As we start a new year, I hope everyone is looking forward to participating in upcoming 2007 SMRT educational activities. At RSNA a very successful SMRT Policy Board meeting was held, as the Board was able to follow up on issues pending in 2006. The SMRT is very much engaged in expanding educational benefits to our members as this was a major theme of the meeting. People have asked me the question, “What is your goal as SMRT President?” To be honest, at first this question was a little difficult to answer, but now I feel my goal has been to try and set a path of expanding continuing educational opportunities for the members of the SMRT. Even though my presidency ends at the Berlin meeting, I will still continue with this goal. The SMRT Policy Board is looking forward to a very successful annual meeting in Berlin this year. We are hoping that many of our members are able to attend this event. Also during 2007 there are members planning SMRT Regional’s throughout the country, so please check the SMRT Web site frequently for updates. The SMRT is very fortunate to have members who volunteer their time in putting together educational activities for everyone’s benefit. Your attendance at SMRT events is very important as this is validation by you, the members, that the SMRT brings a wealth of value to our profession!

One function of the SMRT President is the preparation of the report of SMRT activities throughout the year. This report is reviewed by the Affiliated Section Committee of the ISMRM at RSNA. I want to share a few of the highlights of that report:

- The 2006 SMRT Annual Meeting in Seattle, Washington, USA was a financial success;
- Our membership continues to grow: as of 2006 year’s end, there have been 400 new additional members joining the SMRT;
- The SMRT has begun allowing ISMRM members to subscribe to the Educational Seminars Home Study program with close to 100 subscriptions to date. This is a true testament of the educational quality of our home studies!
- A record SMRT Regional Seminar attendance level of 200 attendees was set at the Brisbane, Queensland, Australia, meeting held 18-19 November 2006. Thanks to Wendy Strugnell who has re-established the SMRT Australia/New Zealand Chapter. This includes 115 new 2007 members to the SMRT!
Message from the President continued

- Presently the SMRT has the following active Local Chapters in the United States: Atlanta, Georgia; Central Illinois; Greater Kansas City (Missouri); Central Virginia; Northeast Ohio; Denver, Colorado-Rocky Mountain Chapter; Greenville, South Carolina; New England and the Australia/New Zealand Chapter;
- Planned for the Berlin SMRT meeting is a networking meeting to help facilitate global relations and participation within the SMRT. Julie Lowe, our External Relations Chair, and Wendy Strugnell, our Global Relations Chair, along with Anne Dorte Blankholm and Pam Vincent, our current Chapter Chair, will be facilitating this function;
- Our RCEEM is currently accepting outside continuing educational applications from other organizations;
- The ad-hoc Educational Standards committee is concluding the work on the curriculum guidelines for the primary pathway for MRI technologists.

I hope that all of you as SMRT members are very proud of these accomplishments! I know that incoming 2007-2008 SMRT President Carolyn Bonaceto will keep everything on track for this coming year. Before I close I would like to sincerely thank all of the SMRT Policy Board members and the Executive Board members for their professionalism and their input during my presidency. I’m also looking forward to welcoming our newly elected SMRT Policy Members as a policy board orientation teleconference will be held prior to the Berlin meeting. I would also like to thank everyone at the ISMRM office for all of their guidance as it has certainly been a pleasure serving as the 2006-2007 SMRT President.

Carolyn Pickett

Carolyn Pickett passed away on 22 December 2006, at the age of 52. Condolences are expressed to her family and friends and prayers for a peaceful repose.

Ms. Pickett was the third President of the SMRT, serving the 1994 to 1995 term. She was involved with the Section from the beginning and was active on various committees. She retired after a disabling injury and began writing a journal about her experience of being an active professional in the healthcare field and having to cope with the changes that a disabling injury can cause. She was very positive about her changes and wanted to share with others that there is more to life than work! Her warm wishes were extended to all her former colleagues of the SMRT during the Past-President’s recognition reception in 2005.

Daughter of Richard I. and Mary (Feeley) Pickett, Ms. Pickett last resided in Rockland, Massachusetts. She is survived by many family members and friends.

The published obituary can be found at: http://www.legacy.com/bostonglobe/DeathNotices.asp?Page=Lifestory&PersonId=20441269

In Memoriam

Carolyn M. Pickett

Editor’s Letter

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

Greetings to all,

The first quarter issue of the New Year brings us news of many activities throughout the SMRT. President, Cindy Comeau brings us up to date with highlights from this past quarter including the Affiliated Section report presented at RSNA. This includes the successful Annual Meeting, the increase in membership, the request of nearly 100 ISMRM members to subscribe to the Education Symposium series and the record breaking regional seminar attendance in Australia. She also lists the efforts extended by the Local Chapters, Annual Meeting plans, the SMRT RCEEM, and the ad hoc Educational Standards Committee. She expresses her appreciation and bids us farewell as of the Annual Meeting in Berlin this May.

We have lost another one of our own as we mourn the death of SMRT Past-President Carolyn Pickett. Personally, I knew Carolyn, her kindness and her willingness to serve. We convey our sympathy to her family and friends.

The latest offering of the Educational Symposia Home Study is described by Anne Marie Sawyer. MR Imaging of Perfusion is the topic presented by Michael Moseley, Ph.D. Vera Kimbrell Miller, Program Committee Chair, presents the agenda for the SMRT Annual Meeting in Berlin. Note the addition of the international forum for discussion with your peers from all corners of the MR community. Charles Stanley, Joint Forum Chair, invites us to attend the session this year which will address Interventional MR. SMRT attendees are en-
Editor’s Letter continued

couraged to participate in this cooperative effort with our parent organization the ISMRM.

Election results are announced by Nominations Committee Chair, Karen Bove Bettis. We congratulate the President-Elect and the new Policy Board members. This year also marked the time to elect officers to serve as Secretary, Treasurer, and External Liaison, which will be co-chaired.

Regional and Local SMRT Chapters have been quite industrious this past quarter. We begin with Caron Murray, Regional Committee Chair, persuading us to consider hosting a SMRT Regional Seminar and announcing those already planned. Janice Fairhurst, recently elected Policy Board member informs us about the newly re-established New England Chapter. Chapter Chat is presented by Local Chapter Committee Chair, Pam Vincent with lots of information on how to start a Local Chapter in your area. We move across the globe to Australia to read about the successful SMRT Regional as reported by Global Relations Chair and new President-Elect, Wendy Strugnell.

Update on SMRT Educational Seminars
Anne Marie Sawyer, B.S., R.T. (R)/(MR), Editor

We are pleased to present the SMRT Educational Seminars, Volume 10, Number 1: “MR Imaging of Perfusion.” This is the thirty-fifth home study developed by the SMRT, exclusively for the SMRT members.

