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Meet Your New SMRT President, Cindy Comeau, B.S., R.T. (N)(MR)



Signals: How did you first become involved with MRI?

Cindy: My career started as a nuclear medicine technologist and during this time there were some major advances in nuclear medicine imaging techniques. Working with computers and image processing was just starting to be utilized in this field, though after some time I felt that I needed to explore learning a new imaging modality. I have had the opportunity to work with some very knowledgeable technologists in several states in the U.S. One day I received a call from a technologist that I knew while I was

a student at the University of Las Vegas who told me about a facility looking for a technologist with nuclear medicine background for a MRI cardiac research technologist position. This position was at a facility that was a developmental site for cardiovascular MRI for Philips Medical Systems. I guess you can say that I learned MRI by scanning the heart! This position was a two-year funded research position and upon leaving that position I thought I could use my MRI knowledge and obtain a position as a clinical MRI technologist. I interviewed for numerous positions in the western states but no one would hire me! So I returned back to being a nuclear medicine technologist.

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So... did you hear?

Joint Annual Meeting ISMRM-ESMRMB 2007
&
the SMRT 16th Annual Meeting
are now taking place in

Berlin, Germany!

Save the Date!

Bitte freihalten!

Joint Annual Meeting ISMRM-ESMRMB
19-25 May 2007

SMRT 16th Annual Meeting
19-20 May 2007

Meet us in Berlin!

President's Letter continued

Signals: What interested you in working for a manufacturer?

Cindy: When I returned back to the clinical nuclear medicine world, I took a position to start a Nuclear Cardiology department in a hospital in Salt Lake City, Utah. Because nuclear cardiology was just beginning to evolve, I was also hired part-time by GE Healthcare as an applications contractor. Being a contractor involved some travel but I found that I really enjoyed teaching other technologists nuclear cardiology imaging techniques. I worked in Salt Lake City, Utah for five years and then decided it was time for a change when the hospital announced that a buy out was in the works and my Medical Director who was a cardiologist had also left. Because of my contractor position with GE Medical Systems, I was offered a position on the Tip Answerline which suited my interest in assisting other technologists and physicians with technical issues regarding their imaging equipment. Working in a corporate environment is certainly very different than a hospital or clinical environment, but it was an experience that helped me grow my imaging knowledge and communications skills. Making new contacts with experts in the field was also very rewarding.

Signals: What was your favorite part of that job or something interesting that you experienced?

Cindy: I held three different positions while working for GE Healthcare. My favorite time was the opportunity to return back to the field of MRI. A position became available for a Cardiovascular Senior Advanced MRI Applications Specialist for the GE MR business and I was selected for the position in 1997. With my past MRI experience and my extensive background in nuclear cardiology, I felt that I could really contribute in the development of cardiovascular MRI applications. It was during this time that cardiac MRI was emerging from the research arena into the clinical setting and it was exciting for me to be a part of the first cardiac software product release for the GE Signa product line.

Signals: What do you find most rewarding now in a clinical setting, or are you considered research?

Cindy: I think one could say I'm currently involved with both research and the clinical environment. I left my industry position in 1999 because I felt that I needed more clinical experience to be fully creditable in instructing technologists and physicians in cardiovascular MRI applications. I currently work at Advanced Cardiovascular Imaging, an outpatient imaging center on the upper eastside of Manhattan under the direction of Dr. Steven D. Wolff M.D., Ph.D. Our facility is a clinical evaluation site for all cardiovascular applications for GE Healthcare which can be quite challenging when running a full clinical patient schedule. I find it very rewarding to work with the industry engineers and provide valuable clinical feedback for cardiac applications before they are released as product. I'm very fortunate to work with Dr. Wolff as he allows me time for other professional opportunities that were not available to me while I worked in the industry environment. These opportunities include the development of cardiovascular teaching material, writing abstracts, publishing papers, presenting at cardiovascular meetings and most importantly to be able to participate in SMRT activities! I also find it very rewarding to bring my clinical cardiac MRI experience to "life" when I have the opportunity to present at meetings as I try to share as much of my knowledge as possible with both technologists and physicians.

I have been involved in many research trials and recently I have established an MRI Core Laboratory for a phase two trial of myocardial delayed enhancement imaging sponsored by Berlex Laboratories.

Signals: What do you think will be your greatest challenge, plan for this year?

Cindy: I'm looking forward to working with a terrific group of SMRT Policy Board members which includes an international contingency. The greatest challenge that I have seen is expanding

the presence of SMRT internationally. This cannot be accomplished unless we have international members involved in the SMRT at all levels and use our resources in the best way possible. An organization cannot accomplish its goals unless the lines of communication are opened by encouraging members to participate in activities such as creating a Local Chapter or hosting a SMRT Regional. Wendy Strugnell, current SMRT Policy Board Member has the first SMRT Regional in Australia scheduled for the fall of 2006. Wendy's efforts set a terrific example and I hope other international members will follow her lead. Our 2007 annual meeting program is currently under construction as Program Chair Vera Miller and Educational Chair Carolyn Bonaceto are working diligently to establish contact with technologists worldwide, which I hope will continue even after the meeting is completed.

Recently, the SMRT hosted the MRI Primary Pathway Summit Meeting in Seattle, Washington. As we all know MRI technologists education at the primary level is a very important issue to all of us and the SMRT has positioned itself within the realm of organizations that governed our profession. I hope to continue moving the SMRT in this direction as interfacing with these organizations will benefit our organization professionally.

Signals: Any other thoughts you would like to share with the SMRT membership?

Cindy: We all work full-time jobs, but I ask the membership to take the time to review what the SMRT has to offer and see how you can contribute and also continue to reach out to other MRI technologists. I would like every member to feel that no matter if you are from a large institution or small outpatient clinic, everyone has something to contribute.

I truly enjoy meeting and training technologists from around the world as I learn something new from others almost everyday. I'm amazed at the advances in hardware and software that MRI has to offer every day as we are faced with new

challenges when it comes to learning new techniques. As we have Radiologists credentialed in certain applications I think in time we will see credentialing for MRI technologists in areas such as Cardiovascular and Neuro. This is why we are members of the SMRT to be able to come together to further elevate and share our knowledge in MRI. The SMRT provides ample avenues to accomplish this, however as an organization we need to continue to expand our mission internationally. I'm very excited to see new members join the SMRT and hopefully you'll take the time to join a committee, submit an abstract or maybe host an SMRT Regional. I have found it very rewarding to have participated in many SMRT activities and believe me, I know you will as well! ●

Notes from the July 8, 2006 SMRT Executive Teleconference:

- I would like to announce the unanimous approval by vote of the SMRT Policy Board for the External Relations co-chairs Gina Greenwood and Charles Stanley as they will be mentored by current External Relations Chair Julie Lowe whose term ends at the 2007 meeting.
- Vera Miller, Program Chair for 2007 provided an update on the progress of the 2007 program. The Executive Committee felt that it would be best to eliminate the poster reception/presentations for Friday night and add a more formal poster presentation format to the last hour of the meeting. On Saturday night, the reception would be held and every five years that reception would include the recognition of past SMRT presidents.
- The ISMRM has given the SMRT permission to display the SMRT posters with the ISMRM meeting posters.
- Maureen Hood and Angela Kanan have proposed the beginning stages of SMRT Nurses section. This section will start out small and use minimal resources from the Berkley office until a better feel for the interest is determined.

Editor's Letter

Julie Strandt-Peay, B.S.M., R.T. (R)(MR)



We begin this issue by meeting the 2006-2007 SMRT President, **Cindy Comeau** and learn what she has in her vision for us. She shares highlights from the Executive Committee Teleconference call subsequent to the 15th SMRT Annual Meeting. **Note that the 16th Annual Meeting site has changed** with up-to-date information available on the SMRT Web site. For the first time in the 15-year history of the SMRT, we mourn the loss of one of our own. We thank **John Posh** for his tribute and wish a peaceful repose for **John Koveleski**. Our condolences are extended to his family. A special committee has been formed to determine an appropriate memorial to honor the memory of John.

The SMRT 15th Annual Meeting is brought to us in detail starting with Education Committee Chair, **Carolyn Bonaceto**, who shares the proffered paper and poster award recipients. Program Committee Chair, **Todd Frederick** recounts the activities of the didactic sessions. SMRT Secretary, **Gina Greenwood**, shares the action of the business meeting. The Summit Meeting to discuss the Primary Pathway for MRI Technologists is described by **Mark Spooner**.

Awards Committee Chair, **Cindy Hipps** advises us of the recipients for 2006. Joint Forum Co-Chair **Bobbi Lewis** gives an account of this special activity during the ISMRM meeting. We recognize our corporate sponsors and thank them for their generosity.

