

SDMS News Wave is published to inform SDMS members of meetings, events and policies as well as trends and issues in the sonography profession. Comments, questions or concerns about the articles appearing in SDMS News Wave, should be directed to [newswave@sdms.org](mailto:newswave@sdms.org).

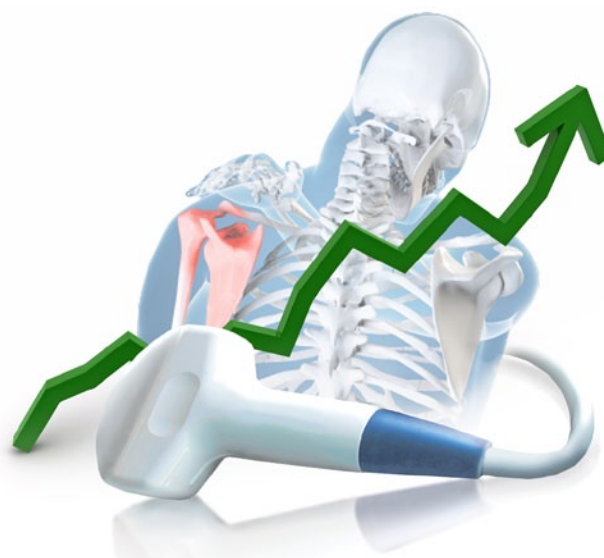
## Interest in Musculoskeletal Sonography Growing in America

By Beth W. Orenstein

Sonography has been widely used to diagnose and treat musculoskeletal injuries and disorders in just about every part of the world except the United States for years. But that is changing – and fairly rapidly, says Patrick Meyers, BS, RDMS, RDCS, RVT, owner of Musculoskeletal Ultrasound of SE Wisconsin, LLC in Mequon.

“MSK sonography is becoming much more accepted,” agrees Kathy Quenneville, BS, RDMS, RT(R), an MSK sonographer at Henry Ford Hospital in West Bloomfield, Michigan. “Right now I think it’s becoming a thriving field to be in. It’s kind of an exciting time - for it to be finally recognized as a high quality imaging modality.”

MSK hasn’t been that popular in the U.S. for a number of reasons. One is that most physicians – especially orthopedists and radiologists – are more comfortable with X-ray and MRI for musculoskeletal disorders and so they tend to rely on them, says Carolyn Coffin, MPH, RT, RDMS, RDCS, RVT, chair of the Diagnostic



Ultrasound Program and an associate professor at Seattle University.

Also, Meyers says, while MSK sonography is included in many accredited programs, currently there are no accredited schools of musculoskeletal sonography. “And radiologists, unless they went to a center where ultrasound is a featured modality, would have minimal knowledge or exposure to it and so they would

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have difficulty sharing this knowledge with colleagues or sonographers.”

Yet another important consideration is that musculoskeletal sonography is highly user dependent, Meyers says.

Sonographers are convinced that as the nation looks at ways to reduce health-care costs yet maintain quality and as it grows increasingly concerned about radiation safety, more and more physicians will turn to sonography for diagnosing and treating injuries and disorders of the muscles, tendons, ligaments, joints and soft tissue.

“As pressure on health-care and the cost of health care grows,” Meyers says, “you’ll see MSK sonography become a really nice diagnostic tool because it can not only help provide cost-effective care but it also can do so at the point-of-care: in the doctor’s office or in the field.”

“It’s going to grow and it’s going to start with the educators,” Coffin adds.

Lori Green, BA, RT, RDMS, RDCS, RVT, program director at the Gulf Coast Ultrasound Institute, in St. Pete Beach, Fla., has seen interest growing. The institute started offering courses in MSK sonography 10 years ago. “We had respectable interest back then,” she says, “but the demand has significantly increased in recent years.”

Courses – entry-level and advanced – fill quickly, she says, although most of those taking them are those in sports medicine, physical medicine and rehabilitation, and rheumatologists as well as those in family practice in rural areas where they can’t send their patients for MRIs as easily. Green says that fewer radiologists have attended its MSK courses compared to other specialty groups, but she believes radiologist interest is going to change. “Especially with the improved system resolution, the benefits of dynamic imaging, and the mindset in health care today to reduce costs and to improve patient safety,” she says. “Sonography is definitely a lower-cost mechanism to make a diagnosis and it has high patient safety. MSK sonography will not totally replace MRI, but it has advantages over MRI when you look at the concepts that are trying to be enacted in health care today.”

The Gulf Coast institute is also trying to encourage more sonographers to learn MSK sonography. Next year, Green says, Gulf Coast has a two-day course planned specifically for sonographers who wish to learn it. The course will be offered June 29-30 in Florida.

*“You’ll see MSK sonography become a really nice diagnostic tool because it can not only help provide cost-effective care, but it also can do so at the point-of-care: in the doctor’s office or in the field.”*

*Patrick Meyers, BS, RDMS, RDCS, RVT*

Coffin says she’d like to bring MSK sonography to Seattle University in some form – either as a certificate specialty or added to the curriculum.

