


Radical Views...

from the Department of Radiology July 2009

Mon	Tues	Wed	Thurs	Fri
<div>Opening July 1, 2009</div> <div>Need an MRI? We have an OPENING <i>Now in Charlton</i></div> <div><div>Harrington HOSPITAL <i>Total Local Care</i> 508-765-3020 888-765-3020</div><div><small>In collaboration with Beth Israel Deaconess Medical Center</small></div><div>10 North Main Street Harrington HealthCare at Charlton www.harringtonhospital.org</div></div>	<div>1:00 - 2:00 MRI section meeting (weekly) TCC-484</div>	<div>1 7:30 - 9:00 No morning conference</div> <div>11:00-12:00 MSK clinical conference (weekly)</div> <div>12:00-1:00 (weekly) Thoracic Imaging section meeting GI Oncology/GU Oncology meeting</div>	<div>2 7:30 - 9:00 Intro to Neuroradiology (Bhadelia)</div> <div>12:00 - 1:30 Abd section meeting (weekly) WCC-354</div> <div>12:00-1:00 MSK section meeting (weekly)</div>	<div>3 July 4th Holiday</div>
<div>6 7:30 - 9:00 Abdominal Conference (Wei)</div>	<div>7 7:30 - 8:15 Breast Anatomy (Slanetz) 8:15-9:00 BIRADS (Slanetz)</div>	<div>8 7:30 - 9:00 Chest Conference (TBA)</div>	<div>9 7:30 - 9:00 MSK Conference (TBA)</div>	<div>10 7:30-9:00 Resident Case Conf. (TBA) 12:00-1:00 US section meeting [TCC-247A]</div>
9:00 - 5:00 daily 1st yr Residents Introduction Week				
<div>13 7:30 - 9:00 TBA(Rofsky)</div>	<div>14 7:30 - 8:15 Intro to MRI/MR Safety (Rofsky) 8:15-9:00 Nucs onference (TBA) 10:30-11:30 Nuc Med staff meeting (GZ-103)</div>	<div>15 7:30 - 8:15 US Guided Biopsies (McArdle) 8:15 - 9:00 Basic MRI Principles I (Vinogradov) 300-4:00 Mammo section meeting [TCC-484]</div>	<div>16 7:30 - 8:15 Spine Potpourri (Kleeffeld) 8:15 - 9:00 Spine Trauma (Rojas)</div>	<div>17 7:30 - 9:00 Body and MSK Cases (Sher) 12:00 - 1:00 Resident Case Conference (Hackney) [Clouse Conf Rm]</div>
<div>20 7:30-8:15 Abdominal Conference (TBA) 8:15 - 9:00 Basic MRI Principles II (Vinogradov)</div>	<div>21 7:30 - 8:15 Br Calcifications (Fein-Zachary) 8:15 - 9:00 MR System Components (Greenman) 8:00 - 9:00 IR section meeting</div>	<div>22 7:30 - 9:00 Chest Conference (TBA)</div>	<div>23 7:30 - 9:00 MSK Conference (TBA)</div>	<div>24 7:30-9:00 Resident Case Conference (TBA) 12:00 - 1:00 Resident Case Conference (Kleeffeld) [Clouse Conf Rm]</div>
<div>27 7:30 - 9:00 Abdominal Conference (TBA)</div>	<div>28 7:30 - 9:00 Making an Image (Alsop) 8:15-9:00 Nucs onference (TBA) 8:00 IR section meeting 10:30-11:30 Nuc Med staff meeting (GZ-103)</div>	<div>29 7:30 - 8:15 Fetal Skeleton Anomalies (Levine) 8:15 - 9:00 Spin Echo & Gradient Spin Echo Imaging (Lenkinski)</div>	<div>30 7:30 - 8:15 Basic Stroke Imaging (Hackney) 8:15 - 9:00 Basic Brain Tumor Imaging (Rojas)</div>	<div>31 7:30-8:15 Resident Case Conference (TBA) 8:15 - 9:00 Signal to Noise (Grant) 12:00 - 1:00 Resident Case Conference (Moonis) [Clouse Conf Rm]</div>

