REPORT TO THE AAPM THERAPY PHYSICS COMMITTEE

July 1, 2008 – September 15, 2008

Due to the short interval since our previous report, this report will be quite brief.

Personnel

No changes

Institutions monitored

The RPC is aware of 2866 radiation therapy facilities in the United States. Of these, the RPC is monitoring 1601. Internationally, a total of 61 institutions are presently being monitored, of which 32 are in Canada and 29 are elsewhere in the world. Many international institutions are being added through an agreement with the EORTC. This agreement was reaffirmed at the recent ESTRO meeting. EORTC expects member institutions to make arrangements for monitoring from one of several auditing services. The RPC is recommended to these institutions.

TLD Audits

In the previous report, we reported that 67 institutions were more than 120 days delinquent in returning their TLD shipments. Our pursuit of these institutions produced an unusually large volume of delinquent packages being returned, yet the number of institutions with delinquent status has risen to 93.

The RPC has conducted an evaluation of optically-stimulated luminescence (OSL) technology as a replacement for TLD. An oral presentation was made at the AAPM annual meeting and a poster was presented at ASTRO.

Credentialing Procedures

Several new phantoms have been built in the last couple of months, to address the increasing demand for credentialing for advanced technology clinical trials.

Preparations for Proton Beam Protocols

All five existing clinical proton therapy centers have been monitored with TLD. Preparations are being made to begin on-site dosimetry audit visits in the near future. The equipment for making the measurements was ordered in May, but some has not yet been delivered. In the meantime, we have been developing the procedures and modifying some existing equipment to facilitate measurements.

In addition, several models of the RPC’s pelvis phantom have been modified to enable their use with proton beams. It is expected that these phantoms will be used to credential facilities to participate in an upcoming prostate protocol.

PARTICIPANT FEE:

Institutions invoiced FY09

No XRT/Canceled/Inactive

Invoiced by RDS

Institutions paid

PUBLICATIONS AND ABSTRACTS

Publications Accepted/Published (2005-present):


Abstracts


Invited Articles


Letters to the Editor/Newsletters

1. Nag S, Cardenas H, Chang S, Das IJ, Ibbott GS,


**Book Chapters**


**PRESENTATIONS**

**INTERNATIONAL ACTIVITIES**

Geoffrey Ibott attended the UNSCEAR Meeting, Vienna, Austria, July 13-18, 2008.

Geoffrey Ibott gave a seminar presentation at ABR PQI Summit, Chicago, IL, August 9, 2008.


Geoffrey Ibott attended the ESTRO Meeting, Gotenborg, Sweden, September 14-18, 2008.

**VISITS TO INSTITUTIONS**

1. Francisco Aguirre performed radiological physics measurements and reviewed patient dosimetry at the University of Iowa Hospital, Iowa City, IA, September 2-4, 2008.

2. Francisco Aguirre performed radiological physics measurements and reviewed patient dosimetry at the Northwestern Memorial Hospital and Mount Sinai Hospital, Chicago, IL, September 8-11, 2008.

3. Paola Alvarez performed radiological physics measurements and reviewed patient dosimetry at the Northwestern Memorial Hospital and Mount Sinai Hospital, Chicago, IL, September 8-11, 2008.

4. David Followill performed radiological physics measurements and reviewed patient dosimetry at the University of Utah Huntsman Cancer Center, Salt Lake City, UT; St. Mark’s Hospital, Salt Lake City, UT; Utah Cancer Specialists, Salt Lake City, UT; and Intermountain Medical Center, Murray, UT, August 4-7, 2008.

5. Jessica Lowenstein Leif performed radiological physics measurements and reviewed patient dosimetry at the University of Utah Huntsman Cancer Center, Salt Lake City, UT; St. Mark’s Hospital, Salt Lake City, UT; Utah Cancer Specialists, Salt Lake City, UT; and Intermountain Medical Center, Murray, UT, August 4-7, 2008.


7. Andrea Molineu performed radiological physics measurements and reviewed patient dosimetry at the University of Chicago, Chicago, IL, July 14-17, 2008.