New for this issue of *Signals* is Chapter Chat, a column by Local Chapters Chair, **Pam Vincent**. Have you thought about joining with area colleagues to form an SMRT Local Chapter? Nomination Committee and Awards Committee Chair for 2006-2007 is **Karen Bove-Bettis**. She invites us

to consider colleagues for the positions elected by the SMRT membership. You may want to consider running for SMRT Policy Board yourself as a means to becoming more active in your professional organization. External Relations Chair, **Julia Lowe**, reports on the various activities that involve the SMRT with outside organizations. Regional SMRT Seminar Chair, **Caron Murray** lists the educational efforts that are planned and invites us to consider hosting a seminar close to home. 2006-2007 Program Committee Chair, **Vera Kimbrell Miller**, is already planning the 16th Annual Meeting. Watch the SMRT Web site and future issues of *Signals* for details as they become available.

Safety news in this issue includes a report by **Denise Davis** explaining the newly formed ISMRM Study Group. MR Safety expert **Frank Shellock** shares new terminology for implants and devices.

The SMRT is a member of the Associated Sciences of the Radiology Society of North America (RSNA) which provides a preliminary meeting announcement. And last, but not at all least, check the calendar on the back cover for global MR educational opportunities.

Your comments are welcome and can be sent to me directly at jpeay@wi.rr.com. *Signals* is your news letter and we welcome news, information, and scanning tips from you, the SMRT members. If you have an idea for a column or regular feature, I would love to hear from you. We are a global organization and need more representation from those of you outside of North America. What is going on with MR in your area? Which issues in MR scanning concern you the most today? How do you handle ever increasing work loads with less staff? Please consider sharing your thoughts with the MR technologists and radiographers around the world who are in the same field and situation as you. Hope to hear from YOU! ●

Saying Farewell to Our Friend, John A. Koveleski

John Posh, R.T. (R)(MR)



This issue of *Signals* marks a first for the Section: the passing of one of our past Presidents. John A. Koveleski, R.T. (R)(MR), who died on May 23, 2006 in his home in Pennsylvania, USA. Having known John for many years both professionally and personally, like his innumerable friends across the country, I am deeply saddened by his death. While a few words on paper can never do justice to the life of a friend, my hope is that by sharing those words with others whose lives he touched, his memory will live on.

John attended the Milton S. Hershey School of Radiologic Technology in Hershey, Pennsylvania, after graduating from Central Dauphin East High School in 1982. Soon after finishing his general radiography program, he enrolled in the first MRI class offered at the Milton S. Hershey Medical Center where he also started his career as an MRI technologist. In December of 1986, John helped start the Magnetic Imaging Center, the first free-standing imaging center in the south central Pennsylvania region, where he spent the bulk of his career undertaking various supervisory and managerial roles. During that time, John took every opportunity to better himself and those around him through his continuing education efforts. He sat for his boards the first year they were offered and, as expected, passed with ease.

In the mid 1990s, John formed the Central Pennsylvania, U.S.A. Chapter of the SMRT. John worked tirelessly not only to hold regular meetings but also to offset the costs of those meetings through vendor support. The result of John's work was that his well-attended local seminars were always free. John believed that continuing education was vitally important to MR technologists and to the profession, so he worked hard to promote educational opportunities to support the needs of working technologists on both the regional and national level.

Always a professional, John was never content to just be part of our profession. For him, it was important to be a leader. From the beginning, he took every opportunity to share what he knew with his peers and the technologists coming up behind him. He lectured frequently on many topics for numerous state and local societies, at the RSNA, and at the SMRT meetings as often as possible. John was always eager to volunteer for any of the many duties within the organization. John joined the SMRT Policy Board in 1998. In 1999, he was Chair of the Program Committee and Chaired the Philadelphia meeting, the most successful meeting in the history of the SMRT. John was Treasurer from 1999 to 2001, and then he served a term as President from 2002 to 2003. John's presidency, like everything else in his life, was handled with professionalism, dignity, and an amazing sense of humor. John was a hard-working, clinical MR technologist who hoped to inspire other technologists by proving that anyone can be successful

if he or she simply tries hard enough. John proved that, with a positive attitude and hard work, you can rise to the top of your profession. Of course, the occasional bag of Hershey's chocolate shared among friends helped as well.

Personally, John was one of a kind. He was that rare individual who gave freely of himself without needing something in return. His unwavering commitment and dedication to his friends was as legendary as his fierce loyalty. When John was your friend, he was your friend for life. His passion for what he held important to him was amazing. I know there are many people in the community who watched his dogs grow up via the pictures of them that he always carried in his wallet. John was a kind soul and a kindred spirit who enriched the lives of all he touched. Few people who saw John's smile or heard his infectious laughter will ever forget him. Rest in peace, my friend. ●



*In memory of
John A. Koveleski, R.T. (R)(MR)*



*The SMRT has formed a special sub-committee to determine an appropriate memorial for John Koveleski. We thank all of you who have expressed concern and support for this effort. Details will be made available when the committee has completed its work. Watch for more information in future issues of *Signals* and on the SMRT Web site.*

SMRT *Educational Seminars* Home Study Program

Anne Marie Sawyer, B.S., R.T. (R)(MR), Editor



We are pleased to present the SMRT *Educational Seminars*, Volume 9, Number 2: "MRI Atlas of the Shoulder."

Future issues depicting other anatomical structures and discussing physiology are currently being developed.

A special thank you to Kelly Baron for writing the quiz questions and sharing her expertise in human anatomy and MR imaging with the members of the SMRT.

Thank you to Garry E. Gold, M.D., Associate Professor at Stanford University Medical Center, Department of Radiology, Stanford, California, U.S.A., for reviewing the text and labeling of the 3.0T MR shoulder images.

Thank you to Matthew Kirschen, M.D. for his many hours volunteering the perfect shoulder for MR imaging.

Thanks also to Bobbi Lewis, SMRT Publications Chair, and in the Berkeley, California, USA office of the ISMRM/SMRT, Jennifer Olson, Associate Executive Director, Sara Vasquez, Publications Coordinator, and the staff for their insight and long hours supporting these educational symposia.

Accreditation (USA) for all home study issues of the *Educational Seminars* is maintained annually by the SMRT. Back issues may be obtained from the SMRT/ISMRM office located in Berkeley, California, USA for twenty dollars (USD) each. For a complete list of back issues, please go the SMRT Web site: <http://www.ismr.org/smrt>. If you live outside of the U.S. and have interests or questions concerning accreditation within the country you reside, please contact me at amsawyer@stanford.edu or +1.650.725.9697.

If you are looking to become more involved in the SMRT, please consider writing questions or an article for one of our home studies. For additional information, please contact me directly or Jennifer Olson, ISMRM Associate Executive Director, (smrt@ismrm.org, +1.510.841.1899).

Finally, I would like to thank Tom Schubert, John Wilkie and all of those fantastic people at Invivo Corporation (MRI Devices) who support our home studies program, SMRT *Educational Seminars*. Their continuing support of technologist and radiographer education brings quality continuing education to the SMRT membership worldwide. ●

Education Committee Report on the 2006 Annual Meeting in Seattle: "Soaring to New Heights in MR Education"

Carolyn Bonaceto, B.S., R.T.(R)(MR), Chair, Education Committee



The 15th annual meeting of the SMRT held in the beautiful Pacific Northwest city of Seattle, Washington, 5-7 May, 2006, was a resounding success. The meeting overshot its goal of "Soaring to New Heights in MR Education." The triumph of this meeting highlights the dedication of so many SMRT members who volunteer

their time. This international group of volunteers strives to ensure that SMRT stays focused on its goal of promoting MR education for technologists worldwide. Thank you to everyone; SMRT is moving forward, gaining momentum, all because of you!

Our meeting began Friday evening with the Poster Walking Tour generously sponsored by Tyco Mallinckrodt. SMRT is extremely grateful for the continued support of Tyco Mallinckrodt, which has consistently demonstrated its willingness to help bring education to the technologists. The Poster Walking Tour event is dual purpose. It serves as the initial educational opportunity for meeting attendees and it is a well received social activity. Attendees enjoyed hors d'oeuvres and refreshments while catching up with old friends and making new ones.

After mingling for an hour, poster presenters were introduced by this year's Program Chair, Todd Frederick.