This home study issue focuses on the use of MR imaging to evaluate perfusion and more advanced developments in brain imaging, diffusion tensor imaging (DTI). Michael E. Moseley, Ph.D., succinctly describes the fundamental importance of MRI of perfusion: “Despite the value of diffusion-weighted imaging (DWI) to the routine neurological exam for its sensitivity and specificity to tissue abnormalities, the observation that DWI seemed to sometimes undersize the extent of early ischemia led to the incorporation of perfusion-weighted imaging (PWI) to the stroke exam. The ability to map a flow (PWI) versus metabolism (DWI) difference provides the best look yet at where and how early ischemic events will affect the stroke-brain.” Describing the value of DTI, Mike continues by saying: “Whereas DWI typically measures the apparent diffusion coefficient (ADC), DTI provides an exciting new (multi-dimensional) look at white matter integrity in the form of various measured ‘anisotropy’ maps. More excitingly perhaps, DTI on its own has become a useful tool in measures of regional cognitive and motor performance by relating white matter local integrity with external measures of reading or motor skills, for example. In addition, an entirely new field of fiber tract visualization called ‘tractography’ provides true three-dimensional (3D) modeling of white matter connectivity.’”

We would like to express our appreciation to Anne Dorte Blankholm (Skejby, Denmark), Randy Earnest (Sanford, Maine, USA), Ben Kennedy (Herston, Queensland, Australia), and Mark Spooner (New Hartford, New York, USA) for writing the questions that compose the quiz. Thank you to Nancy Fischbein, M.D. at Stanford University School of Medicine, Department of Radiology, in Stanford, California, USA, for participating as our expert reviewer.

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.

Finally, we would like to thank Tom Schubert, John Wilkie and all of the fabulous people at Invivo/MRI Devices Corporation 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.
The big news from the program committee is the addition of an “international forum.” This will be held during the lunch break on Sunday at 12:20. Wendy Strugnell, Pam Vincent, Julia Lowe, and Anne Sawyer were instrumental in bringing this about and will be speaking and moderating the event. We want to focus our attention on technologists and radiographers worldwide and need the input of our peers in order to find new and better ways to accomplish this. So grab your lunch and join us with all your exciting ideas!

The program itself has undergone a few minor changes so be sure to take a look at the agenda. We have a varied and interesting mix of speakers and topics which should appeal to all experience levels. Saturday will begin with a MR Safety forum. Safety is ever our most important duty and new issues are constantly arising. Also lectures on Molecular Imaging, Female Pelvis, and MR Fusion along with Musculoskeletal Imaging, a Nursing Forum, and Parallel Imaging will be presented.

The annual business meeting is as always, held during lunch Saturday. We will introduce new policy board members and discuss old and new business of the Section. This session is open to all attendees and we encourage participation.

The poster tour and reception will directly follow the lectures on Saturday. You are encouraged to attend and meet with your peers while taking in the posters. This is an important part of our annual meeting and gives technologists and radiographers a venue to show their important contributions to our field. Whether you have entered a poster of your work or only wish to view those on display, you are sure to enjoy the exhibit. After the poster session there will be a reception providing opportunities to relax and mingle with our fellow technologists. The final details are being worked out but this is always one of the most popular portions of our meeting!

Sunday will begin with a MR Physics talk to remind some of us and enlighten others to the principles we all work and live by. Also on the agenda is a Cardiac Forum, Liver Iron, Protocol Optimization, Functional, Artifacts, Perfusion and Contrast and Neuro. Something for everyone!!!

I want to thank our sponsors who generously donate to make this meeting a reality year after year. Also I want to acknowledge the speakers for contributing their knowledge and experience.

The deadlines for early registration is rapidly approaching so please visit our Web site www.ismrm.org for meeting details and hotel information. We hope to see you in May in Berlin.
MR Education Without Borders

Day One, Saturday, 19 May 2007

Moderator – Mercedes Pereyra, R.T. (R)(MR)

08:00 Safety Forum
Hans Engels, Ph.D.
Julie Strandt-Peay, B.S.M., R.T. (R)(MR)

09:30 Parallel Imaging
Donald W. McRobbie, Ph.D.

10:40 Proffered Papers

11:10 Image Fusion - The Role of MRI Beyond Diagnosis
Anna Kirilova, BSc., R.T. (R)(MR)

12:25 SMRT Business Meeting & Luncheon
Moderator – Pam Vincent, R.T. (R)(MR)

13:00 Nursing Forum
Maureen Hood, M.S., R.N., R.T. (R)(MR)
Filip DeRidder, R.N.

14:00 Musculoskeletal MR
Joshua M. Farber, M.D.

14:50 Functional and Molecular Imaging with MR Contrast Agents
Peter L. Choyke, M.D.

15:30 Female Pelvis
Caroline Reinhold, M.D.

16:20 SMRT Oral Posters

17:30 SMRT Reception & Poster Walking Tour

Day Two, Sunday, 20 May 2007

Moderator – Sonya Belville, R.T. (R)(MR)

08:00 Proton Pilates for Pupils and Professionals
Elizabeth A. Moore, Ph.D.

08:50 Neuro/CNS Lesions
Raquel Del Carpio-O’Donovan, M.D.

10:05 Liver Iron
Cindy Comeau, B.S., R.T.(N)(MR)

10:35 Protocol Optimization
Carolyn Roth, R.T. (R)(MR)

11:05 fMRI
Lawrence L. Wald, Ph.D.

11:35 MR Elastography
David W. Stanley, B.S., R.T. (R)(MR)

12:00 Awards Luncheon
Moderator – Anne Dorte Blankholm, R.T. (R)(MR)

12:20 Forum for International Attendees
Anna Dorte Blankholm, R.T. (R)(MR)
Wendy Strugnell, B.Sc.

13:00 Cardiac Forum
Andrew E. Arai, M.D.
Mercedes Pereyra, R.T. (R)(MR)

13:50 Artifacts
Robert J. Herfkens, M.D.

14:55 Proffered Papers

15:20 Contrasts – How, When and Why
Marco Essig, M.D., Ph.D.

16:10 Perfusion/Stroke Imaging
Leif Østergaard, M.D., Ph.D.

17:00 Adjourn

Joint Forum ISMRM and SMRT
Charles T. Stanley, CRA, R.T.(R)(CT)(MR), Chair, Joint Forum

This forum on iMRI does not, as the title may imply, present methods for loading MR images into your iPod – instead it presents an exciting look at the fast growing field of interventional MRI and provides excellent information regarding the preparation of patients and equipment for these complex exams.

You are cordially invited to attend this year’s SMRT/ISMRM Joint Forum, “Preparing for MRI and MR guided interventions,” to be held Monday, 21 May 2006, from 14:00 to 16:00. I was pleased to work with Clare Tempa-
for MR guided interventional procedures,” and Maureen Hood, M.S., R.N., R.T. (MR), will offer “Patient Preparation and Care for Cardiac MR and Stress Imaging.” The forum will conclude with case presentations and an expert panel discussion Moderated by Angela Kanan.

