

Radical Views...

from the Department of Radiology

Volume 10, Number 11



FROM THE CHIEF Jonathan B. Kruskal, MD PhD

Welcome to Academic Year 2018-2019:

On June 22nd of this month, we will be celebrating the achievements of our residents and fellows at the annual Fleischner Graduation Dinner. This event marks the completion of the academic year and as we get ready for the next, I would like you all to

welcome both our new trainees as well as our incoming faculty (see their biographies in next month's Radical Views):

Andrew Bennett, MD, PhD - Abd/Acute & Ambulatory Care Kevin J. Blount, MD - MSK Imaging & Intervention Sarah E. Schroeppel DeBacker, MD - Interventional Sonia Gupta, MD - Abd Imaging (US) Wonsuk Kim, MD - MSK/Acute & Ambulatory Care Jackie J. Lian, MD - MSK/Acute & Ambulatory Care Omar Parvez, MD - Neuro/Acute & Ambulatory Care Christine L. Petersen, MD - Breast Imaging James V. Rawson, MD, FACR - Abd Imaging (see pg 3)

With these members joining our existing faculty, I look forward to forging an even more effective team of clinicians, researchers and educators aimed at improving healthcare and providing solid training for this next generation of physicians. I am especially pleased at our achievements in Quality, Safety and Noninterpretive skills.





Beth Israel Deaconess Medical Center

We are proud to recognize the **IMPACT Program** as the recipient of the 2018 Program Award for a Culture of Excellence in Mentoring (PACEM) at Harvard Medical School. PACEM is a new award established to recognize departments, divisions, offices or programs for their efforts to foster innovation and sustainability in mentoring while building a culture of excellence in mentoring. The PACEM Award will provide an opportunity to learn from successful innovative mentoring programs and allow others in the Harvard Medical School community to learn from successful models.



The IMPACT Program for Career Development is a Health Sciences & Technology-HMS/ MIT Program for post-doctoral and advanced pre-doctoral

trainees, led by BIDMC Radiology Research Faculty Physicist, **Deborah Burstein, PhD** and Martha Gray, PhD, MIT Professor of Health Sciences & Technology and Electrical Engineering and Computer Science. The IMPACT program provides group mentoring, 1:1 advising and community engagement to help mentees gain a broader perspective on their research and career, heighten their research potential to achieve real-world impact, attract collaborators and build a professional network.

Congratulations Dr. Burstein for your leadership contributions to The IMPACT Program!



Speaking of successful mentoring programs, 2nd yr resident **Dr. Mohammed Elsayed** was selected to participate in the RSNA/AUR/ARRS Introduction to Academic Radiology Program this year and he is happy to share his experience:



Mohammed Elsayed, MD, 3rd yr Resident (July 2018)

[please see page 7 for Dr. Elsayed's upcoming BIDMC award] happy to share his experience: I had the great pleasure of attending the RSNA/ARRS/AUR Introduction to Academic Medicine (ITAR) Program (curated for R2s) recently at the annual ARRS meeting in Washington, DC. I had an absolutely wonderful experience gathering valuable insight from a myriad of faculty from all over the country. The course focused on professional development, career advancement, academic promotion, CV building, research/manuscript process, and the contrast between academic vs hybrid vs private radiology. Each

faculty member brought a rich outlook of their respective fields and the diversity of professions was a delight to witness. Additionally, there was the unique opportunity of connecting and networking with likeminded residents from across the country. And another perk - during breaks we could attend any of the numerous talks/review courses that general ARRS has to offer - which were extremely high quality. Overall, it was an unforgettable experience which I highly recommend to my fellow colleagues!

Radiology Calendar June 2018

Check for the most up-to-date schedule at: https://apps.bidmc.org/departments/radiology/residency/conferences/displayMonth.asp

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 conference 12:00-1:00 CardioThoracic, Gl/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	★Note that as our 12 noon Friday Grand Rounds are held in the Rabkin Board Room, Shapiro-10, East Campus (except when noted otherwise, i.e., Sherman Auditorium)
				1 7:30 - 8:15 Mammo Positioning (Amy Patel) 12:00 - 1:00 Grand Rounds:
				Fellows Scholarly Projects (Fourie Bezuidenhout, Yehuda Malul, Andrew Chung, Bardia Moosavi)
4	5	6 7:30 - 9:00 Liver Doppler (Jonathan Kruskal)	7 4:00-5:00 West Med Rads-Senior Resident on West Body CT [Clouse]	8 12:00 - 1:00 Grand Rounds: 4th Year Scholarly Projects
11 12:00-1:00 MRI meeting [Ansin 2]	12 10:30-11:30 NMMI meeting [GZ-103]	13 7:15-8:00 US meeting [RB-304A] 7:30 - 9:00 Neuro Lecture TBD	14	15 12:00 - 1:00 Grand Rounds: 4th Year Scholarly Projects
18	19 8:00-9:00 IR Meeting [West Recovery]	20 8:00 - 9:00 Physics Lecture TBD	21 7:30 - 9:00 Mammo Lecture (Valerie Fein-Zachary)	22 12:00 - 1:00 25th Annual Fleischner Lecture: Role of the Radiologist in Population Health (James Rawson) Sherman Auditorium
25	26 10:30-11:30 NMMI meeting [GZ-103]	27 7:30 - 9:00 Neuro Lecture TBD	28	29 12:00 - 1:00 Grand Rounds: Fellowship Scholarly Projects