#### **ARDMS to offer MSK credential**

Interest in MSK sonography has grown enough that in December 2009 the American Registry for Diagnostic Medical Sonography (ARDMS) approved the development of a Musculoskeletal Sonography credentialing examination. According to the ARDMS website, content for the MSK examination will be released in early 2011. A pilot version of the MSK exam will be administered worldwide in proctored testing centers in early 2011, and the formal version of the exam will be released globally in proctored testing centers in late 2012.

Dale Cyr, ARDMS CEO, says because the vast majority of MSK sonography studies are done outside of the U.S., ARDMS will seek input from experts from around the world in developing the credential.

Green expects that once the MSK credential is available it will encourage physicians and sonographers to learn to integrate MSK sonography into their practice. The credential will set minimal proficiency requirements for performing an MSK sonogram. Green also says that it’s in sonographers’ best interests to embrace MSK sonography: “It’s to their advantage to learn how to do it and recognize the opportunities associated with expanding their clinical skills. The more services they can provide for patient care, the more they increase their marketability.”

Still another reason Meyers expects demand for MSK sonography to increase is that ultrasound equipment has become more powerful and more portable making it possible for physicians to use sonography in their offices for diagnosis and treatment. “In 2007,

Frost & Sullivan's Medical Imaging Group found handheld ultrasound scanners were the second fastest category of medical equipment sales, " he says although they're not always used by sonographers. Some of those using them at point-of-care include sports medicine physicians, rheumatologists, and ER physicians.

Coffin says sonographers should not be concerned that other health-care providers are learning to use ultrasound equipment to diagnose and treat MSK injuries and disorders – or to at least triage them. A sports medicine physician or orthopedist might not have enough work to hire a full-time sonographer for his office. However, she says, as demand for MSK sonography increases, sonographers who have credentials and who are specially trained in MSK disorders will be needed. "As its popularity in non-traditional areas grows, there will be a need for sonographers to specialize in it," she says. "Some are concerned that if you put sonography in the hands of a physicians, the sonographer's role is going to vanish." But that shouldn't be a concern, Coffin says. "They're too busy doing other things. I think that's an unfounded fear because they'll need sonographers." Indeed, Coffin says, a sonographer who is skilled in MSK disorders could start a service and have a lucrative position traveling to different physicians' offices on different days to perform the sonograms.

### **Applications for MSK sonography grow**

What are the applications for MSK sonography? More and more it is being used to help diagnose a number of disorders or injuries in the muscles and tendons. These include:

- tendon tears, such as tears of the rotator cuff in the shoulder or Achilles tendon in the ankle.
- abnormalities of the muscles, such as tears and soft-tissue masses.
- bleeding or other fluid collections within the muscles, bursae and joints.
- small benign and malignant soft tissue tumors.
- early changes of rheumatoid arthritis.
- dislocations of the hip in infants.
- fluid in a painful hip joint in children.
- lumps in the neck muscles of infants.

Ultrasound has difficulty penetrating bone and can only see the outer surface of bony structures and not what lies within them, Coffin says. That's why when physicians need to see the internal structures

of bones or certain joints they are going to use other imaging modalities such as MRI and X-ray. Sonography has not shown to be useful in detecting whiplash injuries or other causes of back pain.

While MSK sonography may not be the imaging modality of choice, it does have value in seeing or detecting changes in cortical bone fractures that may be undetected by X-ray, Meyers says. "It is capable of looking at the bone surface." It's also being used more often to guide orthopedic and pain procedures such as nerve blocks and cortisone injections for musculoskeletal injuries, Meyers says.

Another area where the use of MSK sonography is growing is to detect rheumatoid arthritis in its early stages. "MSK sonography is more sensitive to detecting disease in rheumatology compared to X-ray or CT," Meyers says. "You can see late changes in the bone on X-ray. But MSK sonography may be able to see the early stages of rheumatoid arthritis, when it's in its inflammatory stages. The disease attacks the synovial lining of joints. If you can detect that erosion in its early stages with MSK sonography, you may be able to see those changes before you see the bone changes and you may be able to more effectively treat the patient before they have derangement of the joint." Much has been written about this possibility in rheumatology journals for the last three years, Meyers says.

At Henry Ford Hospital, Meyers says, MSK sonography has become the modality of choice for screening rotator cuff tears that need surgical repair. "A high percentage of suspected rotator cuff pathology goes to sonography first," he says.

An advantage to MSK sonography over MR or CT or X-ray, Coffin says, is that it can be done to track movement. "With sonography, you can put the tendon in motion and watch it move, which you can't do with any other modalities," she says. If the patient has pain when he moves his arm a certain way, "you can use sonography to duplicate the position that causes pain and follow it."

Kathy Quenneville says MSK sonography also has the advantage of being able to easily compare the injured side of the body with the normal side. "That's true no matter what we're looking at whether it's for ligament laxity, tendonosis, or nerve size in one extremity versus the other," she says.

Still another growing application for MSK sonography is in veterinary medicine, Coffin says. "It's a great

way to look at tendons in horses, and it's easier than having to sedate the animal and take it to X-ray."

Like any sonographic exam, MSK sonography is highly dependent on the operator. However, Coffin says, MSK sonography is no more difficult to learn than sonography for other body parts. "Just like everything," she says, "the difficulty lies in the initial experience of the user. You do have to learn the anatomy and landmarks of the musculoskeletal system but it's not any more difficult than learning the anatomy that goes with the other specialties. There is, though, a lot to learn."

