

**SCAR
2004**

Opening **New Frontiers**

Preview of the
21st annual meeting
of the Society for Computer
Applications in Radiology

By Tom Schaffner

As many radiology departments journey deep into a new world of digital imaging, so will many information technology, radiology and administrative personnel who make the trek to Vancouver, British Columbia, Canada, from May 20-23 for the 21st annual meeting of the Society for Computer Applications in Radiology (SCAR).

"Whether you are a PACS administrator, a radiologist considering incorporating electronic systems into your practice, a CIO or administrator evaluating the costs and benefits of such systems or a computer scientist involved in radiology research, SCAR 2004 will provide the up-to-date information you need," says Bryn Williamson Jr., MD, chair of the SCAR program committee.

This year's theme, "Opening New Frontiers," boasts a plethora of educational sessions, continuing medical education accredited courses and a wealth of information for professionals who use, buy or develop computer-based equipment with applications in radiology (see "Meeting at a Glance" on page 23).

So whether you are considering implementing a speech recognition or teleradiology system in your practice, looking into purchasing a PACS for your facility or want information about a new career as a PACS administrator, then you can't afford to miss SCAR 2004.

In Session

The pre-conference educational session, "PACS Administration Overview," on Wednesday, May 19 is geared toward professionals trying to move their facilities to filmless operations. This one-day course will introduce the core competencies of PACS administration and present an overview of three role areas: business, technical and users.

The overview is designed to provide a framework that enables the participant to develop an understanding of the roles and skill sets necessary for effective PACS administration. The course identifies and examines available resources, such as staffing, and includes a roadmap to the SCAR annual meeting, particularly focused on PACS administration content.

Thursday's opening session features a keynote address from the retired CEO of the Mayo Clinic Jacksonville, Fla., Leo F. Black, MD. His lecture, titled "Information Technology and Medical Practice Automation – the Present and the Future," is taken from his own experience working in the field. Black will discuss the rationale for using IT to automate medical practice and the methods used to reduce expenses while improving quality of care. He will also share his thoughts about future changes in IT as it affects the medical practice.

Special sessions are offered throughout the meeting that, generally, are not covered by SCAR University, the association's educational curricula. Among the sessions, "PDAs" will look at the basic options of handheld computers and the differences between operating systems and wireless services. "PACS in the Community Setting" gives attendees a better understanding of PACS' evolution and the benefits and challenges of PACS in the community setting.

"Enterprise Image Management – PACS Beyond Radiology" will address the challenge of planning PACS for enterprise image distributions, moving PACS into a multi-enterprise environment and PACS for other "-ologies." "CR/DR Debate" features proponents of each technology making their strongest arguments in favor of adoption of either CR or DR.

Another special session well worth the time is "The Web Warrior's Workshop." This course will keep attendees up-to-date with the fast pace of technology and teaches attendees where to go on the Internet to find the answers to all of those tough questions, where to find the latest news and reviews and where to reference educational material.

"Malicious Logic and Additional Aspects of Security and Privacy in Medical Information Systems" addresses malicious software (aka "malware") and defenses against it for medical information systems. This presentation discusses likely malware, such as viruses, worms and time bombs, and suggests strategies and tactics available for both vendors and users to protect them.

SCAR University will also offer introductory- (100 level) and senior-level (200 through 400 level) courses for novices and veterans looking to increase their knowledge. Introductory courses include "Requirements for Speech Recognition," "Buying a PACS Without a Big Wallet" and "The ABCs of Storage Technology." Senior-level courses include "The Once and Future Role of HL7 in IHE," "CR/DR Economic Analysis" and "The Inevitability of Structured Reporting."

In Closing

Once again, SCAR will hold hospital tours of regional facilities in order for attendees to view various system solutions. This year's participating hospitals are Vancouver General, St. Paul's and Mount St. Joseph, all in Vancouver, and Royal Columbian in New Westminster. Topics include integration, workflow, demonstrations of computed radiography, RIS/PACS and development of a single message passing interface.

The closing session lecture, "Open Source Software in Medicine," features Steven J.M. Jones, PhD, bioinformatics head of the Genome Science Center, Vancouver, describing the tools used to sequence the SARS virus on a 168-node Linux cluster in

five days. He will be followed by Terry S. Yoo, PhD, from the Office of High Performance Computing and Communications, National Library of Medicine at the National Institutes of Health (NIH), who will discuss the NIH's Insight Segmentation and Registration Toolkit (ITK) used to support multi-dimensional image processing. By standardizing ITK tools, imaging researchers are able to move beyond writing commonly implemented tools and concentrate on more advanced image operations including computer-assisted diagnosis.



