

American Society of Echocardiography

ASE 2019



30

**YEARS OF
INNOVATION**

Scientific Sessions • June 21-25, 2019

Oregon Convention Center • Portland, OR

A S E S c i e n t i f i c S e s s i o n s . o r g

ADVANCE PROGRAM

It is our pleasure to invite you to join us in Portland, June 21-25, 2019, to celebrate the ASE's Scientific Sessions' 30th birthday!

In 1989, color Doppler had just appeared and the first TEEs were done...after 30 years of innovation, echo has undoubtedly become the most indispensable technique in the cardiologist's toolbox and a must-have in many other medical and surgical specialties.

The overarching theme of the 30th Annual Scientific Sessions is echo's role as a bridge builder. Echo is uniquely positioned at the center of many worlds, able to combine amazing complementary strengths: at the intersection of imaging, physiology and physiopathology, guiding interventional medicine and surgery, bringing together health providers of many specialties, sonographers, engineers, basic scientists, physiologists, and epidemiologists. Echo holds a primary position in patient care being simultaneously affordable, scalable, and internationally accessible.

We want these sessions to not only consolidate your existing knowledge, but also make you discover aspects of echo that you may not have thought about and that will broaden and extend your practice.

We are welcoming faculty from all the specialties, and around the world, to present you with the most up-to-date and relevant science, not just on echo but on all aspects of cardiovascular ultrasound care.

- Listen to and discuss the latest science in **interventional echo, valve diseases, heart failure, diastology, cardio-oncology, technology, circulation, and artificial intelligence**, to cite just a few.
- In addition to the Imaging Essentials, Myocardial Function, Valves, Circulation, Perioperative, Ischemia/Perfusion/Stress, and Pediatric tracks, you can discover what **point of care ultrasound** is all about in a workshop Friday and in several sessions.
- To better help you navigate the integration of echocardiography in the changing healthcare environment, come to the three-hour **Value Summit!** We have also developed several **multimodality sessions** to allow you to best position your echo practice.
- To answer the questions and needs of aspiring echocardiographers, come to the **Early Career** track and mingle with the faculty in these smaller sessions.
- Enjoy the many **hands-on learning labs**, including 3D Volume and Function, 3D Cropping, 3D Printing, Virtual Reality, 3D in CHD, and Strain.
- New session formats are being used in a number of the sessions including more team discussions and interactions.
- Engage with the experts during the Chalk Talks for an opportunity to discuss popular topics like Doppler, Strain, 3D, Social Media, Diastology, and how to get your research published.
- **Network with the faculty in smaller settings**, both for echocardiographers and sonographers, at many organized and informal events.
- Echo progresses with research. We welcome your **best science** with the Arthur E. Weyman Young Investigator's Award Competition, the Brian Haluska Sonographer Research Award Competition... and a novel **Twitter case competition!**
- And let's not forget our educational game-shows...fresh this year, **Stump the Stars** where gifted juniors present exceptional cases to echo champions...also, Echo Jeopardy (adult) and Pediatric Echo Jeopardy are back.
- The **ASE Foundation 10th Annual Research Awards Gala** is on Sunday, June 23rd at the Hilton Downtown Portland. Wonderful company, fun and food, all for a great cause. Tickets go fast!

We look forward to welcoming you to Portland! Consider bringing your family to this vibrant city, and find some time to visit the beautiful outdoors and the surrounding food and wine offerings.



Marielle Scherrer-Crosbie, MD, PhD, FASE
ASE 2019 Program Chair
The Hospital of the University of Pennsylvania
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Lanqi Hua, BS, ACS, RDCS, FASE
ASE 2019 Sonographer Co-Chair
Massachusetts General Hospital
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SPECIAL WORKSHOPS AND LEARNING LABS AT ASE 2019

IAC ECHOCARDIOGRAPHY BOOT CAMP

In partnership with the Intersocietal Accreditation Commission (IAC), ASE is offering this unique, interactive session as an opportunity to learn everything you need to know about accreditation or reaccreditation directly from IAC experts in a succinct half-day format.

POCUS EXTRACARDIAC IMAGING WORKSHOP*

This workshop is designed to instruct cardiologists and other echo professionals and will feature anesthesia, critical care, vascular, and emergency medicine experts applying non-cardiac point of care ultrasound in the care of patients. There will be a combination of didactic and hands-on learning opportunities.

NEW FRONTIERS OF POCUS*

This didactic lecture session will feature anesthesia, critical care, vascular, and emergency medicine experts addressing their specialties' rapidly expanding use of point of care ultrasound in the care of patients and how these new applications of POCUS may integrate with conventional echocardiography.

ADULT CONGENITAL PATHOLOGY*

This workshop is designed for adult sonographers and physicians with comprehensive lectures. Topics include:

- Basic Segmental Anatomy of CHD
- Evaluation of Intracardiac Shunts
- Echocardiography in the ACHD Patient with Tetralogy of Fallot
- Echocardiographic Evaluation of Systemic Right Ventricle in Transposition of the Great Arteries - CCTGA, Senning and Mustard Procedure
- Echocardiographic Evaluation of the Adult with Single Ventricle

ADULT CONGENITAL PRIMER*

This session is a highly interactive session and will feature a combination of didactic and hands-on learning opportunities for adult sonographers and physicians. After a brief presentation on echo views, protocols, and technical tips, attendees will have a hands-on practice session coached by our experts.

