

School of Medicine  
University of South Carolina

# First Conference on Ultrasound in **Anatomy and Physiology Education**

Sponsored by the Society of Ultrasound  
in Medical Education (SUSME)



UNIVERSITY OF  
**SOUTH CAROLINA**  
School of Medicine

# **Thank you for attending** the First Conference on Ultrasound in Anatomy and Physiology Education

## **Dear Attendee,**

Welcome to the First Conference on Ultrasound in Anatomy and Physiology Education sponsored by the Society of Ultrasound in Medical Education (SUSME) and hosted by the University of South Carolina School of Medicine.

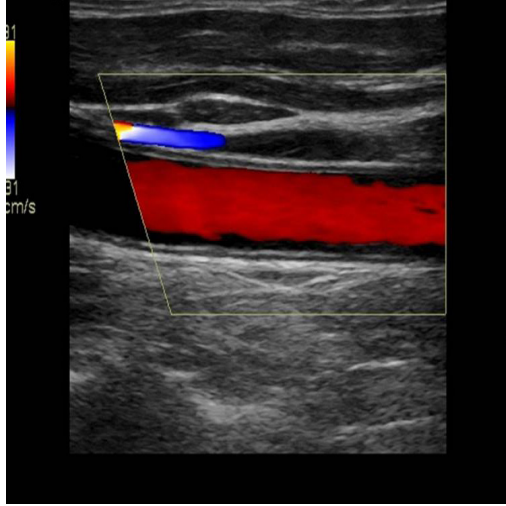
As ultrasound becomes more common in medical education, both across the nation and around the world, it is essential that we bring together educators in the disciplines of anatomy and physiology to share experiences and expertise and help set the direction for the appropriate incorporation of ultrasound into medical education. The conference is designed to be of value to educators teaching anatomy or physiology in the health sciences including pre-medical education, medical student education, nursing education, physical therapy education, physician assistant education, and others.

As the host institution for this conference, the University of South Carolina School of Medicine welcomes you to Columbia, S.C. The USC School of Medicine has a rich history of incorporating ultrasound into medical education. USC is presently in its seventh year of a fully integrated ultrasound curriculum across all four years of medical school and hosted the First World Congress on Ultrasound in Medical Education in April 2011.

We hope you find your experience at the First Conference on Ultrasound in Anatomy and Physiology Education to be educational and fulfilling. Thank you for attending and enjoy the southern hospitality of Columbia, S.C.

Mike Blaivas, M.D.  
President  
SUSME

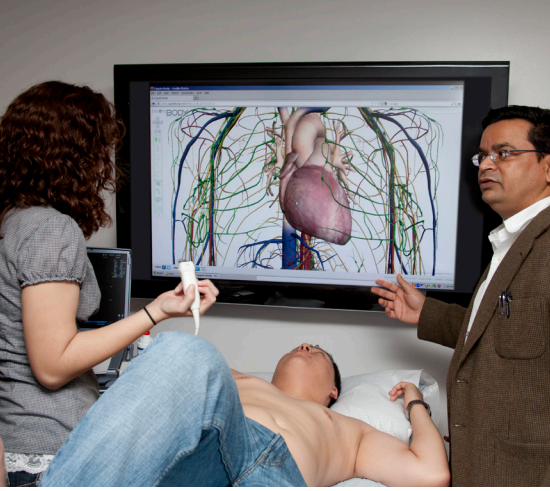
Richard Hoppmann, M.D.  
Dean  
USC School of Medicine