Attendees will learn –
- The latest approach to ensuring a safe MR environment;
- Understand how best to prepare the patient for the MRI examination and intervention;
- Understand the role of the MR nurse;
- Learn, through case studies, how to deal with complex MR interventional cases.

The SMRT/ISMRM Joint Forum is another great educational opportunity for SMRT members. Admission to the Joint Forum is included with your registration for the weekend SMRT meeting. Be sure to stay through Monday to take in this novel and interesting topic.

**Election Results**

Karen E. Bove Bettis, RT(R) (MR), SMRT Past President, Chair, Awards Committee and Nominations Committee

I t seems so long ago, the formations of committees, the “Call for Nominations,” the ballots etc., but now, the results are in, and it’s time to introduce the newly elected SMRT Policy Board Members and SMRT President Elect.

The Nominations Committee began its work months ago, shortly after the conclusion of the SMRT Annual Meeting. The goal seemed simple enough, to supply the SMRT membership with a list of qualified names, which would then be presented to the SMRT membership as a printed ballot. How hard could that be? The committee members solicited friends and colleagues for names of persons they thought would make good Policy Board members. Well, it turns out that compiling a list of names was only the beginning and the easy part. Each name then had to be vetted for the following criteria: did the nominated person actually want to run for the Policy Board and, if so, willing to commit the necessary time to serve? It is a personal decision and can only be answered by the nominee. Some potential nominees did not desire to run for office. Some wanted to run but because of family and/or work issues, felt they could not extend themselves at this time. Secondly, the potential nominee must be a dues paid member of the SMRT. The committee finally had a list of names but then came the difficult task of reducing the rather large list of names to the number of slots available.

Input from the ISMRM stated that the SMRT tended to recycle the same willing members. One way to “broaden our horizon” was to recruit “fresh blood.” The Nominations Committee fulfilled this request by seeking potential nominees who had not previously served on the Policy Board.

I would like to congratulate and to thank the Nominations Committee for their work. Of course, all the nominees are to be congratulated as well. It is not easy to put one’s name and face in front of such a large group of peers. An organization is only as strong as its membership (over two-thousand and counting!) so I must conclude that the SMRT is a strong organization and should be for years to come.

It is my honor to present the following SMRT members who will be serving a three-year commitment beginning in May of 2007. It’s a multi-talented group and from whom we expect wonderful doings.

**Policy Board:**

Filip DeRidder, R.N. (T): Filip is one of SMRT’s growing number of Nurse-radiographers. He has won several awards for his abstract submissions, has been a contributor to the *Signals* newsletter and has served as an at-large member on many SMRT committees. He currently works at the Free University of Brussels, Belgium, and enjoys teaching and research activities.

Janice Fairhurst, B.S., R.T., (R)(MR): Janice is an active member of the SMRT and has presented her work at local, regional and international meetings. Her focus

**President Elect:**

Wendy Strugnell, B.Sc. (App): Wendy has been instrumental in expanding the SMRT to the Australian and New Zealand Technologists. Through her efforts as chairperson of the MRI Advisory Panel to the Australian Institute of Radiography, Wendy helped establish the MRI accreditation process for Australian Radiographers. The panel also completed and published a survey of MRI Safety Standards in Australia and was involved in the introduction of national safety standards. Most recently she has been serving as SMRT Global Relations Chair. She is currently working as manager of the Cardiovascular MRI Research Centre at the Prince Charles Hospital, Brisbane.

**Nominations Committee elects:**

Karen E. Bove Bettis, RT(R) (MR), SMRT Past President, Chair, Awards Committee and Nominations Committee

The committee finally had a list of names but then came the difficult task of reducing the rather large list of names to the number of slots available.

Input from the ISMRM stated that the SMRT tended to recycle the same willing members. One way to “broaden our horizon” was to recruit “fresh blood.” The Nominations Committee fulfilled this request by seeking potential nominees who had not previously served on the Policy Board.

I would like to congratulate and to thank the Nominations Committee for their work. Of course, all the nominees are to be congratulated as well. It is not easy to put one’s name and face in front of such a large group of peers. An organization is only as strong as its membership (over two-thousand and counting!) so I must conclude that the SMRT is a strong organization and should be for years to come.

It is my honor to present the following SMRT members who will be serving a three-year commitment beginning in May of 2007. It’s a multi-talented group and from whom we expect wonderful doings.

**Policy Board:**

Filip DeRidder, R.N. (T): Filip is one of SMRT’s growing number of Nurse-radiographers. He has won several awards for his abstract submissions, has been a contributor to the *Signals* newsletter and has served as an at-large member on many SMRT committees. He currently works at the Free University of Brussels, Belgium, and enjoys teaching and research activities.

Janice Fairhurst, B.S., R.T., (R)(MR): Janice is an active member of the SMRT and has presented her work at local, regional and international meetings. Her focus
has been interventional MRI topics. She looks forward to serving on the Policy Board and is currently employed at Brigham and Women’s Hospital, Boston, Massachusetts, USA.

Jane M. Francis DCR(R), D.N.M: Jane began her radiographer career in nuclear medicine and made the move to magnetic resonance through cardiac MR. Jane has won several awards for her abstract submissions and has served as an at-large member on SMRT committees. Jane is also an active member of the Society for Cardiac Magnetic Resonance (SCMR) and brings committee experience and expertise to the SMRT. She presently works at the Radford Hospital in Oxford, England.

Paul McElvogue, R.T.(R)(MR): Paul is currently serving on the SMRT Education Committee and Education Standards Ad Hoc Committee. His MRI background includes working as an instructor and applications specialist for GE Healthcare working with high-field MR, cardiac, spectroscopy and mid-field MR. He is currently working as a MRI technologist/educator for a radiology group in Scottsdale, Arizona, USA.

Sonja K. Robb-Belville B.S., R.T.(R)(MR): Sonja has been active in the SMRT and was invited to speak at the 2005 Annual meeting on the topic of Writing Effective Objectives and Exams, in addition to participating in the Educator’s Forum. She is presently a member of the Education, Program and Ad Hoc Committee for Education Standards. She is continuing her education while serving as faculty at the Community College in Palm Beach, Florida, USA.

Officers (serving a three-year commitment beginning in May 2007):

Secretary: Vera Miller B.S., RT(R)(MR): Vera has been interested in MR Technologist education and in 2002 played a key role in the development and implementation of an MRI accelerated internship program for her employer, Shields Healthcare. She continues the management and coordination of the curriculum for this training in Brockton, Massachusetts, USA. She has been active in the SMRT and served as co-chairperson of the SMRT Regional Seminar in Boston during the third quarter of 2003. Vera is currently the Program Chair for the upcoming 2007 SMRT Annual Meeting to be held in Berlin, Germany.