Each presenter was prepared to share his or her work with the audience and was available for a short question and answer period following the presentations. John Posh began the presentations with a review of his poster "*The Role of MRI in the Evaluation of Mummified Human Remains Preserved with Arsenic*." One of the mummies John's group studied was displayed locally, making John's presentation even more captivating. The next poster presenter was Julie Strandt-Peay. Julie shared her poster, "*Magnetic Resonance Safety Training - Implementing a Program in the Research Environment*." Julie's poster was very effective in demonstrating the challenges faced by the need to allow individuals access to the MR environment who may not have had the opportunity to develop an understanding of the dangers the various magnetic fields present. Following Julie, Robin Valentine then presented her poster, "*Regional Fat Deposition Assessed by MR: The Effect of Weight Loss*." The results of the work Robin's team did may have great significance to understanding cardiovascular risk. Following Robin, Tse Woon Ng explained his poster entitled "*The Feasibility and Validity of Using Magnetic Resonance Imaging to Assess the Right Ventricular Function*." This poster compared sequences that are currently the gold standard of LVF and their effectiveness in studying the RV.

As part of its mission to recognize and reward exemplary

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Education Committee Report continued

work by technologists, the SMRT awards the President's Award, as well as First, Second, Third place clinical and research focus awards, to abstracts submitted in response to our "Call for Papers." At the culmination of the business meeting, Saturday, 6 May 2006, it was with great pleasure that Todd Frederick, Program Chair and I welcomed the award winners to the podium to accept their awards. This year's winners were:

President's Award

Caron Murray - *"Intermittent Fat Saturation and K-Space Reordering in Breast MRI"*

Proffered Paper - Clinical Focus:

1st Place

Carol Beehler - *"Comparison of Parallel Imaging Methods for Breath-Hold Abdominal Imaging"*

2nd Place

Filip DeRidder - *"Breast Tumor Characterization with Deconvolution Based Perfusion"*

3rd Place

Shari Stewart - *"Preparing Children for Magnetic Resonance Imaging"*

Proffered Paper - Research Focus:

1st Place

Marcela Montequin - *"Multi-Slab vs. Single Slab Whole Heart Imaging for Reduced Sensitivity to Respiratory Drift, Heart Rate Variability, and Off-Resonance and Dephasing Artifacts"*

2nd Place

Hina Jaggi - *"Segmented Arterial Spin Labeling MRI- A Non-Bold Method"*

3rd Place

J.H. Hwang - *"Magnetic Resonance Spectroscopy to Detect Rectal Cancer Using a Phased-Array Coil at 3.0T"*

Poster Awards - Clinical Focus:

1st Place

Cindy Comeau - *"Clinical Utility of Time Resolved Imaging in the Evaluation of Peripheral Vascular Malformations"*

2nd Place

Christine Mancini - *"Quantitative Infarct Sizing in the Presence of Microvascular Obstruction"*

3rd Place

Michelle Garcia - *"Managing Technical factors Affecting Spectral Quality of*

Endorectal Prostate MRS at 1.5T"

Poster Awards - Research Focus:

1st Place

Susan Ryan - *"Chiari Malformations Pathophysiology Redefined Using MRI Based Flow Measurements As They Relate to Intracranial Compliance (ICC)"*

2nd Place

Julie Strandt-Peay - *"Magnetic Resonance Safety Training-Implementing a Program in the Research Environment"*

3rd Place

Anne Marie Sawyer - *"Exit forms at 1.5T and 3.0T: Human Experience in MR Examinations"*

Congratulations again to all our award winners!

The quality of the work submitted this year was outstanding and the committee was amazed by the work our members produced. To all the Education Committee members who volunteered their time to read and re-read each abstract and poster, thank you. Winners, submitters, and scorers, your work demonstrates a commitment to your field. Thank you for your willingness to make time in your busy schedules to help SMRT achieve its goals.

It's not too early to be thinking about your submission for next year. ●

Program Committee Report

Todd Frederick, R.T. (R)(MR), Chair,
Program Committee



Thanks to our Seattle hosts for a great 15th Annual SMRT Meeting! The Program Committee, Education Committee, local organizing committee, and the ISMRM/SMRT office put a lot of effort into the meeting assuring great success!

Over 300 SMRT members attended the sessions and enjoyed excellent presentations, reviewed exceptional posters, caught up with friends and

colleagues, and hopefully made some new acquaintances.

The meeting began with a reception and poster tour, where attendees were able to relax and talk, to see the many posters that were on exhibit, and to ask questions of the poster authors. Several poster authors were invited to present their work orally to the audience. The number of posters submitted continues to grow each year, and the quality of work is outstanding!

The classroom sessions began on Saturday morning with a welcome from Karen Bove-Bettis, SMRT President, and Todd Frederick, Program Committee Chair. Charles Stanley moderated the morning session. The committee's intent for the meeting was to offer presentations that varied in length, were from many different perspectives, and were grouped together by content as much as possible. Mike Moseley, Ph.D., and Adrian Knowles, R.T., teamed up to provide the latest advances in diffusion imaging of the brain and the body. Dr. Moseley is as entertaining as he is informational. Adrian's update on diffusion imaging of the body was very interesting.

Another highlight of the morning was a presentation on "Colorful Communication" from Gina Greenwood. As much as we need to hear about the nuts-and-bolts of MRI, it's also nice to hear how we can better communicate with our patients, our colleagues, and others we interact with. Gina gave an enjoyable presentation that provided us another way to look at how we communicate with each other.

Pamela Vincent moderated our Saturday afternoon session, which was filled with a 3T forum, which updated attendees on the status of 3T MR imaging from several different angles. Dr. Diego Martin was the scheduled speaker for the last presentation on Saturday, but was unfortunately unable to attend the meeting. Dr. Hussain from Nebraska was very gracious to present in Dr. Martin's absence.

Sunday morning's session was moderated by Steven P. Shannon. The

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Annual Meeting Report continued

session included forums on breast MR, presented by Connie Lehman, M.D., and Michael Coles, R.T., and the ever-critical topic of MR safety.

Vera Miller moderated the afternoon session on Sunday, which was filled with topics that we don't hear as much about—the business aspect of an MRI center, planning for radiotherapy with MRI, and MR imaging for clinical trials. Dr. Rasmus Birn updated the audience on the latest in functional MRI.

The last didactic session of the meeting was a forum on how MR technologist/radiographers are educated in the different parts of the world that the SMRT represents. Representatives from the U.S., Canada, UK, Australia, and Europe gave outstanding insight into the differences and similarities in

how education and accreditation are done in different countries. The session gave many attendees a new respect for our colleagues from different parts of the world than our own. This session was also attended by representatives from the AERS, ASRT, SMRT, JRCERT, and ARRT (see Primary Pathway Summit Meeting on page 8 for related information). These organizations were involved in an Educational Summit with the SMRT, and their attendance at this meeting showed them the complexity of MR technology, the challenges of educating MR technologists/radiographers. These representatives also saw the international focus of the SMRT!

Proffered papers were also presented throughout the sessions on both days of

the meeting. These papers were chosen by the Education Committee through a blinded process from among all of the papers submitted for the meeting. The papers were divided into those with a research focus and those with a clinical focus.

Thanks to all of the authors for the work in preparing the papers and presenting them at the meeting. Congratulations to the award winners! A special thank you is extended to all of the corporate sponsors who helped make this meeting possible.

Thanks again to all who made the 15th Annual Meeting in Seattle successful and enjoyable. Plans for next year's meeting are already underway—hope to see you all at the 16th annual meeting in Berlin! ●

15th Annual Business Meeting Report, 6 May 2006

Gina Greenwood, B.S., R.T. (R)(MR), SMRT Secretary



The Meeting was called to order at 12:05 PM PDT by Karen Bove-Bettis, President. Executive Committee and Policy Board members were introduced.

Awards Presentations

- Crues-Kressel Award – Presented to Maureen Hood by Herbert Kressel, M.D., in whose honor (and in conjunction with John Crues, M.D.) the award is named.
- Fellows of the Section – Maureen Ainslie and Bobbie Burrow
- Honorary Member – Anne Marie Sawyer
- Distinguished Service – Julie Strandt-Peay

President's Report

- Karen Bove-Bettis thanked sponsors and vendors for supporting the meeting and Todd Frederick and Carolyn Bonaceto for championing a successful meeting.
- Karen Bove-Bettis highlighted the Ad-hoc Committee that been working this past year to offer guidance regarding the non-RT MRI educational pathway



SMRT Policy Board (left to right): Front: Cindy Hipps, Wendy Strugnell, Nancy Talbot, Anne Marie Sawyer, Cindy Comeau, Judy Wood, Heidi Berns. Middle: Anna Kirilova, Karen Bove Bettis, Denise Davis, Pamela Vincent, Caron Murray, Vera Miller, Laurian Rohoman. Back: David Stanley, Todd Frederick, Steven P. Shannon, Randy Earnest, Julie Strandt-Peay, Mark Spooner, Charles Stanley, Carolyn Bonaceto, Julie Lowe, Anne Dorte Blankholm. Not pictured: Gina Greenwood, Nancy Hill Beluk, Bobbi Lewis.

to ensure that the highest quality of educational standards are met.