## Friday, March 22, 2013

### (All events in School of Medicine M2 Classroom)

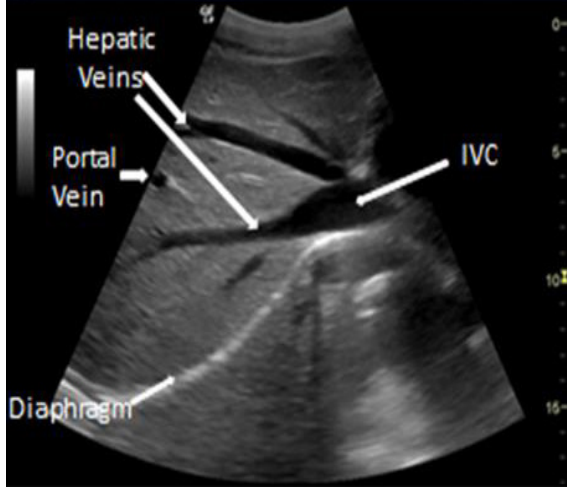
- |                       |  |  |
|-----------------------|--|--|
| 11:30 A.M./12:15 P.M. | Shuttle departs Springhill Suites Hotel downtown Columbia for School of Medicine |  |
| 12:00 - 12:45 P.M.    | Registration and Lunch   |  |
| 12:45 - 1:00 P.M.     | Welcome  | Michael Blaivas, M.D.                            |
| 1:00 - 1:30 P.M.      | Ultrasound in Medical Education  | Richard Hoppmann, M.D.                           |
| 1:30 - 2:00 P.M.      | Evolution of Clinical Anatomy with Ultrasonography - Past, Present and Future    | Andrew Payer, Ph.D.                              |
| 2:00 - 2:15 P.M.      | BREAK  |  |
| 2:15 - 2:45 P.M.      | Teaching Physiology with Ultrasound  | Britt Wilson, Ph.D.                              |
| 2:45 - 3:15 P.M.      | Thiel Cadavers and Plastination  | James Wells, M.D.                                |
| 3:15 - 3:45 P.M.      | An Anatomist's View of Ultrasound: See the Same Structures Differently           | Noel Boaz, Ph.D., M.D.<br>Robert DePhilip, Ph.D. |
| 3:45 - 4:00 P.M.      | BREAK  |  |
| 4:00 - 5:00 P.M.      | Introductory Ultrasound Workshop: Neck, Thyroid, Carotid Artery                  | All Faculty                                      |
| 5:15 P.M.             | Shuttle departs School of Medicine for hotel                                     |  |
| 6:45                  | Shuttle departs hotel for McCutchen House  |  |
| 7:00 - 8:30 P.M.      | Attendee Dinner  | McCutchen House                                  |
| 8:30 P.M.             | Shuttle departs McCutchen House for hotel  |  |



**Saturday, March 23, 2013**

**(All events in School of Medicine M2 Classroom unless noted)**

7:30 A.M.	Shuttle departs Springhill Suites hotel for School of Medicine	
8:00 - 8:30 A.M.	COFFEE	
8:30 - 8:50 A.M.	Ultrasound Artifacts and Safety Issues	Fred Kremkau, Ph.D.
8:50 - 9:10 A.M.	3D Anatomy	Shaun Riffle, M.F.A.
9:10 - 9:30 A.M.	Ultrasound Simulators and Phantoms	Tripp Bell, M.D.
9:30 - 9:50 A.M.	Ultrasound in Teaching Fetal Development	Richard Goodwin, Ph.D.
9:50 - 10:00 A.M.	Ultrasound Heart and Lungs	
10:00 - 10:15 A.M.	BREAK	
10:15 - 11:15 A.M.	Ultrasound Workshop: Heart and Lungs (Location: Ultrasound Institute)	All Faculty
11:15 - 11:30 A.M.	BREAK	
11:30 - 12:00 P.M.	Assessing Student Performance: Standardized Patients and OSCEs	Mary Beth Poston, M.D.
12:00 - 12:50 P.M.	LUNCH: Initiating an Ultrasound Program from A to Z (Administrative Buy-In, Equipment, Curricular Time, Space Needs and Learning Materials)	
12:50 - 1:00 P.M.	Ultrasound Knee and Liver	
1:00 - 1:15 P.M.	BREAK	
1:15 - 2:15 P.M.	Ultrasound Workshop: Anatomy of the Knee and Liver (Location: Ultrasound Institute)	All Faculty



