, assisting physicians by preparing overreads, leading research, being an educator, or becoming a lead sonographer.

Clinical educators ensure the sonography team is up to date on the latest guidelines, new technologies, or emerging techniques that elevate the level of care and diagnostic value the exam. They help with onboarding new sonographers and design ongoing educational and training programs for all levels of sonographers. In academic organizations, they assist with training residents or fellows in the performance of sonography procedures. Lead sonographers often bridge the gap between clinical sonographer and administrative leadership. As a lead, the responsibility often includes managing daily operations and the point person for urgent issues in the hospital.

Sonography jobs have many different pathways that promote learning and advancement. With the growth of the complexity of the exam performed, most organizations have adopted a structure that supports sonographer advancement and growth. In these times where recruitment challenges are prevalent, organizations need to focus on retaining their high performing team members and implementing career ladders with clear steps to promotion, both of which are vital to this process.

Figure 1: Simplified Sonographer Ladder Example



Introducing the Veterinary Specialty Interest Group – A Bridge to Two Worlds

Contributed by **Étienne Côté DVM, DACVIM (Cardiology, SAIM), FACC**, Professor and 3M National Teaching Fellow, University of Prince Edward Island, Department of Companion Animals, Atlantic Veterinary College, Charlottetown, PE, Canada and **Philippe Pibarot, DMV, PhD, FAHA, FACC, FESC, FASE, FCCS**, Head of Cardiology Research and Canada Research Chair in Valvular Heart Diseases, University of Laval, and Director of the Echocardiography Core Laboratory at the Québec Heart & Lung Institute, Quebec, QC, Canada.



Four years ago, ASE first began to explore the veterinary field after informal participation of veterinarians in ASE Scientific Sessions, Echo Hawaii, and ASE publications.

THE VETERINARY SPECIALTY Interest Group (Vet SIG) is ASE's newest SIG that strives to be the space for interaction among individuals with a cardiovascular interest that involves animals.

Echocardiography bridges the human and animal worlds in many ways, including biomedical research, comparative physiology, veterinary practice, and wildlife conservation. The Vet SIG brings together professionals from a wide range of fields: physicians, sonographers, and allied professionals interested in comparative cardiovascular medicine; scientists; veterinarians; veterinary sonographers; and trainees in these disciplines.

Four years ago, ASE first began to explore the veterinary field after informal participation of veterinarians in ASE Scientific Sessions, Echo Hawaii, and ASE publications. It quickly became apparent that there were many common pursuits. Veterinarians and veterinary technicians often used equipment, terminology, and evidence that was based on human echocardiography. Similarly, many physicians and sonographers had an interest in animal echocardiography, whether from having had to perform scans on animals in research or conservation settings, having pets with heart problems, or simply from intellectual curiosity regarding different types of hearts in different types of chests.

A joint veterinary and human echo symposium, with Drs. Jonathan Lindner, James Thomas, John Bonagura, Brian Scansen, Virginia Luis Fuentes, and several others as speakers, was successful, followed by the creation of an ASE Human-Vet Echo Task Force. This Task Force laid the foundation for the creation of an ASE Transthoracic Echocardiography Guidelines for Dogs and Cats, which is currently underway. Collaboration with ASE journals led to the appointment of Dr. Rebecca Stepien, veterinary cardiologist at the University of Wisconsin, Madison, as Associate Editor for CASE, ASE's online open access case reports journal. Over the past three years, 14 veterinary case reports have been published in CASE. Veterinary attendance at ASE Scientific Sessions and Echo Hawaii has grown, such that there was a dedicated veterinary time slot at the ASE 2022 Scientific Sessions in Seattle on June 13. Two presentations plus an abstract/case report were featured – a first for the ASE Scientific Sessions. Together, these accomplishments speak to the appealing nature of seeing another perspective, whether starting from the human side or the veterinary/animal side, to further our understanding of the heart.

The creation of the Vet SIG represents a bold step because it branches into echocardiography of nonhuman species. Yet the complementary nature of underlying principles is well known. Dr. Barbara Natterson-Horowitz, author of *Zoobiquity*, highlighted

this in her Gardin Lecture at the ASE Scientific Sessions in 2019. The Vet SIG is an ongoing way for this cross-pollination to continue to happen.

For some ASE members, joining the Vet SIG is appealing for improving skills and understanding with a direct benefit to their work; for others, it is about intellectual curiosity around their pet's health. Still others will see an additional perspective on cardiac physiology and disease mechanisms that sheds new light on their area of practice. All ASE members with an interest in animals are encouraged to join the Vet SIG to learn more and to contribute to exchange of knowledge across the species.