Could MSK sonography ever replace MR or X-ray or CT? The sonographers aren't sure. "It may be an addition for the patient or used as a screening test," Coffin says. "If someone's knee is swollen, you might use sonography to see if there is fluid behind it and move to another test if you can't find a reason. In other cases, sonography may be the only tool you need. We had a case where a gentleman ruptured his tendon in his elbow and when that happens, the tendon tends to draw back up into the upper arm. When the surgeon went to reattach it, he couldn't find it and asked us to look for it with sonography."

Quenneville says there have been times when physicians see something suspicious on an MRI and send the patient to Henry Ford for a MSK sonogram to confirm their diagnosis.

Quenneville remembers back in 1989 when radiologist Marnix van Holsbeeck, MD, joined Henry Ford Health System as the Director of Musculoskeletal Radiology and was promoting MSK sonography. "I worked in orthopaedic surgery at that time and none of us heard of MSK ultrasound or knew what it was about," she says. "He would show us images and we were hesitant to trust what he could see. We quickly became firm believers when we got into surgery and found his diagnosis was correct."

Today, she says, at Henry Ford, they perform between 7,500 and 8,000 MSK sonograms a year. Henry Ford's MSK sonography department is one of the largest in the world. Quenneville doesn't expect others to duplicate Henry Ford anytime soon, but she's convinced, she says, "MSK sonography is just going to grow everywhere."

*Beth W. Orenstein is a writer for SDMS.*



**SDMS News Wave is archived online at:**  
<http://www.sdms.org/members/NewsWave.asp>

## ARDMS 2011 Renewal is coming!

Do you have your required CME credits? ARDMS requires a minimum of 30 ARDMS-accepted CMEs during your three-year CME period.

Visit [www.ardms.org](http://www.ardms.org) for more information.

SDMS CME Tracker tracks and reports your SDMS CME credits directly to ARDMS (another SDMS Member Benefit).



# President's Message

By Charlotte Henningsen, MS, RT(R), RDMS, RVT, FSDMS

## SDMS MEMBERSHIP: CONNENCTING WITH THE COMMUNITY

I recently sent a request to SDMS members who had, for various reasons, allowed their membership in the Society to lapse. The message was simple; "please consider reconnecting with your professional association." I sent this note mindful of the hardship that many of our members face with the national economic challenges. Across the country, hard questions are being asked about the value received for our purchases, whatever those purchases might be. I found myself thinking about that issue for SDMS members. What is the value of SDMS membership? In hard economic times, what can be said about the benefits of membership in the SDMS when it comes time to make hard decisions about where the money will go? I thought I would use this forum, the *President's Message* to share my thoughts about these questions, and a few other related observations.

The way that we start to answer the "what is the value" question is with you, the membership. The secret of SDMS's success as a professional association is not top secret; we simply ask you, and then we do our absolute best to meet your needs. We routinely survey the membership to determine wants/needs/values and then deliver services, information, and support based on those requests. You have made it quite clear that the most important need is Continuing Medical Education (CME) credits, and that you want it without additional costs. To that end, we now have over 100 FREE CME's available to members reflecting content from all of the sonography specialty areas. We also worked with the ARDMS to create a program that allows us to track our members' SDMS CME credits and then directly report it to the national registry. This allows SDMS members to maintain their professional credentials without hassle or worry...all you need to retain your certification is provided and reported by SDMS.

We work collaboratively with other professional associations and government entities to insure that our member's professional needs are met. It is no surprise to learn that sonographers have high rates of Musculoskeletal Injury (MSI). After having conducted the most comprehensive MSI surveys ever conducted on the sonographer population, we partnered with

OSHA to create a robust source of MSI prevention and treatment education. This resource is currently available through our website on the Work Zone; the SDMS/OSHA E-Tool. Additionally, in September we will present, in cooperation with the American Institute of Ultrasound

in Medicine, a webinar with national luminaries sponsored by both professional associations to assist sonographers who are currently dealing with MSI, and providing education for others to avoid this often career-ending malady. Speaking of webinars, these electronic delivery formats for CME truly allow our members the versatility they have requested: 24/7 access to CME offerings. SDMS provides monthly webinars on a variety of topics and specialty areas; and for those who cannot make the "live webinar," we archive these presentations and make them available to the membership at their discretion.

I am delighted to tell you that we are just finishing up the most up-to-date registry review resource in the country; the *SDMS National Certification Examination Review (NCER)* series. These registry prep materials are based on the latest ARDMS certification exam outlines and are designed with one objective in mind...helping our members prepare for and pass the national sonography exam tests. If you want the best registry prep materials, consider the NCER series...you won't be disappointed; and each of the NCER books contains free CME! The entire series is available at special member-pricing rates.

There is more, much more, including THE journal for sonography clinical practice, the *JDMS*. Delivered to your door every two months with free CME in each issue, the *JDMS* provides original research, case studies, and more to assist the practicing sonographer in acquiring and maintaining effective clinical skills. Additionally, the entire *JDMS* is electronically archived and searchable...another SDMS member benefit.