Treasurer: Steve Shannon, RT(R)(MR): Steve previously worked for EPIX Pharmaceuticals and is currently employed as an Operations Manager/Research Technologist at the Athinoula A. Martinos Imaging Center at the Massachusetts Institute of Technology in Cambridge Massachusetts, USA. Having attended the annual SMRT/ISMRM meetings each year since 1999, he has contributed to several presentations. He is an active member of the SMRT participating on several committees, and has written questions for a home study. He is a current member of the Policy Board and is the Chair of the By-Laws Committee. Steve has also been working on the SMRT Standard Operating Procedures (SOP’s).

External Relations Co-chairs:
Gina Greenwood, B.S. R.T.(R)(MR): Gina has been involved in the SMRT throughout her career, attending many national and regional meetings. She was elected to the SMRT Policy Board for the 2000-03 term, and served as the Membership Committee Chair, was an Executive Committee member, and also served as a member of the Finance Committee, Education Committee, and Nominating Committee. Throughout her term as Policy Board member, she also authored questions for several of the SMRT Educational Seminar Home Study offerings. In 2002, Gina was the Annual Program Committee Chair, hosting the 11th Annual meeting of the SMRT held in Honolulu, Hawaii, USA. For the past three years she has been serving as Secretary of the Section. Her current position is Radiology Services Manager - MRI for the University of Wisconsin Hospital and Clinics, Madison, Wisconsin, USA.

Charles T. Stanley, CRA, RT(R)(CT)(MR): Charles is the Manager of CT and MRI in the Department of Radiology, University of Virginia Medical Center in Charlottesville, Virginia, USA. Charles has been a strong advocate for MRI safety and currently serves as an Advisory Board Member for the Institute for Magnetic Resonance Safety, Education, and Research. He is an active member of the SMRT and helped organize two regional seminars for the Central Virginia Magnetic Resonance Society (the local chapter of the SMRT). He is a charter member of the CVMRS and currently serves as its president. He has served as Policy Board member and is the current Executive member responsible for implementing the joint forum with the ISMRM for the upcoming SMRT Annual Meeting in Berlin.

Awards and Nominations Committee continued
The Section for Magnetic Resonance Technologists (SMRT) was founded to provide a forum for education, information, and research in the field of magnetic resonance. The primary objective of the SMRT is to advance the education and training for MRI/S technologists worldwide. The SMRT is committed to promoting the communication and dissemination of information regarding current and emerging technological advances to its members.

Does this look familiar? It was taken directly from the homepage of the SMRT (www.ismrm.org/smr). We all enjoy the many benefits of becoming a member of the SMRT such as:

- The Quarterly Signals Newsletter,
- The SMRT Educational Seminars
- SMRT Continuing Education Credit Activity Report
- Attending SMRT Annual and Regional Education Meetings
- Reduced registration fees for SMRT annual and regional meetings
- MRI Technologist Listserv

With the assistance of the excellent Central Office staff in Berkeley, SMRT committee membership is comprised of MRI technologist volunteers from across the globe. Without these volunteers, we would not have the wonderful SMRT Educational Seminars, the Quarterly Signals Newsletters, the SMRT Annual Meeting or even the Regional Educational Meetings. But how often have many of us bemoaned the lack of MRI continuing education available to us? Instead of being proactive, we want someone else to do it for us! We’re too busy. We’re going to school. We have families. We have a life! How many of these excuses have you used? Let’s all turn a new leaf in this New Year and to paraphrase JFK…. Ask not what the SMRT can do for you, but what YOU can do for the SMRT (and your fellow technologists)!

I would like to encourage everyone to consider hosting a Regional Seminar this coming year. Yes, it’s a fair amount of effort but you can share the work with several other co-chairs! The Central Office is invaluable help and takes care of much of the required tasks involved. Your responsibility is a matter of getting a room, recruiting speakers and sponsors, deciding on topics and going for it! You’ll be amazed at what you are capable of doing and I can guarantee the sense of accomplishment is fulfilling.

Remember it can’t be that difficult...many technologists have hosted these seminars several times over the years. If they can do it, so can you!

For the fiscal year 2006/2007, we have already enjoyed seminars in the following locales:

- The Southeast Regional Seminar held in Greenville, South Carolina, co-chaired by Melonee Elrod, Cindy Hipps, Carol Lee, and Wendy Porter on 14 October 2006.
- Eastern Canada Regional Seminar held in Toronto, Ontario, videoconferenced to Montreal, Quebec, co-chaired by Caron Murray, Rhonda Walcarius, Garry Detzler, and Laurian Rohoman on 4 November 2006
- The two-day ANZ Regional Seminar held in Brisbane, Queensland, Australia, co-chaired by Wendy Strugnell, Ben Kennedy, and Dominic Kennedy hosted by the Australia-New Zealand Chapter on 18-19 November 2006.

Regional Education Seminars are in the process of being planned for the remainder of year in the following locations:

- Boston, Massachusetts, USA on 3 March 2007
- New York, New York, USA on 10 March 2007
- South Carolina, USA in the third quarter of 2007
- Atlanta, Georgia, USA in September 2007
- Montreal, Quebec, Canada in September 2007
- Syracuse, New York, USA on 13 October 2007
- Toronto, Ontario, Canada in November 2007
- Brisbane, Queensland, Australia in November 2007

Congratulations and a very big Thank You to all the Regional co-chairs, sponsors, speakers, Central Office staff, and attendees who made all the effort worthwhile. With the first and extremely successful Regional Seminar hosted outside of North America, we can truly call ourselves an international organization. Let’s keep up the momentum and I want to again encourage everyone not just our international members to host a Seminar in the coming year.

New England Local Chapter

Janice Fairhurst, B.S., R.T.(R)(MR)

The SMRT New England chapter has been officially re-established. SMRT President-Elect, Carolyn Bonaceto has gathered together a group of enthusiastic and dedicated MR professionals to head the chapter. The core organizing committee includes Carolyn Bonaceto, Janice Fairhurst, Vera Miller, Jackie Hoff, Maryanne Blaine, and Bernice Reznick. Our goal is to offer educational opportunities
Greetings from your local chapter committee and all our local chapters. It’s a new year, a new beginning. If you don’t belong to a chapter, now is the perfect time to join, being the perfect way to get more involved in your profession. If there isn’t one close by, consider starting a new one.

How do we get a new chapter started? This is a question I frequently hear.

Starting a local chapter is actually a lot easier than you think. First, you need to have MR technologist or radiographer interest. A minimum of three to four technologists (of course you can always have more) are required to start any chapter. Have an informal organizational meeting to discuss your goals, organization, etc. From this group, you need one technologist to agree to fill each of the following offices: President, Secretary, and Treasurer. The only requirement is that all chapter officers must be SMRT members.

Pick a name for your chapter. It is best to name your chapter based on the geographical area you want to draw technologists from. This can be statewide or regional. You will also need a chapter mailing address.

Once you have a name and officers chosen, fill out a local chapter application. The application, as well as a full informational packet is available on the SMRT Web site: http://www.ismrm.org/smrt/chapters.htm. The completed application is processed by the ISMRM office and then forwarded to the local chapter chair for final approval. Once approved, you are on your way. You can now advertise the chapter, recruit new members, and plan educational meetings.