**MEETINGS ATTENDED**

(July 1, 2008 – September 15, 2008)

1. Francisco Aguirre attended the AAPM Annual Meeting, Houston, TX, July 26-30, 2008.


5. Cindy Davis attended the AAPM Annual Meeting, Houston, TX, July 28-31, 2008.


7. Irene Harris attended the AAPM Annual Meeting, Houston, TX, July 28-31, 2008.


15. Andrea Molineu attended the AAPM Annual Meeting, Houston, TX, July 26-31, 2008.


17. Elizabeth Siller attended the AAPM Annual Meeting, Houston, TX, July 24-31, 2008.


Respectfully submitted,

Geoffrey S. Ibbott, Ph.D.
EXPENDITURES OF THE RADIOLOGICAL PHYSICS CENTER  
(RPC Grant and the Advanced Technology Subcontract)  
July 1, 2008 – September 15, 2008

PERSONNEL (salaries, fringe benefits): $332,801

7 Physicists, 1 Supervisor of Quality Assurance Dosimetry Services, 1 Sr. QA Dosimetrist, 3 QA Dosimetrists, 1 Informatics Manager, 1 Database Administrator, 1 Programmer Analyst I, 1 Radiological Physics Supervisor, 5 Radiological Physics Technicians, 1 Coordinator of Research Data, 1 Department Administrator, 1 Office Manager, 1 Sr. Administrative Assistant, 1 Administrative Assistant, 1 Sr. Secretary, 1 Secretary and 5 Graduate Research Assistants.

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<tr>
<th>Visits:</th>
<th>Date:</th>
<th>Location and Information</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Aguirre, Francisco</td>
<td>9/2-4/08</td>
<td>University of Iowa Hospital, Iowa City, IA</td>
<td>$1,687.62</td>
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<td>Aguirre, Francisco</td>
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<td>Northwestern Memorial Hospital and Mount Sinai Hospital, Chicago, IL</td>
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<td>Followill, David</td>
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<td>Visited 4 institutions University of Utah, St. Mark's Hosp. (11151 and 10706) in Utah</td>
<td>$996.28</td>
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<td>University of Chicago, Chicago, IL</td>
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<td><strong>$7,731.82</strong></td>
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TRAVEL
July 1, 2008 to September 15, 2008

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<td>Siller, Elizabeth</td>
<td>7/24-31/08</td>
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<td><strong>$2,517.89</strong></td>
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CONSULTANTS

SUPPLIES: $20,708

Office supplies, laboratory and record keeping, TLD, TLD supplies, software, equipment, etc.
**OTHER EXPENSE:**
Postage, telephone, reprints, copying, computer fees, equipment repair, registration fees, tuition, freight/delivery, etc.

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**SPACE RENTAL:**

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<td>Total Expenditures July 1, 2008 – September 15, 2008</td>
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<td>Indirect costs @ 26%</td>
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<td>$573,793.55</td>
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### RPC Report to TPC September 2008

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<th>Clinical Study Groups</th>
<th>Office Reviewing Patient Records</th>
<th>Special Projects</th>
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<td>Gynecologic Oncology Group</td>
<td>RPC</td>
<td>Radiotherapy manual Electronic Transfer of Patient Records Image Based Treatment Planning IMRT Guidelines Defining Treatment violations</td>
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<td>GOG</td>
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<td>National Surgical Adjuvant Breast and Bowel Project</td>
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<td>North Central Cancer Treatment Group</td>
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<td>Rapid Review of Lung Study 3D CRT Credentialing Stereotactic Phantom</td>
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<td>Radiation Therapy Oncology Group</td>
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<td>IMRT H&amp;N Phantom Prostate Phantom Prostate Implant Credentialing LDR/HDR Stereotactic Head Phantom Lung Phantom 4D Liver Phantom Cervix HDR/LDR Protocol Compliance Patient Calculation Program Partial Breast RT Credentialing IMRT Benchmark Case Lung Benchmark Case Spine Phantom</td>
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<td>3D Benchmark Case</td>
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<td>Clinical Trial Support Unit</td>
<td>QARC, RPC, RTOG</td>
<td>RPC Institution List RTF Numbers TLD Monitoring Review RT Facility Questionnaire</td>
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<td>CTSU</td>
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<tr>
<td>American College of Radiology Imaging Network</td>
<td>N/A</td>
<td>Participate in the development of guidelines for quality assurance of institution participating in ACRIN CT Dose Measurements</td>
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