Committee Reports

- Brief Reports were given by the following:

Finance Committee:

Laurian Rohoman, Treasurer

External Relations Committee:

Cindy Hipps for Julie Lowe, Chair

Program Committee:

Todd Frederick, Chair

Education Committee:

Carolyn Bonaceto, Chair

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Nominations/Awards Committee:

Cindy Hipps, Chair

Regionals Committee:

Denise Davis, Chair

Publications Committee:

Mark Spooner, Chair

Local Chapters Committee:

Cindy Hipps, Chair

Membership Committee:

Karen Bove-Bettis for Nancy Hill, Chair

Proffered Paper Awards

- President's Award –
Caron Murray "Intermittent Fat Saturation and k-Space Reordering in Breast MRI."
- Paper and Poster Awards were presented

Passing of the Gavel

Karen Bove-Bettis passed the gavel to Cindy Comeau. Karen Bove-Bettis was presented the Outgoing President's Plaque by Cindy Comeau.

New Business

Cindy Comeau, President

- A member inquired as to whether or not it would be possible for SMRT poster submissions to remain throughout the ISMRM meeting. Cindy Comeau will investigate this possibility with the ISMRM home office.
- A member inquired as to whether or not the number of Proffered Papers presented throughout the Annual Meeting could be increased. This opportunity will be discussed further by the 2007 Program Committee and 2007 Education Committee.
- A member inquired as to whether or not the SMRT could provide more support for Student members. Cindy Comeau discussed the Student Scope opportunity and also referred to plans to investigate the opportunity to offer a Student Stipend.

Motion made to adjourn the meeting at 1:10 PM made by Cindy Comeau
Seconded by Karen Bove-Bettis. ●

Primary Pathway Summit Meeting

Mark Spooner, B.P.S., RT(R)(MR)(CT), Co-Chair, Education Standards Ad-Hoc Committee



The SMRT Educational Standards Ad-Hoc Committee, Co-chaired by Luann Culbreth M.Ed., RT(R)(MR)(QM)CRA and Mark Spooner B.P.S., RT(R)(MR)(CT), invited representatives from several radiology associations to work on the development of curriculum guidelines for the newly enacted (1/06) ARRT MR Primary pathway. There were 18 attendees including MRI technologists from clinical, research, and education backgrounds.

Each of the invited guests gave presentations describing the role of their organizations. The attendees giving presentations were: Joanne Greathouse, Joint Review Committee in Radiologic Technology, (JRCERT), Ginny Hasselhuhn, American Registry of Radiologic Technologists, (ARRT), Kevin Powers, American Society for Radiologic Technologists (ASRT), and Luann Culbreth, Association of Educators in Radiologic Sciences (AERS/SMRT).

Following the presentations and introductions of all participants, the mission statement was developed: "Develop a nationally recognized entry-level MRI curriculum that includes didactic and clinical competencies."

Next, the participants split into two workgroups based upon their areas of expertise. One group worked on clinical training, while the other worked on the didactic portion. Several existing documents from the JRCERT, ARRT, ASRT, and SMRT were used in the development of the curriculum guidelines.



(Left to right): Seated: Denise Davis and Sonja K. Robb-Belville. Standing: Jacqueline Kralik, Karen Bove Bettis, Cindy Comeau, Bart Pierce, Carolyn Roth, Carolyn Bonaceto, Julia Lowe, Charles Stanley, Mark Spooner.

The revised documents were saved and distributed to each participant. Following the meeting, the attendees continued to work independently and consult by e-mail.

Another meeting was held at the AERS/ASRT Annual Meeting in Denver on 6/10/06. ●



(Left to right): Ginny Hasselhuhn (ARRT), Kevin Powers (ASRT), Joanne Greathouse (JRCERT).

SMRT 15th Annual Meeting Seattle, Washington, USA

*Oral and E-Poster
Presentations are now
available online to all SMRT
meeting registrants!*

<http://www.ismr.org/smr/06/>

Award Winning Paper Presenters at the SMRT 15th Annual Meeting



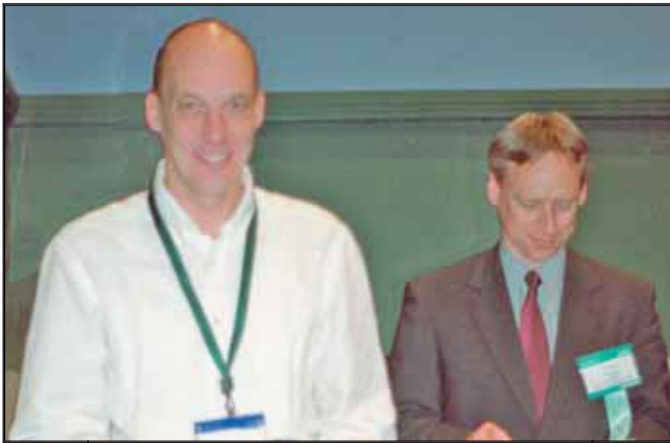
2006 President's Award

Caron Murray, M.R.T.(R), AC(R), M.R.T.(MR), BHA
Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario, Canada, "Intermittent Fat Saturation and K-Space Reordering in Breast MRI"



2006 1st Place Proffered Paper, Clinical Focus

Carol Beehler, R.T. (R)(MR)(CT)
GE Healthcare, Global Applied Science Lab, Menlo Park, California, USA, "Comparison of Parallel Imaging Methods for Breath-Hold Abdominal Imaging"



2006 2nd Place Proffered Paper, Clinical Focus

Filip DeRidder, R.N.
Department of Radiology, Vrije Universiteit, Brussels, Belgium, "Breast Tumor Characterization with Deconvolution Perfusion"



2006 2nd Place Proffered Paper, Research Focus

Hina Jaggi, M.S., R.T. (R)(MR)
New York University School of Medicine, New York, New York, USA, "Segmented Arterial Spin Labeling MRI- A Non-Bold Method"



2006 3rd Place Proffered Paper, Clinical Focus

Shari Stewart, B.Ed.
Royal Children's Hospital, Melbourne, Australia, "Preparing Children for Magnetic Resonance Imaging"

Not Pictured:

2006 1st Place Proffered Paper, Research Focus

Marcela Montequin, R.T.
GE Healthcare, Baltimore, Maryland, USA, "Multi-Slab vs. Single Slab" Whole Heart Imaging for Reduced Sensitivity to Respiratory Drift, Heart Rate Variability, and Off-Resonance and Dephasing Artifacts"

Not Pictured:

2006 3rd Place Proffered Paper, Research Focus

J.H. Hwang, R.T.
Department of Radiology Samsung Medical Center, Seoul, Korea, "Magnetic Resonance Spectroscopy to Detect Rectal Cancer Using a Phased-Array Coil at 3.0T"

Continued on page 10 ➡

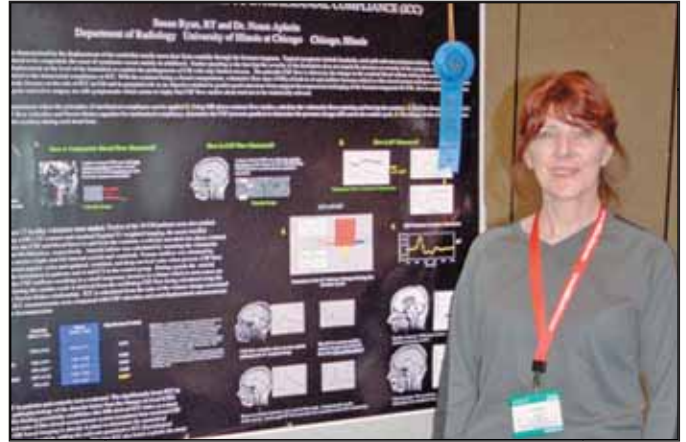
Award Winning Poster Presenters at the SMRT 15th Annual Meeting



2006 1st Place Poster, Clinical Focus

Cindy Comeau, B.S., R.T. (N)(MR)

Advanced Cardiovascular Imaging and Cardiovascular Research Foundation, New York, New York, USA, "Clinical Utility of Time Resolved Imaging in the Evaluation of Peripheral Vascular Malformations"



2006 1st Place Poster, Research Focus

Susan Ryan, R.T.