Of course, the local chapter committee, and the SMRT staff are here to help, and answer any questions you might have along the way. Current chapter officers are also willing to act as mentors to help you get started.

Chapter News:

Akron, Ohio, U.S.A. was the site for the second annual meeting of The North East Ohio chapter. One of the highlights was a talk by Jerry Conologue from National Geographic’s “Mummy Road Show,” Jerry specializes in paleoimaging. This very unique lecture included the use of modern imaging techniques to study mummy remains in Egypt, Peru, and other parts of the world. Feedback indicated this was a fascinating talk.

Congratulations to:

The technologists in Australia and New Zealand. Under the leadership of Wendy Strugnell, this chapter has been re-organized. A very successful two-day seminar was held in November. I understand plans for chapter meetings are already under way for 2007.

The New England chapter, which also recently re-organized. This chapter is currently being guided by Carolyn Bonaceto, Janice Fairhurst, and other area technologists.

San Diego, California also has a brand new chapter under the direction of Sharon Greer.

Congratulations to all!

Our chapters are very active and provide a great way to obtain continuing education and to network with other technologists. A list of active chapters is on the SMRT Web site.

If you live near one, why not join in? Attend a local meeting. If you don’t live near a local chapter, why not consider starting one? If you have any questions regarding local chapters, you can contact Pam Vincent at vincentp@nhlbi.nih.gov, or call the SMRT office. We are here to help in any way we can.
Two hundred MR radiographers and radiologists from across Australia and New Zealand attended the first annual SMRT Regional Educational Seminar hosted by the Australia - New Zealand Chapter. The meeting was held at the Brisbane Convention and Exhibition Centre in the popular tourist area of South Bank, Brisbane, Australia, on 18 and 19 November 2006. The comprehensive two-day program provided an excellent opportunity for the delegates to increase their knowledge and advance their skills in the field of MRI and also to meet three “celebrity” guest speakers from the USA: Dr. Michael Moseley, Anne Marie Sawyer, and Maureen Ainslie.

Dr. Moseley started the program with an “MR Physics Walk-About” which he set at a pace for very quick walkers! Instead of the usual physics lecture this was a fascinating look at MR physics from the perspective of the different physical principles that are used to create images – phase, magnitude and frequency. Joshi George, an applications specialist with GE Healthcare, then walked through “MR Image Quality Optimisation Techniques” at a more leisurely pace.

After a short break Dr. Kerry McMahon, a radiologist from Queensland X-ray, discussed the latest techniques, protocols and image interpretation for MRI of the Female Pelvis. Dominic Kennedy, an MR radiographer from Brisbane followed with a comprehensive overview of the “Characterisation and Detection of Liver Lesions” including the use of new liver-specific contrast agents. This was followed by a presentation by Greg Brown from Adelaide on the science and practice of liver iron imaging.

The lunch break gave us a chance to absorb all the morning’s information and also to make the most of Brisbane’s beautiful temperate climate in the courtyard outside the meeting rooms. After lunch we were treated to two more of our American speakers. Anne Marie Sawyer provided us with an update on MR Safety and Screening Procedures – a topic that is always well-received. Anne’s background in working at very high field also provided a unique perspective on safety issues which may confront us in the future. Maureen Ainslie then gave a presentation on “MR Imaging for Clinical Trials” including an overview of the relevant regulations that govern research in Australia and New Zealand. This is a relatively new and rapidly growing field in this region of the world and we were fortunate to be able to learn from Maureen’s extensive experience.

The afternoon session was cardiac focused with Greg Brown continuing his discussion on iron imaging with some interesting work being undertaken in Cardiac Iron Imaging. Dr. Lawrence Dembo, a cardiologist from Perth, gave us a facetious and very entertaining lecture about the “Things You Can’t Do with Cardiac MRI” and the session closed with Australia’s leading expert in MRI of congenital heart disease, Dr. Richard Slaughter, talking about the role of MRI in the imaging of children and adults with congenital heart disease.

**Day Two:**

Fortunately our first speaker was Dr. Moseley who made sure we were kept alert by using a cat picture during his physics lecture which appeared throughout the day’s lectures to the delight of all. He gave us an informative update on the development of techniques for diffusion and perfusion imaging.

---

Left to Right: Ben Kennedy, Mike Moseley, Wendy Strugnell, Maureen Ainslie, Anne Marie Sawyer, Greg Brown, Glenn Cahoon and Mike Kean.

Continued on page 11
Anne Marie Sawyer then continued the session on advanced neuro techniques with a comprehensive lecture on fMRI covering the applications, technical requirements, challenges and quality control issues.

After morning tea there was a slight change in the program, with Dominic Kennedy bringing forward his lecture on Innovative Techniques in Musculoskeletal MRI. After teaching us about some specialised techniques curiously named “ABER,” “FABS” and “SPANK,” Dominic dashed back to the hospital to assist his wife in delivering their fourth child, Cate. Dr. Moseley then followed on with a fascinating look into the world of Modern Neuroimaging.

With more than 100 registrants taking advantage of reduced SMRT membership with registration, the SMRT Information/Discussion forum before lunch was a timely opportunity to learn about the history and operations of the SMRT and about the planned future direction of the Australia-New Zealand Chapter.

After lunch, Maureen Ainslie gave an informative and concise lecture on Spectroscopy followed by Dr. Katie McMahon, a physicist with the Centre for Magnetic Resonance, explaining different methods of Parallel Imaging. The session was completed with Joshi George providing an update on Recent Technical Innovations in CE-MRA.

The last session of the seminar was on high field, with Dr. Michael Ditchfield from the Royal Children’s Hospital in Melbourne describing his experience with Paediatric Imaging at 3T. Mike Kean, the MR Manager at the same hospital, then gave us a comprehensive overview of the realities, technical challenges and advantages of using 3T systems for the paediatric population. Dr. Moseley finished off the conference on a high note with a glimpse into the future in a discussion of “New Applications at High Field.”

Overall, the meeting was a fantastic opportunity to catch up with colleagues from around Australia, New Zealand and the USA, to learn from experts in the field, and be inspired to continue to strive for excellence in our work. On behalf of all the delegates I would like to thank the speakers for generously donating their time and for making themselves so accessible to the attendees. The meeting would not have been successful without such a wonderful collection of experienced, dedicated and knowledgeable speakers. Of course, the seminar would not have been possible without the phenomenal support of our sponsors and we thank them all for continuing to support MR education in the Australia - New Zealand region. They are GE Healthcare, Siemens Medical Solutions, Philips Medical Systems, Queensland X-Ray, IMRSER, Regional Healthcare Group, Schering, and Tyco Healthcare. We look forward to seeing everyone at the 2007 Australia-New Zealand Regional Seminar in Melbourne, Victoria, Australia.
External Relations Committee Report
Julia Lowe, B.S., R.T. (R)(MR), Chair, External Relations Committee

External Relations Committee (ERC) members attended the Alliance for Quality Medical Imaging and Radiation Therapy meeting, 26-27 February 2007 in Falls Church, Virginia, USA. Just before the last session of 2006, the RadCARE bill was presented to the full Senate and was passed. Now the bill has moved to the House for consideration in 2007.