IT'S TIME TO SEE! HOW TO OPTIMIZE ULTRASOUND ENHANCING AGENTS (CONTRAST) IN A BUSY ECHO LAB*

Featuring cardiac ultrasound professionals, this NEW exciting workshop gives direct instruction from the experts in the use of ultrasound enhancing agents (contrast). The workshop starts with brief presentations on mechanics and optimization tips and tricks for endocardial visualization and myocardial perfusion during rest and stress studies, followed by a live demonstration applying contrast injection and knobology skills, with participant interaction.

LEARNING LABS*

Course attendees have access to small-group ticketed sessions to participate in hands-on workshops throughout the program. See the Schedule at a Glance on pages 7-10.

- 3D Volume/Function
- 3D Cropping (offered twice)
- Virtual Reality (offered twice)
- Myocardial Strain by Speckle Tracking
- 3D Printing (offered twice)
- 3D Echocardiography in Congenital Heart Disease

** Additional fee required for these sessions. Tickets sold during registration process.*





1 CELEBRATE 30 YEARS OF INNOVATION

For 30 years the cardiovascular ultrasound community has come together once a year to learn, network, and collaborate to advance the field. This year, plan to join the celebration! Attendees engaging together will encompass not only cardiologists and sonographers, but also are inclusive of specialists like **pediatricians, point of care clinicians, anesthesiologists, interventionalists, vascular specialists, surgeons, veterinarians, nurses, researchers, and engineers**. ASE believes encouraging all echo practitioners to get to know one another and work together will continue to strengthen this vibrant and dynamic field.

2 GAIN HANDS-ON EXPERTISE

Learning Labs offered throughout the program are an opportunity for small hands-on workshops. We have increased the total number of Learning Labs to nine this year. New options include **3D Printing** and **Virtual Reality**, while past favorites on strain, 3D cropping, 3D volume/function, and 3D echo in congenital heart disease round out the offerings.



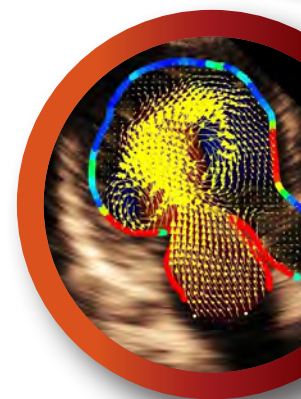
3 HEAR WORLD-CLASS SPEAKERS

New York Times bestselling author, **Dr. Barbara Natterson-Horowitz**, will deliver the inaugural Gardin Lecture "What a Zoo! What We Learn from Animals About the Human Heart." The 30th Annual Edler Lecture will be presented by Past President **Vera Rigolin, MD, FASE**, Northwestern Medicine, **Sanjiv Shah, MD, FASE**, Northwestern Medicine, will deliver the 20th Annual Feigenbaum Lecture, and **Elisa Konofagu, PhD**, Columbia University, will give the Kalmanson Lecture.



4 CHOOSE FROM MORE SESSIONS THAN EVER BEFORE

The Program Committee designed **117 sessions in 11 tracks** to help you easily pinpoint which sessions to attend to customize your learning. There are five new tracks this year including Early Career, Ischemia, Myocardium/Function, Innovation/Technology, and Valves. **Session Levels** are marked basic, basic/intermediate, intermediate, intermediate/advanced, advanced, and basic/intermediate/advanced (for all audiences) to help you determine which sessions are most aligned with your learning needs.



5 GET EXPOSURE TO CUTTING-EDGE RESEARCH

ASE 2019 will feature **approximately 400 selected cutting-edge research posters** on the latest advances in cardiovascular ultrasound and cases illustrating evolutions in patient care. Moderated poster sessions will introduce highlighted novel ideas. Exceptional research will be a feature of the Scientific Sessions, including the annual **Arthur E. Weyman Young Investigator's Award Competition**, and the **Brian Haluska Sonographer Research Award Competition**. The **10th Annual Research Awards Gala** recognizes ASE Award winners and the proceeds provide investigators with funds to continue the growth and advancement of the field.

6 ACQUIRE KNOWLEDGE TO IMPROVE PATIENT CARE

Take home useful information on the latest new technology in **structural heart interventions, diastology, strain, and 3D echocardiography** from leading experts in the field. You will also obtain an in-depth understanding of the newest **ASE Guidelines** including Stress, Diastology, Valve Regurgitation and Chagas Disease, and learn how you can implement them in your practice.



7 ADVANCE YOUR LEADERSHIP SKILLS

ASE 2019 offers sessions focused on your overall professional development. The Lab Leadership and Management session will offer presentations on **How to Enhance Lab Culture, How to Hire the Best Candidate, and How to Maintain Competency Through Ongoing Education** to name a few. The Value of Echo Summit this year will focus on **Quality and Efficiency** and **Preparing for the Echo Lab of the Next Decade**. There are also early career sessions like **Developing Your Niche as an Early Career Echocardiographer**. The new ASE Leadership Academy will open one session to all emerging leaders.

8 MAKE NEW CONNECTIONS

ASE 2019 will bring together echo enthusiasts from over **50 countries** for amazing networking opportunities. The **Member Reception** and the **Early Career Networking Event** are the perfect places to meet colleagues and ASE leaders to enhance your career and professional development. This is the largest echo-specific show in the world featuring nearly **60 exhibitors** showcasing new technologies and the latest advances to stay current in your field.