Then there is the member benefit that may seem somewhat hidden, however, so critical to the



profession: the advocacy work that the association does on your behalf to protect your career, your livelihood, and the patients that you serve. SDMS maintains an active lobbying program at both the national and state levels. Currently, we are focused on getting the CARE bill passed on the national level. The CARE bill would, for the first time, establish national certification standards for the providers of medical imaging services, including sonographers. Think of it as your best career insurance...without national standards, there is nothing to prevent anyone from becoming your sonographer colleague in one week. That situation demands change, and we are committed to making that happen. At the state level, we have taken the active leadership role in passing the first two licensure laws for sonography in the country: New Mexico and Oregon. We have fended off multiple licensure attempts in states that would have had sonography brought in and subjugated to Radiologic Technology. We do this work without much fanfare, and we do it for you.

Finally, the SDMS Annual Conference is *THE* national meeting of choice for sonographers. It is the only national sonography conference which provides cutting-edge educational opportunities that reflect the

entire range of sonography practice. The SDMS Annual Conference also provides the largest network setting for sonographers who wish to connect with their colleagues and/or potential sonographer employers. Off the record, I can also tell you that the SDMS Annual Conference is noted for delivering one other benefit... fun! If you've been to an SDMS Annual Conference in the last five years, you already know this; if not, please join me and hundreds of your professional colleagues in Denver this year. I promise you that it will be an experience you won't forget, and one that will be calling you back. I look forward to personally meeting you in Denver in October.

Free CME, collaboration with other organizations, webinars, free CME, the *JDMS*, free CME, advocacy initiatives, SDMS Annual Conference, and more! As always, I welcome your comments and suggestions. You can contact me at [chenningesen@sdms.org](mailto:chenningesen@sdms.org).

Sincerely,

Charlotte Henningsen, MS, RT, RDMS, RVT, FSDMS  
SDMS President

## Congratulations to the August iPod Touch Winner!

Congratulations to **Kim Whalen** of Port Jefferson Station, NY. Kim is the winner for our 2010 Membership Renewal Campaign for August! Her name was picked randomly from all August members that renewed their membership online between July 1 and July 31.

Any member that renews their membership ONLINE within 30 days of receiving their FIRST renewal notice email will be automatically entered into a drawing to win an Apple® iPod Touch.

- Members must renew online to eligible for drawing
- Drawings will occur on the first of each month
- Promotion valid January 1 – December 31, 2010



**Renew early and WIN!**



# The sky's the limit!

2010 SDMS Annual Conference  
Oct. 14 - 17, 2010 • Denver, CO

## 15 Reasons You Must Attend the 2010 SDMS Annual Conference

This year's SDMS Annual Conference in Denver, Colorado, October 14-17, 2010 offers sonographers the opportunity to experience education in all the specialty areas including: Abdominal, Cardiac, Ob/Gyn, Vascular and Education. We also offer sessions geared for students as they enter the sonography community.

Here are 15 of the 83 potential educational session offered at the 2010 SDMS Annual Conference. This is just a small sample of the many topics that will be covered by well renowned faculty.

### Plenary Sessions

Mind Blowing Success in an Upside Down World  
*Peter Sheahan*

Professional Partnerships in Sonography Practice  
*Jean Lea Spitz MPH, RDMS*

Principles Tune-Up: How Sharp Are You?  
*Dr. Fredrick Kremkau and Cindy Owen RDMS, RT, RVT, FSDMS*

### Abdominal Sonography

Liver Doppler: Mastering the Maze  
*Marsha Neumyer BS, RVT, FSDMS, FSVU, FAIUM*

Musculoskeletal Ultrasound: Where Do I Begin?  
*Dr. Sandra Allison*

### Cardiac Sonography

Stepwise Approach to 3-D Cardiac Imaging  
*Rick Meece RDCS, RCS, RCIS, FASE*

What Makes the Heart Walls Thick, What Causes Obstruction?  
*Dr. William Stewart*

### OB/GYN Sonography

Fetal Face and Neck  
*Ann Sandoval BS, RDMS, RVT*

Twins: Sonographic Assessments - General Considerations  
*Dr. Roy Filly*

### Vascular Sonography

Peripheral Arterial Sonography - Aortoiliac to Tibial Arteries: Lower Extremity Arterial Duplex Work  
*William Schroedter BS, RVT, FSVU*

Clinical Overview: Renal and Mesenteric Disease  
*Dr. Michael Lilly*

### Educator's Tutorial

Student to Teacher: What It Takes To Be A Mentor  
*Carol Mitchell PhD, RDMS, RDCS, RVT, RT(R), FASE*

Tough Academic Decisions: Legal Issues Involving Students  
*Ann Oberfell JD*

### Student Conclave

Improving the Quality of the Sonogram  
*Sue Ovel RDMS, RT(R), RVT*

Test-Taking Strategies (Eliminating the Voices in Your Head)  
*Frank Miele MSEE*

**Don't miss the sonography event of the year.  
It's not too late to join us in Denver October 14-17, 2010!**

**Register today! [www.sdms.org/meetings](http://www.sdms.org/meetings)**

To reserve your room at the Hyatt Regency Denver, visit <https://resweb.passkey.com/go/sdms2010> or call 888-421-1442. Make sure to indicate you are with the SDMS Conference. In order to receive the discounted \$189 room rate., you must reserve your room by **September 4, 2010!**