Julie Lowe and Charles Stanley attended the RSNA Planning Meeting in Chicago, Illinois, USA, on 15 January 2007 where the Associated Sciences Consortium met to finalize plans for the refresher courses and the symposium. The SMRT and the Society of Nuclear Medicine-Technology Section will be hosting a refresher course that will demonstrate the latest techniques in fusion imaging.

ERC members will also be attending the Health Professions Network meeting in Minneapolis, Minnesota, USA, in March 2007.

As outgoing Executive Liaison of the ERC, I would like to express my appreciation to the committee members that I have served with over the years and to the almost 2000 members of the SMRT. I have been involved with the SMRT since 1999 and, although I have served on many committees during this time, serving as Chair of the ERC has been the most rewarding for me. I would like to thank Jennifer Olson, Cindy Comeau, and Cindy Hipps for their steadfast support. I would like to thank Gina Greenwood and Charles Stanley, the ERC elect co-chairs for their willingness to chair this very busy committee. I would like to thank Wendy Strugnell, Global Relations Committee (GRC) Chair, and Anne Dorte Blankholm, GRC member, for putting the GRC on the “SMRT map.” Previously, I don’t think SMRT members even realized this committee existed. Wendy has taken this committee to the level it was intended by attracting international members and expanding the committee goals. I would also like to thank Carolyn Bonaceto for her help with the CARE bill.

I would like to recognize that the SMRT consists of a group of volunteers working tirelessly to support the ideals of the SMRT: to provide a forum for education, information, and research in the field of magnetic resonance. The primary objective of the SMRT is to advance the education and training for MRI/S technologists worldwide. The SMRT is committed to promoting the communication and dissemination of information regarding current and emerging technological advances to its members.

It is only through the dedicated service of our members that we accomplish our goals, whether it is by contributing to the Signals Newsletter or the Home Studies, or serving as a member of the Education Committee and reviewing Student Scope articles or abstracts, or by organizing an annual meeting by serving on the Program Committee. A member can contribute by volunteering to speak at a Regional, donate meeting space, or recruit a vendor for financial support. Members can also support the SMRT by voting and making other technologists aware of the SMRT. There are many other ways to support the SMRT whether the contribution is big or small.

Although many SMRT volunteers have families and careers, they still find time to support and advance our professional community through service to the SMRT. I believe that our collective contributions make our organization of volunteers a group we can be proud of. I have enjoyed actively supporting the SMRT and am looking forward to the future.

Charting New Territories for MRI
Anna Kirilova, B.Sc., R.T.(R)(MR)

Starting a new MRI site in a hospital is never an easy task, from finding the best location and installing the magnet to employing staff and establishing operations. It is teamwork of many experts and an ongoing process of refinement. When the opportunity to be involved in the implementation of a designated MRI system in the department of radiation oncology at Princess Margaret Hospital Toronto came along, I felt that after 15 years experience in diagnostic imaging I was ready for a change. Being a graduate from a program that includes all aspects of the medical radiation technologist profession (radiotherapy, nuclear medicine, and radiography) motivated me further to take the challenge. This career move coincided with my enrolment into the Masters Degree program of Applied Health Science (Medical Imaging - MRI) at Charles Sturt University in Australia, which curriculum includes courses on advanced MR imaging applications, clinical issues, as well as research methods in health science, and others. The position therefore had the ideal combination of clinical, research and development components.

The ability of MRI to provide superior visualization of soft tissue and better demonstration of anatomy and pathology presents an opportunity for integration in the process of radiation treatment planning. One of the first hospitals to explore the benefit of a designated MR unit is Fox Chase Cancer Center in Philadelphia, USA where in 2000 a 0.23T open magnet was installed in the department of Radiation Oncology. In Canada the integration began in...
2003 with the installation of a 1.5T system at Princess Margaret Hospital, Toronto.

It has been shown that precision delineation of tumours provides confidence in escalating radiation dose leading to both higher treatment response and lower toxicity in cancer patients. MR shows not only better delineation of gross tumour volume (GTV) for more precise radiotherapy planning, but advanced cine imaging techniques such as FIESTA and True FISP can demonstrate high temporal resolution of moving organs or moving treatment targets (i.e. metastatic or primary tumour lesions) in the liver, lungs, and prostate. Furthermore, techniques such as diffusion, perfusion, dynamic contrast enhancement (DCE), and spectroscopy (MRSI) can provide valuable information about tumour response during standard radiation therapy (RT), Chemo-RT, and novel therapies (i.e. anti-angiogenesis agents). With a designated MR system in Radiation Oncology and in collaboration with Radiology Department we can also closely monitor the outcome of treatment efficacy versus recurrence.

Steps to a successful clinical implementation have included an additional precision laser system, and a tabletop overlay which allows for reproducible patient positioning. Also as part of the team building process some radiotherapists have completed an accredited MR program and successfully became certified as MR technologists. Personally I needed to familiarize myself with the current radiation therapy practices, planning techniques and immobilization devices used for patients on different body sites. The entire process from referral, planning, treatment, and follow-up required in-depth understanding in order to introduce a new imaging modality in the most efficient way. And if my initial feelings were a bit as an outsider, the entire department was very enthusiastic and helped me to be creative and use my experience beyond the traditional medical imaging standards. Image acquisition parameters were optimized to balance diagnostic image quality with the physical and geometric requirements for the radiotherapy planning. A procedure for system quality assurance, including geometric fidelity was developed.

Also very important was to establish appropriate policies and procedures for MR safety screening, administration of contrast, ordering of orbital x-rays. In parallel with the clinical applications and infrastructure as part of an academic institution University of Toronto, research projects were approved by the ethics board to explore advanced future applications.

Four years later, we have investigated various strategies for integration, including image co-registration to CT and the possibility of MR-based planning. Site-specific applications have been implemented for radiation treatment planning (RTP) of the prostate, cervix, liver, brain, and some head and neck cancers. However, issues such as spatial distortion and artifacts, inability of MRI to provide electron density information, and lack of signal from cortical bone had to be taken into consideration. High temporal resolution pulse sequences have been applied to individually quantify organ motion of liver, prostate, cervix, bladder, and rectum, adding new information for the determination of treatment planning volumes of moving targets.

The unique challenges and opportunities presented through the implementation of our designated system for RTP have shown certain advantages of MRI over CT. Optimized imaging protocols can add valuable information for target volume delineation leading to precision radiotherapy treatment planning. Efficient MR distortion assessment and correction algorithms together with image co-registration and fusion software can overcome the limitations of MR and permit full integration into radiotherapy practice. Research projects seeking answers on microscopic scale with advanced MR techniques can provide additional information about early radiotherapy response and show recurrence not detected on routine follow-up imaging. The availability of MR in Radiation Oncology not only improves present treatment techniques, but also allows accelerated research and translation into clinical practice.

