

Radical Views...

from the Department of Radiology

Volume 7, Number 3
OCTOBER 2014



Beth Israel Deaconess
Medical Center

A teaching hospital of
Harvard Medical School



FROM THE CHIEF

Jonathan B. Kruskal, MD PhD

BIDMC Radiology in the news

➤ Please join me in welcoming our newest faculty member in Breast Imaging, **Dr. E. Jane Karimova** who comes to BIDMC following the completion of a Breast Imaging Fellowship at the Mallinckrodt Institute of Radiology in St. Louis, MO. Dr. Karimova earned her medical degree with honors from Kazan State Medical University, Kazan, Russia and received significant fellowship training in Radiological Sciences at the University of Memphis in Tennessee and Diagnostic Imaging and Biostatistics (2002-2008) at St. Jude's Children's Research Hospital, also in Memphis prior to completing residency training in Diagnostic Radiology at the Mallinckrodt. In 2008, she received a Roentgen Resident/Fellow Research Award at RSNA. No doubt Dr. Karimova will be able to apply the experience and sensitivity she acquired working in pediatric radiology to her new patients at BIDMC.



➤ I know I am stealing some thunder from the Residency Directors' column but I was so pleased to be notified that four of our residents have been inducted into the BIDMC Academy of Medical Educators this year:

Dear Dr. Kruskal,

We received another enthusiastic response to our annual request for membership in the BIDMC Academy of Medical Educators, and have recently confirmed new membership of 40 faculty, fellows, and senior residents. The applicants' teaching experiences and letters of interest were impressive, and we feel fortunate to have so many dedicated and talented teachers and educators here at BIDMC. Below are the names of the new Associate Academy Members from your department:



Ann M. Leylek
(4th yr)



Neda I. Sedora-Roman
(3rd yr)



Lauren Ferrara
(3rd yr)



Christine K Chen
(2nd yr)

Thank you for your support!

*Sincerely, Lori Newman, MEd • Grace Huang, MD
Co-Directors, BIDMC Academy of Medical Educators*

Ann, Neda, Lauren and Christine join our other Associate Academy Members: Monica Agarwal (Abd fellow), Seth Berkowitz (VIR fellow), 3rd yr residents Matthew Miller and Amanda Rigas, and 4th yr residents Michael Accord and Sahil Mehta in addition to faculty members Priscilla Slanetz, Gillian Lieberman, Ron Eisenberg, Justin Kung, Valerie Fein-Zachary, Olga Brook, Ammar Sarwar, and Leo Tsai. Clearly, Radiology is committed to teaching excellence and innovation!

- Jonny



Congratulations to Cardiothoracic Imaging Section Chief **Alexander Bankier, MD PhD** for earning a 2014 **RSNA Honored Educator Award**. Established in 2011, the RSNA Honored Educator Award recognizes RSNA members who have produced an array of RSNA educational resources in the past calendar year and serves as a benchmark of academic productivity in support of a meaningful and successful radiology career. This award is doubly significant for Alex as he also received this award in 2013!



Please note that this year's **8th Annual Sven Paulin Lecture** sponsored by the Division of Cardiology has been rescheduled from Friday, Oct. 3, 2014 to **Friday, May 1, 2015**

Mon	Tues	Wed	Thurs	Fri
Weekly Mon Section Meetings: 3:00-4:00 ED section meeting [ED annex, WCC]		Weekly Wed Section Meetings: 11:00-12:00 MSK clinical conf 12:00-1:00 CardioThoracic, GI/GU Oncology 3:00-4:00 Mammo [TCC-484]	Weekly Thurs Section Meetings: 12:00 - 1:30 Abd [WCC-354] 12:00-1:00 MSK	Friday Grand Rounds: 12 noon Sherman Auditorium, East Campus (unless stated otherwise)
		1 7:30 - 9:00 Cardiac (TBD)	2 7:30 - 9:00 Cardiac (TBD)	3 7:30-8:15 QI-CLER Visit Debrief (P. Slanetz)
6 7:30 - 9:00 Mammo (TBD)	7 Mammo (TBD)	8 Mammo (TBD) 7:15 - 8:00 US meeting (WCC-304A Gallery)	9 Mammo (TBD)	10 7:30-8:15 Town Hall (Chiefs) 12:00-1:00 pm Chiefs Rounds
13 7:30 - 8:15 No Conference (Columbus Day) 12:00-1:00 MRI Meeting [Ansin 2]	14 7:30 - 9:00 Professionalism (Program directors) 10:30-11:30 NMMI meeting [GZ-103]	15 7:30 - 9:00 Physics - Ultrasound Modules 1 & 2 (Da Zhang)	16 7:30 - 8:15 Neuro Cases (Cynthia Wallentin) 8:15-9:00 Brain Inflammation (Alice Fisher)	17 7:30-8:15 QI - Root cause analysis (O. Brook) 12:00-1:00 pm NERRS (No Grand Rounds)
20 7:30 - 9:00 MSK (TBD)	21 7:30 - 9:00 MSK (TBD) 8:00-9:00 IR Meeting [West Recovery]	22 7:30 - 9:00 MSK (TBD)	23 7:30 - 9:00 MSK (TBD)	24 7:30-8:15 Leadership 1 - Private Practice (P. Gordon) 12:00-1:00 pm Grand Rounds: GI Stromal Tumors: Imaging Diagnosis and Management (Angela Levy)
27 7:30 - 8:15 GI bleeding (Felipe Collares) 8:15 - 9:00 TIPS / portal interventions (Felipe Collares)	28 Interventional oncology: 7:30 - 8:15 RFA 8:15 - 9:00 Intra-arterial therapies (Muneeb Ahmed) 10:30-11:30 NMMI meeting [GZ-103]	29 7:30 - 9:00 Physics - Ultrasound Modules 3 & 4 (Da Zhang)	30 7:30 - 8:15 Vascular syndromes and Venous interventions (Ammar Sarwar) 8:15 - 9:00 Radiation in IR (Ammar Sarwar)	31 7:30-8:15 QI 2 - MRI Safety (Jeremy Stormann) 12:00-1:00 pm Grand Rounds/M&M Conference: Building Effective Imaging Department Quality Initiatives - Jonathan Kruskal