Department of Radiology, University of Illinois at Chicago, Chicago, Illinois, USA, "Chiari Malformations Pathophysiology Redefined Using MRI Based Flow Measurements As They Relate to Intracranial Compliance (ICC)"



2006 2nd Place Poster, Clinical Focus

Christine Mancini, R.T. (R)(MR)

National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, Maryland, USA, "Quantitative Infarct Sizing in the Presence of Microvascular Obstruction"



2006 2nd Place Poster, Research Focus

Julie Strandt-Peay, B.S.M., R.T. (R)(MR)

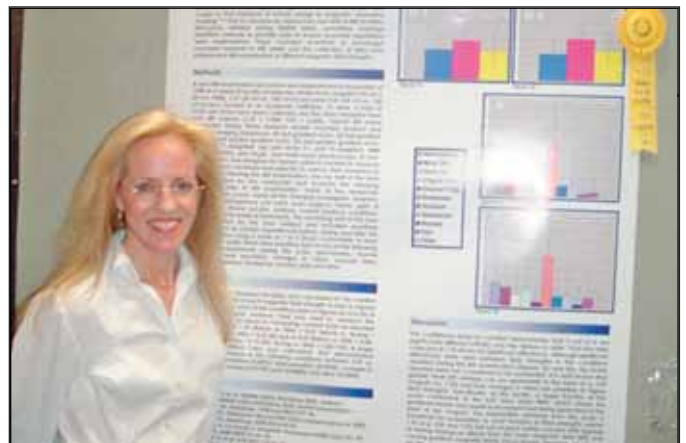
Department of Biophysics, Medical College of Wisconsin, Milwaukee, Wisconsin, USA, "Magnetic Resonance Safety Training-Implementing a Program in the Research Environment"



2006 3rd Place Poster, Clinical Focus

Michelle Garcia, M.R.

Departments of Imaging Physics and Diagnostic Radiology, The University of Texas, M.D. Anderson Cancer Center, Houston, Texas, USA, "Managing Technical Factors Affecting Spectral Quality of Endorectal Prostate MRS at 1.5T"



2006 3rd Place Poster, Research Focus

Anne Marie Sawyer, B.S., R.T. (R)(MR)

Richard M. Lucas Center for MRS/I at Stanford University School of Medicine, Stanford, California, USA, "Exit Forms at 1.5T and 3.0T: Human Experience in MR Examinations"

Presenting the SMRT 2006 Award Recipients

Cindy T. Hipps, B.H.S., R.T. (R)(MR)



The SMRT awards those members who show exceptional professionalism and excel in the MR field as well as promote the mission and vision of the SMRT in the highest manner. This year the award recipients were no exception and they have made remarkable contributions to the mission and vision of our organization and to the world of MR.

The Honorary Member Award is given in recognition of extraordinary achievement and an exceptional level of service and support for the Section and mission of the SMRT. This award is not given on an annual basis as it is awarded only when there is someone who is eligible to receive this high honor. Anne Sawyer has been presented this award because of her outstanding level of service to the SMRT in support of the mission of providing quality education for MR technologists worldwide.



2006 Honorary Member Award Recipient

Anne Marie Sawyer, B.S., R.T. (R)(MR)

Richard M. Lucas Center for MRS/I at Stanford University School of Medicine, Stanford, California, USA

Anne Marie Sawyer, B.S., R.T. (R)(MR) has been a member of the SMRT since 1991. After being elected to the SMRT Policy Board in 1994, she has served the SMRT as Regionals Chair, President-Elect, President, Past President, Chair of the Nominating Committee, Chair of the Awards Committee, and Executive Board Member. Ms. Sawyer was awarded the prestigious Crues-Kressel Award in 2001 for her outstanding contributions to MR technologist education. She has presented numerous peer-reviewed abstracts at the SMRT annual meetings, written many other journal articles and written chapters for publication. She organized and moderated the first SMRT/ISMRM Forum on "MR Screening and Safety" at the ISMRM annual meeting in 2002. From 2001 to 2004, Anne served as Treasurer of the Section. Anne was elevated to Fellow of the Section in 2005.

In 2004, Anne began a five year term as Editor of the SMRT home study program, *Educational Seminars* which is an accredited publication that is offered quarterly to SMRT

members. As an invited speaker to many Regional and Chapter meetings, Ms. Sawyer lectures on a wide variety of subjects and has been invited to speak all over the world. She continues to serve her area technologists by chairing Regional meetings in the Stanford area. Anne is the manager of the Richard M. Lucas Whole Body Research Laboratory at Stanford University School of Medicine in California. She is an extraordinary person who is never too busy to help a fellow technologist in need or find the time to make a friend smile. Ms. Sawyer is the epitome of an MR Professional and warrants this special award of Honorary Member of the Section.

The Distinguished Service Award is given to recognize outstanding contributions and extreme level of effort and service to the operation, effectiveness, and good reputation of the Section. This award is not given on an annual basis and is only given to individuals who display exceptional qualities.



2006 Distinguished Service Award Recipient

Julie Strandt-Peay, B.S.M., R.T. (R)(MR)

Department of Biophysics, Medical College of Wisconsin, Milwaukee, Wisconsin, USA

Julie Strandt-Peay, B.S.M., R.T. (R)(MR) was awarded the 2006 Distinguished Service Award of the SMRT. Julie has been a member of the SMRT since the inception, being one of the technologists instrumental for helping to establish some of the procedural and historical functions of the SMRT as we know it today. One of the most rewarding accomplishments for her was the addition of boxed lunches at the annual meeting and the SMRT Business meeting being moved to Saturday instead of Sunday where the attendance was poor. She also utilized ISMRM speakers as SMRT speakers to cut down on costs. These practices continue today!

Ms. Strandt-Peay was the first technologist recipient of the prestigious Crues-Kressel award for outstanding contributions to MR technologist education. Julie has presented numerous lectures, scientific posters and proffered papers at the first technologist meetings before the Section was started and continues to present her work that has won many awards in the research category. In continued support of the Section,

Julie was elected to the SMRT Policy Board in 1996 where she served as Program Chair and Executive Board Member. She was elected as President of the SMRT in 1998, the year she started a column in Advance for Radiologic Professionals entitled "Magnetic Flux" which continues today as part of this publication. Julie was elevated to Fellow of the SMRT in 2002 for her significant contributions to the SMRT.

Ms. Strandt-Peay has regularly served on the education, program and publication committees since 1991. She has reviewed abstracts and posters for several years.

In 1997 she took over as Editor of *Signals* Newsletter and is responsible for the many wonderful format changes that have occurred over the years to make it the premier and loved newsletter that is enjoyed by all SMRT members! "From her first submission and presentation in 1989 to the present, Julie has been involved and served in many capabilities within the SMRT for 16 years!" Julie is currently the MRI Program Manager in the Biophysics department of the Medical College of Wisconsin. Julie is a caring and thoughtful person who holds many accomplishments. She deserves this special distinguished award for her contributions to the SMRT.

SMRT Fellow of the Section Award recipients of 2006 are Maureen Ainslie and Bobbie Burrow. Both recipients have accomplished much on a professional level and each has made many contributions to the SMRT. Fellow status is awarded to those individuals in recognition of significant and substantial contributions to the mission of the SMRT.



2006 Fellow of the Section Award Recipient
Maureen Ainslie, M.S., R.T. (R)(MR)
Duke Image Analysis Lab, Durham, North Carolina, USA

Maureen Ainslie, M.S., R.T. (R)(MR) became an active member of the SMRT in 1991 after attending the meeting in San Francisco. She was awarded the very first SMRT President's Award at the annual meeting in New York in 1993. Maureen has chaired numerous regional meetings as well as presented numerous lectures across the globe. She

was elected to the SMRT Policy Board in 1997 and served as Chair of the Regional and Program Committees and served as Executive Member of the SMRT Executive Board. Ms. Ainslie was instrumental in establishing the first SMRT Strategic Plan during her tenure as President in 2004. Maureen continues her career in MR research and clinical trials at the Duke Image Analysis Lab in Durham, North Carolina. Her list of accomplishments goes on and on as do the many good deeds she bestows on her fellow technologists as she strives to promote MR technologists' education. Ms. Ainslie is an exceptional individual and professional technologist that gives much to her MR community and to her friends worldwide. She is very deserving of this prestigious award!