To learn more on this topic join us at the next annual SMRT meeting in Berlin 2007.

MRI in Toronto - One Technologist’s Perspective
Nancy Talbot, MRT, MR, R

When I was invited to write an article for Signals regarding some of my experiences in MRI, I thought that I would share some of the developments and where the modality is moving in Ontario, Canada.

I have been an MRI Technologist at the Princess Margaret Hospital site of the University Health Network (UHN) for the last 9 years, of which the last 6 1/2 years have been as the Charge Technologist. The UHN includes 3 sites, the Princess Margaret Hospital (PMH), the Toronto General Hospital (TGH), and the Toronto Western Hospital (TWH). UHN is a large university teaching hospital and presently has 7 MRI scanners. In Canada, 7 MRI scanners in one institution is relatively unheard of, as most hospitals have only 1-2 clinical scanners. There is also a fourth medical imag-
ing department, Mount Sinai Hospital (MSH) which retains its autonomy, is merged with medical imaging at UHN. Each of the hospitals has a specific focus of care; TWH is the neurological center and performs neurosurgery, gamma knife surgery, and is the regional stroke center, and the technologists there perform pre-surgery protocols, as well as multiple MRAs and perfusion imaging. The TGH site focuses on cardiac care and is in the process of building a new cardiac care center incorporating imaging and interventional radiology, with an expanded MRI department where 90% of their workload doing various complex cardiac imaging. At the PMH site, the only focus is oncology, with the largest radiation therapy department in Canada, and an MRI site that completes approximately 80 cases per week of abdominal/pelvic scans, as well, PMH performs “staging” exams for Neuro Oncology including Brain tumours, ENT, and spinal cord tumours and compressions. Mount Sinai Hospital focuses in general medicine, oncology, and high risk pregnancy/neonatal care. MSH site performs breast MRI, soft tissue musculoskeletal imaging and fetal MRI. All sites perform the routine MRI cases. Since there is specific focus at each site, this allows for technologists to concentrate on specialties within the modality and allows for direct involvement in protocol trials and research. Technologists become experts in a specialty.

With a limitation in the number of scanners in the province and the number of patients waiting for MRI exams, our facility has been attempting to alleviate the wait times for MRI exams by operating some of our scanners 24 hours, 7 days per week, over the last 10 years, dependent on technologist availability. People in Ontario are not strangers to long wait lists for MRI exams, but as the operation of sites differ, I will explain why we live by the wait list in Ontario.

In the province of Ontario, we have public health care which allows everyone equal access to health care services. This health care is government operated by the Ministry of Health and Long Term Care (MOHLTC). MRI units (we presently have 69 scanners in Ontario for a population of 12.5 million in 2005) are mostly located in Hospitals, with only 5 in stand alone clinics. The budget for the operation of the MRI unit is handed down by the MOHLTC, and is generally set for an 8 hour/5 day per week operation, or a 16 hour/5 day per week operation. If an institution wishes to operate further hours they have to finance the operating budget internally. Since we have an equal access health care system, patients do not pay for their exams and the hospital must operate within the budget allotted by the government. As you can imagine, wait times for MRI have become incredibly long....several months in some institutions for a routine knee scan.

Due to increasing wait times in the province, I had the opportunity and pleasure to be invited to participate with the MOHLTC Wait time Strategy Expert Panel for the last 2 years. The mandate of the committee was to assess and determine how to shorten the wait list for MRI exams. Initially the first task was to determine how many MRI scanners there were in the province, what hours they were operating, and if they were operating efficiently. When assessing this data, it was determined that several scanners were outdated and had not been upgraded in several years. These units had their limitations as to the type of exam that could be performed due to software levels and the number of patients that could be completed. From this data, the MOHLTC funded the replacement of 7 scanners across the province. The second strategy was toward immediately shortening the wait list. To accomplish this, it was determined to extend the hours of operation for those sites that had staff to accommodate more shifts. The MOHLTC gave additional operating funds to finance extended hours on weekends, evenings, and midnights if possible. In addition, it was determined that sites had to perform efficiently during their hours of operation to maintain funding. Each site had to report to the MOHLTC, a specified code for every type of exam they perform, as well as the hours they are operating. From this information, the committee set time values for exams, i.e. 1/2 hour for extremities, 1/2 hour for brains, and 1 hour for abdominal exams. Each hospital’s efficiencies are calculated, and if they are not 80% efficient, they would not continue to receive funding for extended hours. From this first initiative, wait times were decreased across the province. The next mandate of the committee was to assess long term solutions, including how many scanners should be available per 1000 population, and how many technologists are needed to operate the scanners. Funding and appropriateness of exams were assessed as well. For those interested, you will find the reports on the MOHLTC web site.

When looking at the staffing need for technologists across the province it was determined that we are incredibly short staffed. The institution that I work in is presently 16 technologists short. MRI Technologists in Ontario must be members of our provincial licensing board, the College of Medical Radiation Technologists of Ontario (CMRTO) to practice. To become licensed, a technologist must have completed an accredited course and successfully written the Canadian certification exam. This exam is overseen by the Canadian Association of Medical Radiation Technologists (CAMRT), an association that technologists may choose to become a member too.

Since there is only one Entry level MRI program presently in Canada, most MRI technologists have a previous discipline, i.e. Radiography, Nuclear Medicine, Radiation Therapy, or Ultrasound. For MRI training, there are 4 teaching institutions in Canada, 3 providing part time programs, 1 offer’s a full time program, 1 of the 4 also provides the entry level program. Ontario however, has
only one training institution, The Michener Institute where I enjoy being an instructor. They offer part time programs in both live format and by distance education. On average each class has 20 students, but this number is limited to the number of affiliated clinical sites available. These courses prepare the student to write the Canadian certification exam, which is a competency based exam. Courses need to follow a Competency Profile that was revised by a group of technologists working across the country. Working with this group gave me a perspective of the great work done by highly qualified MRI technologists throughout the province. When writing content and determining minimum knowledge that a new MRI technologist is required to know, made me realize the amount of knowledge MRI technologists have as well as the skill level. We should be incredibly proud of our profession.

Another development has recently been initiated in the province surrounding the safety aspects of MRI and CT imaging. New expert panels were created in Sept 2006 to look at standardizing MRI safety practices across the province. This committee is making recommendations to the provincial government for minimum standards to be set for any MRI imaging center, utilizing the Combined ACR White Paper, and results of a study by the HealthCare Human Factors group at UHN. I find this committee very exciting as an MRI technologist, since our main priority, before scanning a patient, is ensuring the safety of both the patient and those working in the magnet environment. Many of the institutions in Ontario have varying floor plans, variation in policies and internal education procedures. This is to be expected as each facility holds the right to create its own policies and procedures; however some sites do not meet the minimum recommendations of the ACR white paper.

