

ACRIN NEWSLETTER

Advancing Clinical Care Through Imaging Research

American College of Radiology Imaging Network

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Mitchell Schnall, MD, PhD,
ACRIN Network Chair

ACRIN Meeting Highlights Current and Future Research

by Mitchell Schnall, MD, PhD

ACRIN continues to make great progress in meeting accrual goals, increasing our number of publications, and expanding our presence at scientific meetings. At the 2008 ACRIN Fall Meeting we received updates on current ACRIN trials, reviewed the development of new trial concepts, and previewed research results that were later presented at the meeting of the Radiological Society of North America and elsewhere. These activities show that ACRIN has positioned itself not only as a leader in imaging research but also as an integral part of the cancer research community.

Among the important preliminary results presented at the ACRIN meeting was a presentation by Ben Herman, SM, on behalf of the National CT Colonography Trial team. This presentation focused on the impact of the required reader training on reader performance. The results demonstrated that training readers who initially failed a qualifying exam resulted in improving the performance of the readers to that of an experienced CT colonography reader. Modeling of the measured training effect will provide input to the development of guidelines for training practitioners in CT colonography. This will be critical to support the dissemination of this new, non-invasive colon cancer screening technology.

On behalf of the ACRIN 6668/RTOG 0235 trial team, Barry Siegel, MD, presented data regarding the local institution vs. central review determination of the standard uptake value (SUV) for stage III non-small cell lung cancer. Siegel reviewed the method for analyzing the PET data to determine the average SUV from a 0.75 to 1.5 cm diameter circular region of interest centered over the location of maximal FDG uptake. He reported that the correlation between site and central review was good ($r=.65$) but not outstanding. He also reported that nearly 20 percent of cases were associated with significant differences in local and central analysis. Work is ongoing to determine the causes for the substantial differences. This will be very important to the generalization of PET as a marker for therapy response assessment in lung and other cancers.

Preliminary results of ACRIN 6665: a Phase II trial of neoadjuvant/adjuvant Gleevec for primary and recurrent operable malignant gastrointestinal stromal tumor (GIST), was presented by Annick D. Van den Abbeele, MD. While the analysis is still in progress, Van den Abbeele reported that metabolic response by FDG-PET precedes anatomic response by RECIST. She also showed that the metabolic response observed by FDG-PET is seen as early as one week after initiation of treatment. Verifying an adequate response early on will be important to determine which patients should stay on imatinib or be changed to another therapy. Future analysis will compare metabolic and anatomic response with long-term patient outcome, which is critical to understanding how to apply these results.

Another plenary session highlight was a National Oncologic PET Registry (NOPR) update and review of the registry's results presented by Anthony Shields, MD. Shields pointed out that, as published by Hilner et al. in the Journal of Clinical Oncology (Vol 26, 2008), FDG-

(continued on page 4)

Recipients of the
ACRIN Outstanding
Contribution Award
and Jo-Ann D'Amato
Award of Excellence
are acknowledged on
pages 4 and 5.

2008 Network Chair's Institution Achievement Award Recipients

This award goes to sites that met the criteria for the period July 1, 2007 to June 30, 2008. Following are award recipient sites and the corresponding site principal investigator.

Congratulations on a job well done.

Henry Ford Hospital

Donald Peck, MD

National Cancer Center, Korea

Seok-ki Kim, MD

Penn State Milton S. Hershey Medical Center

Nabeel Sarwani, MD

Radiology Consultants, Inc.

Richard Barr, MD

The University of Oklahoma Health Sciences Center

Susan M. Edwards, MD

UCLA Medical Center

Denise Aberle, MD

University of California, San Francisco

Ronald Arenson, MD

University of Pennsylvania School of Medicine

Mitchell Schnall, MD, PhD

University of Pittsburgh Medical Center

Kent Kwoh, MD

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IMAGING NETWORK

Etta Pisano, MD Steps Down as ACRIN Breast Committee Chair

Etta Pisano continues her leadership role on DMIST projects and Constance Lehman, MD assumes chair position.



Etta Pisano, M.D., chaired the breast committee since its inception .

Etta Pisano, MD, chair of the ACRIN Breast Committee and principal investigator of ACRIN's "Digital Mammographic Imaging Screening Trial" (DMIST), announced last fall that new professional responsibilities have led her to tender her resignation as committee chair. Pisano served as the breast

committee chair since ACRIN's inception and, as a strong champion of the DMIST concept, went on to become the trial's national principal investigator. In this role, she oversaw the operations of

“The ACRIN community applauds Dr. Pisano for her tremendous contribution to ACRIN and the field of medical imaging, and thanks her for her many years of invaluable service to ACRIN.”