2006 Fellow of the Section Award Recipient
Bobbie Burrow, R.T. (R)(CT)(MR)
Emory Hospital, Atlanta, Georgia, USA

Bobbie Burrow, R.T. (R)(CT)(MR) has been a member of the SMRT since its inception. She was elected to the SMRT Policy Board for two terms and chaired the By-Laws and Local Chapters Committees. Bobbie has served on various committees within the SMRT as well as presented numerous proffered papers and poster presentations at the annual meetings. Ms. Burrow was awarded the President's Award for her abstract presented at the annual meeting in Dallas, Texas in 1994. Bobbie is an invited speaker to many national symposiums as well as SMRT Chapter and Regional meetings. Along with her other Georgia colleagues, Bobbie was instrumental in establishing the very first SMRT Chapter of Atlanta which continues to be successful for promoting technologist education through chapter and regional meetings. Bobbie is the MRI supervisor at Emory Hospital in Atlanta where she manages daily operations of two MR departments. Bobbie is a spokesperson for MR technologist education and is truly one of a kind! She knows no strangers and is loved by everyone she meets. She has established personal and professional relationships across the globe through her interaction with other colleagues met through the SMRT. Bobbie is well deserving of this award as well. ●

2006 ISMRM/SMRT Joint Forum Presentation

Bobbi K. Lewis, B.A. ARMRT, Co-chair, 2006 SMRT and ISMRM Joint Forum



Forum co-chair,
Bobbi Lewis.

The 2006 ISMRM/SMRT Joint Forum was held Monday, 8 May in Seattle, Washington, USA. The forum, "Imaging of the Mother, Fetus and Newborn," was attended by 222 people, approximately a quarter to a third of whom were SMRT members. Forum Co-Chair and Vice President of the ISMRM, Dr. Jeffrey Duerk, gave a welcoming talk to attendees describing the mission of the forum as a way for the membership of the ISMRM, which is largely composed of Ph.D.s working

in the technical field of MR and physicians working on the clinical side, to benefit from the unique expertise and experiences of SMRT members who deal with MR from a perspective of direct patient contact, at the magnet. The intent of the ISMRM/SMRT Forum is to bring the lessons and knowledge of MR from this perspective to the broader MR audience. It is a direct reflection of the recognition of the ISMRM of the importance of MR technologist and its affiliated Section for Magnetic Resonance Technologists.

This year's topic was more clinical in nature than topics in previous years, which have been: safety, pulse sequence development, MR artifacts and pitfalls and equipment purchase. The goal this year was to present an overview of the technical and clinical aspects of performing MRI on the expectant mother, fetus and newborn child. Also addressed were the clinical applications where MRI can replace other higher-risk modalities and what role MRI plays in assessing clinical status. Presentations focused on the "how-to" of optimizing the technical aspects of the exam as well as reviewing pertinent clinical applications. The talks were all interesting, informative and all were illustrated by high-quality MRI.



Forum speaker,
Norman Farrar.

Norman Farrar, R.T.(R), from Beth Israel Deaconess Medical Center, Boston, Massachusetts, U.S.A., led off the forum with "Scanning the Pregnant Mother: A Technologist Perspective and Overview," a practical overview describing the "how-to's" of imaging a pregnant patient and fetus. Some of the challenges he outlined were how to make the patient comfortable in the scanner and image the fetus in constant motion using standard real-time software. He also acquainted us with patient preparation, coil set-up, pulse sequences and artifacts, as well as other considerations for scanning the pregnant patient, besides fetal, such as appendicitis, sinus thrombosis involving MRV head and placenta accreta.

Deborah Levine, M.D., also from Beth Israel Deaconess Medical Center, presented a comprehensive overview of the clinical aspects of "Fetal MRI." She emphasized that sonography is the screening method of choice for pelvic and fetal MR but there are circumstances in which an alternative imaging

modality is needed and pelvic and fetal MR shows promise as a correlative modality particularly since the development of half-Fourier single shot turbo spin echo, parallel imaging, and real-time imaging. MR of the CNS, for which sonographic diagnosis is limited, is becoming a critical tool for evaluating the fetus. Dr. Levine went on to detail the usefulness of MR in fetal thoracic abnormalities, fetal surgeries, pitfalls of fetal imaging, counseling of patients, and future directions.



Forum speaker,
Debra Levine.



Forum co-chair,
Jeffrey Duerk.



Forum speaker,
Mary Rutherford.

"Imaging the Neonatal Brain: Practical Aspects, Pathologies and Protocols," was presented by Mary A. Rutherford, M.D. FRCR. FRCPC, Hammersmith Hospital, London, U.K. "Unfortunately, MR imaging of the sick neonate is not easy and experience is limited to relatively few centers, both in the practicalities of performing a successful examination and in the interpretation of the results." With that information in mind, Dr. Rutherford discussed sedation techniques, positioning and comfort techniques, hardware and software adaptations for the neonate. MR imaging should always be used as an adjunct to cranial ultrasound. When MR imaging has identified "new" lesions it is good practice to re-perform a cranial ultrasound to see whether it is identifiable in retrospect.

Our final speaker, Pek-Lan Khong, M.D., from the Department of Diagnostic Radiology, Queen Mary Hospital, The University of Hong Kong, presented "Imaging the Pediatric Patient: Specific Pathologies." "The application of MR imaging in the pediatric patient has increased dramatically in the recent years and, undoubtedly, its role will continue to expand." Dr. Khong addressed specific aspects of imaging related to the pediatric patient such as sedation – which included alternative methods such as using a simulator, an audio-visual system and behavioral techniques, imaging protocols and emerging applications of advanced MR imaging techniques. Dr. Khong addressed the usefulness of MR in imaging the oncologic pediatric patient. Whole-body MRI for bone metastasis, dynamic contrast enhanced MRI for characterization of tumor microvasculature and MRS for characterization of brain tumors and DTI for detection and monitoring of treatment-induced neurotoxicity.



Forum speaker,
Pek-Lan Khong.

For more information and references on these talks, the syllabi are available to attendees of either the SMRT or of the ISMRM meeting at <http://cds.ismr.org/syllabus-2006mf/>.

We wish to thank everyone from the ISMRM and SMRT who were involved in the forum for their time and dedication to the success of this endeavor. ●

Chapter Chat

Pamela Vincent, M.P.A., R.T.(R)(M)(CT)(MR)

The Section for Magnetic Resonance Technologists would like to thank the following donors for their generous support of the SMRT Fifteenth Annual Meeting:

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The Section for Magnetic Resonance Technologists would like to thank In Vivo for their continued generous support of the SMRT Educational Seminars



Are you looking for a way to become more involved in the SMRT, but want something close to home? Could you use a few more CEU's? Consider joining a local chapter of the SMRT.

Local chapters are an integral part of the SMRT. But, just what is a chapter, and how do they operate? A chapter is a group of technologists in a specific area or region who meet on a regular basis for networking and education. As an ISMRM/SMRT affiliate, each chapter agrees to abide by the bylaws, policies and procedures of the SMRT, thus maintaining the high standards and quality of education we strive to provide. Chapter meetings can be monthly, quarterly, or annually. A meeting can be 1-2 hours, 1/2 day, or a full-day seminar. Invited speakers, view a video, plan a formal seminar; it's at your discretion. The important thing is that there is an educational component to meet your needs, and earn those continuing education units.

Currently, we have chapters in the U. S. at: Atlanta, Georgia, Central Illinois, Central Virginia, Greater Kansas, Northeast Ohio, Rocky Mountain (Colorado), South Carolina, and a chapter in Australia. New chapters are forming in many other areas, including California and New England. Local chapters are not limited to our U.S. members. We encourage those of you in Australia, Europe and Asia, the Middle East, Canada, wherever you live, to get involved. Not sure if there's a chapter near you? Go to our Web site and click on local chapters. All the contact information is there to get you plugged in. No chapter close by? Why not consider starting one? All you need is the desire and a small core group of technologists to get started. It's easy and the SMRT is here to help you through the process. Our local chapters packet, available on the Web site, is a great place to start. For those outside the U.S., our global relations team is available to help as well.

Education is vital in our everyday practice. Whether you're just starting out in MRI and looking for the basics, or an experienced tech looking to keep up with the latest, local chapters provide an opportunity to meet your needs.

Join a local chapter today. You'll be glad you did!

If you have any questions regarding local chapters, contact Pam Vincent, Local Chapters Chair at vincentp@nhlbi.nih.gov, or Jennifer Olson at the SMRT office in Berkeley, California, U.S.A.