OCTOBER DEPARTMENTAL GRAND ROUNDS - Friday, October 24, 2014



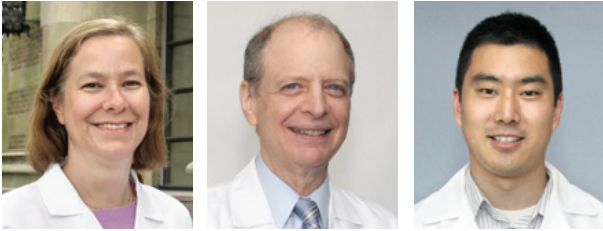
12 noon - 1:00 PM • Sherman Auditorium

Gastrointestinal Stromal Tumors: Imaging Diagnosis and Management

Angela D. Levy, MD - Professor of Radiology, Georgetown University School of Medicine / Abdominal Imager, Georgetown University Medical Center, Washington, DC

Upon graduation from the University of Texas Southwestern Medical School in Dallas, Dr. Levy enlisted in the US Army Medical Corps where she was able to complete her internship and two years of radiology residency at the Letterman Army Medical Center in San Francisco. She completed her residency at Walter Reed Army Medical Center in Wash., DC and would go on to serve as section chief of mammography at Kimbrough Army Community Hospital in Fort Meade, MD; section chief of ultrasound at Walter Reed, section chief of gastrointestinal radiology (in Radiologic Pathology) at the Armed Forces Institute of Pathology in Wash., DC and chief of abdominal imaging at the Uniformed Services University of the Health Sciences in Bethesda, MD. In 2009, she retired from the US Army Medical Corps at the rank of Colonel and currently serves as an abdominal imager and Professor of Radiology at Georgetown University Hospital in Wash., DC. Specializing in gastrointestinal disease, she has presented "Gastrointestinal Stromal Tumors: A New Paradigm in Oncologic Imaging" at numerous plenary sessions around the world and presented "Imaging of Gastrointestinal Stromal Tumors" at the First Annual Symposium on Gastrointestinal Stromal Tumors at Medstar Georgetown University Hospital in May of this year.

When not managing tumors, Dr. Levy serves as a Board of Director and Beneficial Insect Program Manager of the Melvin Hazen Community Garden of Rock Creek Park in Washington, DC.



Priscilla J. Slanetz, MD, MPH, Director, and Ronald Eisenberg, MD JD, and Justin Kung, MD, Associate Directors, Radiology Residency Program

We are also pleased to keep you updated on the latest news from our residents who have stayed on as clinical fellows:



Congratulations to IR Fellow **Pauline Bishop** who won the prize for the best fellow case presentation at this September's meeting of the New England Society of Interventional Radiology for her presentation, "BIDMC Experience of Internal Iliac Balloon Occlusion Catheters for Management of Placenta Percreta" - *Pauline Bishop, Olga R. Brook.*



Dear Colleagues,

I am happy to announce that eyeRad, an iOS app for viewing radiology images

on iPads and iPhones, is now available on the Apple App Store. Thank you all for your help over the last 2.5 years. The project could not have succeeded without all the support and encouragement I've received.

The eyeRad beta testers have been engaging their patients by bringing dynamic medical images to the bedside. I'm excited to open this opportunity to a wider audience. To ensure that the system scales gracefully with user demand, access to the BIDMC server is limited to authorized users. Please contact me if you would like an invitation.

Thanks,
Seth
(VIR Fellow)



Medical Imaging at the bedside

eyeRad is a dynamic viewing app for iOS that enables clinicians to share images with patients at the point of care. Gesture driven navigation is smooth and responsive. Full PACS search at your fingertips. support@eyeradapp.com

Residency News

In addition to welcoming our residents Annie Leylek, Neda Sedora-Roman, Lauren Ferrara and Christine Chen as the most recent members of the BIDMC Academy of Medical Educators (*see pg 1*), we are also delighted to announce another contribution from our department:



Congratulations to 2nd yr residents **Christine Chen** (Left) and **Hannah Perry** (Right) who were elected this year to membership in the BIDMC Chapter of the Gold Humanism

Honor Society. They were inducted in a ceremony held on September 18th at the Leventhal Conference Room, Shapiro 2. BIDMC was identified as one of 10 pilot Chapters of the GHHS in 2013.

Customer Reviews
Just the best.
by Aceptint84
This program is bar none the best way to view imaging

Description
eyeRad is an app for medical professionals who need to view medical images (radiographs, CT, MRI, US, angiography, etc) while at the bedside, on rounds, in conference, or otherwise away from a diagnostic workstation.
eyeRad is pre-installed in a Demo mode providing access to a normal CT scan of the abdomen and pelvis. Features include:
-- Intuitive gesture driven navigation (slide to scroll, pinch to zoom, drag to pan)...

