

## Special points of interest:

- The schedule for the next Steering Committee conference calls:

March 19

April 16

May 21

June 18

All calls are 11:00 AM Eastern time.

Phone: 1-866-692-4541

Code: 8321122#

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## 2012 QIN Face-to-Face Meeting Held

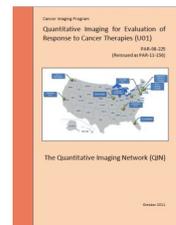
March 5-6, 2012 was the date for the third QIN face-to-face meeting at Natcher Auditorium on the campus of NIH. Over 80 attendees were present for the two-day affair. The overall theme for the meeting was exploring ways that the QIN program can become seen by Cancer Centers and Cooperative Groups as a resource for quantitative imaging tools in future oncologic clinical trials.

The meeting was opened by Dr. Robert Nordstrom, Lead Program Director for the QIN program. He introduced Dr. Paula Jacobs, acting Associate Director for the Cancer Imaging Program of NCI. She commented on the importance of the QIN program to the Cancer Imaging Program, and how it fits with other programs such as the NExT program.

Dr. Nordstrom and QIN Science officer, Dr. Larry Clarke, then set the tone for

the meeting by presenting a number of successes achieved by the QIN members and by inviting open discussions on future directions and program organization. Highlighted in the successes were the efforts by all the teams and working groups to submit technical papers to a special issue of the *Magnetic Resonance Journal*, dedicated solely to QIN results. This effort was led by Dr. Thomas Yankeelov of Vanderbilt University.

Another milestone publication was the printing of the first QIN annual report. The report was distributed to all who wanted copies.



Two topic sessions were highlighted in the meeting. The first was a session to focus on the issues of data acquisition and the challenges presented by multi-site and longitudinal trials. Dr. Paul Kinahan, chair of the QIN Steering Committee, looked at this from the perspective on PET/CT. Dr. Thomas Chenevert and Dr. Edward Jackson looked at the data acquisition problem from the diffusion weighted, and dynamic contrast MRI perspective, respectively.

A second topic session focused on the connection of QIN with Clinical Trial Cooperative Groups. Dr. Lawrence Schwartz and Dr. John Buatti both spoke to the subject, and Dr. Lalitha Shankar from CIP provided her perspective on clinical trial coordination with the QIN effort. Dr. Orhan Suleiman from the FDA and Dr. Jeffery Roche from CMS provided valuable perspectives.

## QIN Cited in NCI Budget Request

As NCI begins the process of requesting 2013 federal funds, it assembles documents that describe research efforts, propose future directions in the fight against cancer, and highlight current successes in that fight. In a recent budget request document to go to the president, NCI mentioned the efforts of the Quantitative Imaging Net-

work, saying "Researchers funded through the Quantitative Imaging network (QIN) are developing and validating quantitative imaging methods and software tools for the measurement of response to drug or radiation therapy for use in clinical trials."

This comment came within a section of the budget

request that discussed innovative research efforts in areas of genomics, imaging and cancer molecular signatures. The QIN was mentioned along side other highly successful programs such as the Specialized Programs of Research Excellence (SPORES) and the Advanced technology Program. This puts the QIN in an important spotlight in NCI.

## The Attendees Gather



Above: Attendees gather outside the meeting room in Natcher Auditorium for the third QIN face-to-face meeting.

Below: George Redmond and James Cannaday help to register the participants. Thanks to their planning and preparation, everything went smoothly.



Above: The room fills as attendees prepare for the first day of the meeting. Over 80 individuals participated in the two day workshop.

**25 posters were presented so all attendees could review progress from the 13 technical teams of QIN and from others. See page 4 for a list of posters.**

## The Poster Session: Monday March 5

Below: Lead Program Director Dr. Robert Nordstrom discusses a point with Dr. Bruce Rosen from Mass. General Hospital and Dr. Fernando Boada, Univ. of Pittsburgh.



Above: Dr. Nola Hylton, UCSF, makes an important point while others look to the different posters at the face-to-face meeting.

Below: Dr. Larry Clarke is engaging Dr. Ed Jackson as Dr. Huiming Zhang looks on. Dr. Jackson, MD Anderson, was a guest speaker at the QIN workshop.