## Saturday, March 23, 2013

- 2:15 - 2:30 P.M.                    BREAK
- 2:30 - 2:50 P.M.                    Image Portals, E-learning, Videos    Victor Rao, MBBS, DMRD, RDMS
- 2:50 - 3:50 P.M.                    Ultrasound Workshop:  
Vascular Physiology  
Arterial Hemodynamics
- 3:50 - 4:00 P.M.                    BREAK
- 4:00 - 4:45 P.M.                    Anatomy and Physiology Leadership Panel:  
American Association of Anatomists - **Jeffrey Laitman, Ph.D.**  
(Mount Sinai School of Medicine)  
American Association of Clinical Anatomists - **Anne Agur, Ph.D.** (University  
of Toronto Faculty of Medicine) and **Brian MacPherson, Ph.D.**  
(University of Kentucky College of Medicine)  
American Physiological Society - **J. Michael Wyss, Ph.D.**  
(University of Alabama at Birmingham School of Medicine)  
Human Anatomy and Physiology Society - **Valerie O'Loughlin, Ph.D.**  
(Indiana University School of Medicine) and **John Waters, Ph.D.**  
(Penn State College of Science)  
International Association of Medical Science Educators - **Bruce Newton, Ph.D.**  
(University of Arkansas for Medical Sciences College of Medicine)
- 4:45 - 5:00 P.M.                    Conference Evaluation
- 5:15 P.M.                              Shuttle departs School of Medicine for hotel

## Conference Faculty and Speakers



**Floyd E. Bell, M.D., “Tripp”** is assistant professor in the Department of Radiology at the USC School of Medicine. A graduate of the School of Medicine, he completed a diagnostic radiology residency at University of North Carolina Hospitals in Chapel Hill. He previously worked in private practice for a radiology group in Columbia, S.C. Among his research interests is ultrasound in medical education.



**Michael Blaivas, M.D.**, is recognized as a pioneer in emergency ultrasound. He has published over 140 peer reviewed articles on emergency ultrasound, edited several books and created multiple multi-media educational products. He is active in multiple medical societies and is a founding member of WINFOCUS and SUSME.



**Erika L. Blanck, D.P.T., A.T.C.**, is a research assistant professor in the Department of Cell Biology and Anatomy at the USC School of Medicine. In addition, she is the director of the School of Medicine’s Gift of Body program. She is one of the core instructors for the human medical embryology and gross anatomy course taught at the School of Medicine.



**Noel Boaz, M.D., Ph.D.**, is an affiliate research professor of anthropology at Virginia Commonwealth University and for the past two years was a professor of anatomy and the head of medical education at the Libyan International Medical University in Benghazi, Libya. He is president and CEO of the Integrative Centers for Science and Medicine.



**Robert M. DePhilip, Ph.D.**, is associate professor in the Division of Anatomy and the Department of Orthopaedics at the Ohio State University College of Medicine. His interest in ultrasound has paralleled his teaching experiences with the goal of enhancing the anatomical basis for the interpretation of ultrasound images.

Full bios available at [www.anatphysus.org](http://www.anatphysus.org)



**Richard Goodwin, Ph.D.**, is course director of the medical embryology and gross anatomy class at the USC School of Medicine. In addition to teaching, he also directs an active research lab that investigates the mechanisms of cardiovascular development and disease. He has incorporated several ultrasound technologies into both his research and teaching.



**Richard A. Hoppmann, M.D., F.A.C.P.**, is professor of medicine and dean of the University of South Carolina School of Medicine. He is director of the Ultrasound Institute at USC and principle investigator on multiple ultrasound grants. He is founder and served as the first president of SUSME.



**Duncan Howe, Ph.D.**, has for the past three years served as the Coordinator of Ultrasound Programs at the USC School of Medicine Ultrasound Institute. This has involved development of ultrasound training programs for medical students, residents, rural providers, Free Clinic physicians, and paramedics.



**Frederick W. Kremkau, Ph.D.**, is professor and director of the Program for Medical Ultrasound at Wake Forest University School of Medicine. He has conducted research in ultrasonic molecular absorption mechanisms, acoustic properties of tissue, biological effects of ultrasound, ultrasonic cancer therapy, sonographic artifacts and safety of diagnostic ultrasound.



**Debra E. Krotish, Ph.D.**, is the director for research and grants for the Ultrasound Institute at the USC School of Medicine. She also serves as executive director for SeniorSMART, a Center of Economic Excellence for the state of South Carolina. Her main interests are undergraduate medical education in ultrasound.



**Andrew F. Payer, Ph.D.**, is director of the human body structure and function module in the year-one medical curriculum at the University of Central Florida School of Medicine. The curriculum integrates clinical anatomy, embryology, microanatomy, physiology and neuroscience.

## Conference Faculty and Speakers



**Mary Beth Poston, M.D.**, is assistant professor of clinical internal medicine at the USC School of Medicine. She is interested in pre-clinical medical student education and is director of the introduction to clinical medicine curriculum. Additional interests include ultrasound in medical education and increasing physical activity in primary care.



