

SMRT PRESIDENT'S MESSAGE



"There are a wide range of opportunities available for you to become more involved and expand professionally."

Pamela Vincent, MPA, R.T., (R)(M)(CT)(MR)

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is coming to an end, and this is my last President's message. This past year has been a busy one. Together with the Executive Committee and the SMRT Policy Board, we have accomplished many things.

We have had several exceptional regional meetings this year, both in the USA and in Australia and Belgium. The 2010 President's Regional Seminar will be held in South Carolina, USA on 13 March. I would like to personally thank [Cindy Hipps](#), [Carol Lee](#), [Wendy Callahan](#), [Melonee Elrod](#), and the South Carolina SMRT Local Chapter for all of their help in planning and hosting this meeting.

New USA SMRT Local Chapters are in the process of forming in the states of Indiana and Texas. We also welcomed a new SMRT Local Chapter in Kentucky this year. We are always pleased to see new chapters form indicating a commitment to professional growth by those individuals who make the effort to organize in their area. SMRT Local Chapters are a vital part of our mission to provide quality education to our members within an accessible distance to their home and work place.

The SMRT *Signals* newsletter, under the guidance of Editor, [Julie Strandt-Peay](#) has had a successful year, producing four

informational issues with totally on-line web access. The Educational Seminars home studies series has also had a successful year, with [Anne Sawyer](#) as editor. We now have the ability to answer the post-test quiz on-line, making the earning of CE credits much more convenient. There are also additional online CE modules available. This past year, the SMRT began providing Webex broadcasts in cooperation with Invivo Inc. We have held three well received web broadcasts and look forward to continuing this partnership. These broadcasts will provide yet another avenue for meeting the educational needs of our members. Thank you to Julie and Anne for all your hard work this year.

I hope you will all join us for our 19th Annual Meeting to be held in Stockholm, Sweden, 1-2 May, 2010. We have a program planned that will be of interest to MR technologists and radiographers at all levels of experience. Our speakers include experts from around the globe, speaking on many dynamic areas within MRI. On Monday, 3 May, the ISMRM/SMRT Joint Forum will address a topic of interest to all who work in the field of MRI: "Safe Exposure Limits for Staff and Patients." The forum is a combined effort with the ISMRM, our parent organization, and always proves to be a valuable source of information. For those needing CE credits, we have also accredited several courses from the ISMRM

Monday–Friday program. All non-USA members will receive a certificate of attendance this year. For the first time, we have applied for accreditation with the United Kingdom. Once approved, radiographers from the UK will be able to receive credit for attending our meeting. We hope to see YOU in Stockholm.

I would encourage you if you are not involved in the SMRT, to look at the website and consider opportunities to

do so. There are many committees that can always use your expertise and require only a one-year commitment. There are a wide range of opportunities available for you to become more involved and expand professionally. Feel free to contact any current Policy Board Member, President-Elect, **Julia Lowe**, or myself if you have questions.

I want to say thank you to the SMRT Policy Board for their hard work this year.

Also, thank you to Jennifer Olson and the staff at the ISMRM office for all your help and patience this year. I couldn't have served this year without your support.

It has been a pleasure serving as your President this year. Thank you for your confidence in me, and for giving me this wonderful opportunity. It is a year that I will never forget.

I want to wish **Julia Lowe** much success as she begins her term of office in May. 



Editor's Letter

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

"Your suggestions and comments are welcomed as we strive to provide you with more current information."

Greetings,
As we begin another calendar year, it is evident the activities of the SMRT are well underway. We hear from President **Pam Vincent** as she shares her closing thoughts as President. Educational opportunities continue to expand through the efforts of the SMRT and the new local chapters which have formed this year.

Program Committee Chair, **Michael Macilquham** describes the sessions for the upcoming SMRT Annual Meeting in Stockholm, which is sure to provide an excellent educational opportunity for all who attend. **Maryann Blaine**, Education Committee Chair explains the process of scoring the many abstract submissions. The quality and quantity continues to improve as the MR Technologists and Radiographers around the world share their work. Attending the SMRT Annual Meeting also enables the attendee to participate in the Joint SMRT/ISMRM Forum. Co-Chair, **Ben Kennedy** explains the timely topic of discussion in his invitation to us.

The External Relations committee enables the SMRT to have a high level of

visibility among health care professional organizations, toward political efforts and within the MR community. **Charles Stanley**, Co-Chair, reports on the SMRT participation at the RSNA meeting.


The election results are in and **Wendy Strugnell**, immediate Past-President, and Chair, Nominating and Awards Committee share the names of those who will lead the SMRT for the next three years. The Crues-Kressel Award recipient, a familiar name, is announced as well.

Anne Marie Sawyer, editor, announces the latest in the SMRT Educational Seminars Home Study Program. Although quite technical, the educational material covers the topic well and should be helpful to all MR technologists and radiographers.

Once again, the Australia-New Zealand Chapter has held a successful educational seminar with speakers from across the globe. The planning has already begun for the 2010 meeting! Regional Seminars Committee Chair, **Carol Lee** presents the upcoming programs that are scheduled for 2010 to date. She invites members to consider hosting an educational seminar in their

own region with help from the central office. A good example of a successful seminar can be found in the report by **Hina Jaggi** of the Northeast Regional held in New York. SMRT Policy Board and Global Relations Sub-committee Member, **Joseph Castillo** announces the formation of a new MR group in his country of Malta.

Frank Sherlock announces his MR Safety update with information on the 2010 Reference Manual. Finishing this issue is the calendar of education events.

To better serve you, the leadership of the SMRT is considering increasing from the quarterly format of newsletters into a more frequent web-based posting. You would then learn of seminars and activities as they occur, rather than only four times during the calendar year. Your suggestions and comments are welcomed as we strive to provide you with more current information. Please feel free to contact me at jpeay@wi.rr.com and use **Signals** in the subject line, or send your comments to the SMRT office. Thank you for your continued support and happy reading! 



19th SMRT Annual Meeting Report

“MR Imaging Now and Into the Future”

Michael Macilquham, B.App.Sc., M.H.Sc., (MRI), MSMRT
Chair, 2010 Program Committee

*“This year’s program offers a diverse range of
forums including MR technology updates...”*

The Program and Education Committees would like to invite technologists from around the world to attend the 19th Annual Meeting of the Section for Magnetic Resonance Technologists. Our meeting will be held on the 1-2 May, 2010 in conjunction with the ISMRM–ESMRMB Joint Annual Meeting at the Stockholmsmässan, Stockholm International Fairs, Sweden. The goal of the SMRT is to provide quality educational opportunities for MR technologists/radiographers, and to foster and maintain a high level of professionalism in the field.

Feedback from previous meetings indicates that registrants highly regard the opportunity to present and hear proffered papers and poster presentations. We widely encourage technologists from around the world who are interested in sharing their work to submit abstracts for oral or poster presentation. The poster exhibition and walking tour will be a key event on the Friday evening prior to the weekend program. This is a great opportunity to meet other registrants, and to see the work of your peers in both the clinical and research environments. The structure of the meeting program allows for seven oral presentations. These presentations will be made by the authors of the top scoring abstracts, with the highest-scored overall abstract receiving the President’s Award. First, Second, and Third Place awards in both Clinical Practice and Research-Focused presentations will also be awarded. Authors of abstracts not selected for an award and subsequent oral presentation may also choose to submit an electronic poster for award consideration. Poster awards include First, Second, and Third Place awards in both the Clinical Practice

and Research categories.

This year’s program offers a diverse range of forums including MR technology updates, advances in safety, high and ultra-high field imaging updates, abdominal, paediatric, musculoskeletal, and neuro-imaging, as well as a forum on emerging technologies such as non-neuro spectroscopy, MR elastography (MRE), and fetal imaging. The SMRT Business Meeting will be held before lunch on Saturday. The Business Meeting is an open session for members to attend and learn what the SMRT is doing to further its mission and goals. Members choosing to attend will remain current regarding the activities of the SMRT over the previous year and the goals for the upcoming year. All members of the Policy Board and Executive Committee are introduced. This is an important part of the meeting where you as a member get to voice your questions/opinions to the Policy Board and Executive Members. Your attendance and interaction at this meeting is invaluable to the SMRT in continuously improving our networking with our membership and allowing the SMRT to increase its ability to evolve further as a global resource of MR education. On the Sunday afternoon, awards will be presented to our members who have helped fulfill the SMRT’s commitment to excellence in MR education. Awards will also be presented to the authors of the most outstanding papers and posters in the Clinical and Research-Focused categories.