Last year's conference in Boston

Visiting Vancouver

If you can't wait 'til the 2010 Olympics to experience the beauty of Vancouver, British Columbia, Canada, then a trip to the SCAR annual meeting is the perfect opportunity to enjoy the city.

Consistently ranked one of the most beautiful cities in the world, Vancouver boasts a year-round mild climate that is perfect for golfing, skiing and sailing, and, if you are especially adventurous, try some four-wheeling along the Coast Range or in Fraser Canyon.

If you have higher aspirations, then perhaps a sightseeing flight and landing trip on a glacier is in order. Vancouver is the only major North American city that has glaciers within one hour of downtown.

For an even more serene day, a trip to Stanley Park is definitely recommended. Covering 1,000 acres, the city's largest park has been described by a local writer as a "1,000-acre therapeutic couch." Circumnavigate the park via the seawall – a brisk two-hour walk – or take the road less traveled around Lost Lagoon or Beaver Lake to view the resident geese and raccoons. Another option is to take an hour-long horse drawn carriage ride to tour the area.

Arguably the most beautiful bridge in Canada, Lions Gate Bridge connects North Vancouver to the downtown. High above the bridge to the north are two distinct mountain peaks overlooking Vancouver's harbor. They resemble the ears of a lion and are called, not surprisingly, "The Lions."

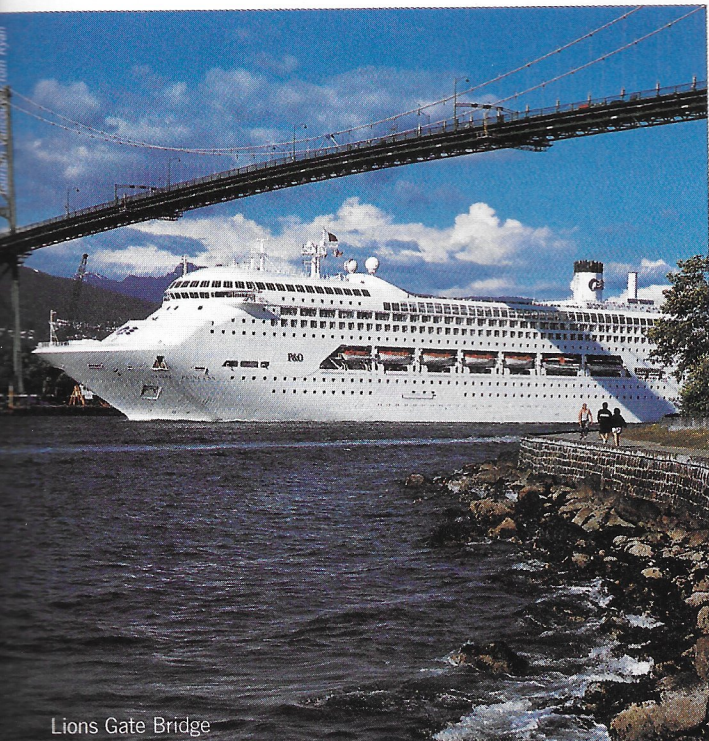
Granville Island is the place to spend a leisurely afternoon. Part farmers' market, part artist studio and part magnet for the

creative and flamboyant, it's one of the busiest spots in Vancouver. You definitely won't have trouble finding a place to shop.

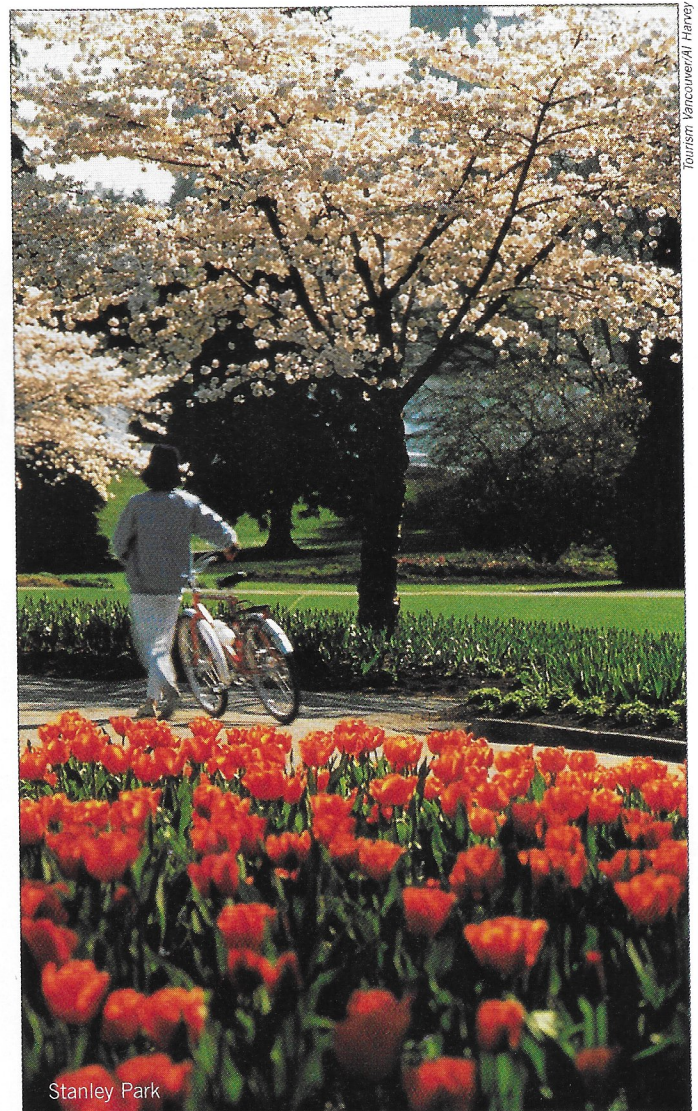
And if you start feeling a little overweight, you may want to check your surroundings first. On the corner of Pender and Carrall streets in Chinatown, the Sam Kee Building is the world's thinnest office building. Built in 1913 and currently occupied by a regular operating business, the building is only six feet wide.