**Victor Rao, MBBS, DMRD, RDMS**, is director of ultrasound education at the USC School of Medicine. He enjoys teaching ultrasound and is currently involved in training medical students, nurse practitioners and physicians in various specialties as well as primary care physicians in diagnostic ultrasound.



**Shaun Riffle, M.F.A.**, is the production manager for the Office of Curricular Affairs and Media Resources at the USC School of Medicine. He joined the School of Medicine in 2000 and currently works with the production of educational films, animations and interactive media that enhances the ultrasound curriculum at the School of Medicine.



**James R. Wells, M.D., F.A.C.S.**, is a research professor in the Department of Cell Biology and Anatomy at the USC School of Medicine. He teaches medical students and surgery residents in clinical otolaryngology at Dorn Veterans Administration Medical Center, where he is the Division Chief.



**L. Britt Wilson, Ph.D.**, is associate professor in the Department of Pharmacology, Physiology and Neuroscience at the USC School of Medicine. He has more than 40 research and education publications. In addition, he has served as course director for medical physiology at the USC School of Medicine for nine years.

Full bios available at [www.anatphysus.org](http://www.anatphysus.org)



## University of South Carolina School of Medicine

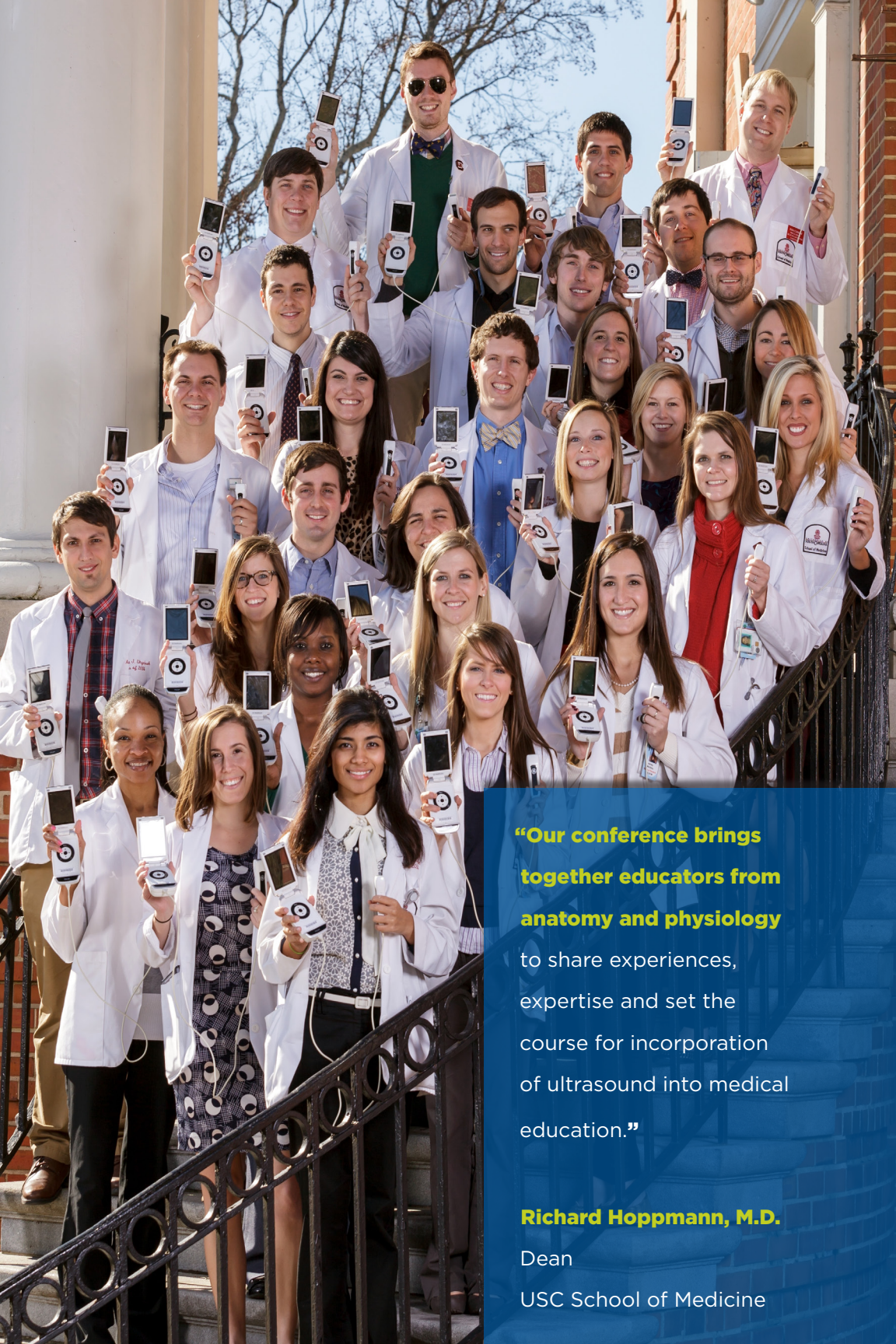
The University of South Carolina School of Medicine was established with the purpose of improving the health of the people of South Carolina through medical education, research and the delivery of health care. The school welcomed its first class of 24 medical students in the fall of 1977.