Also, be sure to attend the SMRT and ISMRM Joint Forum presentation which will be held at 14:00 on Monday, 3 May 2010. Your registration for the SMRT Annual Meeting allows you to attend this forum. This year the forum

topic is titled “Safe Exposure Limits for Staff and Patients,” organized by **Penny A. Gowland, Ph.D.** and **Ben Kennedy, B.App.Sc. (MIT) MMRT**. Presenters include **Donald McRobbie, Ph.D.**, **Paul Glover, Ph.D.**, **Freddy Stahlberg, Ph.D.**, and **Sija Greers, R.T.** The joint forum, by design, is a grand collaboration of energy and talent between the ISMRM and the SMRT, and continuously aims to promote the highest quality of education in the MR world. The 2010 Annual Meeting is dedicated to providing these opportunities.

Scandinavia is one of the most interesting and geographically diverse parts of Europe. The city of Stockholm is Scandinavia’s largest city, and built on fourteen islands that are connected by 57 bridges. The city takes its unique character from the blend of 13th-century old town and high-tech modern architecture. Stockholm is the home of the Nobel Prize, and also has a unique selection of galleries and museums. Swedish design style is characterized by lightness of form, clean lines and functionality, which is represented by international companies such as H&M, Orrefors, Kosta Boda and IKEA. Sweden is also famous for music export represented by artists such as Roxette, The Cardigans, Robyn and ABBA. Stockholm generously offers a wide variety of international restaurants and many different cultural events every day.

On behalf of the 2010 Program and Education Committees, we are pleased to invite you to join us in Sweden for an educational symposium all about “MR Imaging – Now and Into the Future.” Let Sweden welcome you by the words:
Välkommen till Sverige! 

SMRT 19th Annual Meeting Program Schedule: “MR Imaging Now and Into the Future”



sweden

**SMRT Poster Walking Tour Reception:
Friday, 30 April 2010, 6:00 pm**

Time	Saturday, 1 May 2010
07:00	Registration
07:45	Welcome & Announcements Pamela S. Vincent, MPA, R.T.(R)(M)(CT)(MR) SMRT President 2009-2010 Michael D. Macilquham, B.App.Sc., MHSc (MRI) SMRT Program Chair 2010
	Forum 1: Physics and Technology Moderator: Sonja Kay Robb-Belville, MSRS, R.T., (R)(MR)
08:00	Physics Refresher Martin Graves, M.Sc.
9:00	From 3.0T to 7.0T A. Greg Sorensen, M.D.
9:30	High Field RF Coils & Techniques Stuart Crozier, Ph.D., D. Eng., FlinstP
10:00	Break
	Forum 2: MR Safety Moderator: Ashok Saraswat, M.S., Bed., R.T.,(R)(MR)
10:20	SAR: A Practical Guidance for MR Users Franz Hebrank, Ph.D.
10:50	Time Varying Magnetic Fields & Spatial Gradient Considerations Donald McRobbie, Ph.D.
11:20	SMRT Annual Business Meeting
12:00	Lunch
	Forum 3: Proffered Papers-Originations of MR Innovation: Research Focus Moderator: Stephen Darty, R.T.,(N)(MR)
12:45	President's Award Paper/ Proffered Papers President's Award: Measurement and Visualization of 4D Flow Characteristics in the Portal Venous System with 3T MRI Compared to Doppler US -Adriane Komancsek
13:00	1st Place Research Focus Award: Use of Clinical 3T MR System in Longitudinal Study of Anti-proliferative Drug Treatment in LPK Rodents - Sheryl Foster, MHSc.(MRS)(MRI)
13:10	2nd Place Research Focus Award: Evaluation of the Impact of Temporal Resolution on Harmonic Content of Phasic Temporal Flow Profiles of the Right Coronary Artery Blood Flow Measured using PC-MRI — John Totman, DCR (R) MSc
13:20	3rd Place Research Focus Award: MRI to Show the Reinnervation of Nerve Anastomosis After Spinal Cord Injury — Annette Merkle, (R)
13:40	SMRT Meets Scandinavia Titti Owman, R.T.(R)(CT)(MR) Anne Dorte Blankholm, M.Sc., R.T.,(MR)
	Forum 4: Technical Updates Moderator: J. Carol Lee, B.S., R.T.,(R)(CT)(MR)
13:45	Whole Body Imaging Harald Kramer, M.D.
14:15	Body Diffusion Weighted Imaging Dow-Mu Koh, M.D.
14:45	Break
	Forum 5: Neuro Moderator: Colleen A. Hammond, R.T., (R)(MR)
15:00	Applications of DWI and PWI Meng Law, M.D., MBBS, FRACR
15:40	fMRI From Paradigm to Analysis Amanda Wood, Ph.D.
16:20	Artifacts in Spine MRI Joseph Castillo, B.Sc., M.Sc.
17:00	Announcements/Close

Time	Sunday, 2 May 2010
07:00	Registration
07:45	Welcome & Announcements Julia Lowe, B.S., R.T., (R) (MR) SMRT President 2010-2011 Michael D. Macilquham, B.App.Sc., MHSc (MRI) SMRT Program Chair 2010
	Forum 6: Breast MR Masterclass Moderator: Janice Fairhurst, B.S., R.T.,(R)(MR)
08:00	Overview of Breast MRI Michael Knopp, M.D., Ph.D.
9:00	Techniques to Optimize Breast MR Chris Kokkinos, B.App.Sc., PgCert (MRI)
9:30	New Techniques for Breast MRI Brian A. Hargreaves, Ph.D.
10:00	Break
	Forum 7: Body MRI Moderator: Charles Stanley, CRA, R.T.(R)(CT)(MR)
10:20	Abdominal MR Artifacts Neil M. Rofsky, M.D.
11:00	Pediatric Congenital Cardiac Protocols Rod Jones, DCR, (R), M.Sc. (MRI)
11:40	Female Pelvic Imaging Laurian Rohoman, R.T.,(R)(MR), ACR
12:20	Lunch
	Forum 8: Clinical MSK Imaging Moderator: Maryann Blaine, MAT, B.S., R.T.(R)(MR)
13:00	Proffered Papers-Originations of MR Innovation: Clinical Focus 1st Place Clinical Focus Award: Evaluation of AIDS Dementia Complex (ADC) Using MRI in the Clinical Setting - Joanne Donovan, R.T.
13:10	2nd Place Clinical Focus Award: Validation of Flow Analysis Measurement Tools Used for Prediction of NPH Shunt Response — Sharmeen Joomun, R.T. (R)(MR)
13:20	3rd Place Clinical Focus Award: Fast Gradient Echo (FGRE) Imaging at 3T to Assess Hepatic Steatosis — Mark Smith, M.S., R.T., (MR)(R)
13:30	Musculoskeletal MR at 3.0T Garry Gold, M.D.
14:00	Cartilage Imaging Methods Hollis G. Potter, M.D.
14:30	SMRT Awards Presentation
14:45	Break
	Forum 9: Emerging Technologies Moderator: Muriel Cockburn, D.C.R., B.Sc.Hons
15:00	MR Elastography Richard L. Ehman, M.D.
15:40	Non-Neuro Spectroscopy Arend Heerschap, Ph.D.
16:20	Fetal MR Techniques Daniela Prayer, M.D.
17:00	Announcements/Adjourn



Education Committee Report

Maryann Blaine, MAT, BSRT(R)(MR)
Chair, Education Committee

"The SMRT is offering an additional opportunity to acquire continuing education credits in Stockholm throughout the scientific portion of the ISMRM-ESMRMB Joint Annual Meeting."

The 19th Annual SMRT Meeting is on the

horizon and the scoring of abstracts is currently underway. Fourteen members of the SMRT Education Committee have volunteered to score a total of 77 abstracts.

The first round of scoring will determine which of the clinical practice and research poster abstracts will be accepted, with the actual scoring to determine poster awards taking place in a second round of scoring. During the second round of scoring, the reviewers will select First, Second and Third place posters in both the clinical and research focus. All accepted posters will be on display 30 April 2010 during the SMRT

Reception and Poster Walking Tour with the award receiving posters being presented during this time.

The first round of scoring will also determine the recipients of the President's Award, which is presented to the best overall oral abstract, as well as the First, Second and Third place awards for oral abstracts in clinical practice and research focus. All award receiving oral abstracts will be presented as Proffered Papers during the SMRT Annual Meeting in Stockholm. Authors of oral abstracts not selected for presentation are invited to submit their abstract as a poster to be included in the second round of poster scoring for awards in the categories of clinical practice and research. The

presentation of both the oral and poster abstract award recipients is not to be missed.