Charles Apgar, Senior Director
ACRIN Administration

the trial and was the primary author of the DMIST paper published in the *New England Journal of Medicine* in October 2005. She continues to lead the team that is working on the secondary publications the research has prompted.

For her invaluable contribution, Pisano was honored with a 2008 Career Contribution Award. Says Charles

Apgar, Senior Director of ACRIN Administration, "The ACRIN community applauds Dr. Pisano for her tremendous contribution to ACRIN and the field of medical imaging, and thanks her for her many years of invaluable service to ACRIN."

At UNC, Pisano has served as vice dean for academic affairs in the School of Medicine since 2006, and she is also Kenan Professor of Radiology and Biomedical Engineering, director of the UNC Biomedical Research Imaging Center, and a member of the UNC Lineberger Comprehensive Cancer Center.

At the 2008 ACRIN Fall Meeting, Constance Lehman, MD, a long-time member of the breast committee, officially began her tenure as the committee chair. Lehman has been a pioneer in the use of MRI for evaluating breast cancer. She served as the national principal

(Breast Committee Chair continued on page 5)

New Advocate Joins ACRIN Community



Nancy Sauers joins the patient advocacy committee as the breast committee liaison.

As a newly diagnosed breast cancer patient nine years ago, ACRIN patient advocate Nancy Sauers remembers

undergoing "a dizzying blur of imaging tests that, in the stress of a cancer diagnosis, I didn't fully comprehend." A mammogram and ultrasound led to a biopsy, and then after her diagnosis further imaging tests detailed the extent of her cancer.

Sauers knows that today's patients have a helpful source of information about imaging tests: ACRIN's web site. She says, "The ACRIN website provides lay descriptions of all imaging modalities, including MRI, MRS, CT scan, PET scan, ultrasound, x-rays, and more. This is a wonderful resource, all in one place, for patients and advocates to better understand these imaging modalities, including descriptions, common uses, preparation, what to expect during

the procedure, time required, benefits, risks and results."

Sauers has worked as a patient advocate both locally and nationally. As a member of the National Breast Cancer Coalition, she advocated for substantial breast cancer legislation (such as the Department of Defense Breast Cancer Research Program and the Breast Cancer and Environmental Research Act) to be passed by Congress.

Locally, she has provided breast cancer patients with one-on-one support and worked with the Oncology institutional review board of her community hospital. Her work with ACRIN will include serving on the Breast Committee and working on ACRIN 6657.

(New advocate continued on page 5)

ACRIN Research Results Widely Reported

Trial principal investigators C. Daniel Johnson, MD, and Wendie Berg, MD, PhD share their perspectives about research published in 2008.

In 2008, when many Americans turned on the TV, surfed the internet for news, or opened their morning papers, they found out about an important subject: ACRIN's research. Major publications in prominent medical journals resulted from two ACRIN trials this year: ACRIN 6664: The National CT Colongraphy Trial and ACRIN 6666: Screening Breast Ultrasound in High-Risk Women. The dispersion of these results demonstrates both ACRIN's increasing prominence in the cancer research community and the interest the general public has in the results of ACRIN trials.

Screening Breast Ultrasound

The first results of ACRIN 6666 were published in the May 14, 2008 issue of the *Journal of the American Medical Association*. This study, coordinated by the American College of Radiology Imaging Network (ACRIN) and funded by the Avon Foundation and the National Cancer Institute (NCI), is led by Wendie A. Berg, MD, PhD. The study found that a prevalent screening ultrasound increased cancer detection in high-risk women, but it also led to more false positives.

“The study results confirm that screening ultrasound in combination with mammography detects more cancers than mammography alone in women at increased risk for breast cancer. However, this benefit comes with the added risk of a false positive result.”

Wendie Berg, MD, PhD
Principal Investigator
Screening Breast Ultrasound
for High Risk Women

ACRIN 6666 was reported in more than 400 articles in newspapers around the world and was featured on CBS Evening News, the CBS Morning

Show, and National Public Radio. "There was tremendous interest in our results, which was both gratifying and time consuming," says Principal Investigator Wendie Berg. "I felt especially grateful when the story was represented correctly, which, fortunately, was most of the time. The results haven't led to major changes in radiology practice in the United States yet, though most of Asia routinely performs screening US. There has been increasing interest in automated methods for screening ultrasound, but technical challenges remain."