Information

Seller	Seth Berkowitz
Category	Medical
Updated	Aug 27, 2014
Version	1.0.1
Size	4.0 MB
Rating	Rated 12+ for the following: Infrequent/Mild Medical/Treatment Information
Family Sharing	Not Available
Compatibility	Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.
Languages	English

Radiology at Fenway Fantasy Day - September 15, 2014



Radiology One Fenway Fantasy Baseball Team:

Front row, L-R: Peter Gordon, MD, Jonathan Kruskal, MD PhD, and Dan Gadowski (Milton rad tech)

Back row, L-R: Bill Hallett (Needham), Donna Hallett, Bob Cherry, Richard Whitehead, MD (Milton radiologist), and Jim Wu, MD

Not shown: Damon Spitz, MD and Kristy Lutjelusche, RT (NEBH)

Radiology enjoyed homeruns, high fives and hot dogs at BIDMC's annual Fenway Fantasy Day at Fenway Park.

"What a fantastic opportunity, as a childhood dream came true," said Bill Hallett, RTR CT, Director of Radiology at BID-Needham.

The four teams randomly selected to play softball on the outfield at Fenway Park on Sept. 15 were made up of staff from nursing, radiology, BID-Milton, Affiliated Physicians Group (APG) and more.

"It was a fun day to enjoy inter-departmental fun and to get to know our colleagues a little better," said Jonathan Kruskal, MD, PhD, Chief, Radiology. "We knew there were many advantages to affiliating with Milton, but now we must add they have some serious sluggers to that long list."

Kruskal and other radiology staff members joined APG staff to form the American League. Team Milton and "Masters of the

Field" made up the National League, a name coined in honor of their participation in Simmons College's Masters in Nursing program together.

"Fenway Fantasy was a great day of solidifying our journey as a team," said Diana Gist, RN, Administrative Clinical Supervisor, ED. "We always said from the beginning, 'no man or woman left behind.' The day was fun, and we continue to cheer each other on."

Following the game, staff had the opportunity to take a tour of the historic park. They were also invited to a reception with ballpark food and drinks at the Wheels Up Clubhouse.

Kathleen Adams, RN, PACU, described the day, "It was a once in a lifetime experience, to say the least."

The above was paraphrased from our portal, click on <https://portal.bidmc.org/Utility/BIDMC-Today/Archived-Stories/2014/September/FenwayFantasy.aspx> for more information!



Jeffrey Bernard, RT
Manager, Community
Radiology Network Services

KOMMUNITY KORNER: Introducing KATHY ANESTIS, VP of Ancillary Services at Harrington Memorial Hospital (HMH)

Harrington Hospital welcomes a new radiology leader! **Kathy Anestis**, VP of Ancillary Services, has joined the HMH radiology team to oversee day-to-day operations. Kathy brings to her new position six years of experience as director of the laboratory department at HMH. As VP of Ancillary Services, she will oversee the Lab, Radiology, Cardiology, Cardiac Rehab and Respiratory Therapy.

In 2008, Kathy was recruited to Harrington Hospital by Ed Moore, CEO who had previously worked with Kathy at MetroWest (formerly Framingham Union Hospital); Kathy as the lab director and Ed as the COO. At MetroWest, Kathy worked in Microbiology (4 years) and Hematology/Chemistry (34 years) and over the years served as weekend supervisor, Point of Care Coordinator and Lab Director.

Highlights of her six years in the Harrington laboratory include Kathy's solution for connecting the laboratory to other hospital labs by forming a lab network group with MetroWest and BIDMC, to name a few; and by participating in blogs where staff were able to share ideas and learn new techniques from their counterparts at other locations. There were also improvements to be made in lab workflow. Being a big proponent of LEAN principles, Kathy seized the opportunity to refine workflow and used her leadership skills to recruit – and empower – staff throughout the department to participate by brainstorming, testing ideas and troubleshooting along the way. Another popular tool Kathy introduced was the "Could We" Board. This was a communication board staff could use to propose ideas to further streamline processes. It has become so popular it was expanded throughout the Harrington network. With the dedicated LEAN efforts of all department staff, the laboratory has become a role model and leader for the hospital.

"Kathy also has a strong focus on customer service and LEAN. She has brought tremendous value to Harrington during her previous 6 years at Harrington and should continue to do so in her new role."

- Ed Moore, CEO at Harrington Hospital

At first, when Kathy was asked to oversee the radiology department, she was hesitant given her lack of radiology experience but she soon realized that given the support of the BIDMC/HMFP collaboration, the strong leadership from the modality managers and talented technical and support staff, this new position would be a good fit. And since she already worked at Harrington, she was no doubt aware of the wonderful attributes of Radiology.

Kathy's goals for Radiology include maintaining fiscal responsibility, especially in this day and age with rapidly changing healthcare, and customer focused high quality imaging; and establishing a pleasant work environment where staff feel ownership and are empowered to take responsibility to do the best job possible.

Not being a Radiology "native", Kathy has the advantage of being able to observe objectively and when asked to list what she considered noteworthy, her immediate response was the ownership technologists and staff take with patients, the kind and compassionate bedside manner continually demonstrated in the department and the complexity of radiology procedures carried out by technologists and radiologists. Kathy also commented that she has great respect for the people who care for patients. Working in the laboratory, staff are insulated from the patient experience – "we were never directly connected to it". In her very short time in radiology she has gained an inordinate understanding and appreciation for why we are all here!

When not working at Harrington, Kathy makes her home in Bolton, MA with her husband of 42 years and enjoys the company of her two adult children and spoiling her four grandchildren and one granddog. Kathy is a voracious reader and enjoys gardening and yoga.



DEPARTMENTAL NEWS: WELCOME NEW RADIOLOGY FACES

Welcome Da Zhang, PhD



I'm writing to introduce our new physicist, Dr. Da Zhang, who recently joined the Medical Imaging Physics group.

Da's PhD is in Electrical Engineering from the University of Oklahoma. He is ABR certified in Diagnostic Medical Physics. For the past 5 years he

worked at MGH as a medical physicist.