Finally, the SMRT is offering an additional opportunity to acquire continuing education credits in Stockholm throughout the scientific portion of the ISMRM – ESMRMB Joint Annual Meeting. In addition to the credits available during the SMRT/ISMRM Joint Forum, there will be a total of 34 CE credits available for technologists/radiographers attending sessions through 6 May 2010. Stay tuned for the specific courses qualifying for CE Credit and be sure to consider extending your stay to take advantage of this opportunity. [S](#)

ISMRM – ESMRMB Joint Annual Meeting, Stockholm, Sweden • Courses Accredited for Technologists/Radiographers

Date/Time	1 – 6 May 2010 ~ Category A CE Credits	CE Credits
<i>Monday, 3 May 2010</i>		
11:00-13:00	SWI Metalheads: Imaging Brain Iron	2
14:00-16:00	SMRT & ISMRM Joint Forum: Safety Forum: Safe Exposure Limits	2
16:30-18:30	MRI Physics & Techniques for Clinicians	2
<i>Tuesday, 4 May 2010</i>		
10:30-12:30	Diffuse Liver Disease	2
	Cardiac MRI	2
13:30-15:30	Pediatric Imaging I	2
16:00-18:00	MRI Physics & Techniques for Clinicians	2
<i>Wednesday, 5 May 2010</i>		
10:30-12:30	Wrist Imaging	2
	Bowel Imaging	2
	Epilepsy Imaging	2
13:30-15:30	Non-Contrast MRA	2
	Stroke Imaging	2
16:00-18:00	MRI Physics & Techniques for Clinicians	2
<i>Thursday, 5 May 2010</i>		
10:30-12:30	MRI & the Arrhythmic Patient	2
13:30-15:30	Pediatric Imaging II	2
	Cardiac MRI	2
16:00-18:00	Case-Based Course: Guess That Artifact!	2
	MRI Physics & Techniques for Clinicians	2

Measurement and Visualization of 4D Flow Characteristics in the Portal Venous System with 3T MRI compared to Doppler US

A.Komancsek¹, Z. Stankovic¹, L.Eisebraun¹, P.Deibert² and M.Markl¹

¹Department of Diagnostic Radiology, Medical Physics, University Hospital Freiburg, Germany

²Department of Gastroenterology, University Hospital Freiburg, Germany

Introduction: Chronic liver disease can cause severe complications such as liver cirrhosis. It is often associated with pathological vascular hemodynamics in the portal venous system. Recent studies have shown that flow sensitive 4D MRI which permits the measurement of time-resolved three-directional blood flow inside a 3D volume can be a useful tool for the assessment of vascular hemodynamics. The resulting data can be used for the comprehensive 3D visualisation and quantification of flow characteristics. The purpose of this study was to evaluate a new imaging protocol depicting anatomical abdominal structures and simultaneously visualizing and quantifying 4D vascular hemodynamics in the portal venous system using flow-sensitive 4D MRI at 3T.

Methods: All measurements in the ongoing study were performed using a 3T MR system (Trio, Siemens, Germany) and a 12-element body coil. The study population consisted of 33 patients with chronic liver disease (mean age: 54.5±13.3), 28 young volunteers (mean age: 27.4±2.9) and 22 age matched volunteers: (mean age: 57.8±5.6), in total 83 participants. After positioning the liver in the isocenter of the magnet, single shot fast spin echo sequences with half Fourier phase encoding (HASTE) were used to measure morphological scout images in coronal, sagittal and axial orientations. (TR = 750ms, TE = 60ms, α = 160°). Next, flow-sensitive 4D MRI (time-resolved rf- spoiled 3D gradient echo sequence with three-directional velocity encoding) was applied using an axial oblique 3D volume which was positioned along the portal vein (see fig 1). Image parameters were as follows: vnc = 50cm/s, spatial res. = 1.6 x 2.1 x 2.4 mm³, α = 7°, TE = 3.0ms, TR = 44.8ms, 36 slices per slab, slice thickness = 2.4mm. ECG synchronization and respiration control (navigator at the spleen-lung interface) was applied, requiring particular attention for the accuracy of the two trigger-options. Data acquisition was executed during end-expiration and data acceptance rate was typically greater than 60%. Blood flow in the portal venous system was evaluated using 4D flow visualization (EnSight, CEI, USA) and flow quantification (Matlab) in manually placed planes at defined anatomical landmarks. Results were compared to the reference standard Doppler Ultrasound.

Results: The acquisition of flow-sensitive 4D datasets of the portal venous system was successfully performed in 30 patients (tot. acq. time = 48min ± 11.9min; 4Dflow: 13.8min 7.5min) in 26 young volunteers (tot. acq. mean time = 54.9 min ± 14.9min, 4Dflow: 21.2min ± 8min), and 19 older volunteers (tot. acq. mean time = 48.4min ± 9.8min, 4Dflow: 19.1min ± 7.3min). The average duration of the total examination was 50.5min ± 12.8min while the flow-sensitive 4D MRI scan took 17.7min ± 8.2min. 4D flow visualization in the complete portal venous system as shown in figure 2 was successfully performed in 75 of total 83 measurements (90.3%).

The reasons for the failed examinations were diverse. In 3 cases the patient/volunteer compliance was limited because of claustrophobia, in one case the measurement was aborted by the patient, in 2 cases the 4D flow datasets were overwritten and 2 patients suffered from high grade ascites which made image evaluation impossible.

Velocity measurements in MRI correlate well with results from Doppler US (table). The comparison of 2D and 4D flow measurements in MRI show no significant different values for peak velocity, flow volume and vessel area. Following parameters were analysed: Peak velocity, flow volume and vessel area

Conclusion: The results of our study demonstrated a positive performance of our MR protocol in 90% of all examined patients and good correlation with the reference standard Doppler ultrasound. In previous studies the feasibility of visualisation and quantification of 4D flow characteristics was already shown [1]. With a further optimized flow-sensitive 4D MRI sequence, particularly with respect to reduced measurement time, MRI may have the potential to provide reliable information about morphology and hemodynamics of portal venous flow.

References: [1]. Stankovic et al., ISMRM 09, p.3855; Deibert et al., Pharmacol Ther. 2006;23:121-8; Markl et al., JMRI 2007; 25:824-31

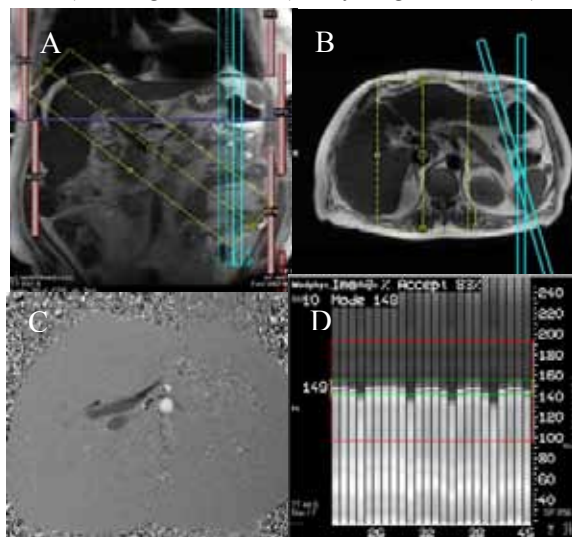


Fig. 1: A: 4D volume positioning on PV in COR; B: 4D volume TRA; C: phase contrast image of PV; D: navigator

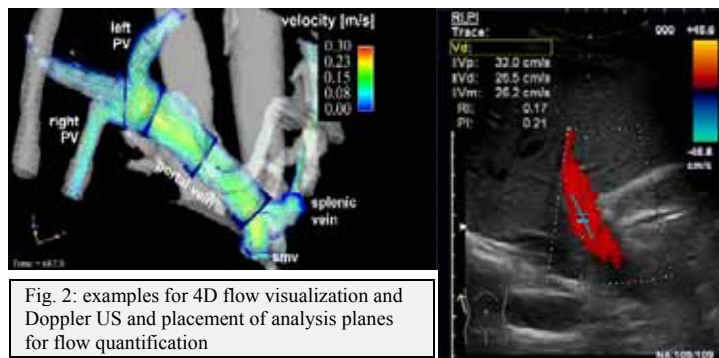


Fig. 2: examples for 4D flow visualization and Doppler US and placement of analysis planes for flow quantification

cm/s	MRI n=18	US n=18
Peak [v]	27.4 +/- 3.9	26.5 +/- 4.9
Mean Peak [v]	21.1 +/- 4.4	22.5 +/- 4.3

Table: correlation between velocity in MRI and US



Invitation to the SMRT/ISMRM Joint Forum

Ben Kennedy, B.App.Sc. (MIT) MMRT
Co-Chair Joint Forum Committee

"The forum, by design, is a collaboration of knowledge and talent between the ISMRM and the SMRT."

