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"Our growth has been phenomenal. Membership has increased by 24%. This growth is a reflection of our commitment to our educational mission."

Carolyn Bonaceto, B.S., R.T., (R)(MR)

() ne of my duties as SMRT President is to attend the ISMRM Board Meetings. Following past history, this year's midyear meeting was held in Chicago just before the RSNA. At that meeting I was very pleased to present the Affiliated Sections Report. The report is a testament to the hard work and dedication of so many SMRT members. Our growth has been phenomenal. Membership has increased by 24%. This growth is a reflection of our commitment to our educational mission. It is an affirmation that you want to learn more and stay current in your field. It clearly demonstrates that you want to connect with other people worldwide who do what you do on a daily basis.

Membership growth also indicates that the word is out. SMRT is the premier organization for MR education for MR technologists and Radiographers. If you are serious about MR, then you belong to SMRT. The increase in membership also helps keep the SMRT financially secure, allowing us to continue to achieve our goals of expanding internationally. We were challenged by the ISMRM to seek leaders outside of North America and that challenge was met. Next year we will have our first Australian President, Wendy Strugnell. Many of our new members are Australians. The Australian and New Zealand Chapter is very active, hosting well attended regional meetings that rival the annual meeting. The ISMRM Board was impressed by our growth and our overall success. Sharing our achievements was very satisfying. Thank you for allowing me to represent you.

Another role of the President is to preside over the midyear meeting of the SMRT Policy Board which also took place in conjunction with RSNA. Each Committee Chair presented an update of activities that have taken place over the last several months, plans for the future, and sought input from their fellow representatives. Only about half the board was able to attend the meeting in person, the rest attended via teleconference.

At the outset of my Presidency, I was certain that under my direction our meetings would be efficient and short. Turns out, not so much. The meeting was long. More than three hours long and it could have gone on. It is essential that every one of your elected representatives be allowed to speak. Something I have really had to make an effort to learn is to listen and allow conversation. It is the discussions around an issue, and the ability to hear the information and opinions others share that allow us to come to a consensus that we are all comfortable with.

The challenges of an international board are becoming apparent. Finding a time for a meeting that fits into the schedule of people in so many time zones is impossible. In order to sign in to the teleconference, *Wendy Strugnell* in Australia, woke up at 4a.m.; *Jane Francis* in England had to sign off because her building was closing; *Anne Dorte Blankhom* in Denmark and *Filip DeRidder* in Belgium had to sign off before the end as it was midnight in their

part of the world and they both had to work in the morning. These people are volunteers! They are so dedicated and passionate about the mission of SMRT that they make sacrifices to ensure that the organizational goals are met. Please thank them if you have a chance.

A subject that occupied much of our time at

the meeting was the list serve. It would be an understatement to say that monitoring the list is a challenge. The description of the list on the SMRT web site is as follows:

The MRI-Technologist List Serve is a closed list designed specifically for issues that are the day-to-day occurrences for the MRI technologists and operators. This list is neither a management nor educator's format since other lists fit that bill admirably. The MRI-Technologist list was designed primarily for the operators themselves, and topics discussed cover all issues related to MRI scanning. Currently, over 700 members from over 20 countries discuss topics covering almost every piece of MRI equipment, vendor, peripheral device, pulse sequence, and policy imaginable. The list serve works by distributing all messages sent to it to all subscribers of the list. Responses can be made back directly to the specific person who posed the questions, or to the whole list allowing everyone to benefit from the answers. We welcome you to participate. This list offers a wonderful opportunity for individuals who work in MRI to stay connected and to learn from each other. But there are some important

If you are looking for help with a problem, the list serve community is a great resource. things you should be aware of when you are posting to the list. First and foremost, e-mail is forever. Don't send anything, ever, to anyone, that you don't want read back to you in open court or anywhere else. SMRT cannot prevent any recipient on the list from forwarding your e-mail around the world. Once it's out, it's out.

You should never use the list to make derogatory statements about anyone or any company. It is not okay and it is likely to hurt you and your reputation far more than it will hurt the object of your ire. Remember that it's not necessarily what you said but how you said it. If you are looking for help with a problem, the list serve community is a great resource. But if your goal is to vent please find a different audience. That may include people you have met on the list. But please avoid e-mailing the list as a whole if your intended audience is only one person or a few people. Reply All is not always the best choice. We will continue to monitor the list and may propose some changes to improve the situation. We have no intention of cutting off this vital resource. We'll keep you posted.

Thank you to all the SMRT board members who are working so hard on behalf of the membership and MR technologists everywhere. It is an honor to be among you. S

Editor's Letter

Greetings! As we begin a new calendar year, the SMRT continues to actively work on your behalf and is gearing up for the Annual Meeting in May. President *Carolyn Bonaceto* brings us up to date and leads us into the future. *Paul McElvogue*, Publications Committee Chair, explains the popular MRI Technologist List Serve and how we can all benefit from proper use of this valuable resource.

The SMRT would not have evolved into the premier organization of today, without the help of Jennifer Olson. We are so pleased her many years of service have been recognized by Roberta Kravitz and the Berkeley office. The Program Committee Co-Chairs: *Anna Kirilova, Caron Murray*, and *Nancy Talbot*, present the schedule for the Toronto meeting. *Sonja Robb-Belville*, Education Committee Chair, shares information on the abstract



submission process. Your elected Policy Board members and SMRT President are announced by the Nominating Committee Chair, *Cindy Comeau*.

The SMRT has provided educational offerings around the globe this past quarter. See reports from Montreal by *Laurian Rohoman*, the President's Regional by *Maryann Blaine*, the Northeast Regional by *Carlos Portillo*, and the Australia-New Zealand Regional by *Michael Macilquham. Pam Vincent*, Local Chapter Chair, shares news in her column, Chapter Chat.

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

External Relations Co-Chair, *Charles Stanley* supplies the latest information on USA activities. Global Relations Co-Chair, *Anne Dorte Blankholm*, shares exciting news about upcoming events in Europe and Scandinavia.

The SMRT Education Seminar Home Study program for this quarter is described by editor, *Anne Marie Sawyer*. Safety expert *Frank Shellock* returns with topical information about the use of intravenous contrast that we can all use in our daily work.

The calendar of events is included so that you can choose the opportunities of interest to you. Your comments and suggestions are always welcome and may be addressed to the *Signals* newsletter editor or the staff at the Berkeley, USA office.

Happy reading! S

Jennifer Olson Honored for 20 Years of Service to



Jennifer Olson, Associate Executive Director, ISMRM

ennifer's Song

(Sing to the tune of "Anacreon in Heaven"* Original poem by Francis Scott Key Lyrics rewriten for Jennifer by Mary Keydash

Oh say can you see Miss SMRT Who so proudly we've hailed Twenty years now and counting

She's a quiet bright star Who stays late through the night O'er the mountains of work Which are constantly mounting

And there isn't a call That stumps this know-it-all Her job description Fills a convention hall

Oh say does Jennifer hold our company together Thanks for twenty loyal years Won't you please stay forever.

*Editor's Note: For those interested, a Google search of "Anacreon in Heaven" will provide an interesting background for the tune of the song.



Article by Roberta A. Kravitz, ISMRM Executive Director

© n 8 September 2007, the ISMRM Central Office surprised Jennifer Olson with a party to celebrate her 20th year of employment with this organization. *Jeffrey L. Duerk*, ISMRM President, and *Anne Sawyer*, past SMRT President, joined the Central Office staff at our Director of Edu-

> cation, Bob Goldstein's home, to honor and celebrate Jennifer's career. Jennifer's two children, Erika and Aaron, were also able to surprise their mother, with Shel, Jennifer's husband, being part of the conspiracy of silence, skillfully managing to get Jennifer to Bob's home on time without letting on as to the evening's event.

Jennifer started her career with the predecessor society, the Society for Magnetic Resonance in Medicine (SMRM), on 1 September 1987, as a part-time accountant. Over the years, she has seen the merger of the Society for Magnetic Resonance Imaging (SMRI) with the SMRM, worked under four Executive Directors, attended 21 annual meetings (there were two in 1994), and has consistently and effectively



helped manage a staff that numbered only three, including herself, when she started, to today, with a staff of 17.