For more information, visit www.tourismvancouver.com, or at the meeting, stop by the *RT Image* booth (#709) in the exhibit hall and pick up a copy of the "Vancouver Survival Guide." This easy-to-carry magazine can be your tour guide to the city, featuring information on Vancouver's restaurants, hotels, transportation, sights and sounds. And don't forget to join in the *RT Image* SCAR Vendor Hunt™ for a chance to win a PDA. See page 31 for details.

► T.S.



Lions Gate Bridge



Stanley Park

Tourism Vancouver/Al Harvey

SCAR 2004

Meeting at a Glance

Thursday, May 20

6:30 a.m. - 5:30 p.m.
Registration

7:00 a.m. - 8:00 a.m.
Continental Breakfast

8:00 a.m. - 9:30 a.m.
Opening Session (Information Technology and Medical Practice Automation – the Present and the Future), Leo F. Black, MD

9:30 a.m. - 10:15 a.m.
Break

10:15 a.m. - 12:00 p.m.
SCAR U 100 (Introductory Courses: Basic Introduction to CR and DR, CAD Overview for Radiologists, Requirements for Successful Speech Recognition)

SCAR U Senior Session (Digital Mammography: CAD in Breast Imaging, Digital Mammography – CR vs. DR, Future of Digital Breast Imaging), Martin Yaffe, PhD

Special Session 1 (PDAs), Adam Flanders, MD

12:00 p.m. - 1:00 p.m.
Lunch

Roundtable: Outpatient Imaging Centers

Roundtable: IT/Engineers

1:00 p.m. - 2:15 p.m.
Scientific Session 1 (Miscellaneous, Reading Room and Archives)

Special Session 2 (SCAR Expert Hotline and Online Archive), Steve Horii, MD

Scientific Session 2 (Image Processing)

2:15 p.m. - 2:45 p.m.
Break

2:45 p.m. - 4:30 p.m.
SCAR U 100 (Introductory Courses: A Practical Guide to Digital Mammography, Q&A in Digital Mammography, Technologist Productivity: State of the Art)

SCAR U Senior Session (IHE: The Once and Future Role of HL7 in IHE, IHE IT Infrastructure: The Five Ties That Bind Us to Our Colleagues, IHE Outside of the Imaging Department), David Channin, MD

Special Session 3 (Current Status of the SCAR TRIP™ Initiative), Katherine Andriole, PhD

4:30 p.m. - 6:30 p.m.
SCAR 2004 Opening Reception in the Exhibit Hall

Friday, May 21

7:00 a.m. - 5:00 p.m.
Registration

7:00 a.m. - 8:00 a.m.
Continental Breakfast

9:45 a.m. - 10:15 a.m.
Break

10:15 a.m. - 12:00 p.m.
SCAR U 100 (Introductory Course: The ABCs of Storage Technology, Essential Components of an RIS, Buying a PACS Without a Big Wallet)

SCAR U Senior Session (Digital Radiography: Digital Image Processing for Projection Radiology, Integration and Operation of CR-DR Systems, Advanced CR-DR Detector Technology), Katherine Andriole, PhD

Special Session 4 (PACS in the Community Setting), Greg Karnaze, MD

10:15 a.m. - 12:00 p.m.
SCAR U 100 (Introductory Course: What Is IHE and Why Does It Matter? Fundamentals for a Secure Digital Network, Digital Eye for the Analog Guy)