9 PARTICIPATE AND LEARN IN A VARIETY OF FORMATS

Looking for fast-paced sessions that will be entertaining and educational at the same time? Small intimate sessions offer direct interaction with the faculty, and networking events allow you to connect with colleagues from all over the world. New this year, **Stump the Stars** will give six early career practitioners the opportunity to present challenging cases to a star panel including Nelson Schiller, MD, FASE, Nat Pandian, MD, and Peg Knoll, RDCS, RCS, FASE. Another new session this year is the **Best of CASE Twitter Competition**. **Echo Jeopardy** and **Pediatric Echo Jeopardy** are always popular and will be back again this year.



10 EXPLORE PORTLAND

Portland, Oregon's largest city, is a great place to **bring the entire family**. The city boasts 9,400 acres of parks, including the smallest park in the world (Mill Ends Park) and the largest urban wilderness (Forest Park). The iconic Washington Park encompasses sites from the formal Japanese Garden to the Oregon Zoo and its railway. Mt. Hood or the beautiful Oregon Coast are about a one-hour drive from downtown Portland. Timberline on Mt. Hood is the only ski area in North America open all 12 months of the year. Portland is also known for its eco-friendliness, microbreweries, wineries, and coffeehouses. **All registered attendees of ASE 2019 will receive a FREE TriMet Max Light Rail Pass to use when traveling around Portland.**

SCIENTIFIC PROGRAM TRACKS & LEVELS

CIRCULATION (C)

ASE's Council on Vascular Ultrasound has put together a program that will provide attendees with an excellent overview, as well as advanced topics on vascular ultrasound of interest to the practicing cardiologist/sonographer.

EARLY CAREER (EC)

New for 2019, this track has been designed specifically for fellows in training and early career physicians. The focus will be career development with sessions geared toward helping you effectively navigate the formative years of practice while maximizing the skills you have obtained during your training.

IMAGING ESSENTIALS (E)

This track will instruct practitioners on techniques of assessment and quantitation. There are disease-based sessions that will help you improve your skills in chamber quantification and imaging a variety of disease states. In addition, there are practical sessions on lab management, diastology, myocardial perfusion, strain, and 3D echo that you can incorporate into your lab when you return home.

INNOVATION/ TECHNOLOGY (IT)

New for 2019, the Innovation/Technology Track has been designed to communicate recent advances that improve quality. Topics include clinically-relevant innovations that improve diagnostic accuracy, quantification, and workflow; and breakthrough cutting-edge technologies that will be used for treating the patients of tomorrow.

ISCHEMIA (I)

New for 2019, the Ischemia Track covers a diverse spectrum inclusive of obstructive and non-obstructive coronary diseases and stress echocardiography. Pericardial sessions have also been included. Sessions will address physiology, pathophysiology, diagnosis, and clinical management using multimodality imaging with emphasis on echocardiography.

MYOCARDIUM/ FUNCTION (M)

New for 2019, the Myocardium/Function Track addresses the core competencies of common cardiology pathologies and provides an update about standards of care. Included in this track are sessions on cardio-oncology and non-ischemic cardiomyopathies.

PEDIATRIC/ CONGENITAL (PC)

The ASE Council on Pediatric and Congenital Heart Disease has created a program packed with cutting-edge science from fetus to adult that brings together cardiologists, PhDs, engineers, and sonographers with the unifying goal of improving care for those with heart disease. The program will take you on a journey of using echo to predict, diagnose, and treat heart disease by reviewing current standards, learning from experts, and exposing you to what is on the horizon.

PERIOPERATIVE (P)

The Perioperative Track, designed by the ASE Council on Perioperative Echocardiography, brings together cardiac anesthesiologists, sonographers, cardiologists, and surgeons with the goal of sharing knowledge in cardiovascular care and perioperative/periprocedural echocardiography.

POINT OF CARE (POC)

The Point of Care track focuses on this highly valuable modality that is of critical importance as healthcare practitioners become skilled in the use of point of care ultrasound.

SPECIAL SESSIONS (S)

The 2019 Program Committee has designed the Special Sessions Track to introduce different learning formats to entertain and educate. Join us for the Great Debates, Stump the Stars, Echo Jeopardy, Lessons from the Legends, and more.

VALVES (V)

New for 2019, the Valve Track has been planned with the goal of bringing together the expertise of sonographers, cardiologists, cardiac anesthesiologists, and surgeons to share knowledge in the diagnosis and management of patients with both simple and complex valvular heart disease. The sessions will highlight the role of the newer echocardiography modalities in managing patients with valvular diseases, present and future of percutaneous aortic, mitral, and tricuspid valve therapies, and an overview of structural imaging to complement the perioperative track.

LEVELS:



BASIC



BASIC/INTERMEDIATE



INTERMEDIATE



INTERMEDIATE/ADVANCED









ADVANCED



BASIC/INTERMEDIATE/ADVANCED






























SCHEDULE AT A GLANCE

FRIDAY, JUNE 21ST

REGISTRATION OPEN: 12:00 – 6:30 PM			
2:00 – 4:00 PM	 Adult Congenital – Pathology*	 POCUS Extracardiac Imaging Workshop*	 IAC Echocardiography Boot Camp
4:00 – 4:15 PM	REFRESHMENT BREAK		
4:15 – 6:15 PM	 Adult Congenital Primer*	 New Frontiers of POCUS*	 IAC Echocardiography Boot Camp
6:30 – 8:00 PM	SCIENCE & TECHNOLOGY THEATER: HITACHI		

* These are ticketed events and an additional fee is required.