Link: ASEcho.org/SIGS/Veterinary-SIG/

Veterinary SIG Leadership Group

Etienne Côté DVM, DACVIM – Chair
Philippe Pibarot, DVM, PhD, FASE – Co-Chair
Valérie Chetboul, MV, PhD, DECVIM
Rebecca Stepien, DVM, MS, DACVIM
Elizabeth McIlwain, MHS, ACS, RCS, FASE
Piers Barker, MD, FASE
Lance Visser, DVM, MS, DACVIM
Virginia Luis Fuentes, PhD, VetMB, DACVIM
Jonathan Lindner, MD, FASE
John Bonagura, DVM, MS, DACVIM



The creation of the Vet SIG represents a bold step because it branches into echocardiography of nonhuman species. Yet the complementary nature of underlying principles is well known.

ASE 2022 SCIENTIFIC SESSIONS – NOW THEY ARE *History*

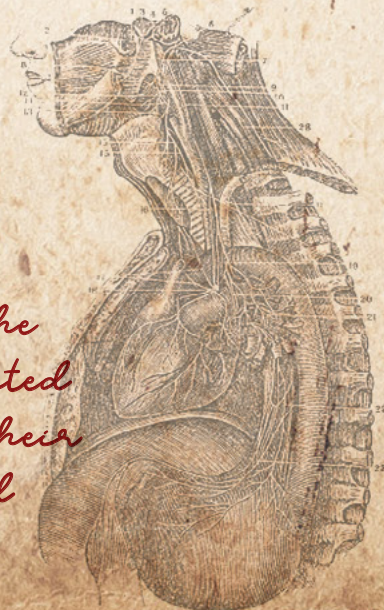
Recently, I attended the 33rd Annual Scientific Sessions of the American Society of Echocardiography, held at the Seattle Convention Center from June 10-13. Organized as a “hybrid” event, with both online and in-person components, this was the first Scientific Sessions at which in-person attendance was an option since the 2019 Scientific Sessions held in Portland, Oregon. This year, program chairs Sharon Mulvagh MD, FRPC, FASE, FACC, FAHA, and Carol Mitchell PhD, ACS, RDMS, RDCS, RVT, RTR, FASE, FSDMS, (Carol wins the “most degrees” contest!) did a spectacular job in crafting an excellent meeting with lots of learning opportunities, and the chance to see old friends (and make some new ones). It was an opportunity that I found most welcome after spending several years in hibernation. An extra treat was the chance to catch up with Dr. Liv Hatle, one of the *grandes dames* of cardiology.

At the meeting, I was reminded of a few things about the history of ASE. ASE has continued to grow and evolve over the years, welcoming new and established users of cardiovascular ultrasound whose daily work may involve one of many different clinical disciplines. The 2022 Scientific Sessions included program tracks for practitioners whose daily work involves a wide range of clinical areas, including Adult Congenital Heart Disease, Cardiac Sonography, Pediatric and Congenital Heart Disease, Perioperative Echocardiography, Point of

The members who attended the Scientific Sessions represented diverse backgrounds, and their clinical interests reflected this spectrum.



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



Care Ultrasound, Vascular Ultrasound, and Veterinary Cardiology. The members who attended the Scientific Sessions represented diverse backgrounds, and their clinical interests reflected this spectrum.

Those who visit the ASE website will note that “ASE is the largest global organization for cardiovascular ultrasound imaging serving physicians, sonographers, nurses, veterinarians, and scientists.” Importantly, but not surprisingly, one of ASE’s Core Values is diversity. In his August 2019 President’s Message, Madhav Swaminathan (ASE’s 30th President) wrote that “ASE has, fortunately, always had a diverse membership of echo enthusiasts since its inception.”¹ President Swaminathan went on to write “The history of the ASE is rooted in diversity,” and to recall that when founded in 1975, Dr. Harvey Feigenbaum, the Society’s founding President, “recognized the value of diversity by including a noted radiologist as the vice-president.”¹

Dr. Feigenbaum has written excellent review articles about the history of echocardiography,² and has addressed this topic on different occasions. In a 2009 interview, he discussed the “Beginning of Echocardiography,” and spoke about the founding of ASE.

Dr. Pearlman and
Dr. Hatle at the 2022
ASE Foundation
Research Awards Gala.