Jennifer took over administration of the SMRT in 1992, the same year she became the ISMRM Assistant Director (now titled Associate Executive Director), and has skillfully lead the SMRT from only 530 members in 1992, hosting just 3 regionals in North America annually, to over 2200 members today, hosting 12 regionals internationally annually.

With family, friends, and co-workers present, Jennifer was honored with congratulatory notes read from SMRT members, many toasts, and a very boisterous special rendition of a familiar tune, words altered, of course, to fit the occasion (see words to the left).

I am honored to have worked with Jennifer since 1992. We have literally traveled the world together—from New York to San Francisco, from Nice to Vancouver, from Sydney to Philadelphia, from Denver to Glasgow, from Honolulu to Toronto, from Kyoto to Miami, from Seattle to Berlin. She is more than my co-worker. She is my friend.

Congratulations, Jennifer. We are indebted to you for your service to this organization. S



Jennifer Olson and ISMRM Executive Director, Roberta Kravitz

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Paul McElvogue, R.T.(R)(MR) Chair Publications Committee

The MRI Technologist List Serve is hosted by the Section for Magnetic Resonance Technologists (SMRT). A list serve or *list serv* is a simple system that allows persons with like or similar interests to actively communicate with one another via e-mail. The list serve works by distributing all messages sent to it to all subscribers of the list. Responses can be made back directly to the specific person who posed the questions or to the whole list allowing everyone to benefit from the answers. The MRI Technologist List Serve is a closed list designed specifically for issues and topics related to MRI scanning.

Guidelines to E-Communication Etiquette

Be Polite and Think Before You Send This is the single most important caveat to remember when composing e-mail. Because e-mail is so simple and quick, it's easy to respond without thinking a great deal about what you intend to say. Avoid the mistake of replying hastily and less politely than you would say in face-to-face conversation or on the telephone--when you probably would take a moment to consider what you want to say. Remember, you want to achieve a certain effect with an e-mail message, just as you do with any form of human communication. Don't be fooled by the ease of firing off a message electronically! That message still represents you to your recipient, and it should represent you well.

Capitol Letters Avoid typing your messages in all capital letters because IT LOOKS LIKE YOU'RE SHOUTING! Most people find this very irritating. Using all lowercase letters is not viewed quite so disparagingly, but many e-mail users dislike this technique as much as all caps.

Professionalism As in all correspondence, professionalism needs to be reflected for ourselves as well as our organization.

Efficiency: E-mails that are directed to the correct individual, that are to the point, and properly worded are more efficient and more likely to receive a response.

E-Mail Etiquette Tips

Subject Lines Use the subject line to help the receiver quickly identify what is being sent. With the volume of e-mails that we all receive, being able to scan subject lines quickly helps us determine which messages may be a higher priority and need immediate attention.

Be Concise Don't make the message longer than it needs to be. Match your message length to the essence of the communi-

cation. If it's a quick query, keep it short and to the point.

Format Keep to plain, straight running text. Many e-mail programs can't interpret special formatting in messages and can cause problems. Just because you can doesn't mean you should.

Proper Spelling, Grammar, and Punctuation This should go without saying. Take the time to read the message before it is sent. Don't write in capitals – remember it is commonly interpreted as yelling. Keep the punctuation useful.

Be Courteous E-mail is all about communication, so use some basic courtesy. If you're asking for something, it never hurts to say please. Similarly, if someone has done something for you, it is nice to follow with a thank you. E-mail seems less formal and some people also feel it is ok to be abrupt, short and sometimes rude. If you wouldn't say it to their face, don't put it in an e-mail

Use Signatures This is just another form of communication so complete your message with your "signature" that states name, title, organization, and contact information to appropriately identify yourself. You can send a note to the list requesting that you receive messages in a Digest Mode format. This is if you want list messages grouped to show up in your mailbox twice a day versus showing up in real-time.

Other Points to Consider

• *E-mail messages are public records* Don't be fooled by the illusion of privacy even on a "closed" list. Don't commit anything to e-mail that you wouldn't want to become public knowledge. With that said, messages posted on the MRI Technologist list serve should not be forwarded or copied to anyone outside the list without the author's permission.

• *Be careful with your use of humor and sarcasm* The reader might not understand your intention. What is humorous to you may be offensive to others. Use labels, explanatory notes, or emoticons to alert the recipient that a message is meant to be taken humorously. Facial expressions, voice inflection and other cues that help recipients to interpret a message are absent from e-mail. Keep in mind that the MRI Technologist List Serve has members from many countries. Don't assume that everyone will understand a reference to TV, movies, pop culture, or current events in your country. If you must use the reference, please explain it.

• Avoid sending e-mail in anger or as an emotional response It is best not to send these kinds of messages over e-mail. Such situations are better worked out in person or in another forum. If you are caught in an argument or disagreement, keep the discussion focused on issues rather than the personalities involved. If you receive a message or posting that generates negative feelings, set it aside and read it later. An im-

mediate response is often a hasty response. Re-read your e-mail for content and tone before you send it to the list. Don't rule out the possibility that a misunderstanding or misinterpretation might occur. It is common with e-mail because of the lack of physical cues.

• *Disagreement with one person* If you should find yourself in a disagreement with one person, make your responses to each other via individual e-mail rather than continue to send messages to the list or the group. If you are debating a point on which the group might have some interest, you may summarize for them later.

• *Don't over-distribute e-mail* Every message you send creates work for someone else who must read, consider, and deal with the message. Take the time to edit any quotations down to the minimum necessary to provide context for your reply. Nobody likes reading a long message in quotes for the third or fourth time, only to be followed by a one line response: "Yeah, me too."

When replying to a posted message, check the e-mail address to be certain it's going to the intended location (person). It can be very embarrassing if they reply incorrectly and post a personal message to the entire list serve that was intended for an individual.

• *Be brief and to the point* Messages and articles should be brief and to the point. Don't wander off-topic, don't ramble, and don't send e-mail or post messages solely to point out other people's errors in typing or spelling.

In summary, many MRI technologists have expressed that the list is very beneficial to them. But, please keep in mind that the focus of the list is to share information specific to MRI. Posts and responses that are not directly related to this mission should not be sent to the list. If you wish to respond individually, that is your choice. The SMRT leadership addresses any inappropriate posts off-list. Please keep your questions and comments relevant to the focus of MRI scanning related topics. Happy listing!

Thanks to Jennifer Olson, Associate Executive Director, ISMRM; Carolyn Bonaceto, SMRT President; Charles Stanley, SMRT Executive Board Member; and Sally Moran, Director of Electronic Communications, ISMRM for their contributions to this article.

List Serve Prompts

The MRI Technologist List Serve is hosted by the Section for Magnetic Resonance Technologists (SMRT). http://www.ismrm.org/smrt

To subscribe to the MRI-Technologist List Serve, just fill out the online form on the SMRT website.

To change your email address or halt participation in this listserv, please contact: mr_tech_list@ismrm.org

For instructions on how to use this list, please go to http://www.ismrm.org/aboutlists.htm

You can send a note to the list requesting that you receive messages in a Digest Mode format. You can decide that you want list messages to show up in your mailbox all at once, once a day or twice a day.

List serve members can review the archives for previous and current posts. To gain access to the MRI Technologist List Serve Archives:

1) Send an email from the e-mail address you have registered with this list serve to: MRI_Technologist-confirm@ ismrm.org

You will receive an automated email back with a confirmation ID number in the subject line of the email, as well as some nonessential language in the email itself, though it will repeat the confirmation ID number.

2) Then when you go to http://mailserver.ismrm.org:8100/Lists/MRI_Technologist/List.html You will be prompted for a user name and password. It should be as follows:

User Name: Your email address Password: The confirmation ID number

This will allow you into the archives.