# Helping Hands: Fledging Sonography Education Program in Africa Needs Assistance

When SDMS member Ann Polin first visited the Republic of Ghana in western Africa ten years ago she came with a shipping container filled with donated equipment, support materials and a commitment to plant the seed for providing the people of Kumasi, Ghana with something they had never had...access to diagnostic medical sonography services. She knew that if her efforts were to have a lasting impact that the seed that she planted during her year in Ghana must include teaching others the skills that she possessed as a certified sonographer. That led to the first sonography training program in Ghana with nineteen (19) Ghanaian candidates signing up for the program. This first Ghanaian sonography training program was partnered with the local hospital so that at the same time that the doors were opened to patients, local training participants received sonography training that was modeled on the CAAHEP accreditation curriculum.

The first nineteen training program participants 'graduated' and were soon absorbed into hospitals and physician practices. The training program continued to grow slowly over the next ten years and the fruit of that effort has now produced the first Bachelor's Degree program in Sonography on the African continent. In the fall of 2009, three (3) students entered the Bachelor's degree program in Sonography at Kwame Nkrumah University of Science and Technology in Kumasi, Ghana. The university has now accepted a larger class who will begin their academic journey in the fall of this year.

The Sonography education program in Kumasi is in its infancy and the "needs" list is long. Educational text publisher, Elsevier Publishing, has graciously donated a truckload of ultrasound and radiology textbooks, CD's, and other audio-visual educational products. SDMS is donating a number of National Certification Examination Review (NCER) series to the effort as well. However, what this fledging sonography education program needs now is financial support to ship the cargo container containing the "in kind" donations to Africa. The shipping bid is \$5,000. We have included



*Three students were enrolled in the first sonography bachelors program on the continent of Africa at the Kwame Nkrumah University of Science and Technology. Several promising students were unable to attend due to limited funding.*

this information in the Society's newsletter in hopes that SDMS members who read this article, appreciate the merit and intention of the project, and have the ability to consider making a financial contribution might do so. Those members who are interested should contact Ann Polin:

Ann Polin, MSRS, RDMS, RDCS, RVT  
22265 - 34th Pl. W.  
Brier, Washington 98036

Email: [WestAfricaAnn@comcast.net](mailto:WestAfricaAnn@comcast.net)





# Upcoming SDMS Webinars

Participate in live presentations or watch the recordings at your convenience. Then take the test for instant CME credit, *absolutely free* for SDMS members.

The SDMS Webinar Series is a series of live and recorded CME presentations delivered via the Internet to SDMS members conveniently through their home or work computer. Using your computer and a phone, you have access to exciting sonography technologies and services presented by world-class sonographers.

*The SDMS Webinar Series is available FREE to current SDMS members.*

If you are unable to participate in these live webinars, visit <http://www.sdms.org/members/webinars.asp> for information on viewing a recording of the webinar.

**Registration:** The SDMS Webinar Series is FREE to current SDMS members and is not available to non-members (For information on joining SDMS, visit <http://www.sdms.org/membership/> )



All SDMS Webinars are tracked by SDMS CME Tracker.

**Webinars take place on at 8 PM EST/7PM CST/6 PM MST/ 5 PM PST unless otherwise noted.**

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**Sept. 9** Margaret Park, BS, RVT, RDCS, FASE  
**Vascular Ultrasound Manifestations of Cardiac Disease (AE) (VT)**

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**Sept. 15** Joan Baker, MSR, RDMS, RDCS, FSDMS  
Dr. Mark A. Kliewer MD, MHSc,  
Charlotte Henningsen, MS, RT(R), RDMS, RVT, FSDMS  
Dr. Harvey L. Nisenbaum, M.D., FACR, FAIUM, FSRU  
**Ergonomically Correct Scanning Defined (OT)**

**PLEASE NOTE: This webinar will take place at 7 PM EST/6 PM CST/5 PM MST/4 PM PST**

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**Nov. 4** Stephanie Wilson, BS, RDMS, RVT  
**Transcranial Doppler Imaging (VT)**

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**Dec. 2** Charlotte Henningsen, MS, RT, RDMS, RVT, FSDMS  
**Fetal Renal Anomalies (OB)**

“The acquisition of knowledge of current politics pertaining directly to my profession. The easy access of participating in my own home on my computer. I will definitely be participating in another webinar. Many thanks to the SDMS to providing such quality education and allowing me to earn my required CME's so easily!”

<http://www.sdms.org/members/webinars.asp>

## SDMS Product Spotlight - Dr. DeVore Educational Products

The SDMS Store is your one-stop shop for sonography educational materials at discounted prices for SDMS members!. Find the following at [www.sdms.org/store](http://www.sdms.org/store).

### Genetic Sonography

Item #: 8009

**CME Credits:** Not Available

This 4 CD-ROM set summarizes how sonography can be used to detect genetic disorders of the fetus, and presents some of the scientific rationale, sonographic methods, and technical pitfalls related to common sonographic markers of aneuploidy. Volume 1 contains tutorials demonstrating the use of ultrasound during the first trimester of pregnancy using measurement of the nuchal translucency, the identification of the nasal bone, ductus venosus, cardiac defects, etc. Volumes 2 to 4 focus on the second-trimester examination of the fetus.