ASE has, fortunately, always had a diverse membership of echo enthusiasts since its inception.

He said “I didn’t want this to be a total cardiac organization. I wanted anybody who’s willing to do a good job at cardiac ultrasound, irrespective of their training or their label, is more than welcome to be part of this organization.”³ He has noted that in his view, diagnostic ultrasound does not inherently belong to any physician specialty, and that whoever demonstrates a desire to do the examination well is entitled to perform it. The point to emphasize is that ASE has been – from the beginning – an inclusive organization focused on promoting high quality care and not limiting membership to individuals who came from any particular clinical specialty. The 2022 Scientific Sessions reinforced this perspective and, in my view, demonstrated how the Society continues to navigate this course quite successfully.



Dr. Feigenbaum's interview also reminded me of a terrific resource available to anyone who is interested in the history of echocardiography and the related history of ASE. In 2009, ASE leaders arranged for interviews that were filmed professionally and resulted in a set of videos that can be viewed on ASE's YouTube channel. These interviews were conducted primarily by Dr. Randy Martin, who served as ASE's 14th President from June 2003-June 2004. For those who don't know him, Dr. Martin has made many important contributions during his long career. One of these involved serving as a professional journalist. From 1994-2009, he was a Medical Correspondent for Cox Television's ABC affiliate in Atlanta. He earned three Emmy nominations, and his outstanding journalistic work was celebrated in 2004 when he was awarded the Howard L. Lewis Lifetime Achievement Award by the American Heart Association. He is an experienced and skilled interviewer. Assisted by Drs. Al Parisi (ASE's seventh President) and Jules Gardin (ASE's ninth President), Dr. Martin interviewed 19 of the 20 individuals who had served terms as ASE President between 1975 and 2009. Dr. Parisi interviewed Dr. Martin.

During the 2022 Scientific Sessions, Dr. Martin (with a little help from me) interviewed five additional Past Presidents (Drs. Sanjiv Kaul, Jim Thomas, Patty Pellicka, Neil Weissman, and Vera Rigolin). We are in the process of editing these interviews for length, and they too will be available online later in the year. Our plan is to continue to update this "living history" document by interviewing additional Past Presidents during the 2023 Annual Scientific Sessions.

To my surprise, most of the ASE members with whom I spoke in Seattle were vaguely aware that the 2009 interviews existed. I see no need

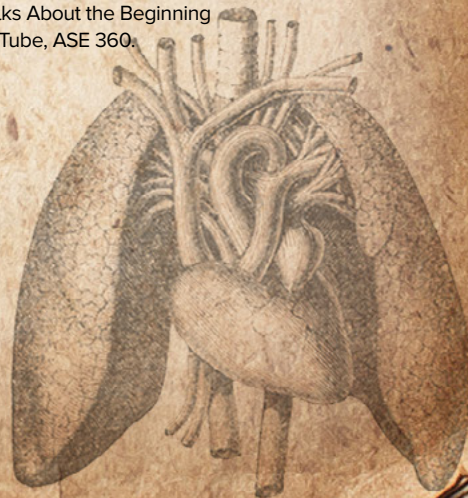
to repeat, or attempt to summarize here, the recollections of our Past Presidents and their perspective on the history of echocardiography and of ASE. However, I would strongly encourage all who are interested in the history of our profession and our organization to view this series of videos on ASE's YouTube channel entitled "Recollections of ASE's Founders and Past Presidents."

Also, rather than re-visiting the recollections of specific Past Presidents in future articles included in *Echo* magazine, my current inclination is "to focus on more general topics." It seems to me that the stories told in the YouTube interviews cannot be replicated in a written summary, since the interviews not only cover a range of specific issues, but also allow the viewer to see the faces and to hear the voices of the Society's past leaders. A few of them (Drs. Al Parisi, David Sahn, and Dick Kerber) are no longer with us, but hearing their voices and seeing their facial expressions keeps them alive in our memories. I hope that many members will watch and enjoy the interviews. They provide a fabulous history lesson.