Dr. Zhang has broad experience across multiple clinical modalities and has been especially active in QA and physics support in CT, ultrasound and breast imaging. At MGH, Da was instrumental in coordinating their entry into the ACR CT Dose Index Registry, implementing the CT dose tracking and reporting system and developing an ultrasound QA program.

Da is a scientist and medical physicist with an extensive CV and a broad range of clinical and research interests. He's looking forward to supporting the clinical, research and teaching efforts in Radiology. I feel fortunate that we were able to convince him to join us and I hope you'll join me in welcoming him to BIDMC.

- Matt Palmer

Matthew R. Palmer, PhD, DABR

Physicist and Manager, Medical Imaging Physics

Welcome Osasere Mary Evbuomwan, PhD



Please welcome **Osasere Evbuomwan** (*O-sa-seh-ray E-wo-wan*), a new research fellow in MRI starting this month. Osasere was born in Lagos, Nigeria and received her B.Sc. in Chemistry with a minor in Mathematics from Lewis-Clark State College in Lewiston, Idaho in

2006. She went on to complete her M.Sc. and Ph.D. degrees in Chemistry (in 2009 and 2011 respectively) under the guidance of Professor A. Dean Sherry at the University of Texas at Dallas. Her graduate research focused on the development of novel small-molecule and nanosized probes for PARACEST MRI and luminescence applications and her work earned her the David E. Daniel Fellowship Award in recognition of excellence in molecular imaging research. Osasere is currently a Madrid-MIT M+Vision Postdoctoral Research Fellow at MIT where she conceived and is managing an international research collaboration in the development of novel PET imaging agents for the diagnosis of cancer and the response assessment of anti-cancer therapies. At BIDMC, she will be working with Dr. Aaron Grant on a project utilizing hyperpolarized biological substrates to monitor treatment response in preclinical cancer models using MRI. After completing her postdoctoral fellowship, her goal is to teach chemistry and pursue research in biomedical imaging.

New Academic Year + New Faculty = New Office Locations!

Muneeb Ahmed (VIR)	W/CC-308F
Darren Brennan (Community)	W/CC-376
Peter Gordon (Community)	W/CC-308B
Karen Lee (ED/MRI)	W/CC-385
Robin Levenson (ED)	W/CC-385
Colm McMahon (MSK)	TCC-426
Jennifer Ní Mhuircheartaigh (MSK/Community/VIR)	TCC-426
Vassilios Raptopoulos (Abd/CT)	W/CC-308A
Barry Sacks (VIR)	W/CC-308B
Ammar Sarwar (VIR)	W/CC-376
Leo Tsai (MRI)	Ansin 2



Stay tuned for more relocations particularly at the East Clinical Center (TCC-3) as the Integrated Breast Center is completed.

Welcome Karen Rice, Breast Imaging Tech

Please welcome **Karen Rice** who has accepted the position of Breast Imaging Tech II. Karen comes to BIDMC most recently from Emerson Hospital in Concord, MA. Her first day in Radiology will be Wed., Oct. 1st. Karen has been a mammographer since 2007 and has experience working with both GE digital and the Hologic Dimensions 3D equipment, in the Diagnostic and Screening settings.

Please join me in welcoming her to our team. (*Karen will be included the updated Breast Imaging Tech poster.*)

- Olga Augustus, BS RT (R) (M) (QM)
Clinical Manager, Breast Imaging

DEPARTMENTAL NEWS:



Aideen Snell, MSW
Mgr., Service Excellence Program

Radiology Patient Experience & Satisfaction

Keep an eye out for Radiology's Patient Experience and Satisfaction on the BIDMC website! Sometime in October we will 'go live', sharing our survey results with full transparency under Quality and Safety on the public site.



Beth Israel Deaconess Medical Center (BIDMC) is committed to providing understandable, usable, and timely information on our quality and safety record. This information will help patients and families feel confident in the care they receive at BIDMC.

In this section you can see what patients say about BIDMC, what quality measurements we use to assess how we are doing, how our quality of care compares to that of other similar organizations, what we are doing to improve the care we deliver to our patients, and how you can become involved in improving patient care at BIDMC.

<http://www.bidmc.org/Quality-and-Safety.aspx>

Radiology Survey Results will be listed along with current scores listed from Ambulatory Care, Inpatient Care and Ambulatory Surgery Care. When you see a score listed, that percentage represents the number of patients who gave us a perfect score. How many times do you give a perfect score in a survey? My guess is, NOT OFTEN unless the service is amazing. The majority of our questions receive Good or Very Good 97% of the time... but we want to move our "good" patients to "very good" – providing an Outstanding Experience 97% of the time or more! So keep up the great work that you are doing and THANK YOU for engaging the patients in the Satisfaction Survey and how much their experience matters to us here in Radiology!

2014-2015 Pilot Research Awards Deadline: November 17, 2014

Pilot Research Awards are designed to enable Radiology investigators to gain experience in defining objectives and testing hypotheses in preparation for external grant applications and/or submission of manuscripts. These awards are intended to support the preliminary or pilot phase of scientific projects and are not intended to supplement major funding that has already been secured.

Amount: One-year grant of up to \$15,000.

Eligibility Requirements: Awards are restricted to full-time Radiology faculty, fellows, residents and research staff only. Applicants at the level of Assistant Professor or below require co-signature on the application by a departmental mentor and early involvement of the mentor in the proposal development is strongly encouraged.

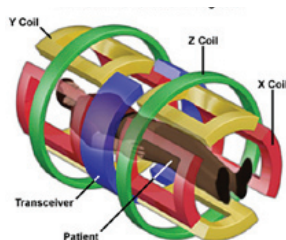
Nature of Projects: Any area of basic, clinical, or translational research related to radiology is eligible for support.