DEPARTMENTAL NEWS

- It gives me great pleasure to announce that **Jim Wu, MD**, has been appointed as the new Director of the Radiology Residency Program at Beth Israel Deaconess Medical Center. Jim received his undergraduate training at Massachusetts Institute of Technology in 1994 and received his MD at Baylor College of Medicine in 1999. He then completed his diagnostic radiology residency at Yale-New Haven Hospital where he was Chief Resident in 2004. Jim remained at Yale for his fellowship year in Musculoskeletal Imaging and won the Fellow of the Year Award that same year. Thereafter Jim joined the Yale faculty prior to becoming a staff radiologist here at BIDMC in 2005. It didn't take long for our residents to recognize and show their appreciation for Jim's outstanding dedication to teaching; he was awarded the Faculty Teacher of the Year Award in 2006, his first year on our staff. Jim has become recognized as a devoted and dedicated teacher and mentor and again received the Faculty Teacher of the Year Award at our graduation celebration last week! As a member of our 2009 Section of the Year, Jim is Co-Director of the Musculoskeletal Fellowship Program where he contributes to the outstanding teaching and clinical training provided to our residents and fellows. We are extremely fortunate to have such an enthusiastic and outstanding physician agree to take over the reigns of our wonderful Residency Program. Please join me in congratulating Jim on this deserved



promotion – we all look forward to watching the program become even stronger under Jim’s leadership.

I would also like to take this opportunity to acknowledge the outstanding job that **Bettina Siewert** has performed as Program Director over the past five years. As Bettina now takes over leadership of the Abdominal Imaging Section and Fellowship Program, Jim is fortunate to be inheriting a strong, organized, popular and cohesive program that will continue to attract the best and brightest residents from around the country. Please join me in congratulating Jim and thanking Bettina for her truly outstanding service.

• **Bettina Siewert, new Abdominal Imaging Section Chief at BIDMC**

It is my great pleasure to announce that Bettina Siewert, MD, Assistant Professor of Radiology at Harvard Medical Student, has been promoted to Section Chief of our Abdominal Imaging Division. Bettina completed her medical training and a radiology residency at the Hospital of the Rheinische Friedrich Wilhelm University, in Bonn, Germany in 1992 and has been a member of our Department since 1993, when she first joined as an MR research fellow working with Bob Edelman and Paul Finn. Bettina completed a CT/MRI fellowship at Beth Israel Hospital in 1997 and completed her radiology residency at BIDMC in 2002, serving as Chief resident in 2001. Since joining our faculty, Bettina has worked in the abdominal imaging section where she has served in various roles including QA officer and leader of the virtual colonography program. Bettina is an outstanding and dedicated teacher and will continue to focus her research on imaging in the evaluation of the acute abdomen. Bettina has also served as Radiology Residency Program Director here at BIDMC since 2005. In her capacity as abdominal imaging section chief, Bettina will not only be responsible for the research, teaching and clinical services provided by the abdominal imaging division, but will also be Director of the ACGME-accredited Abdominal Imaging Fellowship Program. I am truly thrilled to hand over the reigns of the abdominal imaging section to such an outstanding physician and leader. Please join me in congratulating Bettina on this well deserved promotion.

- Congratulations to **Maryann Humphrys** and **Jeanne Carbone** who have just become the first nurses in our Department to be formally certified as Radiology Nurses by ARIN, the Association for Radiologic and Imaging Nurses. This is an arduous process that involves significant education and coursework, as well as passing a national exam. This on top of the rigors of their daily toil. We are so fortunate to have such an outstanding group of dedicated nurses in our department, and this achievement recognises this excellence! Congratulations Maryann and Jeanne!