SATURDAY, JUNE 22ND

REGISTRATION OPEN: 6:30 AM – 5:00 PM							
EXHIBIT & POSTER HALL OPEN: 4:30 – 6:30 PM							
7:00 – 7:45 AM		 Fetal Symposium: The Beat Goes On	 Hemodynamics: Back to the Basics	 Adapting Novel Technologies to Clinical Practice	 Endocarditis: A Multifaceted Disease	 Quantification of Left Ventricular Function: Is the End in Sight?	 MRI Basics: What the Echocardiographer Needs to Know
7:50 – 9:45 AM	 ASE AWARDS PRESENTATIONS, ANNOUNCEMENTS, FASE RECOGNITION, AND 30 TH ANNUAL EDLER LECTURE						
9:45 – 10:00 AM	REFRESHMENT BREAK CHALK TALK: CLIFF NOTES FOR SOCIAL MEDIA: HOW WILL IT HELP MY CAREER?						
10:00 – 11:30 AM	 Diastology: Lifting the Fog; Case Panel	 Path-Echo Correlations: Tricuspid Atresia	 Quantitative Assessment of Valvular Disease	 Managing the Unstable Patient	 Comprehensive Evaluation of the Aorta	 Aortic Valve Interventions in 2019	 Leadership Academy
10:00 AM – 12:00 PM	LEARNING LAB: 3D VOLUME/FUNCTION (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
11:30 AM – 1:00 PM	SCIENCE & TECHNOLOGY THEATER: ULTROMICS						
12:30 – 2:30 PM	LEARNING LAB: 3D CROPPING (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
1:00 – 2:30 PM	 Echo Jeopardy	 Path-Echo Correlations: Double Outlet Right Ventricle	 Stop the Struggles: Assessment of Right Heart	 Today's Innovations, Tomorrow's Practice of Medicine	 Bad Things Happen to Good Aortas	 Current State of Percutaneous Mitral Valve Therapy	 Leadership Academy
2:30 – 3:00 PM	REFRESHMENT BREAK CHALK TALK: STRAIN						
3:00 – 4:30 PM	 Mitral Regurgitation: Evolving Understanding	 Echo Jeopardy (PCHD Council Business Meeting)	 Imager's Role In Interventional Echocardiography	 Early Diagnosis of Disease by Myocardial Deformation Imaging (Joint ASE/EACVI Session)	 Pericardial Disease: A Forgotten Structure	 Perioperative Use of Echocardiography: Mechanical Support and Transplantation	 Sonographers: Meet the ASE Sonographer Leaders
4:30 – 6:30 PM	PRESIDENT'S RECEPTION 						
6:30 – 8:00 PM	SCIENCE & TECHNOLOGY THEATER						




































● BASIC ■ BASIC/INTERMEDIATE ▲ INTERMEDIATE ◆ INTERMEDIATE/ADVANCED ★ BASIC/INTERMEDIATE/ADVANCED

Schedule subject to change. For detailed information, please download the ASE Courses app or visit ASEScientificSessions.org.

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SCHEDULE AT A GLANCE

SUNDAY, JUNE 23RD

REGISTRATION OPEN: 6:30 AM – 5:00 PM							
EXHIBIT & POSTER HALL OPEN: 9:00 AM – 4:00 PM							
7:00 – 7:50 AM	 All Stressed Out: Challenging Stress Echo Cases	 Echo Innovation	 3D Echocardiography Fundamentals	 Comprehensive Assessment and Management of Mitral Stenosis	 POCUS in Extreme Environments and Resource-Limited Countries	 Role of Multimodality in Cardiac Function	
8:00 – 9:30 AM	 Learning from the Legends	 Understanding Cardiac Mechanics Through Echo	 Adult Congenital Heart Disease for Adult Sonographers	 Game of Thrones! Circulation Debate	 Guidelines Galore	 Functional Mitral Regurgitation: The Challenge Continues	 Developing Your Niche as an Early Career Echocardiographer
9:30 – 10:15 AM	REFRESHMENT BREAK AND VISIT EXHIBIT & POSTER HALL CHALK TALK: DIASTOLOGY						
9:30 – 11:30 AM	LEARNING LAB: 3D CROPPING (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
10:15 – 11:30 AM	LEARNING LAB: VIRTUAL REALITY (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
10:15 – 11:45 AM	 Simulated Heart Valve Team Meeting: Aortic Valve Interventions	 Ultrasound in Detection of Subclinical Disease (Joint ASE/EACVI Session)	 Complex Adult Congenital Heart Disease for Adult Sonographers	 Hemodynamics and Physiology of Heart Failure with Preserved Ejection Fraction	 POCUS Training, Quality Assurance, and Accreditation	 Challenges Surrounding the Left Ventricular Outflow Tract in 2019	 All You Need to Know About Registries
11:45 AM – 1:15 PM	SCIENCE & TECHNOLOGY THEATER: PHILIPS						
12:00 – 1:00 PM	MODERATED POSTERS – EXHIBIT & POSTER HALL						
1:00 – 3:00 PM	LEARNING LAB: MYOCARDIAL STRAIN BY SPECKLE TRACKING (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
1:15 – 2:45 PM	 Echo Technology at the Cutting Edge of Knowledge (Gardin Lecture)	 Pediatric Cardio-Oncology	 Relax: It Is Just Diastology	 New Advances in Strain	 Advancing the Echo Field: From Abstracts to JASE	 Functional Tricuspid Regurgitation: The Old and The New	 Best of CASE–Twitter Competition
2:45 – 3:30 PM	REFRESHMENT BREAK AND VISIT EXHIBIT & POSTER HALL CHALK TALK: 3D						
3:30 – 5:00 PM	 Cardio-Oncology	 Echo Indices as Outcome Predictors in CHD	 The Brian Haluska Songrapher Research Award Competition	 Integration of Echo in Cardiac Imaging: Valves and Devices	 Stress Echo: Not Just for Coronary Artery Disease. Get with the Guidelines!	 Periprocedural Echocardiography in the Adult with CHD	 Early Career – Meet the Faculty 3:45 – 4:45 PM
3:30 – 5:00 PM	ImageGuideEcho™ EXPERIENCE ASE'S NEW REGISTRY (REGISTRATION REQUIRED. NO ADDITIONAL FEE)						
5:00 – 6:30 PM	 STUMP THE STARS						
7:30 – 11:00 PM	ASE FOUNDATION 10 TH ANNUAL RESEARCH AWARDS GALA <i>This event requires a separate registration. Proceeds benefit the ASE Foundation's charitable activities.</i>						