We would like to invite all those attending the Joint Annual Meeting ISMRM-ESMRMB to attend the ISMRM/SMRT Joint Forum on "Safe Exposure Limits for Staff and Patients." This forum will be held on Monday, 3 May 2010 at 14:00 hours, following the weekend SMRT 19th Annual Meeting in Stockholm, Sweden.

Your registration for the SMRT Annual Meeting allows you to attend this ISMRM/SMRT Joint Forum presentation.

The forum, by design, is a collaboration of knowledge and talent between the ISMRM and the SMRT. This relationship continuously promotes the highest quality of education in the MR field.

This year the ISMRM/SMRT Joint Forum is organized by **Ben Kennedy, B.App.Sc., (MIT) MMRT** (SMRT Executive Member) and **Penny Gowland, Ph.D.** (ISMRM), **Donald McRobbie, Ph.D.** will present his latest literature in "Staff Exposure to MRI." This will be followed by **Paul Glover, Ph.D.**, who will discuss "Interactions with

the Body." **Sija Greers, R.T.** will present "Current and Future Ramifications in the MR Workplace." **Freddy Stahlberg, Ph.D.** will conclude with the current "EU Directive." Following the presentations, there will be an open forum discussion. Given the differences in international opinion in this area, this joint forum promises to be a hot topic which will open the diversity in perception and interpretation of current and future MR work place practice. [S]



SMRT Election Results

Wendy Strugnell, B.App.Sc.(MIT)
SMRT, Past President

"Thank you to all the members who voted - your participation as a voting member is vital to the continued success of our vibrant international society."

On behalf of the Nominating Committee, I am pleased to announce that the President Elect for 2010 is **Charles Stanley** from Virginia, USA. Charles has dedicated many years of his professional life to the SMRT having served as the President of the Central Virginia Chapter and as a member of the Policy Board and Executive Committee. He is currently the Co-Chair of the External Relations Committee. Charles' motivation, intelligence and enthusiasm will be a great asset to the future strength of the SMRT.

For the 2009 elections, the membership was presented with an excellent slate of candidates for Policy Board. The elected candidates are: - **Glenn Cahoon** (Australia), **Mercedes Pereyra** (USA), **Betsy Sestina** (USA), **Barry Southers**

(USA) and **John Totman** (UK). All five are experienced and dedicated MR professionals who will make a valuable contribution to the SMRT leadership.

Congratulations to all the elected candidates. On behalf of the membership, the Nominating Committee wishes you an interesting, challenging, rewarding, and enjoyable time serving the SMRT over the next three years and beyond.

The membership of the SMRT has chosen to award the prestigious Crues-Kressel Award for outstanding contributions to the education of MR technologists to **John Posh** from the University of Pennsylvania, Philadelphia, USA. John has been a tireless and dedicated contributor to the education of MR technologists and radiographers throughout the world and his award is well-deserved. John will

receive his award at the 2010 SMRT Annual Meeting in Stockholm and I hope that many of you will be able to attend to congratulate John on his achievement.

The biographies of all the elected candidates follow. Please read them and learn more about the people who will be the future representatives of the SMRT, the premier and largest international society of MR technologists and radiographers.

I would like to take this opportunity to thank the members of the Nominating and Awards committees and the central office staff for their hard work and commitment to the SMRT during the election process. Thank you to all the members who voted; your participation as a voting member is vital to the continued success of our vibrant international society. [S]



Introducing Your Newly Elected Leaders

"Charles is focused on seeing the SMRT become increasingly recognized as the premier international society for MR technologist education and as the leading authority on all issues related to the delivery and operation of MRI technology services."

SMRT President-Elect

Charles T. Stanley, CRA, R.T., (R)(CT)(MR), Charlottesville, Virginia, USA



Charles T. Stanley is an MR technologist currently working as manager of CT/MRI/Advanced Visualization Lab at the University of Virginia Medical

Center. Charles started working in MRI in the mid-80s and successfully sat for the registry when it was first offered in 1995. Charles' career in medical imaging has included working as a staff technologist, lead tech, supervisor, radiology director, and Medical Center manager. In his current role, he has been instrumental in helping to make the cross-sectional imaging departments at UVA a sought after place of employment and has provided a number of unique training opportunities for technologists. Among these opportunities are intraoperative MRI, MR guided focused ultrasound, and multimodality cardiovascular imaging. Charles is a noted speaker on topics such as MRI safety, communications skills, workflow optimization, and regulatory issues. He has presented or moderated sessions at a large number of SMRT Regionals, SMRT Annual Meetings, RSNA Annual Meetings, and other sponsored meetings. Charles has been an active member of the SMRT for many

years serving in a number of roles. In addition to presenting and moderating, Charles has helped organize regional meetings in the central Virginia area including one President's Regional. Charles has served as the President for the Central Virginia chapter of the SMRT. Charles has also served on the SMRT Policy Board, the SMRT Executive Board as the Executive Member. As the Executive Member, Charles coordinated and moderated the SMRT/ISMRM Joint Forum at the ISMRM Annual Meeting in Berlin in 2007. He currently serves on the Executive Board as the Co-Chair of the External Relations Committee. This role has been critically important in favorably representing the SMRT at meetings such as the RSNA Associated Sciences Committee (solicits and organizes course content for the RSNA annual meeting); the Health Professions Network (a group of USA healthcare organizations working together on issues relevant to workforce development); and the Alliance for Quality Medical Imaging and Radiation Therapy (a coalition of 25 health care organizations dedicated to the provision of safe, high quality medical imaging and radiation therapy). This alliance has been instrumental in lobbying for passage of the CARE Bill in the USA. As the External Relations Committee

Co-Chair, Charles also oversees the Global Relations Sub-Committee which is instrumental in the liaison between the SMRT and relevant professional bodies worldwide. The endeavours of this committee enable the SMRT to increase its presence and relevance around the world. Charles would be honored to continue his dedication to our profession by serving as SMRT President and fulfilling the duties of the office. He feels this is a critical and challenging moment in our profession as technological advances, worldwide regulatory issues, healthcare reform, and a changing workforce are all issues that will face our organization over the next few years. He also feels now is an exciting time to serve with a dedicated group of professionals to define, educate, and support the evolution of our profession during these challenges. Charles is focused on seeing the SMRT become increasingly recognized as the premier international society for MR technologist education and as the leading authority on all issues related to the delivery and operation of MRI technology services. [S]



Incoming SMRT Policy Board Members

Glenn Cahoon, BApp.Sc., Dip.Ed., MApp.Sc., Melbourne, Victoria, Australia



After qualifying with a Bachelor of Applied Science in medical radiations from RMIT in Melbourne, Glenn began work at St. Vincent's Hospital, where he was first

introduced into the world of MRI. In 2001, he moved to the Royal Children's Hospital in Melbourne, where he has worked alongside his colleagues to develop a comprehensive pediatric MR imaging and research service. In addition to providing specialist staff training, Glenn has continued to further his own education. He holds a degree in clinical education, and was awarded

his masters in MRI with distinction in 2004. Glenn's specific interests include pediatric MR imaging, fetal MRI, and cardiac MR. In 2007, Glenn was elected to the position of secretary of the ANZ chapter of the SMRT. While in this role Glenn has been a strong advocate for technologist education and recognition. He has worked closely with the current faculty to formulate a framework that will ensure the continued success and growth of the local chapter, and provide a community for the free exchange of ideas and knowledge for MR technologists. Glenn has been instrumental in establishing regular local educational meetings for the Victorian Branch of the SMRT ANZ Chapter, and

has been involved in the organization of the highly successful SMRT ANZ Chapter Annual Regional Meetings. In addition, Glenn has presented a number of papers on a variety of MR topics at local, national, and international meetings, including presentations to the Society of Cardiac Magnetic Resonance (SCMR). Glenn is honoured to be nominated as a candidate for the policy board and is committed to the ongoing education, training, and promotion of MR technologists. Glenn hopes to use his skills, enthusiasm, and passion for MRI, to ensure the SMRT continues to provide high quality and accessible education, training, and support to MR technologists wherever they may be in the world. [S]

Mercedes Pereyra, MBA, B.S., R.T., (R)(CT)(MR), Houston, Texas, USA



Mercedes Pereyra has been in the field of MRI since 1989. She has been involved in the training of technologists as well as radiology fellows that have to work with different pulse

sequences and MR imaging parameters. MR physics is a complicated method and she recognizes the need to continue to educate professionals that are new to the field. Mercedes is a well-known cardiovascular technologist and she has presented many abstracts and papers to the SMRT and SCMR along with other organizations. She works in the Cardiovascular Research Lab at St. Luke's Episcopal Hospital in Houston, Texas,

USA. In the last ten years Mercedes has done consultant work for Philips Medical System in the area of the heart, which has given her the opportunity to travel all over the USA and work in different settings. The work in a clinical and academic set-up engaged Mercedes with teaching of numerous technologists, radiologists and cardiologists for the last 10 years. She is part of the faculty for a Cardiac Educational Symposium, which gives practical applications and parameters to image the cardiovascular system with MRI. Continuous education and training is the key to our success as MR technologists, which is why she gives lectures to promote new advances in the field. In 1990 she had the privilege to work with a 1.5 Tesla - Advanced Cardiac Package at St.