- Jonny

Departmental Awards, Honors and Grants

• **GRADUATION 2009: 16th ANNUAL FLEISCHNER DINNER & AWARDS CEREMONY**

This year’s annual Fleischner dinner was held at the DeCordova Museum in Lincoln amidst a threat of rain that kept us all hovering by the main entrance (next to the bar). Congratulations to the graduating trainees and the award recipients:

Excellence in Teaching Medical Students:

Staff: Colin McArdle, Gillian Lieberman

Resident: Aarti Sekhar, Ken Lai

Resident Awards:

Teacher of the Year: Jim Wu, Rafael Rojas

Section of the Year: MSK

Fellow of the Year: Colm McMahon

Norman Joffe Award: Ron Eisenberg

Andrew Berezin Award: Andrew Hines-Peralta

Risa and Felix Fleischner Young investigator Award:

Andrew Hines-Peralta

RSNA Roentgen Research Awards:

Andrew Hines-Peralta (2009)

Moritz Kircher (2008)

Congratulations to Andrew for his sweep of the evening’s Triple Crown!

Special award to: Stacey

McKinnon, B.S., R.R.A. in

recognition of her becoming

our first Registered Radiology

Assistant, having completed a 2-year on-site program

through Loma Linda University



RESIDENTS

Brian T. Callahan, MD – IR Fellow, BIDMC

Martin R. Goyenechea, MD – undecided

Andrew Hines-Peralta, MD – IR Fellow, Johns Hopkins

Moritz F. Kircher, MD, PhD – Fellow, Stanford University

Justin W. Kung, MD – MSK Fellow, BIDMC

Kenny Ching Lai, MD, MBA – Mammo Fellow, MGH

Kalpana L. Mani, MD, MEd – Neuro Fellow, BIDMC

Michael Frederick Powell, MD – MR Fellow, BIDMC

Jeffrey Velez, MD – IR Fellow, BIDMC

FELLOWS

Macksood A. Aftab, DO, MHA – Advanced Dx Imaging, Saginaw, MI

Harprit Singh Bedi, MD – Rad Staff, Tufts University

Andrew E. Bennett, MD – Rad Staff, BIDMC-Harrington

B. Nicolas Bloch, MD – Chief, Br MR, Boston Medical Center

Luce Cantin, MD, FRCPC– Ped Cardiac Imaging Fellow, TCH

Thomas K. Chacko, MD – Private practice, Norwood, MA

Felipe B. Collares, MD – IR Staff, BIDMC

Michael G. Geary, MD – Commonwealth Rad Assoc., Salem Hospital

Neely Lynn Hines, MD – Private practice, FL

Milliam L. Kataoka, MD – Undecided

Faisal Khosa, MD – Body MR Fellow, BIDMC

Katherine M. Krajewski, MD – Rad staff, DFCI

Christina A. LeBedis, MD – Rad Staff, BU

Vaibhav H. Mangrulkar, MD – Staff, Clara Maas Medical Center, NJ

Kamiar Massrou, MD – University Medical Center, Tuscon, AZ

Colm McMahon, MB BAO BCh MRCPI FFR(RCSI) – MSK Staff, BIDMC

Brian D. Midkiff, MD, MPH – St. Vincent’s, Worcester, MA

Harpreet Kaur Pannu, MD – Rad Staff, Sloan Kettering, NY, NY

Gaurav M. Patel, MD – Medical Diagnostic Imaging Group, Phoenix

Shayna C. Roberts-Klein, MD – Mammo staff, BIDMC

Victor Ramon Rodriguez, MD, MS (Neuro) - Olean MRI, NY

Jacob R. Wouden, MD – Staff, Washington Hospital, Fremont, CA

Jingbing Xue, MD, PhD – IR Fellow, Rochester, NY

- SERVICE AWARDS - Radiology**
On Thursday, June 25th, we honored our own Radiology Department employees who are celebrating 5, 10 and 15 years of service at Beth Israel Deaconess Medical Center. We look forward to celebrating their 20-25-30 anniversaries!