Any specific questions or issues with the MRI Technologist List Serve, please contact Sally Moran, Director of Electronic Communications, ISMRM / SMRT at the following e-mail address: Sally@ismrm.org





Anna Kirilova, B.Sc., R.T., (R)(MR) Caron Murray, M.R.T., (R) AC, (CT)(MR)

Nancy Talbot, M.R.T., (R)(MR)

From the 2007 Program Committee Co-Chairs The 17th Annual SMRT Meeting 3-4 May 2008 Toronto, Ontario, Canada

The program for the SMRT 17th Annual Meeting to be held 3-4 May 2008 in Toronto, Ontario, Canada is educational and diverse. We have a fantastic lineup of speakers and topics to provide you with MRI information you can use in your daily practice. See the schedule at the right.

Our Program begins on Saturday, 3 May 2008 offering a blend of Physicians, Scientists, and Technologists presentations. The Annual Business Meeting is a chance for you to be introduced to newly elected Policy Board members, witness the award recipients and hear about what the Section is doing around the world on your behalf. After the didactic part of the day we will continue with the SMRT Reception and Poster Walking Tour starting at 17:30. Every year, the success of this event has been due to the truly phenomenal abstract submissions from technologists and radiographers worldwide. We have both clinical and research categories showcasing the incredible work our technologists and radiographers are performing in their daily duties. After the poster session there will be a reception providing opportunity to relax and mingle with our fellow MRI Technologists and Radiographers from around the world and an opportunity to get ideas to submit your work for the next annual meeting. Sunday will continue the didactic program with a full day of educational presentations.

Your registration for the SMRT Annual Meeting allows you to attend the ISMRM/SMRT Joint Forum, which will be held at 14:00, Monday, 5 May 2008. This year, the forum topic is titled: Nephrogenic Systemic Fibrosis - A Multidisciplinary and Global Issue organized by *David W. Stanley, B.S., R.T.(R)(MR)*. This two-hour forum will provide participants with the most current information concerning the onset of NSF after the administration of intravenous contrast material for MR imaging.

Registration for the meeting is open now, and the early registration deadline for reduced program fee is 19 March 2008. You can register on-line and reserve your hotel at http://www.ismrm.org/smrt/08/.

Make your plans now to attend this meeting of "MR Education Unlimited" in the beautiful city of Toronto.

Program Committee Update

"MR Education Unlimited" Time Saturday, 3 May 2008 Sunday, 4 May 2008 Welcome & Announcements Welcome & Announcements Carolyn Bonaceto, B.S., R.T., (R)(MR) Wendy Strugnell, BAppSc (MIT), SMRT President 2007-2008 07:45 SMRT President 2008-2009 Anna Kirilova, B.Sc. R.T., (R) (MR) Nancy Talbot, M.R.T. (MR)(R) 2008 Program Co-Chair 2008 Program Co-Chair Moderator: Moderator: Charles Stanley, CRA, R.T., (R) (CT) (MR) Cindy Comeau, B.S., R.T., (N) (MR) **Radio Frequency and** Vascular MRA (1.5 and 3T) **Specific Absorption Rate** 08:00 Considerations Brian DeSouza, R.T., (MR) Joel Felmlee, Ph.D. Body MRI 2008: **Clinical Cardiac MRI:** Tips & Techniques 09:00 **Optimize Your Workflow!** & New Advances Cindy Comeau, B.S., R.T., (N) (MR) Russell Norman Low, M.D. 10:00 Break Break Moderator: Moderator: Anne Marie Sawyer, B.S., R.T., (R) (MR) David Stanley, B.S., R.T., (R)(MR) Challenges in 10:15 **Musculoskeletal MRI** Dominic Kennedy, BAppSc (MIT) Parallel Imaging Jason Polzin, Ph.D. Veterinary MRI 10:45 James Stuppino, B.S., R.T., (R(MR) 11:15 SMRT Business Meeting **Proffered Papers** 11:45 **SMRT Awards Presentation** and Luncheon 12:00 SMRT Luncheon Moderator: Moderator: Vera Miller, B.S., R.T., (R(MR) Steven Shannon, R.T., (R(MR) Advances in Pulse Sequences/ Safety Forum: Molecular Imaging **MR Safety Update** 13:00 Michael D. Noseworthy, Ph.D. Emanuel Kanal, M.D., F.A.C.R. Challenges & Opportunities President's Award 14:00 for the MR Safety Officer **Proffered Paper** John Posh, R.T., (R) (MR) 14:15 **Proffered Papers** 15:00 Break Break Moderator: Moderator: Caron Murray, M.R.T.(R)MRT(MR) Pamela Vincent, R.T., (R) (MR) 2008 Program Co-Chair Hot Topics in Breast MRI **Brain Imaging Medley** 15:15 Thomas Helbich, M.D. Carolyn Roth, R.T., (R) (MR) (CT) (M) (CV) Artifacts & Remedies Forum Imaging the Pregnant 16:15 John Christopher, B.A., R.T., (N) (MR) Patient Laurian Rohoman, R.T., (R) (MR), ACR Leena Mammen, M.D. 17:15 Adjourn **SMRT Reception Poster Walking Tour** 17:30

SMRT 17th Annual Meeting Program Schedule



Education Committee Report

Sonja K. Robb-Belville, B.S., R.T. (R) (MR) Chair Education Committee

Annual Meeting Abstract and Poster Submissions

Cach year the SMRT offers MRI Technologists and Radiographers worldwide an opportunity to share their knowledge by submitting an abstract for presentation at the annual meeting. As you read this, abstracts have been submitted for 2008 and scoring by members of the education committee is underway. Each submission is blinded in the Berkeley office so that the identity of the author and the institution is unknown to the judges. For some, this will be a new experience and for others this will not. Some have submitted abstracts themselves in the past, and will be doing so again this year. Some have never done so, but will surely be inspired by what they see and read. Because there is an opportunity for conflict, the panel will include alternates who can step in to review an abstract another judge may have authored. Over the past several years the number of abstracts submitted annually has grown steadily, and the work submitted comes from Technologists and Radiographers around the globe demonstrating that the SMRT is truly a worldwide organization.

Once the first round of scoring is complete the most outstanding abstract, determined by the highest overall score, will receive the President's Award. The winner of the President's Award will present their work as an oral presentation and may also display the work as a poster. This individual also receives an educational stipend to attend the annual meeting. In addition to the President's Award, there are 1st, 2nd, and 3rd place awards for Proffered Papers in the clinical and research focuses. The Program Committee has allowed time during the annual meeting for these seven oral presentations. This is an honor for the authors and a great learning experience for the attendees.

"While the task of submitting an abstract might seem daunting, the experience will prove very rewarding."

The remaining abstracts may be submitted as posters. In the second round of scoring, the members of the education committee select the 1st, 2nd, & 3rd place posters, again in the clinical and research focuses. This year the authors of the award winning posters will give oral presentations of their submissions during the Poster Exhibit and Walking Tour Reception. Each year, the quality of the posters makes the Poster Exhibit and Walking Tour Reception a huge success. The organizers of this meeting are confident that the trend will continue, with even more submissions this year. In addition to the oral presentations by the award recipients, several of the poster authors will be available to present their posters during the reception. These presentations offer attendees the chance to ask questions and develop a better understanding of the authors' work. The Poster Exhibit and Walking Tour Reception is

also an excellent time to acknowledge and thank all the authors for their efforts.

While the task of submitting an abstract might seem daunting, the experience will prove very rewarding. Authors submitting an abstract for the first time may contact the SMRT Education Committee Chair to be assigned a mentor to assist them through the process. The SMRT strives to make abstract submission accessible and feasible to all MRI Technologists and Radiographers, regardless of the setting in which they practice by accepting submissions for both the clinical and research focuses. The SMRT website offers very detailed and valuable instructions on how the process works. The day-to-day activities of Technologists or Radiographers working in the clinical setting offer a wealth of subject matter that can translate into a first class abstract submission. Technologists or Radiographers have an opportunity to share an idea that has made an improvement in workflow, patient care, or any number of other subjects. Have you noticed that you are more successful with claustrophobic patients using a particular method than another? There's an abstract in there somewhere. Abstracts need to state a purpose, explain the method, demonstrate the results, and draw a conclusion.