 BASIC
  BASIC/INTERMEDIATE
  INTERMEDIATE
  INTERMEDIATE/ADVANCED
  ADVANCED
  BASIC/INTERMEDIATE/ADVANCED

MONDAY, JUNE 24TH

REGISTRATION OPEN: 6:30 AM – 5:30 PM							
EXHIBIT & POSTER HALL OPEN: 9:00 AM – 4:00 PM							
7:00 – 7:50 AM	V Valvular Involvement in Systemic Disease	PC Cases: What the... TEE Mishaps	E Strain: New Speckle Science for Sonographers	C Cases: Circulation in Women	S Echo Around the World	I Cases: Pericardial Diseases	IT CPET: A Primer for the Echocardiographer
8:00 – 9:30 AM	S Great Debates	PC Quality Improvement	E Many Faces of the Weak Heart	I Following the Ultrasound Enhancing Agents (Contrast) Guidelines: Break Out the Bubbles!	IT Artificial Intelligence in Echocardiography: Friend or Foe?	M Thirty Four Million Patients: The Issue of Atrial Fibrillation	EC Early Career Development
8:00 – 10:00 AM	LEARNING LAB: 3D PRINTING (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
9:30 – 10:15 AM	REFRESHMENT BREAK AND VISIT EXHIBIT & POSTER HALL CHALK TALK: HOW TO GET PUBLISHED IN AN IMAGING JOURNAL						
10:15 – 11:30 AM	LEARNING LAB: VIRTUAL REALITY (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
10:15 – 11:45 AM	V Aortic Stenosis/ Aortic Regurgitation—Special Situations	PC Application of Echo to Improve Lives	E Mechanical Assist Device: “MAD” for Echo	M Heart Failure Revisited (Joint ASE/JSE Session)	S Value Summit: Quality and Efficiency in Today's Echo Lab	IT Applied Ultrasound Physics: What Clinicians Need to Know (Kalmanson Lecture)	E Everyday 3D: Applications in Pathology & Procedures for Sonographers
11:45 AM – 1:15 PM	SCIENCE & TECHNOLOGY THEATER: LANTHEUS MEDICAL IMAGING, INC.						
12:00 – 1:00 PM	MODERATED POSTERS – EXHIBIT & POSTER HALL						
1:00 – 3:00 PM	LEARNING LAB: 3D PRINTING (TICKETED EVENT. ADDITIONAL FEE REQUIRED)						
1:15 – 2:45 PM	V Simulated Heart Valve Team Meeting: Mitral Valve Interventions	PC Valvular Regurgitation/ Stenosis: How to Quantify	E Sonographer Council Business Meeting and Educator's Summit	C The Journey of a Thrombus from Vein to Artery	S Value Summit: Preparing for the Echo Lab of the Next Decade	M The Right Ventricle	EC Early Career Fireside Chat
2:45 – 3:30 PM	REFRESHMENT BREAK AND VISIT EXHIBIT & POSTER HALL CHALK TALK: HOW TO GET THE MOST OUT OF DOPPLER						
3:30 – 5:30 PM	S ARTHUR E. WEYMAN YOUNG INVESTIGATOR'S AWARD COMPETITION AND 20 TH ANNUAL FEIGENBAUM LECTURE						
5:30 – 6:30 PM	MEMBER RECEPTION 						