ASEcho.org/PastPresidentVideos

References:

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Jane E. Marshall, RDCS, FASE: CELEBRATING 46+ YEARS in the Field of ECHOCARDIOGRAPHY

Contributed by Lanqi Hua, ACS, RDCS, FASE; Judy Hung, MD, FASE; Mary Etta King, MD, FASE; Barbara McDade, RDCS; Michael Picard, MD, FASE; Danita Sanborn, MD, FASE; and Malissa Wood, MD, FASE, Cardiac Ultrasound Laboratory, Massachusetts General Hospital, Boston, MA

H

ow do you say “farewell” to the heart and soul of a group; to one who has given her all for more than 40 years to the administration, quality maintenance, and community sustenance of the laboratory? Jane Marshall has been that heart and soul for the Massachusetts General Hospital (MGH) Cardiac Ultrasound Lab, and it was our privilege

to count her as our colleagues and friends for many years. She came to Massachusetts General Hospital in 1980 as a fresh-faced, sweet mid-western girl who had studied at the feet of the master – Harvey Feigenbaum – and was recruited by one of his early disciples – Ned Weyman. She brought with her a commitment to careful, thoughtful, intelligent, technically superb clinical echocardiography. Beneath that sweet mid-western demeanor was a will of steel and the ability to organize and manage a laboratory that grew from a small backroom operation to one of the largest and most respected

Lanqi Hua (left) and Jane Marshall (right) at the 2019 ASE Foundation Research Awards Gala in Portland, Oregon.



Beneath that sweet mid-western demeanor was a will of steel and the ability to organize and man-age a laboratory

cardiac ultrasound laboratories in the world. She drafted budgets, ordered and maintained equipment, arranged scanning schedules, performed evaluations, interviewed new candidates, attended management meetings, and was usually called upon to scan technically difficult or VIP patients. In the early years, if there was a complex pediatric case, Jane was the one to do the study. She was involved as the technical resource for many of the research projects conducted by staff and fellows.



Jane demonstrates one of the earliest models of a 2D mechanical sector scanner from Smith-Kline Instruments at the March 1977 ACC meeting. Jane was asked to demonstrate this machine because companies did not yet have Application Specialists to showcase their equipment.

Just as important as her technical and management contributions were the many ways she created a sense of “family” for the laboratory group – candy on her desk, home baked cookies and Ohio buckeyes, invitations for holiday dinners to fellows from overseas, birthday, new baby, and special awards parties.

Jane is on first-name basis with nearly everyone – the cafeteria workers, the Coffee Central baristas, the equipment salespeople, the department managers, and secretaries, and many of the sonography and echocardiography personnel in Boston and around the world. It was always a privilege to share a hotel with her at national meetings since she knew where every free dinner and cocktail party was being held and had invitations to them all!

Jane always hated public speaking, but as her involvement with ASE grew, she was often an invited faculty member at the annual Scientific Sessions as her breadth of experience and knowledge was appreciated around the country. Many a night and weekend she could be found in the laboratory seeking out interesting cases, editing videotape

At the 2003 ASE Scientific Sessions Jane received the Distinguished Sonographer Teaching Award from ASE President Pam Douglas, MD, FASE



(remember those days?!), making PowerPoint slides, and fine-tuning her presentations. She also participated as a speaker and technical resource for many post-graduate programs locally, nationally, and internationally, which also fit well with her love of travel.

Jane made many other contributions of her time and expertise to ASE serving on a variety of committees and co-chairing the Scientific Sessions where she was responsible for planning and overseeing the sonographer sessions of the program.

As a mentor to other sonographers, Jane encouraged a professional attitude to their work and involvement in the wider field of echocardiography. She was a strict taskmaster, which was not always immediately appreciated, but the value of her supervision was so apparent to physicians who interpreted echo studies by her trainees – after working with Jane for three to six months, the difference in quality of scanning was like night and day. She negotiated fiercely with the administration for anything that would ensure quality studies – whether it was sonographer salaries, scanning time,

number of daily studies, or ergonomic issues – and the quality of the MGH Cardiac Ultrasound Lab was recognized throughout the city and nationally. The field of echocardiography has immensely benefited from the contributions of Jane Marshall and her retirement will create a great loss. I wish her all the best as she pursues this next phase of her life.

As a mentor to other sonographers, Jane encouraged a professional attitude to their work and involvement in the wider field of echocardiography.

2009 ASE Scientific Sessions (left to right) Jane, Lanqi, and Judy



Additional memories from Mary Etta King, MD, FASE

W

e are extremely honored to write this article regarding Jane E. Marshall's retirement. She has been an integral member of the team at Massachusetts General Hospital (MGH), a staunch advocate of ASE and its

mission, and a beloved colleague. Jane has served the Cardiac Ultrasound Laboratory at MGH for 41+ years with sheer dedication. When Jane joined the MGH Cardiac Ultrasound Lab, the lab was in its infancy and not well known, but she made invaluable contributions in establishing the echo lab and taking it to great heights and international recognition. She has been an inseparable part of our Cardiac Ultrasound lab. Her absence will be felt immensely by all of us.