Berg was also invited by JAMA to do a special webcast in which she responded to viewers' questions. A breast cancer advocate called in and asked a question about the additional biopsies that ultrasound can lead to. Later, Berg ran into the advocate at an Avon symposium and spoke with her further for an hour. "I was delighted to be able to make that kind of in-depth, personal connection about my research," Berg says. "The breast cancer advocates really cared about this study. Overall, I was happy to see so much interest from the cancer research community and the general public, and I look forward to sharing the results of the additional publications that will result from this study."

The National CTC Trial

The results of ACRIN 6664 were published in the Sept. 18, 2008 issue of the *New England Journal of Medicine*. The study, led by C. Daniel Johnson, MD, found that the performance of computerized tomographic (CT) colonography, also known as virtual colonoscopy, is comparable to standard colonoscopy.

ACRIN 6664 was widely reported on television, including 366 separate reports on 226 TV stations, and it was mentioned on shows such as Good Morning America and the Today Show. It was covered by every major newspaper in the country, including USA

Today, the Wall Street Journal, and the Washington Post. It was even flashed onto an electronic billboard in Times Square.

Principal Investigator Dan Johnson found it interesting that the media focused on only one aspect of the results: the performance of CT colonography. He says that looking at

“CT colonography could be adopted into the clinical mainstream as a primary option for colorectal cancer screening. We hope that this additional option for cancer screening will lead more people to get screened and will ultimately result in fewer deaths from colorectal cancer.”

C. Daniel Johnson, MD
Principal Investigator
ACRIN National CT
Colonography Trial

the cost-effectiveness, safety, patient acceptance, and extra-colonic findings will also be important. Many such questions will be addressed in the secondary aims of the trial.

Johnson says of the swirl of media attention, "It is gratifying to see many years of work that began in 1996 come to clinical fruition with the trial results. The public is beginning to ask about CT Colonography, and physicians are beginning to adopt it into their practice following the inclusion of CTC into the American Cancer Society screening guidelines. Many insurance companies have also adopted CTC into their covered plans. Ultimately, we hope to have more people being screened for colorectal cancer."

He adds, "This trial would never have happened without ACRIN and the superstar cast of people, both at ACRIN and NIH, who supported the trial and helped ensure excellence at every step. The trial is a great example of what ACRIN can bring to the radiology community and to the public."

ACRIN 2008 Fall Meeting Individual Award Recipients

An important component of the ACRIN Fall Meeting is the recognition of individuals and institutions that have made a significant contribution to furthering ACRIN's research agenda. Congratulations to this year's recipients of the "Outstanding Contribution" and "Career Achievement" awards and the "Jo-Ann D'Amato Award of Excellence".

Outstanding Contribution Award Recipients

Investigator Awards

The National Lung Screening Trial Physicists:

Christopher Cagnon, PhD, Dianna Cody, PhD, Michael McNitt-Gray, PhD, J. Anthony Seibert, PhD, Phil Judy, PhD, - provided consistently excellent physics support to the NLST by developing and implementing rigorous quality assurance criteria and reviewing and analyzing the consequent quality control data to produce two manuscripts.

Gale Christensen, the NLST Study Coordinator at Johns Hopkins, demonstrated superior leadership and organizational skills in managing one of the largest NLST sites.



Suzanne Lenz, MA, the NLST Study Coordinator at Dartmouth, demonstrated leadership and developed the systems, tools, and rapport with participants necessary to enable her site to operate easily and effectively.

Ferdinand Osuagwu, MD, 6673 Study Coordinator at UCLA, worked diligently to bring together colleagues from radiology and gastroenterology to form a productive team that achieved the second-highest number of participants recruited for the study.

David Mankoff, MD, PhD, provided exemplary leadership of the Experimental Imaging Sciences Committee (EISC), a new committee that has already engaged all ACRIN scientific committees and directly contributed to the development of five protocol concepts, two of which have already been approved to be developed into full protocols.

Suzanne Lenz, MA, accepts her award for her work on the NLST.

innovative imaging approach to evaluating the level of degeneration of articular cartilage in the knee. The study sets a precedent for future ACRIN PA studies by creating a network using various medical specialists and involving diseases that extend beyond cancer.

Janet Saffer, PhD, has been an instrumental component of the ACRIN PET core laboratory team, providing key support on numerous cooperative group trials, including ACRIN 6668, ACRIN 6671, and ACRIN 6678.

Lalitha Shankar, MD, PhD, has been a valuable advocate for ACRIN in interactions with National Cancer Institute programs. She has also identified potential funding resources and has been critical to ACRIN's ability to successfully navigate the NCI protocol review process.