SCHEDULE AT A GLANCE

TUESDAY, JUNE 25TH

REGISTRATION OPEN: 6:30 AM – 12:00 PM						
7:00 – 7:50 AM	 How To Cases: Valves	 Read with Masters: Complex Cardiology	 Contrast: Know Your Bubbles	 Rapid Fire Cases <i>(Vascular Council Business Meeting)</i>	 Special Session: Echo in Women	 Multimodality: Ischemia Integration of Echo and Other Modalities
8:00 – 11:30 AM	LEARNING LAB: 3D ECHO IN CHD (TICKETED EVENT. ADDITIONAL FEE REQUIRED)					
8:00 – 9:30 AM	 Strain Cases	 Diverse Dilemmas	 Stress Echo: New Updates and More	 Law and Echo	 Hydrodynamics Bootcamp: Beyond the Basics in Doppler Quantitation	 Controversies in Mitral Valve Disease
9:30 – 10:00 AM	REFRESHMENT BREAK CHALK TALK: VALVE GUIDELINES					
10:00 – 11:30 AM	 A Systematic Approach to Prosthetic Valves: Case-based	 Ethical Decision Making: What Has Changed?	 Lab Leadership and Management Summit	 Hypertrophic Cardiomyopathy	 30+ Years of Perioperative Imaging of the Mitral Valve: Yesterday, Now, and Tomorrow	 Cardiomyopathies—Horses and Zebras

Accreditation and Designation

The American Society of Echocardiography is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

ASE designates this activity for a maximum of 32.25 AMA PRA Category 1 Credit™ pending approval.



EXHIBIT & POSTER HALL

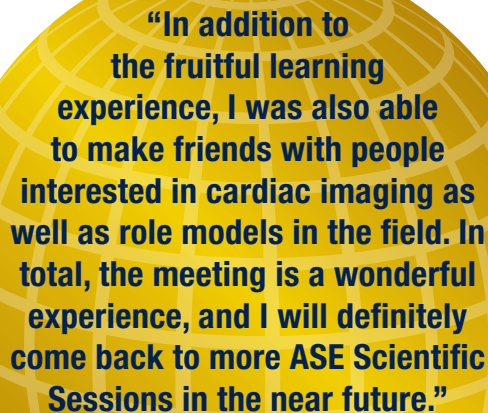
The exchange of information and access to new concepts, technology, devices, and research is a vital component of professional development. Get face-to-face with the industry's leading developers and executives who can help you discover what is new, assist you in making the right choices for your institution, and show you ways to reduce costs and improve productivity. The Exhibit & Poster Hall will open with the President's Reception on Saturday afternoon, which is always a highly anticipated event where you can see new products launched. On Sunday and Monday, join luminary faculty during the session breaks on the exhibit floor for intimate Q&A sessions in Chalk Talks.

Research is the heart of every Scientific Sessions.

ASE showcases investigators from around the world presenting cutting-edge research on the latest advances in cardiovascular ultrasound on Sunday and Monday in the Exhibit & Poster Hall. Spend time in the poster area and gain firsthand knowledge and insight from scientific investigators.

The **Science & Technology Theater** will be located in the Exhibit & Poster Hall. These events are packed with interested professionals eager to learn the latest information on advances in technology and practice. Meals for the lunch sessions are provided by ASE; meals for evening sessions are provided by the hosting sponsor. These events are included in your registration fee, but space and meals are on a first come, first served basis.

These industry-supported sessions are independently planned and are not a part of the official ASE 30th Annual Scientific Sessions as planned by the Program Committee or in any way directly endorsed or affiliated with ASE. These sessions are not included in the ASE approved CME credit.



"In addition to the fruitful learning experience, I was also able to make friends with people interested in cardiac imaging as well as role models in the field. In total, the meeting is a wonderful experience, and I will definitely come back to more ASE Scientific Sessions in the near future."

Dan Li, MD, ASE 2018 Top Investigator Award Winner

CALL FOR SCIENCE AND CASES

ASE 2019 in Portland is the premier meeting to present your cutting-edge research on the latest advances in cardiovascular ultrasound and cases illustrating evolutions in patient care. Presenters benefit from feedback and mentoring opportunities with global experts in cardiovascular imaging research and clinical care, as well as low conference registration fees. Exceptional research will be recognized throughout the conference, including the annual Arthur E. Weyman Young Investigator's Award Competition for investigators under the age of 40, the Brian Haluska Sonographer Research Award Competition for non-physician investigators, as well as travel awards for the best researchers around the globe, including the Alan S. Pearlman Research Award, the Top 20 abstract presenters, and the TomTec Innovator Research Travel Grant.

Don't miss your opportunity to be a part of the largest echocardiography conference in 2019. **Submission closes February 6, 2019.** Apply online today at ASEScientificSessions.org.

Abstracts are currently being accepted in the following categories:

CLINICAL CASES

- Adult Patient Cases
- Pediatric Patient Cases

ORIGINAL SCIENCE: DISEASE/PATHOLOGY-BASED

- Cardio-Oncology
- Diseases of the Aorta / Vascular Diseases
- Echocardiography in SOE / Arrhythmias / Atrial Function
- Echocardiography in Systemic Disease (DM, HTN, Obesity) / Pericardial Disease / Primary Myocardial Disease
- Ischemic Heart Disease
- Adult Congenital Heart Disease
- Pediatric Heart Disease
- Valvular Heart Disease

ORIGINAL SCIENCE: TECHNIQUE/PROCEDURE-BASED

- 3D Echocardiography
- Artificial Intelligence / Machine Learning **NEW**
- Contrast Echocardiography
- Critical Care Ultrasound / Point of Care Ultrasound
- Doppler / Hemodynamics
- Intraprocedural Echocardiography (Operating Room and Interventional Lab) / TEE
- New Technology
- Ventricular Function / Myocardial Mechanics
- Value of Echocardiography (Quality and Cost) / Outcomes / Comparative Effectiveness

ASE 2019 MEETING APP

Stay up-to-date on the Portland Scientific Sessions and all of ASE's live educational courses by downloading the free ASE Courses app. Find detailed information on each of ASE's events including faculty, agendas, exhibitors, networking events, and more. Use the app to create or sync your event schedule and receive notifications of special activities and sessions while on-site. The app is available for download on both Apple and Android devices. Simply search for "ASE Courses" in the Google Play or Apple stores.