Luke's Hospital where she was working and she had the opportunity to start a cardiovascular MRI lab from the ground up. The constant efforts to improve image quality, as well as patient throughput, gave her the possibility to work on beta software and experiment with new pulse sequences before the software become commercial. She has been engaged with an investigational research team that involves both imaging and drug protocols as part of a core lab as well. Mercedes is honored to be nominated as a candidate to the SMRT Policy Board and thinks that she can offer to the Section of Magnetic Resonance Technologists a great deal of experience to help to meet the demands placed on technologists today. [S]

Incoming SMRT Policy Board Members

Betsy Sestina, B.S., R.T., (R)(MR)(CT)(M), Denver, Colorado, USA



Betsy Sestina graduated from Fullerton College, Fullerton, California in 1975 with a degree in radiologic technology. That same year she started a 23 year tenure at Poudre Valley

Hospital, Fort Collins, Colorado, USA in general radiography, mammography, and MRI. During this time Betsy also graduated with a teaching degree. In 1997, Betsy became a supervisor in an outpatient clinic in Phoenix, Arizona, USA and as a working manager continued to be involved in MRI and CT. In 2000, Betsy became an applications specialist for a medical device company participating in the roll-out of a new MR injector and new MR contrast. As an applications specialist she traveled the Western USA providing education to sales staff and clinical sites. With a

move back to Colorado, Betsy became a department supervisor at the University of Colorado Hospital. With an abundant amount of research being performed at this site, Betsy became interested in the opportunities research facilities offer. After a year as supervisor, Betsy became the main MRI research associate at Colorado State University Veterinary Teaching Hospital. She performed scans on clinic "patients" (mostly four legged, some two) and participated in research at the Animal Cancer Center. In 2005, Betsy attended the ISMRM in Miami and was introduced to a colleague that was looking for help with MRI CE's and education in Colorado. Being an educator, she jumped at the chance. Betsy co-chairs the annual meeting for the Rocky Mountain SMRT Chapter, and has served as the local president for the last five years. During her tenure as president, meeting attendance has increased every

year, from 40 participants the first year, to over 100 in February of 2009. She has also been on the SMRT Local Chapter Committee for the past three years. Betsy currently is working at a local hospital and is also the instructor for two new classes at Red Rocks Community College, Denver, Colorado in the Medical Imaging Department. Principles of CT and MRI have been added to the on-line curriculum and Betsy is thoroughly enjoying interacting with the faculty and the students. Betsy sincerely believes that education is the key to creating a multitude of opportunities for technologists, wherever they may want to go. Betsy is honored to be nominated as a candidate for the Policy Board. She believes that her enthusiasm for continuing education and her experience in both the clinical and corporate world will lead to a valuable addition to the membership. [S]

Barry Southers, BRST, R.T., (R)(MR), Cincinnati, Ohio, USA



Barry Southers is a registered radiologic technologist and MRI technologist, he is a full-time MRI faculty instructor and MRI program director for the Advanced Medical

Imaging Technology (AMIT) program at the University of Cincinnati, Ohio, USA. Barry is also an affiliate at the Center for Imaging Research (CIR), a MRI research center in the College of Medicine at the University of Cincinnati. Since 2003, he has worked in MR research, conducting cutting-edge MR imaging on research subjects, as well as currently conducting his own diffusion tensor imaging research on spinal cord injury patients. Certain types of studies he has worked on include functional MRI, brain and breast ^1H -Spectroscopy, diffusion tensor imaging, phosphorous (^{31}P) spectroscopy, and real-time functional MRI

and MR spectroscopy. Barry completed his radiography education at the University of Kentucky in 1992, and received a Bachelor's Degree in radiation science technology from the University of Cincinnati in 2007. He is currently working on a Master's Degree in Medical Education. Barry has been a radiologic technologist since 1992, and an MRI technologist since 1996. He has worked on several different scanner platforms and field strengths. He is a member of several radiologic technology and magnetic resonance imaging societies. Barry has recently established the Kentucky Regional SMRT Chapter—serving the state of Kentucky and regional areas of southern Indiana and southern Ohio—and he will serve as inaugural president. Barry has several years experience as a guest lecturer on both the national and international level. In August 2009, he was a guest speaker at the John Koveleski Memorial Regional SMRT Meeting held

in Hershey, Pennsylvania, USA, as well as a guest speaker in an Advanced Neuro Forum at the 2009 SMRT Annual Meeting, held in Hawaii. Barry received the First Place Research-Focus award at the 2008 SMRT Annual Meeting, held in Toronto for his abstract titled "Treatment Response of Quetiapine in Bipolar Mania Using ^1H -MRS." Barry presented at the 2008 ISMRM-SMRT Annual Meeting as well. He is the author of a published article on Magnetic Resonance Spectroscopy in RT Image Magazine, published in July 2007. Barry is a member of several university committees as well as one non-profit organization committee. Barry is truly honored to be nominated as a candidate to the SMRT Policy Board and hopes to apply his wide array of experience, education, and knowledge into better serving the global MR community, and to further advance the MRI profession. [S]

Incoming SMRT Policy Board Members

John Totman, DCR(R), M.Sc.



John Totman qualified as a radiographer in 1989 and for the past 14 years has been working exclusively in MRI. John completed a Masters in magnetic resonance technology

in 2003 via distance learning at the University of Queensland Australia, the largest MR centre in the southern hemisphere and is currently pursuing a part-time Ph.D. in physics at the Sir Peter Mansfield MR Centre, home of Nobel prizewinner Sir Peter Mansfield and arguably the UK's preeminent MR Centre. John has been fortunate to work

in centers of excellence in both neuro and body MRI, and has gained extensive experience, working on GE, Philips, Picker, Shimadzu, and Siemens systems. He has participated in the design or commissioning process of five separate MR centers during his career supporting a large variety of studies in addition to his own research scanning on 0.2, 1, 1.5, 3 and 7T systems 1.5 and 3T X MR suites. He is currently the senior research radiographer working for Kings College London at Guys and St. Thomas, hospitals involved in cardiac MRI. He has worked on and coordinated numerous research projects; publishing and presenting his own work both nationally

and internationally. In Miami 2005 he was honored to receive the SMRT President's award for work in using the hepatic perfusion index in MRI, this work has since been successfully published, and has also received first and second place SMRT research awards. John has also been keen in passing on his experience both in clinical and research MRI, presenting, lecturing and teaching at all levels. John is honored to be nominated as a potential candidate to the SMRT policy board and hopes his extensive and varied experience will be of value in the support of the aims of SMRT. [S]

Congratulations to the 2010 Crues-Kressel Award Recipient

John Posh, R.T., (R)(MR), Bethlehem, Pennsylvania, USA



John Posh graduated from the radiography program at Northampton Community College in Bethlehem, Pennsylvania, USA in 1987 and immediately entered the advanced imaging

program at Johns Hopkins in Baltimore, Maryland. Upon graduation, John accepted a position at the Graduate Hospital in Philadelphia, Pennsylvania. While there, John rose from staff tech to chief tech and ultimately to education coordinator in charge of the Clinical MRI Fellowship Program. During that time, John coordinated four NIH funded research projects on TMJ's, Airway Dysfunction, and Carpal Tunnel

Syndrome, and three privately funded forensic imaging projects studying fatal gunshot wounds and Sudden Infant Death Syndrome or SIDS. Also during that time John was the primary instructor in MRI physics, procedures, and safety at the Cooper Hospital School of Advanced Imaging in Camden, New Jersey, USA. Since then, John has held positions in management, research, and veterinary imaging but never stopped teaching. During the last 21 years, John has lectured extensively on numerous aspects of clinical and research MRI, veterinary MRI, forensics, and paleoimaging including the first published images of whole body MRI on a non-rehydrated mummy. John is an adjunct lecturer and forensic research associate with

the Bio-Anthropology Research Institute at Quinnipiac University in Hamden, Connecticut, USA and has been primary or co-author on 39 scientific presentations, several journal articles, and has contributed to two textbooks on paleoimaging and forensic imaging. John has had the pleasure of co-hosting six SMRT Regional meetings so far, and speaking at countless more. As of September 2009, John has returned to teaching full time as director of the MRI Fellowship Program at the University of Pennsylvania. John lives in Bethlehem, Pennsylvania with his wife, three children, numerous animals, and a basement full of occasional skeletons, mummies, and miscellaneous research specimens. [S]



External Relations: The SMRT at the RSNA 2009

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

"The SMRT joined with other health care professional societies in sponsoring a series of lectures given during the week."