Jane was raised in Xenia, Ohio. Ohio is known as the Buckeye state and the name of a cookie Jane is famous for baking. She graduated from Muskingum University with a BS in Biology and continues to be a faithful "Muskie." In 2019

At the 2019 ASE Foundation Research Awards Gala, Jane received the Sonographer Lifetime Achievement award. She is pictured here (in the middle) with some of her MGH colleagues and alumni at the Awards Gala

Muskingum University awarded Jane the Distinguished Alumni Award, which is given to an alumnus who has distinguished themselves professionally and displays exemplary service to others.

Jane has been a leader in the field of echocardiography since its early days in the 1970s. Jane began her career in the echocardiography laboratory of Dr. Harvey Feigenbaum at Indiana University. In 1980, Dr. Arthur Weyman invited Jane to join him at the Cardiac Ultrasound Lab at MGH. Jane drove across the country that December and settled into an apartment on Beacon Hill. Since that time, she has been instrumental in its growth: from the development of standard 2D echocardiographic views, protocols, policies, and establishing normal values in the lab, to creating a world-renowned laboratory.

Jane has been a distinguished leader, cardiac sonographer, and researcher, she has co-authored

She made invaluable contributions in establishing the echo lab and taking it to great heights and international recognition.





Jane is shown here at the ASE meeting in 2013 with Dr. Harvey Feigenbaum (right) and Dr. Arthur Weyman (left), her two key mentors and pioneers in echocardiography.

numerous scientific peer-reviewed publications. In addition, she is our cherished and steadfast friend. She is totally committed to the development of new generations of sonographers and continually pushes us to learn, to enhance our education, to try new things and explore new views. She wants us to think about cardiac structure and physiology to understand diagnoses, their etiology, and to obtain the key data in each of the myriad of diagnoses we see on a regular basis in a large and highly complex environment. As the Technical Director, Jane hired and mentored in excess of 100 sonographers. Over the years as some of the sonographers moved across the country and around the world, their new employers eagerly hired them because they were aware of Jane's excellent reputation of thorough meticulous training. Jane is always smiling; she is always positive, and she is always helpful. She rarely criticizes, but if so, it is constructive and always encouraging. She is a role model to all of us!

Besides the training of numerous sonographers, she has also been involved in the training of cardiology fellows and cardiology staff, including many current leaders in the field, several ASE presidents, and many who have gone into leadership positions in academic institutions and hospitals around the globe. Jane is immensely respected by those who have worked with her. Jane has also been extremely generous with her time and talent and volunteered

She has given numerous hours of volunteer service to the ASE in order to advance the sonographer cause.

whenever needed to scan patients as part of ongoing research studies. Whether at the finish line of the Boston marathon or on the wards of the MGH, every study performed was of the highest quality. More than once Jane's attention to detail would lead to the identification of a clinically important finding missed on a prior scan performed elsewhere.

Jane was one of the early sonographer members of ASE and has served on many and varied committees and task forces of the organization, including the Board of Directors as a very early sonographer member. She served three terms on the Nominations Committee, whose important task is to select leaders who will guide the direction of the organization. She has given numerous hours of volunteer service to the ASE in order to advance the sonographer cause. She was a writer of credentialing exam questions for the national registry boards for American Registry of Diagnostic Medical Sonographers for both adult and pediatric echocardiography. She has served as a reviewer of adult and pediatric laboratories for the Intersocietal Accreditation Commission for echocardiography facilities. Jane was a charter member of the ASE Sonography Council, is a regular speaker at the ASE Scientific Sessions, and has also been Sonographer chair. For over ten years, she was part of the faculty at the ACC Heart House Advanced Course for Sonographers, as well as faculty for the MGH/Harvard Update in Echocardiography Course. In honor of her contribution to the field of echocardiography, she received the ASE Distinguished Sonographer Teaching Award in 2003 and the Sonographer Lifetime Achievement Award in 2019.

We are grateful for her passionate, unwavering dedication to the entire staff of Mass General Cardiac Ultrasound Lab, and she will forever be in our hearts and minds. On behalf of MGH Cardiac Ultrasound Lab, we congratulate Jane on her well-deserved retirement! We will strive to follow her stellar example.

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.*