YOU CAN, IN PORTLAND

No matter what it is you would like to do, eat, or drink – even if you've never tried it before – You Can, in Portland. From its manicured green spaces to its deliciously diverse food scene, Portland has become a must-see destination in the Pacific Northwest. The city overflows with cultural offerings – whether it's the stacks at Powell's City of Books or in one of the more than 100 craft breweries in the Portland metro area. The city of many nicknames (Stumptown, the City of Roses, Bridge City, P-town, PDX) has emerged as an urbanite's dream, with some of the most pedestrian-friendly streets in the U.S., many of which are lined with food carts that have given Portland some of the best, most affordable and diverse street food anywhere. You will not be disappointed with the shopping offered in this city with a view, either. From handmade items to designer brands, it is all available, and tax-free!

The average temperature in Portland in June is a lovely 75 degrees making it perfect for scenic recreational activities, strolling around the city, or enjoying outdoor eating and drinking.

Getting Around Portland During ASE 2019

Getting from Portland International Airport (PDX) is easy and costs just a little more than \$2 by using the TriMet Max Light Rail. **All registered attendees of ASE 2019 will receive a FREE TriMet Max Light Rail Pass to use when traveling around Portland.** Make your way to the Oregon Convention Center when you arrive and you can pick up your MAX Light Rail pass at the Scientific Sessions registration desk. The pass will be valid through the dates of the conference plus one extra day to allow you to travel back to the airport. MAX Light Rail is Portland's safe, efficient light-rail system that connects the metro area, Portland International Airport, and the downtown core. Visit TravelPortland.com/Plan-Your-Trip for more Portland details.

Put Portland in Your Pocket

Download Travel Portland's official mobile app for maps, restaurants, stores, arts venues, breweries, and more. Search for "Travel Portland" for this free app available in iTunes and Google Play.

Source: Travel Portland

FAMILY RESOURCES

Nursing Suites

The Oregon Convention Center provides two complimentary nursing suites. These secure suites will be located close to sessions offering mothers a comfortable and private setting. The suites are ADA-compatible and are equipped with standard AC power outlets and USB charger ports.

Child Care

ASE is pleased to offer ASE 2019 attendees access to on-site child care. It will be located in the Oregon Convention Center.

To learn more about nursing suites and child care at ASE 2019, please visit the Family Resources page at ASEScientificSessions.org/FamilyResources.



ASE has secured a block of rooms at each of the following hotels: Hilton Portland Downtown (headquarters hotel), The Duniway Portland - A Hilton Hotel (headquarters hotel), Hotel Eastlund, Portland Marriott City Center, The Benson, The Nines, Courtyard by Marriott Portland City Center, and The Paramount Hotel. All hotels are conveniently located within walking distance of many restaurants, shopping, popular attractions, and light rail transportation. Hopping on the MAX light rail will take you quickly and easily to the convention center. These hotels present a range of accommodations and pricing from luxury to family-oriented.

To make reservations, please call 1-503-275-9295 or toll free 1-877-678-5263 x2 and reference "ASE Attendee Housing" to obtain the conference pricing. To make reservations online visit: ASEScientificSessions.org/Housing.

The housing blocks will be open from January 7, 2019 through the cutoff date of May 20, 2019, or until the block is sold out. After this date, reservations will be accepted on a space-available basis. A major credit card is required to guarantee each reservation. Please check with your individual hotel on its cancellation policies.



ABOUT ASE



**American Society of
Echocardiography**

Contact Us

American Society of Echocardiography

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ASE was founded in 1975, and is the largest global nonprofit organization for cardiovascular ultrasound imaging professionals. Comprising over 17,000 members including physicians, sonographers, nurses, and scientists, ASE advocates for and leads in setting standards and guidelines for the profession. ASE is a strong voice providing guidance, expertise, and education to its members with a commitment to improving the practice of ultrasound and imaging of the heart and cardiovascular system for better patient outcomes. For more information, visit ASEcho.org.

ASE MEMBERSHIP

Over 17,000 members turn to ASE as the voice in the cardiovascular ultrasound community and to provide resources that are vital to continued professional development. ASE serves its members in numerous ways by providing education, advocacy, research, practice guidelines, and a community for their profession. Member benefits include over \$750 of FREE CME credits a year, in addition to discounts on all ASE educational courses and products. Also included is a monthly subscription to the *Journal of the American Society of Echocardiography* (JASE), access to CASE, ASE's online case reports journal, help with coding and reimbursement issues, and other career resources.

For anyone who has never been a member of ASE, 2019 membership is included in the nonmember Scientific Sessions registration fees. The ASE membership will expire on December 31, 2019. A wealth of online tutorials, webinars, and other educational activities make membership attractive to echo enthusiasts located around the world. To see the extensive member benefits, please visit ASEcho.org.