In future issues, this column will detail more aspects of local chapters, profile our existing chapters, and keep you up to date on activities in your area. ●

Call for Nominations and Awards '06-'07

Karen Bove Bettis, RT(R)(MR), Chair, Nominations and Awards Committees



Each year, the Past President honors and renews his or her commitment to the SMRT by chairing the Awards and Nominations Committees. You, as the membership, nominate the individuals you think will make the best Policy Board members thereby enriching and shaping the Section's

growth. Elected Policy Board members serve a three-year term beginning May 2007 at the annual meeting, and are responsible for various committee activities within the SMRT. There are 11 standing committees: Awards, By-Laws, Education, External Relations, Finance, Local Chapters, Membership, Nominations, Program, Publications, and Regionals. Ad Hoc committees are formed as needed. Each year brings new challenges that need to be met by the dedicated individuals serving on the

Continued on page 15 ➔

Nominations and Awards continued

Policy Board.

The Nominations Committee will work to compile a list of nominees, verify that the nominees are SMRT members in good standing, verify that the applicants actually want to run for office, collect biographies of the aspirants and then present a slate of candidates to the membership for vote. Ballots containing the nominations presented by the Nominating Committee and/or nominations made by direct member petition shall be mailed to all voting members no later than 15 October 2006 by the Secretary of the SMRT. Direct nominations by members require a petition of thirty (30) voting members in good standing of the SMRT. A member petition must include the written agreement of the proposed candidate for his or her nomination and a brief biography.

The SMRT membership also nominates candidates for the office of President-Elect. The President-Elect serves a three-year term as President-Elect, President and Past President, representing a significant commitment to the SMRT. Qualified individuals include SMRT members in good standing who have the ability to lead the organization and must have served as a member on the Policy Board.

Selecting the Crues-Kressel Award recipient is yet another responsibility of the SMRT membership. Members submit the names of qualified individuals to the Awards Committee. The Crues-Kressel Award is named in honor of Drs. John V. Crues III and Herbert Y. Kressel for their strong support in forming the SMRT. Both men actively continue their dedication and support of the SMRT. The award is presented to an individual for his or her outstanding contribution to the education of MR technologists.

The Awards Committee is responsible for soliciting nominations for other awards including the Distinguished Service Award, honoring outstanding contributions and

level of effort and service to the operation, effectiveness, and good reputation of the Section; Fellow of the Section Award, honoring members who have made a significant and substantial contribution; and the Honorary Membership Award. Honorary membership is awarded in recognition of major achievements in the field of magnetic resonance. The Awards committee compiles the list of nominations and forwards this to the SMRT Executive Committee for vote. Complete details, along with the names of former recipients can be found on the SMRT Web site <http://www.ismrm.org/smrt/awardsops.htm>.

All nominations should be submitted directly to Jennifer Olson (Jennifer@ismrm.org) in the ISMRM/SMRT Central Office or to me, Karen Bove Bettis (kebb@nih.gov) by the close of business on 1 September 2006. This allows time for a list of candidates to be compiled, ballots to be printed and then mailed to the membership no later than 15 October 2006. The candidate(s) for President-Elect and each open at-large Policy Board position who receive(s) the highest number of votes shall be elected. Ballots will be opened, certified and counted no earlier than the first business day following 7 December 2006. If there is a tie, it will be resolved by a vote at the first meeting of the Policy Board after the ballot, with the President having no vote. In the event of a tie in the Policy Board voting, the President shall have a tie-breaking vote.

Make a commitment... nominate yourself or another individual to the Policy Board, the Crues-Kressel Award or for the office of President-Elect. Remember to nominate those individuals you think will best reflect the membership and the mission of the SMRT.

Ballots must be postmarked by 1 December 2006 and received in the ISMRM/SMRT Business office by 7 December 2006. Don't forget to vote! ●

External Relations Committee Report

Julia Lowe, B.S., R.T. (R)(MR)



The external relations committee is typically very busy and this past year has been no exception. I would like to share with you some of the activities that have been keeping us busy.

The Associated Sciences Consortium is a group of radiology allied health workers, educators and administrators that was formed to organize educational refresher courses and symposia specifically for the Radiological Society of North America. The SMRT has been a member of the Consortium for many years. Currently, Julie Lowe, External Liaison for the SMRT, serves on two committees for the Consortium: the RSNA planning committee and the RSNA Recognized Continuing Education Evaluation Mechanism (RCEEM) committee. As a result of the planning meeting for RSNA 2007, the SMRT and the Society of Nuclear Medicine Technologist Section (SNMT) will sponsor a refresher

course on fusion imaging. A schedule of RSNA refresher courses and the symposium will be published in later issues of *Signals*.

During RSNA 2006, we met with the Director of Education of the Canadian Association of Medical Radiation Technologists (CAMRT). We discussed our common goals concerning educational standards related to our respective MR registry exams. You can visit the CAMRT Web site to learn more via the SMRT Web site through the "Links of Interest."

The SMRT continues to be involved with the Health Professions Network (HPN). This group meets twice a year to discuss current allied health issues. This is a great way to network with representatives from other allied health fields. Cindy Hipps represented the SMRT at the last HPN meeting in Atlanta, March 2006. An SMRT representative from the External Relations Committee will be attending the next HPN meeting, which will be in the fall of 2006.

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The SMRT also continues to be active in the support for the Consumer Assurance of Radiologic Excellence (CARE) bill. SMRT representatives met in Washington, D.C. this past February, with the Alliance for Quality Medical Imaging and Radiation Therapy. There, the Alliance attendees discussed the standards for accreditation of educational programs in the respective fields of allied health represented by the Alliance. The SMRT Executive Committee and Policy Board have written these MRI educational standards with the help of Alliance members and continue to revise and improve the standards at each Alliance meeting. These educational standards will be available for the Department of Health and Human Services to adopt once the CARE bill is passed ensuring quality educational guidelines and certification requirements on a federal level. Currently, the bill is supported by 118 congressmen and five senators. The Society of Diagnostic Medical Sonography (SDMS) has asked to join the Alliance in supporting the RadCARE bill that has been introduced to the Senate.

At the 2006 SMRT annual meeting, the "MRI Education and Certification Forum, Technologists/Radiographers From Around the World" was presented to attendees. We received some insight on the opportunities in other countries for MRI education. We learned that this varies a great deal from country to country. Presentations were given by representatives from the U.S.A., Canada, Australia, United Kingdom and Europe.

Wendy Strugnell, Global Relations Chair, has recently applied to the New Zealand Institute of Medical Radiation Technologists (NZIMRT) for CPD credit approval for the Home Study program. Also, the Global Relations Committee has given their commitment to contact MRI technologists from other countries in an effort to build a database of international contacts. If you are from a country other than the U.S.A. or Canada and would like to be considered as a contact person from your country, please contact Wendy Strugnell at wendystrugnell@internode.on.net or Anne Dorte Blankholm at aid@sk.sks.aaa.dk. ●

Update on SMRT Regional Seminars

Caron Murray, M.R.T.(R), AC(R), M.R.T.(MR), BHA, Chair, SMRT Regional Seminars



The 15th SMRT annual meeting may have come and gone, but the meeting should and must be remembered as accurately reflecting the SMRT's commitment to promoting education and communicating information within the field of magnetic resonance. In addition to the annual meeting, another example of the way in which the SMRT promotes education and knowledge is through the regional seminars. These seminars are hosted by technologists who deserve an enormous amount of thanks and gratitude for the service they provide to all MR technologists.

In the fiscal year 2005-2006, regional seminars were held in these U.S.A. cities:

- New York, New York: Oct. 2005
- Boston, Massachusetts: Oct. 2005
- Stanford, California: Nov. 2005

- Charlottesville, Virginia: Mar. 2006
- Pittsburgh, Pennsylvania: Sept. 2006

For fiscal year 2006-2007, we have seminars proposed in the following areas in North America:

- South Carolina Chapter: Oct. 2006
- Charlottesville, Virginia: Nov. 2006
- Toronto, Ontario, Canada: Nov. 2006
- Springfield, Massachusetts: Mar. 2007
- New York, New York: Spring 2007

And,

- Brisbane, Queensland, Australia: Nov. 2006

Several other regional seminars are in the works and I encourage all members not only to attend one of these meetings but to consider hosting one.

The SMRT office in Berkeley, California will help with registration and logistics and the SMRT Policy Board will help to locate speakers for you. More information is available on the SMRT Web site. ●

Announcing the 16th Annual Meeting

Vera Kimbrell Miller, B.S., RT (R)(MR), Chair, 2007 Program Committee



The 2006 meeting was a great success; we will try to keep the momentum going into 2007. The Program Committee is diligently working on plans for the 16th annual meeting. We are hoping for an educational forum that will appeal to technologists/radiographers from all countries. Toward that goal our theme for the meeting is "MR Education Without Borders."