SCAR U Senior Session (Decision Support: Radiologist Decision Support Using Structured Data Capture, Image Processing for Radiologists, Image Database Mining), Bradley Erickson, MD, PhD

Special Session 5 (Optimizing the Man/Machine Interface), Bruce Reiner, MD

12:00 p.m. - 1:00 p.m.
Lunch, Exhibit Hall

12:00 p.m. - 1:30 p.m.
Vendor Session 1

1:30 p.m. - 2:45 p.m.
Scientific Session 3 (Quality Assurance)
Scientific Session 4 (Productivity and Workflow)

Scientific Session 5 (Image Processing)

1:30 p.m. - 3:30 p.m.
Hospital Tours

2:45 p.m. - 3:15 p.m.
Break

3:15 p.m. - 5:00 p.m.
SCAR U Senior Session (Economics of Filmless Imaging: CR/DR Economic Analysis, Economic Strategies for a Successful PACS Divorce, Billing and Coding Considerations in a Digital Practice), Bruce Reiner, MD

SCAR U Senior Session (Speech Recognition and Structured Reporting: New Strategies in Elect. Rpt., The Inevitability of Structured Reporting, Decision Support and the Radiology Lexicon), David Weiss, MD

Special Session 6 (What Engineers and IT Professionals Need to Know About Radiology), Bradley Erickson, MD, PhD

3:30 p.m. - 5:30 p.m.
Hospital Tours

6:00 p.m. - 8:00 p.m.
SCAR Reception

(continued on next page)

Saturday, May 22

7:00 a.m. - 5:00 p.m.
Registration

7:00 a.m. - 8:00 a.m.
Continental Breakfast

8:00 a.m. - 9:45 a.m.
SCAR U Senior Session
(Electronic Storage: Clinical
Determinants of Storage
Requirements, Electronic
Storage Media and Data
Migration, De-mystifying Data
Storage), Paul Nagy, PhD

SCAR U Senior Session
(Security: HIPAA Security
Update, Security for
Wireless Technologies,
De-hacking the Level 10
Hacker), Paul Chang, MD

Special Session 7 (Enterprise
Image Management –
PACS Beyond Radiology),
Gary Wendt, MD, MBA

9:45 a.m. - 10:15 a.m.
Break

10:15 a.m. - 12:00 p.m.
SCAR U Senior Session
(Information Systems:
Computerized Physician Order
Entry, Bridging the
IT/Radiologist Gap, Outcomes
Analysis Using IS Technologies),
Ramin Khorasani, MD

SCAR U Senior Session
(Productivity and Workflow:
Productivity Considerations
for the PACS Administrator,
Navigating Through Large
Datasets, Auditing Radiologist
Workflow), Mary Shaw, MA

Special Session 8 (CR/DR
Debate), David Avrin, MD, PhD

12:00 p.m. - 1:30 p.m.
Lunch, Exhibit Hall

SCAR Membership Meeting and
Fellows Induction (4th SCAR

Research and Development
Committee Symposium)

Vendor Session 2

1:30 p.m. - 2:45 p.m.
Scientific Session 6
(Image Distribution)

Scientific Session 7
(Experiential)

Scientific Session 8
(Hot Topics)

Poster and Demo Session

1:30 p.m. - 3:30 p.m.
Hospital Tours

2:45 p.m. - 3:15 p.m.
Break

3:15 p.m. - 5:00 p.m.
SCAR U Senior Session (Quality
Assurance: Monitor Quality
Control, Defining the Digital

Radiography QA Specialist,
Developing an Enterprise-Wide
QC Program), Chuck Willis, PhD

SCAR U Senior Session (Design
Considerations in a Filmless
Enterprise: Designing the
Digital Imaging Department –
An Architect's Perspective,
Radiology Department Design,
Ergonomics), Eliot Siegel, MD

Special Session 9 (The Web
Warrior's Workshop, www),
Paul Nagy, PhD

3:30 p.m. - 5:30 p.m.
Hospital Tours

Sunday, May 23

7:00 a.m. - 9:00 a.m.
Registration

7:00 a.m. - 8:15 a.m.
Continental Breakfast

PACS Administrators
Roundtable

Residents Roundtable

8:15 a.m. - 9:30 a.m.
Scientific Session 9
(Productivity and Workflow)

Scientific Session 10
(Infrastructure and
Administration)

Special Session 10 (Defense
Against Malicious Logic),
Dwight Simon; David
Gobuty, MD

9:30 a.m. - 10:00 a.m.
Break

10:00 a.m. - 11:30 a.m.
Closing Session (Open Source
Software in Medicine), Steven
J.M. Jones, PhD; Terry S. Yoo, PhD