Submission Procedures and Deadlines: Submissions will be reviewed in two annual cycles. Submissions received by **November 17, 2014** will be considered for funding beginning **January 15, 2015**. Submissions received by **May 18, 2015** will be considered for funding beginning **July 15, 2015**. Up to \$80,000 may be awarded through this program each academic year. Proposals (hardcopy or electronic) should be submitted to Lois Gilden, assistant to David Alsop, Director of Research, (email lgilden@bidmc.harvard.edu).

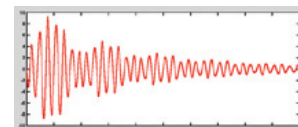
Format for the Proposal: The application is limited to two single-space pages of narrative consisting of Specific Aims, Background & Significance, Preliminary Studies (if any), a brief Design and Methods section, and a section describing how this grant will lead to the preparation of external grant applications and/or the submission of high impact manuscripts. A separate Budget page with justification must be submitted. Please note that these grants are not intended for salary support of the applicant or co-investigators.

Questions: Please contact Dr. David Alsop at dalsop@bidmc.harvard.edu with any questions about these awards or other research plans or needs.

Radiology Residents & Fellows MRI Physics Course



National High Magnetic Field Laboratory



2014-2015 Academic Year

Purpose:

- To provide fellow and fellows residents with a basic understanding of MR physics, with emphasis on practical aspects of image acquisition such as protocol optimization and troubleshooting.
- A brief overview of fundamentals of nuclear magnetic resonance will provide an introduction to sources of image contrast in MRI.
- Techniques for image formation will be described, followed by an overview of the major families of MR pulse sequences. The physics underlying topics such as accelerated imaging, fMRI, and diffusion tensor imaging will be discussed.

Text and Topics:

The recommended textbook is “MRI in Practice,” 4th Edition (2011) by Catherine Westbrook. Supplementary reading from review articles will be recommended for advanced topics.

Format:

A total of 13 sessions including 10 lectures and 3 hands-on sessions at the GE 3T research scanner. **All sessions will be held on Wednesdays, 5-6pm at the MRI Learning Lab, Ansin 220, starting on July 30th.**

For more information, contact Aaron Grant, PhD: 7-3265

TOPICS

July 30, 2014: The origin of the NMR signal. Nuclear magnetism. Nutation, precession, signal reception. Chemical shift. Relaxation, T1, T2. Spin dephasing, impact of gradients and magnetic field inhomogeneities. Overview of MR hardware.

Aug 6, 2014: Sources of contrast in MRI: T1 and T2 weighting, magnetization transfer, CEST, diffusion weighting.

Aug 13, 2014: Hands on session 1: Basics of running a scanner. Common problems in preparing a patient for imaging. Overview of coil arrays and pulse sequences.

Aug 27, 2014: Image formation. Phase and frequency encoding. Basic k-space concepts. Nyquist criterion, field-of-view, and resolution. k-space sampling for given imaging parameters, and effects of undersampling (aliasing, pseudo-noise). Preview of accelerated imaging methods.

Sept 3, 2014: SNR and accelerated imaging. Image parameters that govern SNR. Trade-offs in image optimization. Accelerated imaging. Parallel imaging and compressed sensing.

Sept 10, 2014: Pulse sequences. Gradient echo, spin echo, steady state, EPI. STIR/FLAIR/IR etc. Fat suppression. Spectroscopy with PRESS, STEAM, CSI.

Sept 24, 2014: Hands On Session 2:
Protocol optimization with basic pulse sequences.

Oct 1, 2014: Spins in motion: flow and diffusion. Flow compensation, time of flight, phase contrast. Introduction to basic diffusion weighted imaging.

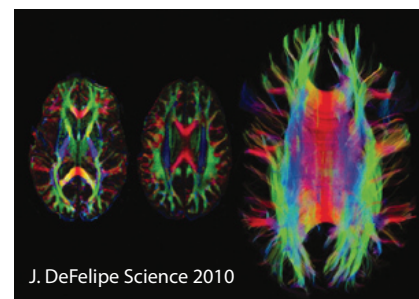
Oct 8, 2014: Contrast-enhanced MRI. Types of magnetic materials. Relaxivity and image contrast as a function of dose, TR, TE. Dynamic contrast enhanced imaging, angiography. BOLD effect, fMRI.

Oct 22, 2014: Artifacts and troubleshooting.

Oct 29, 2013: Hands-on session 3.
Common difficulties in practical scanning, and how to resolve them.

Nov 5, 2014: Diffusion-weighted imaging and DTI in neuro applications.

Nov 19, 2014:
Arterial spin labeling in the brain and body.



J. DeFelipe Science 2010

KUDOS - Each month, we share the positive feedback we receive about staff members and ask you to join us in congratulating them; as always, we are especially proud to acknowledge an unprecedented constellation of staff for providing outstanding care and service!

Breast Imaging



Janet Vaidya was successful in trouble shooting the case of the "missing images" and in creatively using the time spent with your co-worker

to provide meaningful coaching as to your methodology for resolving the issue, while creating an environment supportive of fostering good Team dynamics.

Karen Dowie: In recognition of your continued passion to do the right thing for your patients while operating under difficult circumstances. Recently while managing a full patient list you demonstrated excellent technical as well as customer service skills, keeping your patient well informed, helping to reduce her escalating level of anxiety and keeping her comfortable during a prolonged and lengthy stay in an exam room, your persistence and diligence in working with the professional staff was instrumental in resolving the disconnect between the order and the recent radiology recommendation and ensured that your patient left the section having received that appropriate testing and with a clear understanding of what the next steps in her care plan would be.