5 Years	
Aker, Erin	Nuclear Medicine Tech II – Nuc Med
Andrade, Maria	Technical Asst-Breast Imaging
Benasky, Linda	CT Tech II
Bui, Thao Huyen	Nursing Assistant
Bythrow, Beth	Ultrasonographer II
Campbell, Scott	Informatics Specialist (Rad Physics)
Carroll, Edward	Clinical Nurse II
Croce, Robert	Diagnostic Tech III
Dong, Phuong	Rad Tech Assistant (Dx)
Gerbrands, Charles	Diagnostic Technologist - Sr
Keiran, Jessica	Clinical Nurse II
Martin, Amanda	Associate III (Rad Support Svcs)
McInerney, Michelle	Diagnostic Tech II
Montana, Kristen	CT Tech II
Morgan, Mary-Elizabeth	Diagnostic Tech III
Munro, Jessica	Diagnostic Tech II
Peterson, Holly	Diagnostic Tech III
Piecuch, Andrea	MRI Tech II
Ritchie, Mary	Radiology Associate II – Nuc Med
Sisay, Naney	Associate I (Rad Support Svcs)
Smith, Cynthia	Cross-Trained Technologist II (Mammo)
Wyatt, James	Patient Transport Assistant

10 Years	
Tate, Irene	CT Tech II
Abdelbasit, Yasir	Diagnostic Tech II
Birch, Gail	Sonograprer Clin Practitioner
Boyle, Matthew	MRI Tech - Sr
Dowie, Karen	Cross-Trained Technologist II (Mammo)
Finley, Mary	Associate III (Rad Support Svcs)
Fernandes, Susan	Radiology Associate I (Rad Support Svcs)
Howe, Ellen	Ultrasonographer III
Jennette, Richard	Residency/Fellowship Coordinator
Lawrence, Barbara	Admin Associate
Morozov, Elena	Breast Imaging Coordinator
Mulvey, Janet	Nuclear Medicine Tech III
Palmer, Matthew	Physicist- Nuclear Medicine
Petree, Jean	Transcription QA Coordinator
Scott, Debra	Ultrasonographer II
Stockbridge, Maeva	Clinical Instructor (US)

- SERVICE AWARDS - BIDMC**
On Monday, May 11, 2009, BIDMC employees celebrating their 20, 25, 30, 35 and 40 years of service were honored at a reception held at the Inn at Longwood Medical. Of the 330 recipients, 21 were from Radiology!

20 Years	
Arsenault, Liz	HMFP Admin
Augustus, Olga	Mgr, Mammography
Castor, Ruben	IR
Donohoe, Kevin	Nuce Med
Franck, Pierre	Sonographer
Fuller, Jeff	MRI
Hermanns, Nancy	CT Technologist
Johnson, J.	CT
Kelleher, Suzette	Mammo (Research)
Levenson, Deborah	HMFP Radiology
MacLean, Ginny	Mammo
Murphy, Diane	CT
Nelson, Susan	Rad Physics
Platcow, Karen	MRI
Sanon, Rosemaine	US
Whitman, Nancy	HMFP Radiology
25 Years	
Horan, Julie	Diagnostic
Kennedy, Bernadette	US/Vasc Mgr
Stanley, Rose	Mammo
30 Years	
Millet Pollack, Mary	RN, Research
35 Years	
Diggs, Diane	Rad Physics