If you missed the deadline this year, please consider submitting your abstract next year. Your administrator is far more likely to approve travel for education purposes when you can show that you have become active within and have contributed to your field. Next year's meeting is in Honolulu, Hawaii; it would be great to see you and your work there! S

ISMRM 16th Scientific Meeting & Exhibition ~ Toronto ISMRM/SMRT Joint Forum Monday, 5 May 2008

Nephrogenic Systemic Fibrosis - A Multidisciplinary and Global Issue

14:00-14:25 Emanuel Kanal, M.D., F.A.C.R

"NSF: Where have we been, where are we going". Review the history of MRI contrast agents linked to this disease. Provide an update on patient management recommendations.

14:25-14:45 Tim Leiner, M.D., Ph.D.

"NSF: Challenges of Gadolinium & NSF outside of North America". A global perspective of the challenges related to NSF and gadolinium.

14:45-15:05 Eric Williamson, M.D.

"Gadolinium and NSF: Risk factor screening and contrast administration." Discuss findings from an extensive review of patient files. Review techniques for risk factor screening and alternative approaches to imaging in the "at risk" population.

15:05-15:30 Cindy Comeau, B.S., R.T., (N)(MR)

"NSF Management: A Technologist Perspective". Technologist perspective-implementation of new screening procedures, MRA protocol optimization, patient management.

> **15:30 PM-16:00** Q&A session with panel discussion

Additional Continuing Education Credits are Available in Toronto!

Several courses throughout the scientific portion of the 16th Annual ISMRM Meeting will award Category A Continuing Education Credit to MR Technologists/Radiographers.

The low registration cost for SMRT members to attend the ISMRM Scientific Meeting makes this an excellent value.

Please consider extending your stay in Toronto to take advantage of the excellent opportunity and stay tuned for future announcements on which courses will qualify!



SMRT President and Policy Board Election Results

Cindy R. Comeau B.S., R.T., (N)(MR) Chair, Nominations and Awards Committees

Hs Chair of the

Nominations Committee, I'm honored to announce the elected candidates for SMRT Policy Board 2008. These candidates include Maryann Blaine, Massachusetts College of Pharmacy and Health Sciences, Boston, Massachusetts, USA; Joseph Castillo, St.Luke's Hospital, Mater Dei Hospital, G'Mangia, Malta; Stephen N. Darty, Duke University Medical Center, Durham, North Carolina, USA; Ben Ken*nedy*, Medical Imaging Department Royal Children's Hospital, Brisbane, Queensland, Australia; Ashok Saraswat, Ohio State University Medical Center, Columbus, Ohio, USA. I would like to extend a word of congratulations to all of the elected professionals!

These new SMRT Policy members will

serve for three years starting at the annual meeting in Toronto, 2008. Our elected President-Elect will be *Pamela S. Vincent*, National Institute of Health, Bethesda, Maryland, USA. She will serve as President Elect for one year and assume office of SMRT President at the annual meeting in 2009 in Honolulu, Hawai'i. I have had the honor to serve with Pamela on the Policy Board and I know the SMRT will certainly be in excellent hands with her at the helm!

Our Crues-Kressel award has been voted on this year by the members and it is my pleasure to announce that *Maureen D. Ainslie* is the recipient of this award for 2008. Maureen has certainly elevated our organization and promoting the mission of the SMRT with all of her contributions. She continues to motivate all of us on the importance of investing in yourself as a MR professional. Maureen will receive her award at the 2008 Annual Meeting in Toronto. I hope everyone will be able to attend the annual meeting in Toronto to congratulate Maureen on her accomplishments.

It has certainly been an honor to serve as the Nominations and Awards Committee Chair. As Past SMRT President this is a very important role to fulfill. I was very impressed with the Policy Board candidates this year as it was a very difficult choice when it came down to voting. I would like to thank all of the candidates whom did not get elected and hopefully they will consider submitting their names again for next year. Our global representation on the SMRT Policy Board is a reflection on the commitment in fulfilling our global mission as the SMRT continues to strive down this path in the future.

Let's meet our incoming SMRT Policy Board professionals:



2008 SMRT President Elect Pamela S. Vincent, M.P.A., R.T., (R)(M)(CT) is currently the

Cardiac MRI Research Technologist at the National Institutes of Health in Bethesda, Maryland. She has served as a member of the SMRT Policy Board and is on the education, program, publications and RCEEM committees where she is a home study reviewer. Pam is currently the chair of the Local Chapters Committee, and in this position, initiated the "Chapter Chat" column in the Signals newsletter, and has been working to increase membership and educational opportunities for members worldwide. At the 2007 SMRT Annual Meeting in Berlin she helped to organize and present the International Forum in conjunction with the global relations committee. She feels honored to be selected as SMRT President Elect. She will apply her knowledge and experience to further the goals of this organization and all of its members.

Maryann Blaine, R.T., (R)(MR), is the



current MRI Program Director at Massachusetts College of Pharmacy and Health Sciences. She is responsible for developing the program including determining curriculum and compe-

tencies to ensure that her graduates would be eligible for the ARRT's primary MR exam. She feels that one role of the SMRT is to serve as the technologist's link to the rest of the MRI world. In order to help the SMRT achieve that goal, Maryann is currently serving on the SMRT Education Committee. She is also a founding member of the New England Chapter of the SMRT where she is the current Secretary. She is honored to be elected for the SMRT Policy Board, and looks forward to serving on the Board.

Joseph Castillo, B.Sc. (Hons), M.Sc. (MRI), is the Principal Radiographer



(MRI) at St. Luke's Hospital, G'Mangia in Malta, Europe. He has played a key role in his country in the establishment of high quality

professionalism and knowledge in MRI. He has coordinated research projects in Thalassaemia, Musculoskeletal imaging, and also mentored in Students 1st Degree dissertations. He has served as President of the Society of Radiographers (Malta) from 2000 to 2005 has organized several academic meetings as he has organized the 1st EuroMed Congress of Radiographers and presented work at these meetings. In March 2008, he is an invited lecturer at the ECR in Vienna. Since becoming a member of SMRT in 2006, he has taken an active role in the education committee by scoring abstract submisions. He is honored to be elected for SMRT Policy Board and is looking forward to increasing the membership of SMRT especially from the European side.

Stephen N. Darty, B.S., R.T., (N)(MR)



is currently working at Duke University Medical Center's dedicated Cardiovascular MRI Center as a Technologist II. Most recently Stephen has devel-

oped and implemented an educational website for MRI technologists, currently being reviewed for CE credit application. Stephen plays a key role in the orientation and overseeing training of annual Cardiology fellows as well as assisting Level II and III visiting physicians with scanning and image interpretation. His extensive knowledge base and ability to understand and convey information has resulted in his recruitment to speak at professional meetings. Stephen is grateful to be elected as a candidate for the SMRT Policy Board and hopes his unique experience in cardiovascular MRI and research can be an asset for the SMRT.

Ben Kennedy, B.A.Sc., MMRT is cur-



rently working at the Royal Children's Hospital part time in MRI where he directs research applications. This year Ben moved to his current role

where he has established a new private MRI service for a Radiology company which is rapidly expanding and providing many new exciting challenges in many clinical directions. He has been an invited speaker on MRI for the Queensland Radiology Registrar training program and at Australian Institute of Radiography Seminars. He regularly participates in local MRI user group meetings, which are affiliated with the Australia New Zealand SMRT Chapter. He has since become the current Secretary for the ANZ Chapter and last year he Co-Chaired a very successful Regional meeting of the ANZ Chapter in Brisbane. He has also participated in writing quiz questions for the SMRT Homestudies. By being elected to SMRT Policy Board Ben hopes to promote the international exposure of the SMRT and further globalization in the future to setting high international standards for educating the MR technologist worldwide.

Ashok Saraswat, M.S., B.Ed., R.T., (R)(MR) is currently the Program Direc-



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tor and on Clinical Faculty at the Ohio State University College of Medicine. Over the years, Ashok has taken keen interest in MR education



Regional SMRT Seminar News: Montreal, Quebec, Canada

"The SMRT conference was quite educational and I enjoyed it thoroughly. Actually, it was the best set of lectures I have attended in a long time. Thank you for making the effort to provide such a helpful resource for the MR community." —Barry, attendee of the Montreal seminar via electronic mail.