The 2009 RSNA (Radiological Society of North America) was

another opportunity to showcase the benefits of supporting our society. Many MR technologists and radiographers from across the USA and around the world visited the SMRT booth on the exhibit hall floor. They were able to interact with other each other, meet members of the SMRT and receive information regarding the annual meeting and other SMRT educational opportunities available to members.

In addition, the SMRT joined with other health care professional societies in sponsoring a series of lectures given during the week. As External Relations Co-Chair, one of my duties is to assist in the planning of Associated Sciences lectures, moderating Associated Sciences sessions, and utilizing the feedback from attendees to ensure continued success of the Associated Sciences program at RSNA. Specifically this year, the SMRT sponsored two talks addressing imaging in the operating room.


The first talk was given by the esteemed **Dr. Ferenc Jolesz** from Brigham

and Women's Hospital, Boston, Massachusetts, USA. The title of this presentation was "Multimodality Imaging in the Operating Room." This offering provided a wealth of information, including the various roles of individual imaging modalities in the operating room, the advantages and disadvantages of each of these modalities in different applications, and also to demonstrate the complementary role of the imaging modalities. Included in the lecture was information about frameless stereotactic and navigational systems and how they performed in various surgical applications. Examples were provided of intra-operative CT, MRI, and PET scanning. There was also information shared about future events regarding multimodality imaging in both interventional radiology and in the surgical suite.

The second talk was given by **Dr. Michael Dake** of Stanford University, Stanford, California, USA. Dr. Dake's lecture was titled "Multidisciplinary Imaging in the Operating Room." This presentation focused on identifying the unique opportunities for multidisciplinary

teams of physicians to enhance imaging guidance for operative procedures. He discussed a range of approaches to sharing imaging equipment amongst physicians of different specialties working together in the same service area. Dr. Dake also reviewed the types of imaging technologies currently used in the O.R. environment and what strategies have successfully enhanced operational flexibility and integration of the use of these modalities. Dr. Dake spent some time focusing on the need for a paradigm shift in thinking with regards to the way clinical service lines would manifest themselves in an operative environment.

At the January post conference meeting, I was able to review the attendance numbers and feedback of the two talks sponsored by the SMRT. These talks were very well attended and received significantly high feedback with regards to content, presentation, and relevance.

I look forward to a successful 2010 RSNA conference at which the SMRT will be sponsoring talks related to forensic radiology hope to see you there! 





SMRT Educational Seminars Home Study Update

Anne Marie Sawyer, B.S., R.T., (R)(MR)
Editor
SMRT Educational Seminars
Home Study Program

"We hope that this issue will provide a comprehensive review of Susceptibility-Weighted Imaging (SWI) and its rapidly developing applications in both clinical and research MR imaging."

We are pleased to present the SMRT Educational Seminars, Volume 13, Number 1: "MR Imaging Sequences: Gradient-Recalled Echo (GRE)." This is the 47th accredited home study developed by the SMRT, exclusively for the SMRT members. The accreditation is conducted by the SMRT, acting as a RCEEM (Recognized Continuing Education Evaluation Mechanism) for the ARRT. Category A credits are assigned to each educational symposia, which can be used to maintain one's ARRT and AIR registry.

For this issue, we have selected two articles that describe susceptibility-weighted imaging (SWI) including its evolution from one of our most fundamental sequences, gradient-recalled echo (GRE). The first article discusses the physics, classification and clinical applications of steady-state MR imaging sequences; the second explains the technical aspects and clinical applications of susceptibility-weighted MR imaging acquisitions (SWI). We hope that this issue will provide a comprehensive review of SWI and its rapidly developing applications in both clinical and research MR imaging.

As stated by the authors of our first article, "Steady-state sequences have revolutionized cardiac imaging and have become the standard for anatomic functional cardiac imaging and for the assessment of myocardial viability because of their good signal-to-noise

**SMRT
Educational Seminars
Volume 13, Number 1**
***MR Imaging Sequences:
Gradient-Recalled Echo
(GRE)***


ratio and contrast-to-noise ratio and increased speed of acquisition. They are also useful in abdominal and fetal imaging and hold promise for interventional imaging." The authors continue by saying "Because steady-state sequences are now commonly used in MR imaging, radiologists will benefit from understanding the underlying physics, classification, and clinical applications of these sequences." I will go one further and say that it is also of great value for the MR technologists and radiographers to understand these imaging sequences, both basic and advanced. We are the MRI operator, and therefore, are ultimately responsible for the image quality that we generate.

According to the authors of our second article, "Susceptibility-weighted imaging (SWI) has continued to develop into a powerful clinical tool to visualize venous structures and iron in the brain and to study diverse pathological conditions. SWI offers a unique contrast, different from spin attenuation, T1, T2, and T2*."

The authors include a variety of neurovascular and neurodegenerative disease applications for SWI: trauma, stroke, cerebral amyloid angiopathy, venous anomalies, multiple sclerosis, and tumors. As we develop new imaging techniques to better depict and characterize disease, we continue to revisit and modify some of our most basic sequences with more sophisticated designs to deliver improvements in tissue contrast, acquisition speed and signal-to-noise ratio (SNR).

Many thanks to **Titti Owman, R.T.(R)(CT)(MR)**, from Sweden for acting as our Expert Reviewer for this home study issue and the accompanying quiz that provides the continuing education credits.

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.

We would especially like to thank **John Wilkie** and all of the people at Invivo Corporation who generously support our home studies program, the SMRT Educational Seminars. Their continuing investment advancing technologist and radiographer knowledge brings quality continuing education to the SMRT membership worldwide. 



Chapter Chat: ANZ Chapter in Adelaide

Kirsten Moffat, MRT, ANZ Chapter President and Jan Neal, Co-Chair Adelaide 2009
(see photo next page)

"Planning is well underway for the 5th Annual ANZ SMRT Chapter Meeting, to be held in the beautiful city of Auckland, New Zealand on the 13-14th November 2010."

Following is the report of the 4th Annual Local Chapter Meeting, Adelaide, Australia, 7-8 November 2009. On a beautiful November weekend in Adelaide, 225 radiographers from Australia and New Zealand attended the 4th Annual ANZ Chapter Meeting at the Adelaide Convention Centre. The two-day meeting format had a strong and well paced scientific program with a wide range of informative and interesting topics.



The 4th Local Chapter meeting was held in Adelaide

The following keynote international speakers were invited to join a faculty of local and national speakers: **Anne Sawyer**, Stanford University, **Maureen Ainslie**, Duke University, **Dr.**

Committee, spoke on MR imaging at 7 Tesla. Anne's presentation addressed the interests of several research groups, and also examined the causes of accidents in MR. **Maureen Ainslie**, Technical Director of Duke Image Analysis Laboratory spoke on MR lung imaging, and the aspects of conducting clinical trials in MRI.

Donald McRobbie, Ph.D., author of MRI from Picture to Proton, and Director of Radiological Science at the Charing Cross Hospital London, presented on complex reconstruction methods, advanced neuro-imaging and occupational exposure limits in MRI.

Safety topics presented by both Anne and Donald prompted the ANZ chapter to hold our first

Safety Panel discussion which generated great questions and interest. The Safety Panel discussion will be on the agenda for the future meetings.