(L to R:) **Gina Donaher** and **Constance Mulcahy** are recognized for their dedication to patients, empathy, compassion, professionalism and team approach when faced with a very challenging situation. Recently they were invaluable in providing compassionate and thoughtful care to a patient with multiple physical and emotional challenges presenting for a mammo guided needle localization. Although the procedure ultimately was cancelled both performed heroics to work with and offer encouragement to her even in the face of her decompensating and becoming combative. Your efforts were very much appreciated by the other professional staff involved in this procedure.

DX



Christopher Burgos: ED patient kudos for outstanding assistance "Chris is a fine gentleman, very professional, caring and understanding. He was so nice to me and made a difficult situation easy. He deserves a special mention. He is a fine asset to your organization."



Mary Elizabeth Monroy is very organized and thorough. She takes the initiative to do whatever it takes to get things done - and sees it through to completion. When acting as the QC tech she is organized and keeps a smooth workflow going. Mary Elizabeth oversees the CPR schedule and has made adjustments to her schedule to meet training demands.



Suzanne Hunerwadel is someone who just works hard every day. She always helps in other areas and will sign up for just about any shift. She has tremendous energy and keeps herself busy.



Dorcil Rodrigue and **Jean Fluery** (not shown) are always on time and ready to go; they transport more patients than anyone else. They always make themselves available for the very next job, and they never complaint about been too busy or staff shortages and embrace any heavy schedule that we may have for the day. Last of all, they show great love for the job they're doing.



Maureen Burke is flexible, enthusiastic and cooperative. She is great with patients and has a knack for teaching. She was instrumental in setting up preferences for Pain Clinic (PC) providers. She demonstrated great insights on how the PC can maximize/streamline patient flow. I know the PC is grateful for all she does and most importantly thinking of the patients.



Kathryn Fraser has a great demeanor and has a calming effect on our patients. She always has a positive attitude and is very approachable and puts our patients at ease. She is very level-headed and handles stressful situations with ease. She is quick to congratulate her coworkers and builds trust within her team; and has in her quiet ways made everyone feel comfortable in a very unassuming way."



Josmar Silva takes initiative and will do whatever it takes to get us through the day. He is a hard worker and is great at anticipating the needs for the patients and our clinic.

DX (cont'd)



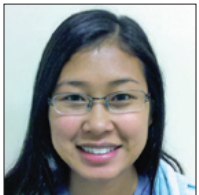
Sabrina Checca is very much in command on what needs to be done. She is a great team player and is always looking at ways for improvement.



Alex Raymond is a quick learner and is eager to learn. He is personable and is at ease with what he needs to do."



Fritz Honore consistently ensures that transport requests are met. He keeps an open dialog with staff.



Linda Thiem works hard and sees that all work is completed - all with little supervision. She knows what to do and sees that it gets done.

Support Services

Valdir Depina for his reliability, dependability and collaborative spirit. Whenever there is a need for coverage no matter what shift or day of the week, Valdir can be relied upon to save the day. He demonstrates a commitment to service excellence, positive attitude and willingness to help at all time.

Danielle Warren for consistently taking the leadership role during the absence of the supervisor and for her efficiency when responding to scheduling and staffing challenges.

Oanh Pham came into the managed care office as the referral specialist during a period which could be best described as stressful due to staff transition and heavy workload. Her calm personality and collaborative effort has been effective in the unit operating more efficiently in acquiring pre approval.

Tawana Young has been a model team player in the managed care unit and I wanted to acknowledge her ability to remain focus and helpful to all our patients, customers and staff during the managed care unit transition period.

Nursing



Kim Antonellis redesigned and set up the East recovery room to accept patients. She worked off hours, cleaning, procuring supplies and organizing paperwork. Pulling this room out of its "mothball state" was a challenge that Kim with her organizational skills and attention to detail was clearly ready to accept. The result is superb.

Lindsay Downes volunteered to assist Kim in the setup of East recovery. The two worked off hours to create an efficient workspace that is ready to accept patients in a more comfortable environment. As a newer member of the team, Lindsay also wanted to participate in order to facilitate her learning about the workings of the East campus modality areas. Since her start here at BIDMC, Lindsay has been a self-motivated learner. She is always open to learning as much as she can to facilitate the best care possible.



As resource nurse in the Radiology Care Unit (RCU) **Ann Marie Cathcart** accepted the challenge of taking on a whole new work flow as resource in the procedural areas. Entering this arena with fresh eyes, she has already offered insights and questioned current workflow after two weeks of observation.



As resource nurse in the procedural areas, **Maryann Humphrys** accepted the challenge of taking on a whole new work flow as resource in the RCU. Entering this arena with fresh eyes, she has already offered insights and questioned current workflow after two weeks of observation.

Annual Beth-Israel Deaconess Paulin-Simon Lecture at Rambam, Technion University



I was pleased to speak in Haifa at the annual BI-Rambam day devoted to Sven Paulin and Prof Rosenberger. It was a very meaningful and special event for me and for the entire group of participants.

- Diana Litmanovich
Cardiothoracic Imaging, Dir., Cardiac Imaging

KUDOS³ - Welcome newest members of the Radiology family and best wishes for one retiree!



Medical Student Education Coordinator **Megan Garber** asked me to pass along some wonderful news. She and her fiancé, Jonathan Zuker, welcomed their first son, Liev Jeffrey Zuker, into the world on Tues., Sept. 2nd at 12:56 PM. He weighed in at 7 lbs, 11 oz and measured 20 inches long. Both mother and baby are healthy, happy and resting comfortably. Please join me in congratulating Megan and her growing family on this happy arrival.