Laurian Rohoman, R.T., (R)(MR) ACR

On October 20th, 2007 the fifth SMRT Canadian Regional Meeting was held at the McGill University Health Center, Montreal Children's Hospital Campus, Montreal, Quebec, Canada.The meeting was linked by videoconference to the Toronto General Hospital, Toronto, Ontario, Canada, and I would like to thank *Anna Kirilova* and *Nancy Talbot* for organizing this videoconference.

The meeting started a bit late due to technical difficulties. However, the Mc-Gill videoconference team was very well prepared and were able to correct the problem.

Dr. Lawrence Stein started the morning with his talk on "Update on NSF," a very hot topic these days. He gave a brief introduction on the history of NSF, the clinical presentation and the risk factors. He then went on to talk about patient screening and prevention.

The next speaker was *Dr. Carlos Torres* who gave a very interesting talk on "Spine Imaging." He showed intra-axial and extra-axial lesions and how to distinguish between them. He talked about the most useful pulse sequences and showed a few pathology cases.

After a short break, **Dr. Louis Wu** from

Policy Board continued from page 9

and has networked with MR experts from all over the world on MRI curriculum planning. He is a member of the "ISMRM MR Safety Study Group" and is serving on SMRT Education and SMRT Membership Committees. He assists with the North East Ohio SMRT chapter in Ohio as needed. He participates at the SMRT/ Toronto gave a very informative talk on "Liver MR: Tips and Optimization for Abdominal Imaging." He discussed protocol design, pulse sequences, showed a few of the most common pathologies seen with liver imaging and discussed some of the newer contrast agents. He also briefly discussed DWI in the abdomen.

SMRT Past-president, *Cindy Comeau*, followed with her presentation on "Cardiac MR at 1.5 Tesla." She discussed the advantages of cardiac imaging, applications and imaging optimization, an excellent overview for beginners as well as those already performing cardiac imaging.

After a nice lunch, Cindy continued with a great presentation on "MR Angiography: A Clinical Perspective." She discussed basic MRA principles, protocol considerations as well as vascular applications.

The next speaker was *Dr. Caroline Reinhold* who presented on "Female Pelvis: Optimizing your Technique." She explained how to optimize pelvic imaging and ways to eliminate artefacts. After a short break, *Dr. Tom Powell* followed with his talk on" Musculoskeletal Tumors", a very interesting and to the point presentation. The last speaker of the day was *Dr. Maria Cortes* who gave a very informative presentation on "MRI Approach to Brain Tumors." She discussed the different types of pathologies and the most common pulse sequences used to diagnose them.

Despite the technical difficulties at the beginning of the meeting, the rest of the day went very smoothly and the meeting ended on time. We received very positive feedback and comments from the attendees from Montreal and Toronto on all aspects of the meeting.

On behalf of the SMRT I would like to thank our sponsors for their generous support, Bayer Health Care, Bracco Diagnostics, GE Medical Systems and Philips Medical Systems, Siemens Medical Solutions. Our speakers were wonderful; they were very committed to contribute to this seminar. I thank them also for their patience.

I would like to thank my co-chairs *Kathleen Mailly* and *Lyne Santello* for their help and support. And last but not least to Jennifer Olson and the SMRT staff for all their support, advice and help in making this meeting a success, thank you all. §

ISMRM annual meetings and volunteers to review SMRT e-posters from all over the world. With the help of his educational committee at OSU Medical Center, Ashok arranges annual MRI seminars to promote educational opportunities in MRI. He continuously seeks new information in his field and shares his opinions for example by actively interacting on the SMRT Technologist List Serve. Ashok is honored to be elected as SMRT board member, and in these challenging times he sincerely hopes to utilize his experience for the advancement of MRI Technologists world-wide. S

Regional SMRT Seminar News: President's Regional



"MRI is a separate modality with its own safety issues, physics, and patient care needs and it should have its own formal education programs."

Maryann Blaine, R.T., (R) (MR)

questions and comments.

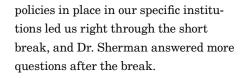
For all those who braved the storm on Saturday, 3 November 2007 to reach the Foxwoods Resort – Mashantucket, Connecticut it was an interesting seminar indeed. After registration and a continental breakfast, we all sat down to witness the world of mass media brought to us by *Charles Stanley*. Seeing the way MRI is portrayed in both the news and entertainment venues, it is a wonder we can get any of our patients to go into the magnet! We all know this information is out there, but somehow

this condensed version made us realize how difficult it must be for a patient to draw the line between reality and fiction. Our next speaker,

Gerald Conlogue, sparked our critical thinking skills with regard to paleoimaging.

He increased our awareness of the challenges and rewards of this unique imaging application, and he stressed the importance of educating student technologists in the basics of imaging so that they will be able to apply those basics to any situation. Mr. Conlogue also compared various imaging modalities with regard to paleoimaging.

After a short beverage break and spending some time with our exhibitors, Bayer and Invivo, we all put our thinking caps back on for a high energy presentation by *Candi Roth* about tips and tricks for optimizing our MR images. This presentation began with a review of the basics and led us through a multitude of MR images, artifacts, remedies, and new options and technologies. Candi finished the presentation with some important points regarding 3T imaging, which led to many To complete the morning, *Dr. Robert Mulkern*, a big "X-Files" fan, talked to us about what we could call the K-files, or spatial encoding.Dr. Mulkern presented this information in an interesting, concise manner while making us all laugh now and then as he does so well. This review of the basics of our imaging physics was well received and appreciated. Then it was lunch time. We all enjoyed a great buffet lunch and each others company for awhile, and then it was back to the conference room.



As the end of the conference neared, the last two speakers of the day shared the spotlight. First, was a presentation about the ARRT Primary Pathway to MRI Certification. Maryann Blaine explained the similarities and differences between the Primary Pathway and Post-Primary Pathway for MRI. She also discussed the importance of a formal education in MRI regardless of the pathway, pointing out that the complexity of MRI and the

> rapid growth of this modality makes this education essential. The rewards and challenges of a competency based clinical program were also discussed. Overall, the main point made was that MRI is a separate modality with its own safety issues, physics, and patient care

rumussi needs and it should have its own formal education programs. Last, but not least the CARE Bill as only *Carolyn Bonaceto*, our current SMRT President, can present this hot topic. President Bonaceto provided the group with a history of legislative attempts at some form of the present CARE Bill, and left us with some final thoughts on what it means to be recognized as professionals.

The end of a great one-day seminar had come to an end. Everyone gathered their belongings, certificates, and memories of an informative event and went out into the storm. The planning committee and attendees would like to thank all the speakers for sharing their knowledge and insight, *Dr. Frank Shellock* for his contribution of Handbooks and lanyards, and our sponsors BRACCO, GE, Bayer, and Invivo. S



President's Regional Organizers: Carolyn Bonaceto, SMRT President, Maryann Blaine, Vera Miller, and Janice Fairhurst

Dr. Steven Laken from the Cephos Corporation began the afternoon with an intriguing look at using fMRI as a lie detector. Dr. Laken gave us a brief overview of the research that has been done and what is going on right now. While being a part of this research would be both exciting and challenging, it seemed as though being an actual subject would not be exciting at all. In fact, it would actually be rather frightening. Speaking of frightening, Dr. Janet Sherman grabbed our attention with a discussion about NSF and gadolinium. This presentation was incredibly informative and up-to-date. Toward the end of the presentation Dr. Sherman spoke of contrast free MRA imaging, and how critical it is to follow the ACR Guidance for contrast administration. Discussion regarding the



Regional SMRT Seminar News: Northeast, Baltimore, MD

"I can not thank the speakers enough, the SMRT and our department leadership for the efforts made towards the continuing education of the technologists. We were very fortunate to have had such distinguished guest speakers. We thank the SMRT for giving us the opportunity to host a regional at our facility."

Carlos Portillo, B.S., R.T., Chair

On Saturday, 10 November 2007, the University of Maryland Medical Center in Baltimore, Maryland, USA, served as host to the SMRT Northeast Regional Educational Seminar. The agenda was modified due to unexpected events which caused two of our speakers to decline at the last minute. Our speakers were as follows:

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

Mr. Posh did a great job presenting an overview of MRI safety. John's wealth of "clinically useful" information coupled with his enthusiasm captured the attention of everyone in the audience.