Proffered papers were included in the program for the third year running. Three outstanding presentations were given, illustrating the high quality of both clinical and research MR in Australia and New Zealand. The First Prize award for best Proffered Paper went to **Joanne Donovan** and **Karen Chisnell** for their work on "Spectroscopy in the Diagnosis of Aids Dementia Complex."

Posters were also included for the first time at an ANZ Chapter Meeting.

The quality of the proffered papers and posters were all of a high quality, so congratulations to all on their submissions.



Maureen Ainslie and Anne Sawyer were invited "downunder"

Donald McRobbie, Imperial College and Charing Cross Hospital London.

Anne Sawyer, Manager of Whole Body MR Research at Stanford University, and member of the International MR Safety



First Prize Award Winners Karen Chisnell and Joanne Donovan with 2008-2009 ANZ president Michael Macilquham

The Saturday evening function held at the Adelaide Museum allowed all the delegates a chance to unwind with old friends and new acquaintances. The evening entertainment provided by "Dr. D. and the Resonators," (a blues band made up of conference delegates:

Dr. Donald McRobbie, Daniel Zappia, Adam D'achille and Dave the Bass) was a huge hit.

Organising a meeting of this size and calibre takes a lot of hard work and effort. It is important to acknowledge the contributions from the Local Chairs, **Greg Brown** and **Jan Neal**, and the ANZ SMRT Committee of **Glenn Cahoon, Ben Kennedy, Michael Macilquham, Wendy Strugnell** and **Kirsten Moffat**. Many




Dr D and the Resonators at the Adelaide Museum

thanks also to the team of local MR radiographers who helped with the onsite registration, satchel packing and all the administrative tasks.

This meeting would not have been possible without the generous support of our sponsors. In particular we would like to thank our platinum sponsors, **Bayer Healthcare, Siemens Healthcare** and **Philips Healthcare**.

The feedback from registrants was very positive, and we hope all had an educational and enjoyable weekend. It was a fantastic opportunity for registrants to expand their MR knowledge, and spend professional and social time with colleagues from around the globe.

Planning is well underway for the 5th Annual ANZ SMRT Chapter Meeting, to be held in the beautiful city of Auckland on the 13-14 November 2010. Mark your calendars for what promises to be another great MR educational meeting. We hope to see you there. Details can be found at <http://www.ismrm.org/smart/chapters/anz.htm>. 



Keynote Speakers and Co-Chairs, left to right: Dr Donald McRobbie, Jan Neal, Anne Sawyer, Maureen Ainslie, Greg Brown and Michael Macilquham



Carol Lee, B.S., R.T., R (CT)(MR)
Chair, Regional Seminars Committee

Regional Seminars Update 2010

"Be sure to take advantage of the great educational benefits to you and your co-workers by attending a Regional Seminar in 2010."


It is a new year and MRI is always changing with new technology and safety updates. The SMRT is a wonderful organization that gives you the opportunity to stay on top of all the latest MRI technology. SMRT Regional Educational Seminars are an excellent resource to obtain the latest information on current and future MR advances.

As a Co-Chair of the South Carolina SMRT Chapter I can say that many hours

of time and effort goes into planning a Regional Seminar along with the wonderful help of the SMRT office in Berkeley, California, USA. Be sure to take advantage of the great education benefits to you and your co-workers by attending a Regional Seminar in 2010. You will become a better technologist or radiographer and a better employee by staying up to date on the latest in MR technology and safety.

We all need to thank the fantastic

speakers who spend their weekend helping to educate MR technologists all over the world at SMRT Regional Seminars and Annual Meetings, as well as the wonderful sponsors who help make these educational opportunities possible.

If you would like to learn more on how you can host a regional please contact me (clsc@charter.net) or the SMRT central office. 

Upcoming 2010 Regional Seminars

13 March: The President's Regional Seminar

This education program is hosted by one of the most active SMRT Local Chapters. The South Carolina Chapter. The location will be in Greenville, South Carolina, USA with talks on many great MR advances and safety updates.

27 March: The SMRT BeNeLux 3rd Regional MR Symposium

Excellence is sure to describe this European effort. The program will be held in UZ Brussel, Brussels, Belgium and is sure to be a great educational opportunity for those who are able to attend.



Hina Jaggi
Co-Chair, SMRT New York/New Jersey
Chapter President

Northeast Regional Educational Seminar Report

"The positive feedback that was given by the attendees speaks volumes in how important these meetings are to the MRI community."

On Saturday, 7
November 2009

nearly 85 participants gathered for the Northeast SMRT Educational Seminar in New York City, New York, USA, hosted by the SMRT Chapter of NY/NJ. The seminar was held in the Farkas Auditorium of the New York University (NYU) Langone Medical Center, a beautiful facility sporting a sunny courtyard and state of the art medical center.

The participants were welcomed by current NY/NJ Chapter President, **Hina R. Jaggi**, and Lois Mannon, NY/NJ Chapter

President-Elect. The meeting got off to a rousing start with **Dr. Robert Young** of Memorial Sloan Kettering Cancer Center in New York City introducing brain tumor imaging. He brought us up to date on the many pathological processes that we scan everyday and how we can optimize our protocols for better imaging. **Dr. Ruth Lim** of NYU Langone Medical Center followed with an in-depth discussion of body angiography, a subject that is very relevant at clinical imaging sites. Dr. Lim offered many useful tips and protocol distinctions for the attendees.

After a quick morning break to make

sure we were in New York City and not California based on the warm weather, the late morning session was kicked off with **Dr. Bachir Taouli** of Mt. Sinai Medical Center in New York City. He presented a comprehensive review of liver protocol optimization. **Dr. Nicole Hindman** of NYU Langone Medical Center complemented Dr. Taouli's presentation with a thorough review of NSF. She did an outstanding job of explaining the cause of NSF and how high risk patients should be managed. We continued the morning session with **Dr. Barbara Srichai** from NYU Langone Medical Center and her lively

presentation of pearls and pitfalls of cardiac imaging. Many of the attendees learned some imaging tips to bring back to their sites for cardiac imaging.

The attendees enjoyed having lunch on the terrace and catching up with friends and colleagues. During lunch there was a pleasant surprise visit from **Dr. Michael Recht**, chairman of Radiology Research at NYU Medical Center. Our first speaker after lunch was **Dr. Linda Moy** of NYU Langone Medical Center with an informative review of breast imaging. She provided the group with a broader view of MR's potential in the fight against breast cancer. To contemplate the future horizons in MRI, **Dr. Dan Kim** of NYU Langone Medical Center presented on K-space. Dr. Kim took us on an adventurous journey into K-space, which really perked the attendees' interest!

Right after the break, Butler MRI Cleaning announced the raffle winners. Congratulations to two participants who won MRI cleaning supplies and two other participants who won the raffle

for a free cleaning service for their MRI department. The program committee extends a special thanks to Butler MRI Cleaning for their participation. Ten copies of the *Reference Manual for Magnetic Resonance Safety, Implants, and Devices: 2010 Edition* were also handed out by raffle as we would like to extend special thanks to the Institute for Magnetic Resonance Safety, Education and Research for providing the books.

The last session of the day started off with **Dr. Jenny Bencardino** NYU Langone Medical Center, presenting on MSK imaging. Dr. Bencardino should be commended for presenting a very informative presentation in a very short period of time. We would like to thank Dr. Bencardino for offering to speak at the meeting upon short notice. Following Dr. Bencardino's presentation **Dr. Marianna Lazar** of NYU Langone Medical Center walked us through the complex topic of functional imaging. The meeting concluded with an update on MRI Education from **Sonja Robb-Belville** current SMRT Policy Board member.

Sonja brought us up to date on the current requirements and prerequisites of MR education and registry requirements. This was certainly a topic of great interest by the attendees as Sonja addressed many questions from the group.

Konstantinos Arhakis and **Cindy R. Comeau**, board members of NY/NJ Chapter did an excellent job of moderating and keeping all of the meeting events on time.

The entire program committee would like to extend a grateful "thank you" to all of our sponsors for being so generous in their support of this meeting and to all the speakers for sharing their time and knowledge. The positive feedback that was given by the attendees speaks volumes in how important these meetings are to the MRI community and guarantees that future meetings will be very successful in the New York City area. S



The regional organizing committee and chapter officers, left to right: Konstantinos Arhakis, Secretary; Hina Jaggi, President; Lois Mannon, President-Elect; and Cindy Comeau, CE organizer.



New MR Group formed in Malta

Joseph Castillo, B.Sc., (Hons) M.Sc.
SMRT Policy Board and Global
Relations Sub-Committee Member

"...since education is the same all over the globe, we will continue to find other ways to expand our knowledge."