Register for the ASE 30th Annual Scientific Sessions by visiting ASEScientificSessions.org.

ASE 2019 Scientific Sessions will be held at the Oregon Convention Center, located at 777 NE Martin Luther King Jr. Boulevard, Portland, OR 97232.

This beautiful conference center is located across the river from downtown Portland and easily accessible by light rail. The rail stop is located right in front of the convention center to allow easy, safe access to the facility. **A free light rail pass is included in your Scientific Sessions registration fee.** You will receive your pass when you pick up your registration materials at the convention center.

ASE 2019 REGISTRATION RATES

Your ASE 2019 registration fee includes CME/CEU credit, admission to the Exhibit & Poster Hall, breakfast, coffee breaks, President's Reception, Member Reception, and a light rail pass. If you are an ASE member and have not renewed your membership for 2019, now is a good time to do that so you can register at the member rate and SAVE.

Registration Type	ASE Member* Through May 21	ASE Member* Bundle with Online Library Through May 21	ASE Member* After May 21	ASE Member* Bundle with Online Library After May 21	Nonmember* Through May 21	Nonmember* Bundle with Online Library Through May 21	Nonmember* After May 21	Nonmember* Bundle with Online Library After May 21
Physician/Scientist	\$895	\$1,075	\$995	\$1,175	\$1,125	\$1,305	\$1,225	\$1,405
Sonographer/Allied Health/Veterinarian	\$560	\$740	\$660	\$840	\$785	\$965	\$885	\$1,065
Fellow in Training	\$335	\$515	\$435	\$615	\$495	\$675	\$595	\$775
Student Sonographer/Allied Health	\$335	\$515	\$435	\$615	\$495	\$675	\$595	\$775
Abstract Presenter**	\$295	\$475	\$395	\$575	\$495	\$675	\$595	\$775
Special Registrations	Rates	Bundle with Online Library						
One Day Rate	\$225	\$405	ASE membership not included in this registration.					
Two Day Rate	\$450	\$630	ASE membership not included in this registration.					
Active Military	\$335	\$515	ASE membership not included in this registration.					
Corporate/Industry/Other	\$1015	\$1,195	ASE membership not included in this registration.					

* On-site registration is available, but beginning June 21, 2019, all fees will increase by an additional \$100.

****IMPORTANT NOTE FOR ABSTRACT PRESENTERS:** If you are submitting an abstract for ASE 2019 and wish to receive the discounted rate for abstract presenters, please do not register prior to receiving acceptance notification on March 15, 2019. No refunds will be given for registrations made prior to notification. If you will be serving as faculty at the Scientific Sessions, please do not register as there will be a separate process.

The ASE 2019 Conference Online Library is \$199 if purchased separate from a registration. The price will increase after the conference to \$299 for ASE members and \$399 for nonmembers. The Library includes unlimited online access to the 2019 Scientific Sessions including live audio, screen capture with animation, mouse pointer and embedded video, and downloadable content.



ASE Foundation

American Society of Echocardiography
2530 Meridian Parkway, Suite 450
Durham, NC 27713

REGISTER TODAY TO JOIN US.
EARLY REGISTRATION ENDS MAY 21, 2019.

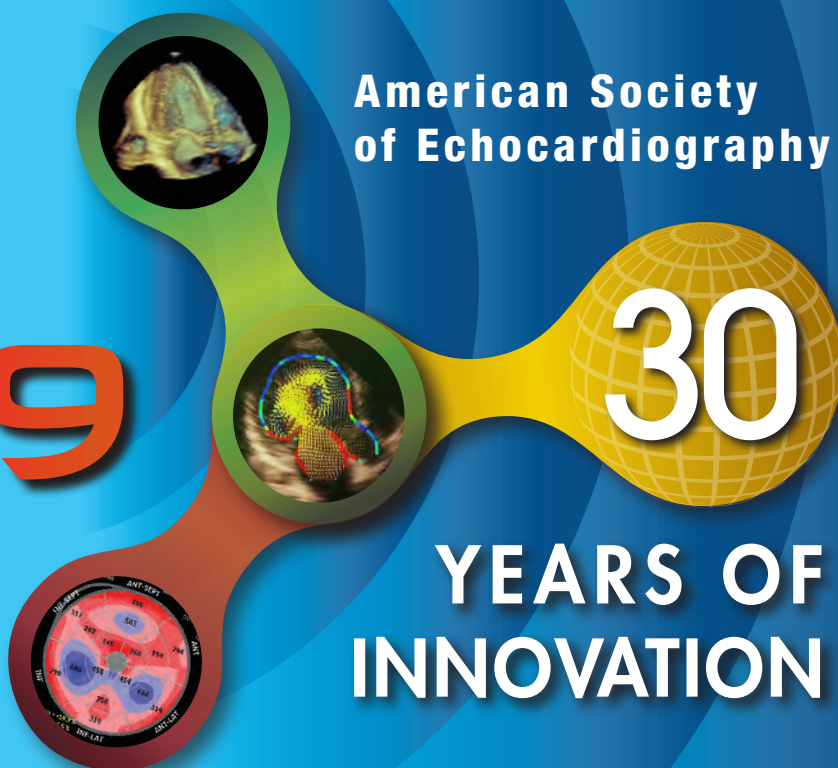
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