Stacy Smith, M.D.



Dr. Smith presented MSK anatomy of the knee and shoulder. Her attention to detail provided a "how to" guide for imaging these structures ap-

propriately. In addition, the technologists were given insight into the necessity of various sequences to assist with clinical outcomes. Dr. Smith's lecture included sequence selection, angling to the anatomy, and positions such as the Abers view for MRI Arthrography.

Jade Wong, M.D.



While Dr. Wong was not in the original agenda, she did a remarkable presentation with very short notice. We are extremely grateful to

Dr. Wong. Her ability to "step up" at the last minute with such an interesting and informative lecture was phenomenal. She is very dedicated to the education of technologist on a day to day basis. Dr. Wong presented MRI of the pelvis. She discussed the structures in detail and provided examples of interesting pathology such as of those of mullerian abnormalities.

Charles Stanley, C.R.A., R.T.,



Charles Stanley provided a very interesting point of view about MRI "Unsafety" as portrayed by the

(R)(CT)(MR)

mass media. The presentation was very amusing but at the same time addressed some very interesting points about what our patients are exposed to from the mass media about MRI. It provided an insight of possible reasons of why patients can be apprehensive about having an MRI scan.

Robert Morales, M.D.



Dr. Morales provided a very detailed explanation of the skull base anatomy. It included all of the nerves and their courses. He pointed out how pro-

viding relevant patient history helps him to narrow down his attention to certain anatomic structures. He addressed the issue of uncooperative patients and pointed out the sequences that provided the most information to him.

Abraham Padua, R.T., (R)(MR)



Mr. Padua gave us an update about emerging MRI technologies. Short bore magnets, parallel imaging and sequences. He was much focused on patient

comfort, sequences and optimizing data acquisition. Patient comfort: he introduced us to the high field ultra short bore magnets, Espree, Avanto, Verio 3T. He introduced us to Tim System and TimCT. He gave pointers on how to manipulate Tim parameters to improve image quality and through out put. He introduced us to new sequences such as MRS, 3D T2, T2 restore, 3D flair sequences etc. Further more, he gave us technical pointers on how manipulate certain parameters to reduce SAR. Overall, he was amazing.

David Leftkowitz, M.D.



Dr. Leftkowitz presented on Multi parametric imaging. He explained

the concepts of MRS, DTI, and Functional MRI. He explained what MRS is and how it works including giving a brief description of the metabolites and where they appear on the MRS spectrum. He explained the concepts of DTI such as angular resolution and thresholds and how DTI data sets will help in patient care such in surgical planning. He gave us the basics of fMRI. We were introduced to the concepts and paradigms used during data acquisition. He provided excellent clinical examples. Overall his presentation was incredible and we all came out with a good understanding of how these new technologies work and aid in the care of our patients. S



SMRT members touring the MRI department at UMMC



Amanda Hunt Victorian State Representative, ANZ SMRT

She 2nd Annual

Meeting of the SMRT Australia/New Zealand Chapter took place on 17-18 November 2007 and for the second time in a row, proved a great success. Held at "Zinc" at Federation Square in Melbourne, Australia, with the backdrop of the beautiful Yarra River and the popular tourist area of Southbank, the meeting attracted 257 MR Radiographers and Radiologists from across Australia, New Zealand, Thailand, Singapore and Korea as well as guest speakers from the UK and the USA. Quite an international affair for a local chapter meeting!

Melbourne tried to live up to its reputation of having "four seasons in one day" and even though, in the end it was 30°C and sunny outside, the excellent range and quality of topics, and outstanding local and international faculty kept most delegates inside and attentive over the two day program. The program included comprehensive lectures on Neuro and Musculoskeletal topics, as well as basic and advanced Functional MR and MR Physics. The faculty included local and international speakers, each with significant expertise in their chosen topic.

Boxed picnic lunches gave delegates a chance to soak up the fabulous Mel-



Cindy Comeau and friend

bourne sunshine, whilst socialising and networking with colleagues from throughout the region. An informal Saturday night social function was held amongst the fish at the Melbourne

MEETING SPONSORS

GE Healthcare Technologies Symbion Imaging MIA Victoria – A Member of the I-Med Network Institute for Magnetic Resonance Safety, **Education and Research** Murdoch Children's Research Institute and the RCH, Melbourne **Philips Medical Systems Siemens Medical Solutions** Sonic Healthcare **Bayer Schering Pharma Duke Image Analysis Laboratory and** the Duke University Medical Center Covidien/Tyco Healthcare **GE Healthcare Medical Diagnostics** Imaxeon **Regional Health Care Group**

Aquarium. It was a fabulous venue, if not a tad surreal, eating sushi surrounded by tropical fish, creepy crawleys and a shark pool. A good time was had by all.

For the first time at the ANZ Meeting, the format allowed for proffered papers. Six presentations were allowed, with a year's membership to the SMRT the reward for First Prize. All papers were interesting, relevant and well presented, demonstrating the high standard of work being carried out by local Radiographers. The First Prize award for Best Proffered Paper went to **Damon Bennett**. Congratulations Damon! We look forward to next year's submissions.

Wendy Strugnell, President-Elect of the SMRT, gave an overview and update of the SMRT and its activities, and an-

nounced the new office bearers for the ANZ Chapter. For 2008-09 the ANZ Chapter President, Secretary and Treasurer will be (respectively) *Michael Macilquham, Glenn Cahoon* and *Ben Kennedy*. Also, for the first time, the ANZ Executive



will be supported by State Representatives from Australia and the North and South Islands of New Zealand.

Michael Macilguham

Overall the meeting was a fantastic opportunity

to catch up with colleagues from Australia, New Zealand, Asia, the UK and USA, to learn from experts in the field, and to be inspired to continue striving for excellence in our work. On behalf of all of the delegates, I would like to thank the speakers for generously donat-

ing their time and expertise, without which the meeting would not have been such a success. Special thanks to SMRT President-Elect *Wendy Strugnell*, and the meeting Co-Chairs *Michael Kean* and *Michael Macilquham*, as well as the members of the Organising Committee for their tireless work in planning and co-ordinating the meeting.

Of course, the seminar would not have been possible without the generous support of our corporate sponsors. The sponsorship format this year provided

Continued on page 15





"If you live in the metro Washington area and are interested in being involved with a chapter please contact Pam Vincent at vincentp@nhlbi.nih.gov. We would like to start a group for the Northern Virginia, D.C., and Maryland areas."

Pam Vincent, MPA, R.T., (R)(M)(CT)(MR) Chair, Local Chapters Committee

Happy 2008 from your SMRT local chapters committee. With the arrival of the New Year come some exciting new opportunities with brand new chapters currently being formed in several areas.

Europe/Scandinavia

How exciting! There is much enthusiasm for the formation of our first European chapters. The SMRT is really excited about these opportunities for our European colleagues.

Benelux Chapter

Filip DeRidder is heading up efforts to start a European chapter which will cover the Netherlands. Belgium and Luxemburg region. Their first meeting is scheduled for 12 April 2008 in Brussels.

Denmark

If you live in Scandinavia, *Anne Dorte Blankholm* is actively planning a meeting with technologists in Arhus, Denmark on 29 February and 1 March 2008. Interest is high, and we are eagerly anticipating a possible chapter forming in this region. If you live in this region, plan to attend and get involved.

SMRT Chapters are all over the world!

Getting involved in a local chapter gives you the opportunity to meet other technologists in your area, and exchange ideas.

It is a chance to update current skills and learn new ones. MR is a constantly changing, dynamic field

Local chapters provide a way to receive updates and learn the latest technology.

It is a way to improve ourselves, and advance our profession.

USA

• Grand Rapids, Michigan

Ron Skorstad from Grand Rapids area is currently forming a chapter. A meeting was held on 26 January 2008 at Spectrum Health to get this chapter started.

• Savannah, Georgia

A chapter is starting in the Savannah area. *Mary Lou Samaras* is heading up the organization. This would be our second chapter in the beautiful state of Georgia. A meeting is planned for the second quarter of 2008.