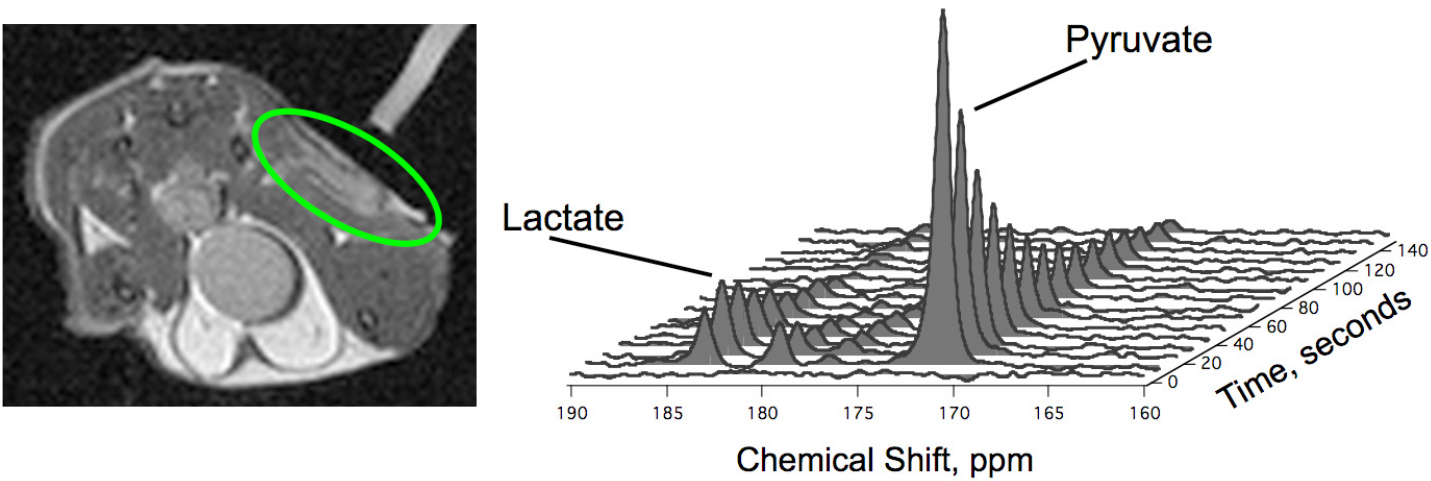


15 Years	
Appignani, Margaret	Diagnostic Tech II
Atoui Ghozayel, Safaa	Diagnostic Tech II
Boncoddo, Christine	CT Tech II
Forde, Clotell	Dept Administrator
Kerr, Breige	Special Procedures Tech – Sr (IR)

Magnetic Resonance on Steroids:
Increasing the Sensitivity of MRI by a Factor of 10,000 with Hyperpolarization

New technology in the Department of Radiology is changing the way we think about MRI. Last October, a new piece of equipment called a hyperpolarizer was installed at our animal MR imaging facility located in the Harvard Institutes of Medicine. This new device prepares molecules in a state of very high nuclear magnetization, which enhances the sensitivity of MRI by a factor of 10,000 or more. Traditionally, the low sensitivity of MRI has severely limited its range of applications. With hyperpolarization, however, MRI can be used to image the transport, uptake, and metabolism of tracer molecules such as pyruvate, glutamine, and choline, opening up a new frontier for real-time pathway-specific metabolic imaging.

In collaboration with Drs. Vikas Sukhatme and Pankaj Seth in the Department of Medicine, researchers are studying new cancer therapies that seek to reduce the rate of lactate formation in tumors. These therapies have been shown to slow, and in some cases reverse, the growth of certain types of cancer. Hyperpolarized pyruvate provides an ideal tool for studying these techniques. In normal cells, pyruvate is converted into Acetyl-CoA, which is the fuel for the Krebs cycle. In many cancers, however, pyruvate is metabolized into lactate instead. The spectroscopic capabilities of MRI make it possible to image the conversion of pyruvate into lactate and other compounds in real time. This is illustrated the accompanying figure. The left panel shows a conventional MR image of a xenograft tumor in a mouse. The right panel shows a series of dynamic spectra acquired in this tumor following injection of hyperpolarized pyruvate. The spectra were acquired over a period of about 2 minutes, and each peak indicates the concentration of a different molecule in the tumor (in this case, pyruvate, lactate, alanine, and pyruvate hydrate). By comparing treated tumors with untreated tumors, these techniques can provide an early assessment of the tumors' response to therapy.



Left: Axial T2 weighted image of a xenograft tumor in a mouse. The diagonal line at upper right is a fiducial marker. Right: A temporal series of carbon-13 spectra acquired every 5 seconds following administration of hyperpolarized pyruvate. The peaks indicate different metabolites, in particular pyruvate and lactate. The lactate signal can be used as a marker of tumor response to therapy.

Thanks to Drs. Aaron Grant and Elena Vinogradov, MRI Reserach

2009 Notable Publications from our Faculty Members [New citations in Blue]

We do a monthly PubMed search for new BIDMC publications and may miss those in which your affiliation is not noted. If we miss your paper, please send the reference to dwolfe@bidmc.harvard.edu to be included in next month's issue.

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