ACRIN Biostatistics Center Awards

Amanda Adams, MPH, developed and implemented procedures for monitoring and reporting of progress in the collection of medical record data. She tracked and resolved

(ACRIN Meeting Highlights continued from page 1)

PET resulted in a change in management in 36.5 percent of the over 22,000 subjects reported to the NOPR during its first year of operation. However, these results include patients for whom the pretreatment management plan included imaging, with the expectation that this would dictate future management. An imaging-adjusted change in management averaged 14.7% and was relatively consistent across all cancer types. Although the NOPR data presented the real world impact of PET, it does not provide data to know if the management changes improved patient outcomes. This will require future study.

Several scientific committee sessions highlighted new innovative molecular imaging concepts. The Experimental Imaging Sciences Committee (EISC) discussed a concept that would seek to determine if 18F-fluoride PET is an effective imaging biomarker for monitoring treatment of metastatic prostate cancer, which is important to the development of new therapies for the disease. The EISC also introduced a concept involving diffuse optical spectroscopic imaging (DOSI) as a technique to allow monitoring of neoadjuvant therapy for breast cancer at the bedside. In addition, the Head and Neck Committee discussed a concept proposing the use of 18F-FLT PET in early stage head and neck cancers to monitor the effectiveness of chemoradiation treatment early in the course of treatment.

The meeting was an exciting blend of results from past studies, works in progress, and proposals for future research. In the coming years, we will continue to expand our research and share the results through publications and presentations in order to strengthen our presence as a leader in the clinical research community.

data issues and provided the NLST leadership with high quality reports and information.

Iana Gareen, PhD, directed and monitored the central chart abstraction operations for NLST and worked closely with the rest of the NLST leadership to meet the endpoint data requirements of this study.

JoRean Sicks, MS, assumed the lead role of the Biostatistics Center (BC) staff for NLST and has worked effectively with the BC faculty to organize and implement data reporting and analysis work.

ACRIN Headquarters Awards

Jamie Downs, AA, provided exemplary support to the Data Management Center on ACRIN 6660 and ACRIN 6677, and her enthusiasm and ability to learn quickly allowed her to assume a broad range of tasks and assignments at a critical juncture.

Dena Flamini, RT (R)(MR)(M), worked aggressively on ACRIN 6676 with the principal investigator to identify potential sites capable of supporting the advanced imaging aims of this study, and to expedite site qualification.

Career Achievement Recognition

Etta Pisano, MD, vice dean for academic affairs in the UNC School of Medicine, has played a key role in ACRIN's breast cancer research. She served as the chair of ACRIN's breast committee since its inception until 2008, and she led the high-profile DMIST trial through planning, recruitment, and publication.

Donald Mitchell, MD, served as chair of ACRIN's gynecologic oncology committee from its inception through 2007. He was a force both in the completion of the work of the ACRIN 6651 trial team and in the implementation and ACRIN 6671, and his efforts have strengthened the link between ACRIN and the Gynecologic Oncology Group.

Jo-Ann D'Amato Award of Excellence

This award recognizes an outstanding research associate for professionalism, performance as a research associate, compassion for patients, and community service.

Lila Camara, RT (R)(CV), research coordinator at Rhode Island Hospital for NLST, ACRIN 6673, and ACRIN 6678, has worked hard to develop strong relationships with her coworkers, and she has shown great compassion and kindness to trial participants.



Donald Mitchell, MD accepts his career achievement award.

(New Advocate continued from page 2)

The ACRIN Fall Meeting provided Sauers with the opportunity to meet the ACRIN research community and learn about imaging clinical trials. She says, "I found that there is a wonderful mentoring network within the ACRIN patient advocate community that I can access at any time to help me be a more thorough, thoughtful, and effective patient advocate."

She believes advocates bring an important perspective to cancer research: "Survivors can easily step into the shoes of someone who is recently diagnosed and perhaps considering a clinical trial. We were once at that stage of coming to terms with having a cancer diagnosis and trying to find the right match for treatment. Survivors also care deeply, on a personal level, about finding a cure or better treatments for cancer."

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(Breast Committee chair continued from page 2)



Constance Lehman, MD, PhD, assumed her role as the breast committee chair at the ACRIN fall meeting.

investigator for the ACRIN trial "MRI of the Contralateral Breast" and is lead author of the associated paper that was ACRIN's second New England of Journal of Medicine publication. Lehman is a professor of radiology at the University of Washington School of Medicine and the director of breast imaging at Seattle Cancer Care Alliance.

"ACRIN is extremely fortunate to engage such prominent researchers on the breast committee. As a result of Etta's and Connie's work and leadership, ACRIN has produced world class research that is having an impact on patient care. I know the imaging community can look forward to more outstanding research from this very active committee," acknowledges Mitchell Schnall, MD, PhD, ACRIN's network chair.