• Washington D.C.

If you live in the metro Washington area and are interested in being involved with a chapter please contact *Pam Vincent*. We would like to start a group for the Northern Virginia, D.C., and Maryland areas.

The SMRT is your organization. Why not take advantage of all it has to offer?

If you live in one of the above areas, contact the chapter representative, the SMRT office or Pam Vincent at vincentp@nhlbi. nih.gov and get involved.

Other Chapter News

The SMRT has many chapters across the US and in Australia/New Zealand. All the information is on the SMRT website. Meetings are planned for the following regions in the upcoming months.

South Carolina, USA

The South Carolina Chapter will hold a meeting on 15 March 2008 in Greenville, SC. They have a full program available to meet everyone's educational needs. Why not attend if you live nearby?

Rocky Mountain Chapter

The Rocky Mountain Chapter hosted a meeting 9 February 2008 in Denver Colorado. An outstanding program was held on that day.

See page 20 for upcoming Chapter meetings. Contact http://www.ismrm.org/smrt for the chapter near you.



External Relations Report

Charles Stanley, C.R.A., R.T., (R)(CT)(MR) Co-Chair, External Relations Committee

The responsibili-

ties of this committee are to attend/participate in organizations that are aligned in goals and vision with the SMRT or will enhance our presence in the healthcare community. This past quarter things have been very busy for the External Relations Committee. Following are reports on two areas of activity.

HPN

I attended the Health Professions Network meeting in September. The Health Professions Network is a group of health care professionals who represent the diverse specialties of allied health professions, including provider organizations, educators, accreditors, credentialing agencies and administrators. The group works together in a cooperative and interactive manner on issues relevant to workforce development and the delivery of health care in the United States.

At the recent meeting, members were

presented with lectures on subjects such as diversity in the workplace, media relations for organizations, state licensure of allied health professionals, and job outlook for allied health profession. Afterward groups divided into subcommittees that were working on various projects. The subcommittee that I am working with is the Health

Professions Awareness Committee. This

"The group works together in a cooperative and interactive manner on issues relevant to workforce development and the delivery of health care in the United States."

committee is working in conjunction with a major marketing firm (Bernard Hodes Group) to seek funding from a large corporate entity or foundation for a media campaign to raise public awareness of the need for more allied health workers, allied health educators, and allied health programs. This marketing group has been successful in helping to orchestrate a major media push for nursing that is funded by Johnson and Johnson (funding in excess of \$20 million). The committee has continued working throughout the past months and I have participated in 4 teleconferences and working sessions to develop components of this proposal.

RSNA

In November, I had had the honor of representing the SMRT as moderator of two separate refresher courses at the RSNA annual meeting. The courses were "Fusion Imaging" and "Radiology's Role in Disaster Preparedness". These courses were extremely well received and the Disaster Preparedness course was featured prominently in the RSNA meeting newsletter. This course was "standing room only" for all sessions and has been renewed for an additional 2 years (big thanks to *Maureen Hood* and *Julie Lowe* who were instrumental in recruiting speakers). S

Australia/New Zealand Regional continued from page 13

Platinum Sponsors the opportunity to briefly showcase their wares.

We look forward to welcoming everyone at the 3rd Annual Meeting of the SMRT Australia/New Zealand Chapter, 2008, to be held in Sydney, Australia. International colleagues, if you were ever thinking of a trip "Down Under" this could be the excuse you've been waiting for!



Assisting the attendees are: Kate Negus, Angela Agostinelli, Leah Best, and Emma Hornsey



Meeting organizers: Ben Kennedy, Wendy Strugnell, and Mike Kean



Back Row: Amanda Hunt, Leah Best, Angela Agostinelli, Emma Hornsey, Linda Mayberry, Kate Negus, Glenn Cahoon, Mike Kean, and Maureen Ainslie. Front Row: Chevaun Macilquham, Michael Macilquham, Ben Kennedy, and Wendy Strugnell

Global Relations Committee Report 1st Quarter 2008



For more information about the SMRT Regional Seminar in Denmark, please contact Anne Dorte Blankholm by E-mail: aid@sks.aaa.dk or Phone: +45 89495208.

Anne Dorte Blankholm M.SC., R.T., (MR)

The Global Relation Committee is working on promoting the SMRT in Europe. Anne Dorte Blankholm has been speaking about the SMRT at courses and giving

Preliminary Program SMRT Regional Education Seminar Denmark 29 February & 1 March 2008	Program Speakers
Friday 29 February08:00Registration and Coffee08:30Welcome08:35SMRT information08:50Contrast & NSF Update09:20GE Vendor Presentation09:50Break10:10DWI and PWI11:00Functional Imaging in Neurosurgery12:00Philips Vendor Presentation12:30Lunch13:30MR Imaging of the Fetus14:15Anesthesiology15:15Coffee & Transportation to "The Old Town"	Anne Dorte Blankholm Research Radiographer, M.Sc. Århus University Hospital Skejby, Denmark Kaare Brage Radiographer Copenhagen University Hospital Herlev, Denmark Lau Brix, M.Sc. Århus University Hospital Skejby, Denmark Sara Brockstedt, Ph.D. Lund University Lund, Sweden Cindy Comeau, B.S., R.T., (N)(MR) Advanced Cardiovascular Imaging New York, New York, USA Suzan Dyve, Ph.D., M.D. Århus University Hospital Århus Sygehus, Denmark
Saturday 1 March08:00Artefacts08:45Preparing Our Youngest Patients for MRI09:15Parallel Imaging09:45Coffee10:00Cardiac MRI: Technical Considerations10:30Plaque Imaging11:00kt-BLAST/SENSE11:30Female Pelvis12:15Lunch13:15Cardiac MRI: 1.5T Applications14:00Musculoskeletal14:30Close	 Won Yong Kim, M.D., Ph.D., DMSc. Århus University Hospital Skejby, Denmar John Gelineck, M.D. Århus University Hospital Århus Sygehus, Denmark Leif Østergaard DMSc., Ph.D., M.Sc., M.D. Århus University Hospital Århus Sygehus, Denmark Titti Owman Research Radiographer Lund University Hospital Lund, Sweden Lars Rybro, M.D. Århus University Hospital Skejby, Denmark

out handouts in Denmark and Sweden to encourage Scandinavian Radiographers to participate in the SMRT. In the Policy board we are working on making the application form easier to understand and hopefully this will lead to more voting SMRT members outside of North America.(A survey we did showed that less than 50% of the European members are voting members.) We are thrilled to be able to announce the first Regional Seminar in Europe:

The first SMRT Regional Educational Seminar will be held in Denmark 29 February and 1 March 2008, so please mark your calendars and join us for a pair of educational, informative and social days.

The Seminar language will be English to be able to serve participants from the **Global Community!**

We encourage Radiographers and Technologists to register for the seminar.

A large number of registrants for the meeting might show the interest of a local chapter in the future and SMRT Regional Educational Seminars to be a returning event in Europe.

Filip de Ridder is busy organizing an SMRT Regional Educational Seminar in Belgium. The seminar will be held 12 April 2008 in the Dutch language. We are happy to welcome *Maikel Junghans* from The Netherlands as new member of the Global Relations committee. S

Educational Seminars Update



Anne Marie Sawyer, B.S., R.T., (R)(MR) Editor SMRT Educational Seminars Home Study Program "As it turns out, MRI of the musculoskeletal system is just as complex as imaging in any other organ system."

We are pleased to present the SMRT Educational Seminars, Volume 11, Number 1: "Update: Musculoskeletal MRI." This is the thirty-ninth home study developed by the SMRT, exclusively for the SMRT members.

In the last couple of years, there has been much focus on the development of MR imaging sequences specific to musculoskeletal applications providing increased contrast, higher resolution and reduced scan and overall examination times. This is very exciting and certainly long overdue. In a recent introduction to an issue of the Journal of Magnetic Resonance Imaging, *John V. Crues III, M.D.* and *Graeme M. Bydder, M.B., Ch.B.* state profoundly "The majority

of clinical MRI studies performed worldwide target the musculoskeletal system, so it is

interesting that technical development in MR of the musculoskeletal system has received far less attention from manufacturers than for imaging and spectroscopy of the brain, cardiovascular system, and abdomen." They continue to say "This is unfortunate because the musculoskeletal system contains tissues with unique properties not shared with other organ systems."