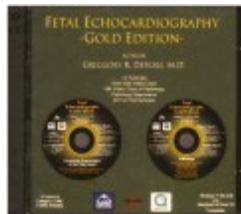


- Tutorial on pulsed Doppler with the latest information on the TEI index
- Quick Reference guide for cardiovascular anatomy based upon fetal position
- Reference posters for illustrating fetal position and cardiac structures
- Interactive program illustrating the use of 3D and 4D ultrasound
- Lectures with the following titles:
  - Screening for Cardiac Anomalies with 2D and 3D Ultrasound
  - The Nuts and Bolts of Fine Tuning Your Ultrasound Machine to Examine the Fetal Heart
  - Genetic Sonography: The Role of Fetal Echocardiography
- Tutorial: "Cardiac Screening Examination of the Fetal Heart" from the AIUM
- Tutorial: "Cardiac Screening Examination of the Fetus," from ISUOG.

### Fetal Echocardiography, Gold Edition-PLUS

Item #: 8010

**CME Credits:** 15 AMA Category 1 credits only (Processing fees may apply.)



*Fetal Echocardiography Gold Edition-PLUS* is the newest version of a widely popular interactive multimedia program focusing on evaluation of the fetal heart. SDMS members who have used this program to study for the Fetal Echocardiography Boards have found it quite helpful.

The entire program is on one DVD data disc. The new program not only includes the original tutorials focusing on the screening examination of the fetal heart as well as pathology, it now has the following features:

- Tutorial on Z-Scores for measuring cardiac structures

Dr. DeVore's products can be found in the SDMS online store at [www.sdms.org/store](http://www.sdms.org/store).

***If these products piqued your interest, Dr. DeVore recently published an article entitled "Genetic Sonography: The Historical and Clinical Role of Fetal Echocardiography," which has been made available at:***

***<http://www3.interscience.wiley.com/cgi-bin/fulltext/123397519/PDFSTART?CRETRY=1&SRETRY=0>***



# SDMS Fellow Spotlight

*This is a continuing series of interviews of our distinguished SDMS Fellow members.*



**Alan D. Waggoner,  
RDCS, MHS**

**Current position:**  
Research Associate  
Professor of Medicine  
in the Cardiovascular  
Division at Washington  
University School of  
Medicine in St. Louis,  
and the administrative/  
technical director of  
Cardiovascular Imaging  
and Clinical Research  
Core Laboratory

**Member since:** 1988

**Year awarded Fellow status:** 2002

## What inspired you to make a career in sonography?

As a Navy Corpsman from 1969-73 and senior corpsman of an internal medicine/cardiology clinic, I bought Dr. Harvey Feigenbaum's first textbook on M Mode Echocardiography published in 1972. After reading this book, it became my career objective. I moved to Houston, Texas, after honorable discharge from the Navy in 1973 and learned how to perform echocardiography from Dr. Miguel Quinones at Baylor College of Medicine. I got where I am today by diligence. I read numerous publications over the years related to echocardiography and researched the applicability of the published results. Second, I pursued advanced education including a bachelor's degree in history and a master's degree in health science. Third, I was active with the American Society of Echocardiography (ASE) where I served on the board of directors starting in 1994, including secretary from 1997-99 and later was chair of the Council on Cardiac Sonography from 1999-2001. I have subsequently served on several task forces/writing groups including sonographer credentialing, guidelines for quantification of Doppler echocardiography, valvular regurgitation, prosthetic valve function and assessment of diastolic function, a position paper regarding the sonographers' role

in contrast echocardiography, cardiac sonographer education program outlines, licensure issues, and minimum standards for cardiac sonographers. Currently, I am associate editor of the *Journal of the American Society of Echocardiography*. I was an editorial board member of the JDMS for 17 years. I also was a member of the SDMS Ultrasound Practitioner committee at its inception.

## Did you have a memorable role model/teacher? Who was it?

I have had the opportunity to be mentored by four physicians. The first was Dr. Gary J. Garfield, a clinical cardiologist I worked with while I served as a Navy Corpsman and who taught me clinical skills such as auscultation and ECG interpretation. Next was Dr. Quinones at Baylor, who taught me echocardiography and introduced me to echocardiography research. Later, Dr. Julio E. Perez and Dr. Victor G. Davila-Roman at Washington University School of Medicine were mentors to me regarding research methods, writing manuscripts and grants.

## What was the most significant advance in the technology that you directly experienced?

Since I started performing sonography in 1973, when only M-mode was available, the introduction of 2D imaging in the late '70s and then spectral Doppler and color flow imaging were big advances that I experienced shortly after these were incorporated into ultrasound systems. The developments of ultrasound tissue characterization and tissue Doppler imaging, which made it possible to directly assess myocardial function, were other important advancements. I was fortunate to be on the forefront of all of these new methods that have now become an integral part of the echocardiographic examination.