- Katie Armstrong, Mgr, Medical Education Programs



Dear Colleagues,
Calvin Tsai was born 1:38 AM today, measuring 8 lbs 7 oz, and 20 inches. Barbara is recovering well, and Vivian is excited to be a big sister! See you all back at BIDMC soon!

Best,
- Leo



Renee Levine

On September 3, 2014 we congratulated Irene ("Renee") Levine on her retirement. Renee received her 30 years of service award this year but has actually been a part of the BIDMC family for much longer. She first arrived at Beth Israel in 1964 as a volunteer for the Candy Striper Program and then took part in the Beth Israel and Northeastern Radiology Program to become a technologist in 1969. For the next 10 years she worked at Beth Israel intermittently, and after realizing this was a perfect match, she accepted a regular position in the early 80's. Renee has impacted the lives of many technical and profession staff and patients over the years. She will be missed. We thank her for her contributions and wish her all the best as she starts this next chapter of her life.

- Tejas Mehta, Chief of Breast Imaging



KUDOS⁴ - Sabrina's Story

Thanks to Dx Radiology Mgr., Betsy Grady for asking technologist Sabrina Checca to share the following story. While we as healthcare workers are trained to assist in life threatening situations, it isn't often that we actually get to use these skills – and on vacation no less! Thanks Sabrina for walking us through her experience; it can certainly help the rest of us use CPR should the need arise.

With jobs like ours, sometimes the day doesn't end right when you walk out the door. I was so excited for the beginning of September to head to Los Angeles, CA. My friend's brother is the equipment manager for the LA Kings hockey team who won the Stanley Cup this past year, and a group of 10 of us headed to California to see the cup. Little did I know that I actually wasn't on vacation.

Our first day there, we went swimming at the beach. The waves were extremely rough due to a hurricane that was going to hit California soon; however, the waves were HUGE and we were loving it! When we came out of the water and headed back to our towels, I heard someone call out. I turned around and saw one of our friends lying down in the sand. I ran over, noticed him shaking, and immediately thought he was having a seizure; however, there was no pulse, and then he stopped moving all together. The lifeguard came over, I told him what I had assessed and he immediately started CPR. We alternated giving compressions until more life guards came with a bag valve mask and the [automated external] defibrilator which was attached to my friend while I was able to use the mask to give breathes when required. It was then time for the first shock, we cleared and nothing happened. We then continued CPR, until it was time to give another shock.

I remember new commotion around me and I believe this is when the fire department and paramedics arrived. After the second shock, we went to start CPR again, but he came back to us. As mine was a familiar face, I was able to help keep him calm. When he asked what happened, one of the paramedics said, "You just had a heart attack."

It was at that moment when I realized what I actually did. My "fight or flight" response had kicked in to fight for this guy's life before it really hit me. My friend didn't believe what happened. I looked at him and said, "Hey Rich, it's Sabrina. You did have a heart attack, we had to shock you twice and we pushed on your chest a lot; sorry I broke your rib."

The paramedics then brought him to the hospital where he had to have 2 stents put into his heart. He had to stay in the ICU for 4 days and missed the cookout with the Stanley Cup, which was the reason we were all out there together. Thanks to modern technology, we were able to use iPhone's "FaceTime" to include him as best we could during these events. However, we kept finding ourselves always stopping by the hospital when we could to check on him. I am happy to say that my favorite patient Rich is officially back in Massachusetts and making progress. We will definitely be cheering for the Boston Bruins together.

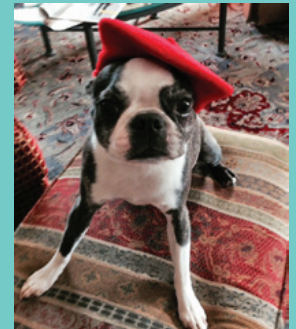
- Sabrina Checca RT(R)



Sabrina shown here with the Stanley Cup!

The Gallery at WCC-304B *hopes to present*

*Betsy Grady, Manager,
Diagnostic Radiology
& Avid Traveller*



*Dr. Kruskal's wild game photos are proving to be a tough act to follow and the Gallery is hoping to feature Betsy Grady's mementos of her travels to Europe, including one she brought back for her own furry friend, Lilith, **sometime in October**. Come and give her a cheer of encouragement!*

As always, please contact Donna Wolfe if you, too would like to share your photos, paintings or sculptures: dwolfe@bidmc.harvard.edu or 4-2515



More Radiology Alumni: *Where in the world is ... former faculty and fellow Rola Shaheen? Many thanks to Rola for keeping us abreast of her efforts in the Middle East!*

(Reformatted for Radical Views)

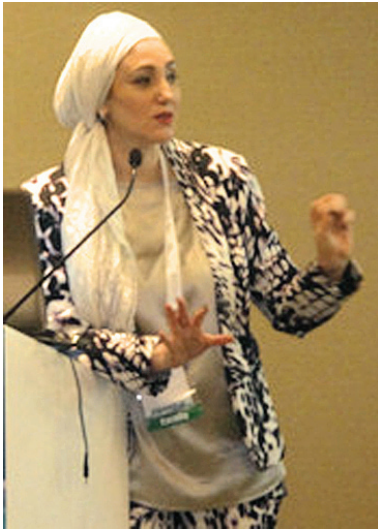


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Breast screening controversies spark debate at ICR 2014

by Philip Ward, AuntMinnie.com staff writer



All women have the right to know the truth about breast screening, argues Dr. Rola Shaheen.

September 10, 2014
-- DUBAI - Greater consideration should be given to a woman's total quality of life in the breast screening debate. That was the take-home message of a keynote lecture by **Dr. Rola Shaheen** at this week's International Congress of Radiology (ICR 2014).