In the past three decades, the School of Medicine has emerged as a national leader in primary care medicine. Noted for its high-quality medical education, the school provides its students with one-on-one instruction that lasts throughout their medical studies. A distinguished faculty features more than 300 basic scientists and clinicians bringing a variety of academic and research training to medicine.

University Specialty Clinics, the School of Medicine's clinical practice, is the largest health care group in the Midlands of South Carolina. From the Department of Neurology's clinically advanced stroke care to the Department of Family and Preventive Medicine's designation as South Carolina's first Level 3 Patient Centered Medical Home, clinical faculty are providing world-class care in many areas of medicine.

The School of Medicine's basic science campus features fully renovated historic buildings and is located four miles from the University of South Carolina's Columbia campus.





**“Our conference brings  
together educators from  
anatomy and physiology**

to share experiences,  
expertise and set the  
course for incorporation  
of ultrasound into medical  
education.”

**Richard Hoppmann, M.D.**

Dean

USC School of Medicine

SECOND WORLD CONGRESS  
ULTRASOUND IN MEDICAL EDUCATION  
SEPTEMBER 27 - 29, 2013

**Join us for the Second World Congress  
on Ultrasound in Medical Education**

**See, experience and explore one of the most powerful  
diagnostic devices and its impact on the future of patient care**

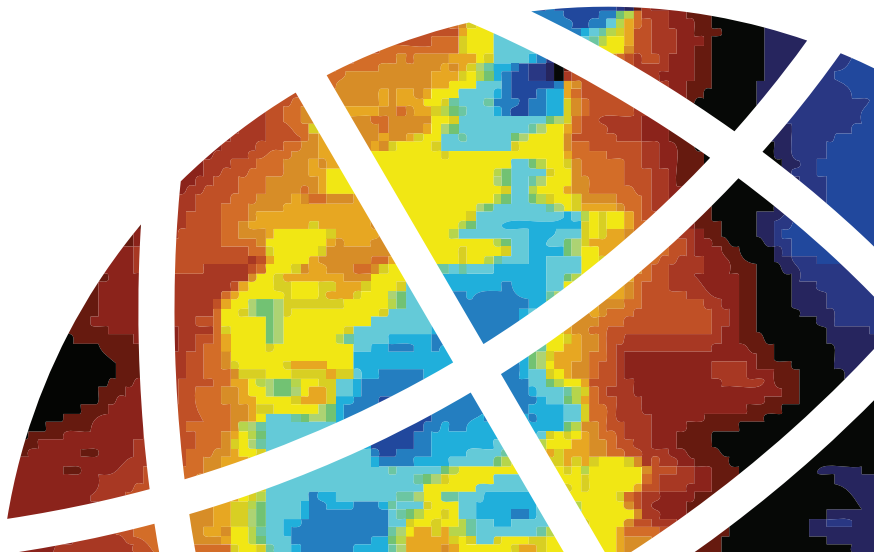
September 27-29, 2013

Columbia Metropolitan Convention Center  
Columbia, S.C.

Register now by visiting: **[www.wcume.org](http://www.wcume.org)**  
Early registration specials available

For more information, call (803) 777-9444

*Brought to you by the Society of Ultrasound in Medical Education and  
WINFOCUS. Hosted by the USC School of Medicine.*



# Conference Notes