For those of you who have been imaging with magnetic resonance since the early 1980's, I am sure you will remember the excitement with the initial scans of joints such as the knee and, albeit incorrectly, how easy we thought it would be to interpret the images. As it turns outs, MR imaging of the musculoskeletal system was just as complex as any other organ system. Hopefully, the articles selected to appear in this publication will serve to support and improve musculoskeletal MR imaging at your facility.

The number of MR extremity scanners continues to grow given their significantly lower installation costs. As with any MR system at any field strength, a knowledgeable and proficient MR technologist or radiographer is absolutely required in order to obtain the best possible image quality. Many studies in the literature have proven that these scanners offer diagnostic value dependent upon the expertise possessed by the operators, the radiologists, technologists and radiographers.

The "magic angle effect" has been long but intermittently discussed in MR imaging and often described as an artifact

to avoid. Despite the many inherent contrast mechanisms observed in MR images,

SMRT Educational Seminars Volume 11, Number 1

Update: Musculoskeletal MRI the authors of this article certainly understand that it is to our benefit to embrace any additional that serve to provide improved differentiation of tissues thereby improving diagnostic interpretation.

The last three articles delve into the latest "Frontiers of Musculoskeletal MRI" including 3.0T imaging, MRI of articular cartilage and steady-state free precession (SSFP)

imaging. It is precisely these developments in MR imaging that keep so many of us challenged and therefore intrigued by this modality.

We would like to express our appreciation to **Beth Winningham** (Alabama, USA) and **Steve Powers** (Massachusetts, USA) for writing the questions that compose the quiz. A very big thank you goes to **Kelly Baron** (Indiana, USA) for assisting in the selection of the articles and for participating as our expert reviewer.

Thanks also to *Paul McElvogue*, SMRT Publications Chair and in the Berkeley, California, USA office of the ISMRM/ SMRT, Jennifer Olson, Associate Executive Director, Mary Keydash, Publications Director, and the staff for their insight and long hours supporting these educational symposia.

Finally, we would like to thank *John Wilkie* and all of the superb people at Invivo/MRI Devices Corporation who support our home studies program, the SMRT Educational Seminars. Their continuing support of technologist and radiographer education brings quality continuing education to the SMRT membership worldwide.

MRI Contrast Agents & Nephrogenic Systemic Fibrosis*

(This article represents the views of its author only and does not reflect those of the International Society for Magnetic Resonance in Medicine and are not made with its authority or approval)

Nephrogenic systemic fibrosis (NSF), also known as nephrogenic fibrosing dermopathy (NFD), is a rare, relatively recent diagnosis, whose natural history is not well understood. The evidence to date is:

• NSF is a systemic fibrosing disorder with its most prominent and visible effects in the skin, but other signs and symptoms may be present (e.g., muscle hardening and/or weakness, as well as burning, itching, or severe sharp pains in areas of involvement)(1-4);

• So far, it has occurred only in patients with severe or end-stage renal failure, acute or chronic (stages 4 or 5, according to the classification of the National Kidney Foundation)(1-4);

• NSF appears to affect males and females in approximately equal numbers (1);

• NSF has been confirmed in children and the elderly, but tends to affect the middleaged most commonly (1);

• NSF has been identified in patients from a variety of ethnic backgrounds and from North America, Europe, and Asia (1);

• There is no definitive cure. There are some anecdotal reports describing at least partial responses to various therapies such as plasmapheresis, extracorporeal photopheresis, sodium thiosulphate, and thalidomide (1, 2). The disease is progressive. NSF can be fulminant in approximately 5% of cases and can be fatal (1).

• NSF may occur after exposure to gadolinium-based contrast agents in patients with, acute or chronic severe renal insufficiency (glomerular filtration rate <30 mL/min/1.73 m2), or acute renal insufficiency of any severity due to the hepato-renal syndrome or in the perioperative liver transplantation period (3-16). To date, there is no evidence that other patient groups are at risk.

• Recent reports have strongly correlated the development of NSF with exposure to gadolinium-containing MRI contrast agents;

• To date, the majority of NSF cases have been reported in



by Frank G. Shellock, Ph.D.

Adjunct Clinical Professor of Radiology and Medicine, Keck School of Medicine

Director for MRI Studies of Biomimetic MicroElectronic Systems

National Science Foundation, Engineering Research Center, University of Southern California, Los Angeles, California

President, Shellock R&D Services, Inc.

association with the administration of Omniscan (gadodiamide, GE Healthcare), and the second highest number of cases of NSF has been reported in association with the administration of Magnevist

(gadopentetate dimeglumine, Bayer Health-care).

• Several cases followed the administration of high doses of the product or repeated contrast-enhanced MR exams (high single or cumulative doses);

• In the vast majority of cases (approx. 90%), NSF develops in the first 6 months after the last exposure to a gadolinium chelate (80% in the first three months). Some reports suggest the development of NSF at 9 months, 12 months or even 2 years after the exposure to a gadolinium chelates. Gadolinium may be found in the skin of patients with impaired renal function up to 11 months after the administration of Omniscan (gadodiamide).

Open questions regarding MRI contrast agents and NSF include, the following:

• Does the entire gadolinium chelate molecule, the excess chelate or free gadolinium trigger NSF?

• How can gadolinium chelates, excess chelate or free gadolinium trigger NSF?

• If free gadolinium in skin may trigger the disease, is the risk of NSF lower with more stable chelates?

• Why has NSF developed in only 3-5% of patients with GFR < 30 mL/min after the administration of Omniscan? The incidence of NSF following exposure to other gadolinium chelates is unknown.

- What are the concomitant risk factors?
- Preventative measures: Any?
- Post-contrast dialysis: Does it help? If so, when?
- * Special thanks to Alberto Spinazzi, M.D., Bracco Diagnostics, Inc.

Continued on page 17

MRI Contrast Agents and NSF: Websites and Links to Obtain Current Information

- American College of Radiology http://www.acr.org/
- http://www.acr.org/SecondaryMainMenuCategories/quality_safety/MRSafety.aspx
- The International Center for Nephrogenic Fibrosing Dermopathy Research (ICNFDR) http://www.icnfdr.org/
- International Society for Magnetic Resonance in Medicine http://ismrm.org/
- http://ismrm.org/special/FDA.htm
- Medicines and Healthcare products Regulatory Agency
- http://www.mhra.gov.uk/home/idcplg?ldcService=SS_GET_PAGE&useSecondary=true&ssDocName=CON2031543&ssTargetNodeId=221
- United States Food and Drug Administration http://www.fda.gov/cder/drug/infopage/gcca/qa_20061222.htm
- http://www.fda.gov/cder/drug/advisory/gadolinium_agents.htm
- http://www.fda.gov/bbs/topics/NEWS/2007/NEW01638.html
- http://www.fda.gov/cder/drug/infopage/gcca/qa_200705.htm
- http://www.fda.gov/cder/drug/infopage/gcca/default.htm
- http://www.fda.gov/cder/drug/advisory/gadolinium_agents_20061222.htm

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29 FEBRUARY	DENMARK REGIONAL EDUCATIONAL SEMINAR
1 MARCH	Arhus University Hospital, Arhus, Denmark
15 March	SOUTHEAST REGIONAL EDUCATIONAL SEMINAR Patewood Medical Office Building, Greenville Hospital System, Greenville, South Carolina, USA Hosted by the SMRT South Carolina Chapter
12 April	BENELUX (BELGIUM, NETHERLANDS, LUXEMBURG) EDUCATIONAL SEMINAR Universitair Ziekenhuis Brussel, Brussel, Belgium
3-4	SMRT 17 TH ANNUAL MEETING
May	The Metro Toronto Covention Centre, Toronto, Ontario, Canada
З-9	ISMRM 16 TH SCIENTIFIC MEETING & EXHIBITION
Мау	The Metro Toronto Covention Centre, Toronto, Ontario, Canada

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