## Were there any memorable developments, cases or events that changed the way you practiced sonography?

Memorable cases that changed my approach to the practice of echocardiography include two distinct patient groups. The first were patients with severe pulmonary hypertension who received

lung transplantation in the early 1990s. Our group performed detailed echo measurements of right heart function prior to and after surgery. The immediate improvement in right heart function in these patients following surgery that remained sustained during follow-up was remarkable. A second group of patients I have been investigating for the past 10 years involves the important role of 2D echo-Doppler and tissue Doppler imaging in patients with severe left heart dysfunction and medically-refractory heart failure that receive cardiac resynchronization therapy (i.e., insertion of biventricular pacing leads). This has required incorporation of new echo-Doppler measurements to determine who will benefit from implantation of these pacemaker devices. It is now known that nearly half of patients may not have improvement in echocardiographic-derived measurements of LV systolic or diastolic function, which are predictors of recurrent heart failure hospitalizations despite successful pacemaker implantation.

### What changes do you predict in the immediate future?

Changes that could occur in the future regarding cardiac sonography are several-fold: One change continues to be outcomes research as to the relative role of echocardiography in clinical decision-making and how it impacts patient care. It must be shown that performing an echo is necessary and cost effective. A second change, that is now emerging, regards individuals who perform cardiac ultrasound be certified and even licensed. If not, then reimbursement for studies performed could be denied. A third change could be the need for future sonographers to attend a formal program, receive a degree in addition to being certified. The difficulties in this approach are the lack of formal programs, clinical training sites and instructors that are interested. This has not been an easy obstacle to overcome and will continue. A fourth change may be the use of hand-held ultrasound imaging

devices. This could affect the demand for complete ultrasound studies traditionally performed by sonographers and has potential implications for the future sonographer workforce.

### What advice would you give to students/ future sonographers?

Develop skills that will enable you to understand and can be prepared to investigate the clinical presentation, the approach for assessment by ultrasound, and quantify the severity with carefully performed measurements. Read the current literature (not just textbooks) and evaluate these new methods; promote them perhaps to fellow sonographers and cardiologists. Remember there is a risk of musculoskeletal injuries, based on reports in the first generation of sonographers, so take care of yourself and follow guidelines now developed. Remain vigilant to the profession as a truly, non-invasive diagnostic tool that involves no radiation and that can impact patients regarding their medical condition. The profession of sonography will have continuing challenges including maintaining quality despite increased demands of the number of patients that require studies and introduction of new technology.

### What's your favorite part of your job?

I now have a different workday compared to previous positions I had as supervisor in clinical echocardiography laboratories. I still continue to perform echocardiography but see fewer patients and the examinations are focused to research protocols. It remains demanding as each patient remains unique so surprises in results can occur. I perform more measurements of echocardiographic images, do more statistical analysis of data, I am involved with writing/reviewing grant proposals and manuscripts, and am involved with research meetings with other investigators. It's still a 10-hour day and work on the weekends. After 37 years in this field, it's not boring and I remain involved.



## SDMS Membership Number Reminder

Forgotten your SDMS Membership number?

Visit <http://www.sdms.org/members/remindme.asp>, complete the form, and your membership number will be sent to you via email.

## SDMS Benefit Spotlight

### Your Connection to SDMS: The SDMS News Wave

You may think it's a bit odd that we would spotlight the *SDMS News Wave* in the *SDMS News Wave*, but there is a reason. Thousands of SDMS members are still not reading the Society's electronic newsletter, the *SDMS News Wave*, and we need your help.

We're asking you to tell your fellow SDMS members about the *SDMS News Wave*. Here are a few things about the electronic newsletter you will need to know when spreading the word.

The *SDMS News Wave* is delivered via the *SDMS Sound News* to current SDMS members. The *SDMS Sound News* is the SDMS monthly email alert system that is the link to the *SDMS News Wave* and other SDMS publications. It also delivers late-breaking news, special announcements, and features a monthly SDMS sonography puzzle. For example, last month the *SDMS Sound News* highlighted the 'Small scanners could spot hidden heart disease' article featured on <http://www.msnbc.msn.com/id/21180607/>.

The *SDMS News Wave* is a monthly, electronic newsletter featuring important information on trends and issues affecting sonography. The newsletter introduces new SDMS benefits, highlights current benefits, lists current SDMS CME opportunities, and highlights new SDMS members and SDMS Fellows.

Did you know SDMS held elections for the SDMS Board of Directors and several of its committees? The *SDMS News Wave* announced when the voting polls were open and the results of those elections. The new Board members will be inducted at this year's Annual Conference in Denver, CO.

Don't have time to go to the SDMS Discussion Forums every day. The *SDMS News Wave* highlights current hot topics from the forums so even if you don't have time to read all of the



daily postings, you can still connect to what's happening within your profession.

Another helpful feature of the newsletter is the availability of previous issues (all the way back to 2004) on the SDMS website. So if you ever miss an issue, go to the Members only area of the SDMS website (<http://www.sdms.org/members/NewsWave.asp>) to find the issue or information you missed..

In addition to the *SDMS News Wave*, SDMS publishes two other electronic newsletters, the *SDMS Sentinel* and *SDMS Sonography Mentor*, which is also delivered via the *SDMS Sound News*. The *SDMS Sentinel*, published biannually, is your information source for updates on SDMS and sonography-related legislative initiatives. The *SDMS Sonography Mentor* is published on a quarterly basis and is designed to keep educators up-to-date with the latest news and trends in sonography education and continuing medical education (CME).