Quality-adjusted life year (QALY), a measure of disease burden, is used to assess both the quality and quantity of life lived. It's typically used to assess the

value for money of a medical intervention, and should be a key part of the screening debate.

"Chemotherapy is not a walk in the park, so if I can discover a tumor that's 1 cm in diameter as opposed to 5 cm and save my patient from chemo, then I'll be the happiest person," Shaheen pointed out. "Yes, saving a life is good, but saving a woman from chemotherapy is also our target, whether she is young or not."

Shaheen is chief of women's imaging at Mafraq Hospital in Abu Dhabi, United Arab Emirates (UAE), and is also a radiology instructor at Harvard Medical School in the U.S. She spoke on 10 September.

Another key controversy is the screening of women between the ages of 40 and 49, for instance whether a younger patient who might have invasive ductal carcinoma will benefit from breast screening, even though she has a more aggressive disease pattern and will probably die anyway.

"The answer is 'yes and no,' and it depends on the type of cancer," Shaheen said. "Can you tell from the mammogram or the look of the woman if she's going to have aggressive or nonaggressive cancer? That's not my job, that's not your job. Our job is to do the screening."

For the small percentage of women who are unlucky, at least the tumors are discovered early and hopefully the new

improved treatments will take care of them and give the women a chance of life, Shaheen said.

Overall, Shaheen listed the following as the main issues and challenges facing breast screening:

- Too many providers involved in screening, and too many tests
- When, who, and how to screen
- Confusing data and recommendations over screening
- Is the well-being of women a priority? Or is it political?

She stressed that she is not a statistician, an epidemiologist, an economist, or a health policymaker, but she is a breast imager who is dealing with patients and colleagues who are confused. Also, she describes herself as a potential target for breast cancer, and like all women in the world, she has the right to know the truth about breast screening.

Promoting awareness

In addition to training and education, promoting awareness of breast cancer among women is a particular concern in the Middle East, according to session moderator Dr. Ashraf Selim, professor of radiology and head of women's imaging at Cairo University in Egypt and chairman of the Ladies' Health Alliance.



Breast cancer awareness campaigns in the Middle East must target men, as well as the health authorities and physicians, believes Dr. Ashraf Selim.

"They are afraid just to mention the name cancer. They refrain from going to screening projects because they're afraid to face the facts," he said. "Even if we discover something and we tell them we need to take a biopsy, they escape. That's the real problem."

Greater awareness is also essential among men, as well as the health authorities and physicians. Another vital factor for national screening programs is to have a figurehead and a champion, such as the first lady of a country, to encourage participation, Salim said.

A three-day conference about breast cancer in the Arab world is taking place in Amman, Jordan, from 27 to 29 October 2014.

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PUBLICATION CALL OUT: Remembering Sven Paulin

In September, Ferris Hall and Alex Bankier published a memorium for Sven Paulin in *Radiology* which would have been a perfect introduction to the 8th Annual Sven Paulin Lecture hosted this year by the Division of Cardiology but unfortunately, this event has been rescheduled to Friday, May 1st, 2015 and will be given by **Joao A.C. Lima, MD**, Director of Cardiovascular Imaging at Johns Hopkins Hospital.

In Memoriam



Sven Paulin, MD, PhD 1926–2014

Dr Sven Paulin, our friend and colleague, passed away on January 10, 2014, at the age of 87 years. Dr Paulin was former radiologist-in-chief at the Beth Israel Medical Center (Boston, Mass). He was highly regarded and honored throughout the world by both

the radiology and cardiology communities for his innovative contributions to cardiothoracic imaging. At the time of his death, he was professor emeritus at Harvard Medical School (Boston, Mass) and had retired from active participation in the department only several months previously.

Dr Paulin was born in Bad-Muenster am Stein, Germany, and received his MD degree from the Johannes Gutenberg University of Mainz, Germany, in 1951. In 1953, he immigrated to Sweden, where he completed his residency-equivalent training in Stockholm and later his PhD degree at the University of Gothenburg. His doctoral thesis, "Coronary Angiography—A Technical, Anatomic and Clinical Study," written nearly 50 years ago, was immediately recognized as a landmark contribution.

In 1968 Dr Paulin was invited by Dr Herbert Abrams to be a visiting professor at Stanford University (Stanford University, Calif), and in 1969 he followed Dr Abrams to Boston at the Peter Bent Brigham Hospital. In 1970, he became radiologist-in-chief at Beth Israel Hospital, a professor at Harvard Medical School, and a US citizen. In

1974, he was further honored as the first recipient of an endowed chair in radiology at Beth Israel Hospital by the family of Miriam M. Stoneman and retired from that position in 1994. Dr Paulin spoke multiple languages and participated in many international radiologic and cardiac conferences throughout his career. He served as president of both the Society for Cardiac Angiography and the North American Society for Cardiac Radiology.

Dr Paulin was an avid sports enthusiast, dedicated chess player, voracious reader, and both an art and oyster lover. To those who worked with him he often became not only a friend but also a mentor. He was a source of joy, laughter, encouragement, knowledge, and inspiration. He had that wonderful combination of intellect integrity, judgment, wisdom, curiosity, and humanism that so often personify "Homo Academicus."

He is survived by his wife of 57 years, Birgit; four children, Susanne, Magnus, Helena, and Viveca; and five grandchildren.

—FERRIS M. HALL, MD, AND ALEXANDER A. BANKIER, MD, PhD



Thanks to Dr. Paulin's daughter Susanne Portanova for sharing this photo of Sven's grave marker now in place at Mt. Auburn Cemetery, with the quote "Medicine is more than an exact science. It is an Art." by Dr. Paulin's son Magnus.

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