## Newest members of QIN give technical research introductions

The four newest teams to the QIN program began the Monday morning session of the face-to-face meeting by giving brief introductions of their research projects and goals. Dr. Nola Hylton, UCSF, discussed her work in breast cancer imaging and with the I-SPY clinical trials. She will be studying pre-operative (neoadjuvant) patients and their response to therapy during the trials.

Next, Dr. Wei Huang from the Oregon Health Sci-

ence University discussed his research in shutter speed magnetic resonance imaging. His team will be studying breast cancer and soft tissue sarcoma to demonstrate that the shutter speed model for dynamic contrast MRI is quantitatively robust.

The team from Johns Hopkins University was represented by Dr. Richard Wahl, who talked about their efforts to estimating the accuracy and precision of quantitative, image-

derived parameters for PET/CT. They will focus on breast cancer and brain tumors. Dr. Sadek Nehmeh from Sloan Kettering Institute for Cancer Research represents the thirteenth team to enter the QIN. He and his research team have chosen to study tumor hypoxia using FMISO in non-small cell lung cancer tumors. Special emphasis will be placed on collecting data using specialized gating to reduce motion from patient breathing.

## Keynote Address by Dr. Joe Gray

Dr. Joe Gray from Oregon Health Science University, Portland, OR gave the QIN keynote address as part of the face-to-face meeting. His subject, Cancer Genomics and Imaging, touched on many areas where genomics and imaging can play complementary roles. He did admit, however, that this would be a long slow process.

The study of cancer pathophysiology is tremendously complex, and linking genomic aberrations to specific cancers remains a problem.

Targeted pathways compete with each other, turning on and off in as yet poorly understood ways. Imaging, with all of its functional and high-resolution capabilities will be a strong player in the research to sort everything out.



Left: Dr. Joe Gray begins his keynote talk to the QIN meeting.

Above: Dr. Gray answers questions from the group



Dr. Huiming Zhang introduces the keynote speaker.

## Breakout sessions bring focus to the QIN working groups

A Tuesday morning breakout session gave the QIN working groups the opportunity to gather and discuss challenges and progress. The five working groups are:

- ◇ Image analysis and performance metrics,
- ◇ Bioinformatics/IT and data sharing,
- ◇ Clinical trial design and development,
- ◇ Data acquisition, and
- ◇ Outreach.

For this meeting, only the first three working groups were represented. It was felt that the Data Acquisition working group and Outreach working group would benefit from possible restructuring. This process will be discussed by the PI committee during regular teleconference meetings over the coming months.

The Image Analysis working group is growing and has generated two subgroups focused on PET/CT and MRI

imaging methods. Bioinformatics continues to focus on the challenges of data sharing. The Cancer Imaging Archive (TCIA) is becoming the location of choice for QIN data archiving.

The Clinical Trial working group is looking at the problems of trial design for the future to include the possibility of quantitative imaging in the most efficient ways. They are aware of the need for interaction with the FDA on a regular basis.

## Jim Mountz and Tom Yankeelov to chair QIN SC

Jim Mountz, University of Pittsburgh, will step up to be the chair of the QIN Steering Committee for next year. Tom Yankeelov, Vanderbilt University, will serve as the co-chair and will become the QIN chair in 2014. A number of issues were brought up at the face-to-face meeting that will require the attention of the steering committee during the coming year.

One important issue was the overall structure of the

QIN management organization. As the network continues to grow, it is becoming apparent that a steering committee with autonomous working groups might not be the best conduit for communication and coordination of growth. It was suggested that the present steering committee become the QIN Executive Committee and that a steering committee, or operations committee, be formed from the chairs of the various working groups. This would

permit the working groups to organize their own interactions and functional teams. While it was mentioned that the operations committee could meet as a part of the Executive Committee, it is no doubt important that the new committee hold regular meetings to act on agenda items.

In another motion, it was suggested that many of the functions of the Outreach group might best be absorbed into the Executive Committee.



Dr. James Mountz is the new chair of the QIN Steering Committee.

*Participants in the 2012 QIN meeting.*

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