Wow, that's a lot of information! We hope that you learned something you didn't already know about this month's featured SDMS member benefit and that you will share with your colleagues.

**Remember: the *SDMS News Wave* is your connection to SDMS and its leadership.**

# Celebrate Sonography!

Every October, SDMS and other sonography organizations join together to promote *Medical Ultrasound Awareness Month* to increase sonographer pride and the public's knowledge about sonography. Let everyone know about sonography's "waves of possibility" in your workplace and community with these exciting new products!

## T-shirt

This year's slogan, *Sonography - waves of possibility*, is silk-screened on a preshrunk, 100% cotton, short-sleeved, black t-shirt. Available in sizes S to XXL.

Item #: 4731

\$15 SDMS members \$20 Non-members

## Poster

Display this 22" x 17" poster to brighten your office or waiting room!

Item #: 4729

\$4 SDMS members

\$6 Non-members

## Tote Bag

This handy canvas tote bag is great for work, shopping, and of course, promoting sonography awareness. It is constructed of sturdy "natural color" cotton canvas.

Item #: 4732

\$10 SDMS members

\$13.50 Non-members

## Pen-on-a-rope

This 2-color pen features thumb-slide retractable tips and a break-away neck cord for safety.

Item #: 4728

\$2.50 SDMS members

\$3.50 Non-members

## Mug

This black coffee mug is "green" at heart! It features the "waves of possibility" design in white and silver and is constructed of renewable, recyclable 100% USA corn plastic.\*

Item #: 4727

\$9.00 SDMS members

\$13.50 Non-members

## Buttons

Spread the word by giving one to coworkers, patients, and media contacts.

Item #: 4725

\$1.50 SDMS members \$2.50 Non-members



\*Mug should be hand washed to protect its glossy finish. This year's corn plastic mug is 100% recyclable and biodegradable!

## Ordering is easy!

- Order online at the SDMS online store at <http://www.sdms.org/store>
- Call toll free 1-800-229-9506 Monday - Friday, 8 am - 5 pm (CDT)

# New Member SCAN



This month's New Member SCAN is **Lauren Merritt**, a second year sonography student at Florida Hospital College of Health Sciences. Lauren is also working towards a Bachelors Degree in Biomedical Sciences. Lauren loves to travel

in her spare time; she has back packed through the Alps and sailed around the Mediterranean.

We asked what inspired Lauren to choose sonography as a career. She said, "Sonography

is a perfect blend of her passion for medicine and technology. The field of sonography is constantly growing and I am excited to be part of the profession's future." Her fascination with anatomy and physiology started when her fourth grade class had the opportunity to dissect sheep eyeballs.

Last year, Lauren was able to attend the 2009 SDMS Annual Conference in Nashville, TN and was astonished at how many educational and professional offerings there were to absorb. While there, she attended the Student Conclave. She said she learned so much and it has even helped with her homework and studies for school. Lauren was in awe when she was able to meet some of the most prominent professionals in sonography. It has inspired her to want to achieve the same level of professionalism they conveyed. Lauren is planning to attend the 2010 SDMS Annual Conference in Denver, CO this year. She said so far, the annual conference is her favorite SDMS benefit.

Lauren, welcome to the SDMS!



## Current Hot Topic in the SDMS Discussion Forums: Salary Adjustments for Credentials

*"My boss wants me to establish a career ladder in the hope of advancing the staff salaries. Many of us have several certifications already but the younger staff wants salary adjustments as they get additional credentials. Any input and suggestions would be helpful".*

### Here are a few of the responses so far:

"There was an article about this in JDMS from Kaiser Permanente look in the archives. It is just what you need".

"Do it. Our dept. is stuck in a 1-3% increase (careful not to use the word raise)inflation is at least 4% so we are set up to fall behind 1-3% every year--no matter how well you perform. No pay increase for registries here either. Career ladders equal significantly higher raises for those who have the opportunity to choose that option".

"When I worked in a hospital, new grads were hired with the intent to be registered, and you must have passed one registry by the end of a year or you were let go. They gave us a 5% raise for each consecutive registry, entered us into a 90 day probation period, at the end a successful probation period, another 3% raise would ensue.

Another great way to reward staff is for other important factors such as getting along with other staff members and management. I don't know how to grade that, but it sure does decrease morale in the department when you have negative Nellies!!

Having them do presentations and case reviews also is a good part of a career path".

**Want to know what other SDMS members are saying about this topic? Visit [http://www.sdms.org/members/forums/link.asp?TOPIC\\_ID=3172](http://www.sdms.org/members/forums/link.asp?TOPIC_ID=3172)**



# SDMS Welcomes New Members

## July 2010

Shamim Ahmed, MS, RDMS	Donald Busi	Bridgette Earl	Amy Hillers, RT(R), RDMS
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**SDMS Headquarters**  
 2745 N Dallas Pkwy Ste 350  
 Plano, TX 75093-8730  
 Phone: (214) 473-8057  
 FAX: (214) 473-8563

**CEO and Executive Director**  
 Donald F. Haydon, CAE  
**Production Editor**  
 Chris Alcott