The date for the the popular Poster Exhibit and Walking Tour Reception is scheduled for the evening of Saturday, 19 May 2007. The hard work that technologists and radiographers put into the proffered papers and abstracts is truly amazing.

You will want to see the posters and spend time conversing with colleagues all over the world. Please consider submitting a poster or abstract, and participating in sharing knowledge and information from your site. Deadline

dates will be announced soon, and information is always available on the Web site at <http://www.ismrm.org/smrt>.

The annual business meeting will take place over lunch on Saturday. This is an important meeting where the membership is updated on the activities that the Section has been working on the previous year, and for the upcoming year. New officers are also recognized and installed at this meeting. As an SMRT member, you do not want to miss this important meeting.

The didactic program will be held on Saturday and Sunday. As in previous years, we will offer an educational mix of topics and speakers. The Program Committee will be looking over the evaluations from the 2006 meeting and strive to create a program that will meet or exceed the expectations of the membership. As you can see, the 2007 meeting will be packed with important meetings, informative educational sessions, and, best of all, networking opportunities with colleagues from around the globe. ●

MRI Safety Study Group (MRISSG)

Denise Davis, B.S., RT(R)(MR)



The ISMRM Workshop on MR Safety, organized by Daniel J. Schaefer, Ph.D. and Frank G. Shellock, Ph.D., held in McLean, Virginia in November 2005 generated so much enthusiasm, that a suggestion was made to form a study group. The petition to the ISMRM Board of Trustees was approved in early 2006

and the first group meeting took place at the annual meeting in Seattle, May 2006. Following welcoming remarks by the study group Chair, Alayar Kangarlu, Ph.D., several presentations followed:

- MR Safety Issues: Considerations at High Field, Alayar Kangarlu, Ph.D.
- RF Power Deposition, General Considerations and Implications of Implants/Devices, Tamer Ibrahim, Ph.D.
- Gradient Safety at High Field, John Nyenhuis, Ph.D.

- MRI Safety for Implants and Devices: Update 2006, Frank Shellock, Ph.D.

A lively Round Table discussion followed the presentations and several technologists commented that our participation is vital since we are the gatekeepers. This plea was acknowledged by those present. Other issues brought up for discussion included:

- The ongoing movement in the European community to limit patient and worker exposure to the static and gradient magnetic fields.
- The need for further study on the long term effect of exposure to the magnetic field.

If you are interested in supporting the mission of this exciting new study group, MRI Safety Study Group (MRISSG), please visit <http://www.ismrm.org> for more details. ●

MRI SAFETY

MRI: New Terminology for Implants and Devices

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Prior to allowing patients and other individuals into the MRI environment, careful screening is performed to determine the presence of implants or devices that may pose hazards or risks (1). Once an implant or device is identified, the labeling for a given object is examined and a decision is made with regard to whether or not it is acceptable for the patient to undergo an MRI procedure or for an individual to enter the MRI environment.

“Old” Terminology

The terminology applied to implants and devices relative to the MRI environment has evolved over the years. In 1997, the Food and Drug Administration, Center for Devices and Radiological Health, proposed definitions for the terms “MR Safe” and “MR Compatible” (2). These terms are defined as follows:

MR Safe - the device, when used in the MRI environment, has been demonstrated to present no additional risk to the patient or other

individual, but may affect the quality of the diagnostic information. The MRI conditions in which the device was tested should be specified in conjunction with the term MR safe since a device which is safe under one set of conditions may not be found to be so under more extreme MRI conditions.

MR Compatible - a device shall be considered “MR compatible” if it is MR safe and the device, when used in the MRI environment, has been demonstrated to neither significantly affect the quality of the diagnostic information nor have its operations affected by the MR system. The MRI conditions in which the device was tested should be specified in conjunction with the term MR safe since a device which is safe under one set of conditions may not be found to be so under more extreme MRI conditions.

Using this terminology, MR safety testing of an implant or object involved assessments of magnetic field interactions, heating, and, in some

cases, induced electrical currents while MR compatibility testing required all of these as well as characterization of artifacts. In addition, it may have been necessary to evaluate the impact of various MRI conditions on the functional or operational aspects of an implant or device.

“New” Terminology

Over the years, manufacturers generally used the terms MR safe and MR compatible to label medical devices. However, in time it became apparent that these terms were confusing and were often used interchangeably or incorrectly (3). Therefore, in an effort to clarify the terminology and, more importantly, because the misuse of these terms could result in serious accidents for patients and other individuals, the MR task group of the American Society for Testing and Materials (ASTM) International developed a new set of terms with associated icons (4). The new terms, *MR Safe*, *MR Conditional*, and *MR Unsafe* are defined by the ASTM document (4), as follows.

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MRI Safety continued

MR Safe - an item that poses no known hazards in all MRI environments. Using the new terminology, “MR safe” items include non-conducting, non-metallic, non-magnetic items such as a plastic Petri dish. An item may be determined to be *MR Safe* by providing a scientifically based rationale rather than test data.

MR Conditional - an item that has been demonstrated to pose no known hazards in a specified MRI environment with specified conditions of use. Field conditions that define the MRI environment include static magnetic field strength, spatial gradient, dB/dt (time varying magnetic fields), radio frequency (RF) fields, and specific absorption rate (SAR). Additional conditions, including specific configurations of the item (e.g., the routing of leads used for a neurostimulation system), may be required.

For MR Conditional items, the item labeling includes results of testing sufficient to characterize the behavior of the item in the MRI environment. In particular, testing for items that may be placed in the MRI environment should address magnetically induced displacement force and torque, and RF heating. Other possible safety issues include but are not limited to, thermal injury, induced currents/voltages, electromagnetic compatibility, neurostimulation, acoustic noise, interaction among devices, and the safe functioning of the item and the safe operation of the MR system. Any parameter that affects the safety of the item should be listed and any condition that is known to produce an unsafe condition must be described.

MR Unsafe - an item that is known to pose hazards in all MRI environments.

MR Unsafe items include magnetic items such as a pair of ferromagnetic scissors.

In addition to the new terms, the ASTM document introduced corresponding icons, consistent with international standards for colors and shapes of safety signs. The icons are intended to be used on items that may be brought into or near the MRI

environment as well as in product labeling. The icons may be reproduced in color or in black and white, however the use of color is encouraged because of the added visibility.

The “MR safe” icon consists of the letters ‘MR’ in green in a white square with a green border, or the letters ‘MR’ in white within a green square. The “MR conditional” icon consists of the letters ‘MR’ in black inside a yellow triangle with a black border. The “MR unsafe” icon consists of the letters ‘MR’ in black on a white field inside a red circle with a diagonal red band. For MR Conditional items, the item labeling must include results of testing sufficient to characterize the behavior of the item in the MRI environment.

Notably, the new terminology is not being applied retrospectively to implants and devices that have already received FDA approved labeling using the terms “MR safe” or “MR compatible”.

Hopefully, the utilization of this new terminology will serve to elucidate matters related to biomedical implants and devices and help to ensure the safe use of MRI technology.

References

- (1) Shellock FG. Reference Manual for Magnetic Resonance Safety, Implants, and Devices: Update 2006. Biomedical Research Publishing Group, Los Angeles, CA, 2006.
- (2) United States Food and Drug Administration, Center for Devices and Radiological Health, A Primer on Medical Device Interactions with Magnetic Resonance Imaging Systems. <http://www.fda.gov/cdrh/ode/primerf6.html>, 1997.
- (3) Shellock FG, Crues JV. Commentary: MR safety and the American College of Radiology White Paper. American Journal of Roentgenology 2002;178:1349-1352.
- (4) American Society for Testing and Materials (ASTM) International, Designation: F2503-05. Standard Practice for Marking Medical Devices and Other Items for Safety in the Magnetic Resonance Environment. ASTM International, West Conshohocken, PA, 2005. ●

Editor's note: The symbols illustrated here were presented at the ISMRM Safety Workshop co-chaired by Dr. Shellock in November 2005.

New MR Safety Terminology

MR Safe

A square



MR Conditional

An equilateral triangle with radiused outer corners



MR Unsafe

A diagonal bar



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AS31 8:30 AM – 10:00 AM

Compliance Continuum for Radiologists

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Claudia Murray
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Arlene M. Adler, MEd, RT(R), Moderator
Salvatore Martino, MEd, EdD
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Patricia Kroken, FACMPE, CRA
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Wednesday, November 29

AS41 8:30 AM – 10:00 AM

Joint Commission on Accreditation of Healthcare Organizations National Patient Safety Goals

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AS42 10:30 am – 12:00 pm

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