The MRI modality is in the spotlight in Ontario with the expectation of decreasing the waitlist and ensuring that staffing is sufficient to operate the equipment. Changes to the competency profile that will affect content taught to MRI technologists in the coming years, and improve upon the fantastic programs that already exist. Working to bring minimum standards in MRI safety and improve MRI environments for patients and staff, as well as sharing knowledge with MRI students gives me great satisfaction. All of this in combination with my job as a supervisor of great and talented team of MRI Technologists makes me glad I chose the MRI modality 9 years ago.


The internationally acclaimed series, the Reference Manual for Magnetic Resonance Safety, Implants, and Devices: 2007 Edition, includes updated guidelines and recommendations from the latest information in the peer-reviewed literature as well as documents developed by the International Society for Magnetic Resonance in Medicine (ISMRM), the American College of Radiology (ACR), the Food and Drug Administration (FDA), the National Electrical Manufacturers Association (NEMA), the International Electrotechnical Commission (IEC), the Medical Devices Agency (MDA), and the Institute for Magnetic Resonance, Safety, Education and Research (IMRSER).

This textbook is a comprehensive yet concise information resource on MR safety and patient management for healthcare professionals.

• Section I presents safety guidelines and recommendations.
• Section II has the latest information for implants, devices, and materials tested for safety in the MR environment.
• A new Appendix provides website information for more than 100 biomedical companies to facilitate finding the latest company information for implants and devices.

"The List" has information for more than 1,500 objects with over 500 implants tested at 3-Tesla.

Biomedical Research Publishing Group, Los Angeles, CA ISBN 978-0-9746410-3-4
$62.00 plus $8.00 shipping and handling (standard delivery, U.S. only)
To order, send a check or money order to (sorry, no Purchase Orders): Biomedical Research Publishing Company, 7511 McConnell Ave., Los Angeles, CA 90045

<table>
<thead>
<tr>
<th>Textbook</th>
<th>Cost</th>
<th>Qty</th>
<th>Shipping/Handling/Each Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Manual for Magnetic Resonance</td>
<td>$62.00</td>
<td></td>
<td>$8.00</td>
<td>Subtotal</td>
</tr>
<tr>
<td>Safety, Implants and Devices: 2008 Edition</td>
<td></td>
<td></td>
<td></td>
<td>Add California Sales Tax (if applicable) 7.75%</td>
</tr>
<tr>
<td>(Available December 2007)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Shipping Address (please print):
Name: ____________________________________________
Facility: ________________________________________
Address: ________________________________________ Suite/Apt __________
City ___________________________ State ______ Zip __________
Day time phone # (_____) _________________________

ATTENTION: NO ORDERS FROM OUTSIDE OF THE UNITED STATES
SMRT/ISMRM CALENDAR

SMRT New England Regional Educational Seminar
3 March 2007
Brigham and Women’s Hospital
Boston, Massachusetts, USA

SMRT President’s Regional Educational Seminar
10 March 2007
Morgan Stanley Children’s Hospital of New York – Presbyterian
New York, New York, USA

ISMRM Workshop on Advances in High-Field MR
25-28 March 2007
Asilomar Conference Center
Pacific Grove, California, USA

South Carolina Spring Chapter Meeting
14 April 2007
Speaker: Bill Faulkner, B.S., R.T.(R)(MR)(CT)
Pateevo Medical Office Building
Greenville, South Carolina, USA

SMRT 16th Annual Meeting
19-20 May 2007
Berlin, Germany

Joint Annual Meeting ISMRM-ESMRMB 2007
19-25 May 2007
Berlin, Germany

Be sure to check the SMRT Web site for timely news and updates

- Signals is posted online prior to mailing
- Upcoming Educational Seminars are listed
- Annual Meeting Updates and Information
- Guidelines for you to initiate a Local Chapter or Regional Seminar
- Access to the previous Annual Meeting program lectures
- Student Scope

http://www.ismrm.org/smrt

Signals

... is published by the International Society for Magnetic Resonance in Medicine, 2118 Milvia Street, Suite 201, Berkeley, CA 94704, USA

Signals is produced quarterly for the benefit of the SMRT membership. In addition to this printed copy of Signals, an electronic version is available to members on the SMRT Website. Remember to check the website often for updates and features that are important to you.

SIGNALS NEWSLETTER COMMITTEE:
Julie Strandt-Peay, B.S.M., R.T. (R)(MR), Signals Editor
Heidi Berns, M.S., R.T. (R)(MR)
Karen Bove Bettis, B.S., R.T. (R)(MR)
Denise Davis, B.S., R.T. (R)(MR)
Robin Greene-Avison, R.T. (R)(MR) C.N.M.T.
Gina Greenwood, B.S., R.T. (R)(MR)
Cindy T. Hipsip, B.H.S., R.T. (R)(MR)
Julia Lowe, B.S., R.T. (R)(MR)
Vera Miller, B.S., R.T.
Anne Marie Sawyer, B.S., R.T. (R)(MR)
Frank G. Shellock, Ph.D.

PUBLICATIONS COMMITTEE:
Bobbi Lewis, B.A., A.R.M.R.I.T., Chair
Greg Brown, R.T.
Alyssa Catron, R.T.
Cindy Comeau, B.S., R.T. (R)(MR)
Ellen Condon, R.T.
Randy Earnest, B.S.
Sandra S. McKee, R.T. (R)(MR)
Anne Marie Sawyer, B.S., R.T. (R)(MR), SMRT Educational Seminars Editor
Mark Spooner, B.P.S., R.T. (R)(MR)(CT)
Julie Strandt-Peay, B.S.M., R.T. (R)(MR), Signals Editor
Pamela Vincent, M.P.A, R.T. (R)(CT)(MR)

ELECTRONIC SUBMISSIONS COMMITTEE:
Carolyn A. Bonaceto, B.S., R.T. (R)(MR), Chair
Karen Bove Bettis, B.S., R.T. (R)(MR)
Gina M. Greenwood, B.S., R.T. (R)(MR)
Julia Lowe, B.S., R.T. (R)(MR)
Charles T. Stanley, CRA, R.T. (R)(CT)(MR)

OFFICERS:
President:
Cindy Comeau, B.S., R.T. (R)(MR)
President-Elect:
Carolyn Bonaceto, B.S., R.T. (R)(MR), Chair
Karen Bove Bettis, B.S., R.T. (R)(MR)
Past-President:
Gina M. Greenwood, B.S., R.T. (R)(MR)
Julia Lowe, B.S., R.T. (R)(MR)
Charles T. Stanley, CRA, R.T. (R)(CT)(MR)

© 2007 by International Society for Magnetic Resonance in Medicine
Phone: +1 510 841 1899
Fax: +1 510 841 2340
E-mail: smrt@ismrm.org

SMRT Web Page: http://www.ismrm.org/smrt