The Malta Magnetic
Resonance
Radiographers
Group (MMRRG) has

been established in 2009 to facilitate the exchange of information and to promote education and further training for radiographers working in the field of MRI. The coordination of the group's activities is undertaken by an elected Management Committee which is made up by MRI radiographers working in Malta.

The aims of the group are achieved by holding lectures at Mater Dei Hospital and the mammoth project of organizing the MRI Practice in Malta. This course, delivered in English by **Catherine Westbrook** and

John Talbot is accredited by the University of Malta, and the CPD credits can be transferred to the M.Sc. (MRI) which will be launched in October 2010. Support for this course from MRI vendors was negligible, probably because Malta is a small island and thus the market here is negligible. But since education is the same all over the globe, we will continue to find other ways to expand our knowledge.

With this in mind, MMRRG has just applied for European funding under the Leonardo Scheme in order to send eight MRI radiographers to experience and learn about cardiac MRI and 3T imaging at the Oxford MRI Centre. In addition, MMRRG is organizing a series of lectures on research



The Maltese archipelago

design and methods. These courses are free of charge and are very well attended by radiographers and students. The first lecture for this year is focused on Evidence-Based Practice and How to conduct a Literature Search. [S]

Signals Newsletter Is Evolving, Again!

The *Signals* Newsletter is a well established SMRT member benefit dating back to the beginning of the organization. The first newsletter was published in 1991, one year after the steering committee first met with representatives of the parent organizations of that day: the SMRM (Society for Magnetic Resonance in Medicine) and the SMRI (Society for Magnetic Resonance Imaging) to form the SMRT. *Signals* has been published quarterly since 1993, and there have been six volunteer editors in these past 17 years:

Nanette Keck 1993-1995

Robin Avison 1995-1996

Greg Wheeler 1996-1997

Karol Handrahan 1997-1998

Lorrie Kelley 1998-2001

Julie Strandt-Peay 2001-present

In striving to improve the timeliness of news, reports, and information that is published for you as well as ecological concerns, *Signals* evolved into an all-electronic format starting with the second quarter 2007 issue published in July of that year. The

ultimate goal was to increase the number of publications per year; however, that reality has not yet happened. With a couple of year's worth of experience to evaluate the situation it is clear that more improvement is needed for the SMRT members.

The SMRT, as many world-wide organizations, utilizes the website for disseminating information in a timely fashion. Because updates about the SMRT Annual Meeting, upcoming SMRT Regional Seminars and other SMRT educational opportunities can be posted to the website almost immediately, once the times, dates and places are determined, the information published quarterly is often redundant, or possibly somewhat dated.

Your current newsletter editor, **Julie Strandt-Peay** and the 2010 leadership of the SMRT are striving for another evolution of *Signals*. The goal is to continue to publish information on the website that you need as members to make plans for educational activities AND to have the electronic version of *Signals* updated more frequently. Reports

of Local Chapter meetings, Regional Seminars, MR news worldwide, MR Safety information and current topical information will be made available for you.

What will help us with the planning of this new format is to hear from you the members. Do you check the website often? Is there information that you would like to see made available that is not currently offered? When news is posted on the SMRT website would you like to receive an e-mail notice? Please feel free to contact me and share your thoughts, ideas, and suggestions for your newsletter, *Signals*. You may contact me at jpeay@wi.rr.com with *Signals* in the subject line or contact the SMRT office directly at smrt@ismrm.org

The process of moving forward with *Signals* is being incorporated with the newly designed SMRT website. Stay tuned as we work through this latest improvement and as always, thank you for your support of the premier MR professional society in the world! [S]

MRI Safety Update



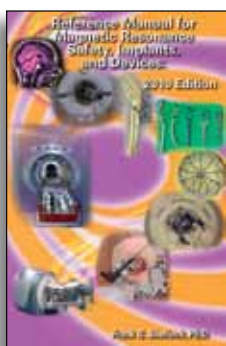
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*Reference Manual for
Magnetic Resonance Safety,
Implants, and Devices:
2010 Edition*

Editor's note: Dr. Shellock shares information about his latest publication that is a valuable resource for the MR community. He also lists MRI textbooks that may be helpful to you. For additional information and order forms, please see the www.mrisafety.com website.

Reference Manual for Magnetic Resonance Safety, Implants, and Devices: 2010 Edition

The internationally acclaimed series, the Reference Manual for Magnetic Resonance Safety, Implants, and Devices: 2010 Edition (10 digit ISBN 0-9746410-6-5, 13-digit ISBN 978-0-9746410-6-5), 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 (IMRSE).

This textbook is a comprehensive yet concise information resource on MRI safety and patient management for healthcare professionals. Section I presents safety guidelines and recommendations. Section II contains the latest information for implants, devices, and materials tested for the MRI environment.

An Appendix provides website information for more than 200 biomedical companies to facilitate finding additional company information for implants and devices. Updated information pertaining to MRI Contrast Agents and Nephrogenic Systemic Fibrosis (NSF) is included. "The List" now

has information for thousands of objects, including implants tested at 3-Tesla.

MRI TEXTBOOKS

The Reference Manual for Magnetic Resonance Safety, Implants and Devices: 2010 Edition

(10 digit ISBN 0-9746410-6-5, 13-digit ISBN 978-0-9746410-6-5) is an indispensable textbook for radiologists, MRI technologists, and facility managers. This internationally acclaimed series 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 (IMRSE). 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. "The List" has a tabular listing of data for thousands of implants, including implants tested at 3-Tesla. Features of the 2010 Edition include patient screening forms in English and Spanish and guidelines for scanning patients with electronically-activated devices. Price - \$79.00 plus shipping and handling.

Magnetic Resonance Procedures: Health Effects and Safety

(Copyright 2001, CRC Press, Boca Raton, FL) Written by 15 well-known experts in the field, this book is the most authoritative and comprehensive reference text on magnetic resonance bioeffects and safety. This textbook discusses the bioeffects of static magnetic fields, radiofrequency-induced heating, acoustic noise, the safety of metallic implants, the use of MR in pregnant patients, contrast agent safety, and handling patients with claustrophobia. In the wake of demands for increased patient safety and proper patient management along with the expanding use of MR procedures, this book is essential for all MR healthcare workers. Discounted price - \$110.00 plus shipping and handling (Regular price, \$134.00) Kinematic MRI of the Joints: Functional Anatomy, Kinesiology, and Clinical Applications (Copyright 2001, CRC Press, Boca Raton, FL) This book is the first and only authoritative text on these important magnetic resonance techniques. Kinematic MRI of the Joints: Functional Anatomy, Kinesiology, and Clinical Applications presents information on pertinent anatomy, kinesiology, and pathokinesiology for each joint. In addition, multiple case examples illustrate the usefulness of kinematic MRI for the detection and diagnosis of various musculoskeletal conditions. Discounted price - \$100.00 plus shipping and handling (Regular price, \$119.95) [S]

is published by the International Society for Magnetic Resonance in Medicine, and produced for the benefit of the SMRT membership.

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UPCOMING CALENDAR OF EVENTS

VISIT [HTTP://ISMARM.ORG/SMRT](http://ismrm.org/smrt) FOR CURRENT CALENDAR AND ACTIVITIES

UPCOMING SMRT REGIONAL EDUCATIONAL SEMINARS

13
MARCH

PRESIDENT'S REGIONAL EDUCATIONAL SEMINAR

Greenville Hospital System, Patewood Medical Office Building, Greenville, South Carolina, USA

27
MARCH

BENELUX 3RD REGIONAL MR SYMPOSIUM

UZ Brussel, Brussels, Belgium

27-28
MARCH

MRI REGISTRY REVIEW: SMRT GULF COAST CHAPTER

University of Texas – MD Anderson Cancer Center, Houston, Texas USA

1-2
MAY

SMRT 19TH ANNUAL MEETING

Stockholm, Sweden



Premier Accredited Scientific Workshops

Premier CME Accredited Case-Based Educational Programs

Category A CE Accredited Workshops

Please visit www.ismrm.org for program additions and updates

25-27
JUNE

ADVANCED BODY MRI COURSE

Omaha, Nebraska, USA

15-17
OCTOBER

WORKSHOP ON MR SAFETY:

RF HEATING OF THE HUMAN IN MRI

Stillwater, Minnesota, USA

SMRT 19TH ANNUAL MEETING

“MR Imaging Now and into the Future”



stockholm

sweden

Clinical Needs & Technological Solutions

See pages 3 and 4 for
program updates and
complete details!



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