The Gallery presents photos by Lorena Maia





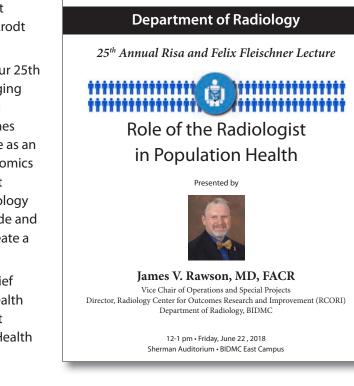


June 2018 Grand Rounds: 25th Annual Risa & Felix Fleischner Lecture by incoming Faculty Dr. James Rawson

Dr. Rawson earned his BS (*cum laude*) in Chemistry, Religion and Biology as well as his MD at Tufts University, including an internship at Lemuel Shattuck Hospital in Jamaica Plain. He completed his residency at New York Medical College and a fellowship in MRI at the Mallinckrodt Institute of Radiology.

We are pleased to welcome Dr. Rawson back to Boston as both our 25th Fleischner Lecturer and as a new member of our abdominal imaging faculty. Dr. Rawson will also serve as Vice Chair of Operations and Special Projects and Director of our Radiology Center for Outcomes and Research and Improvement. Fueled by his clinical experience as an abdominal imager, Dr. Rawson's became focused on health economics and policy and his career spans decades in improving the patient experience by incorporating patients and their families into radiology and hospital operations. His work has been recognized world-wide and in 2015, he was appointed to the ACR Board of Chancellors to create a commission on patient experience.

Most recently, he served as Chair of Radiology & Imaging and Chief of the Division of Health Policy at the Center for Bioethics and Health Policy at the Medical College of Georgia and is currently a project partner in the Collaborating Centre for Values-based Practice in Health and Social Care at St. Catherine's College, Oxford, UK.



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Medical Center

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

Welcome Dr. Rawson!



On Thursday, May 31, 2018 we bid farewell to **Carl Nickerson**, **MBA** who has been a part of BIDMC Radiology since 1960 where he held various positions such as Chief Administration Officer & Business Manager and HMFP Radiology Treasurer, BIH Radiologic Foundation. After more than 50 years of service, he looks forward to a happy retirement and we wished him the best!



A Salute to BIDMC Faculty (and Alumni) for their Current Leadership Positions at the American College of Radiology (ACR) & its Massachusetts Chapter (MRS) 2018



Jonathan B. Kruskal, MD, PhD - ACR Board of Chancellors

- Chair, InterSociety Committee



James Rawson, MD - ACR Board of Chancellors - Chair, Commission on Patient- and Family-**Centered Care** (Incoming Abd Imaging Faculty, 2018)



Sonia Gupta, MD - Executive Committee and Vice Chair, Young & Early professional (YPS) Section (Incoming Abd Imaging Faculty, 2018)



Amy Patel, MD

- ACR Bulletin Advisory Board
- Vice Chair of the Patient- and Family-
- **Centered Care Economics Committee** - Breast Economics Committee
- Commission on Government Relations - RFS Liason

BIDMC Breast Imager, Amy Patel, MD, was the recipient of the American College of Radiology Association (ACRA) Howard Fleishon MD Advocate of the Year Award at the 2018 ACR Annual Meeting in Washington DC. Dr. Fleishon is known for being instrumental in the establishment of the ACR's political advocacy efforts. Dr. Patel received this award in recognition of her involvement in growing the Radiology Advocacy Network with ACRA, a grassroots radiology political advocacy network

which ensures radiologists' voices are heard on behalf of their patients at the local, state, and federal levels. She is also a former ACR Rutherford Lavanty Fellow in Government Relations and recipient of the Radiology Leadership Institute Summit Scholarship.





Maryellen R. M. Sun, MD - President Elect (MRS)

- Councilor (1st Term) (MRS)
- Abd Imager (2008-2016)

Resident/Abd fellow (2003-2008)

Priscilla J. Slanetz, MD, MPH

- Vice Chair, ACR Panel on Appropriateness Criteria-Breast Imaging
- Treasurer (MRS)
- Fellowship Chair (MRS)
- Alternate Councilor (MRS)



Max P. Rosen, MD, MPH - Fellowship Chair (MRS) Abd Imager (1992-2012)



Deboarh Levine, MD

- ACR Committe on Chapters
- Councilor (1st Term) (MRS)

Radiology Trainee Alumni:



Neel Madan, MD - Councilor (1st Term) (MRS) Neuroradiology Fellow (2009-2010)



Ilse Castro-Aragon, MD - Councilor (1st Term) (MRS) Resident (2000-2004)

Also at ACR 2018, #HeForShe was taken to the institutional level now that a tool kit has been devised



#HeForShe is a solidarity movement developed by the United Nations Women to promote gender equity across all aspects of society, including health care, education, politics, identity, violence and work. This effort has been taken up in medicine with subspecialties such as surgery and radiology taking a stand and promoting gender equity at society meetings and on social media. - Amy Patel, MD, April ACR Bulletin

https://www.acr.org/Member-Resources/Commissions-Committees/ Women-Diversity/HeForShe



KUDOS - Ancient Greek noun meaning praise and honor received for an achievement

Kudos recognizes staff members for providing outstanding care and service, and for promoting team communication. Please send your positive feedback for anyone deserving this honor to Lauren Forbes (laforbes@bidmc.harvard.edu) Congratulations to the following:



Chris Burgos, Dx Tech II Patient kudos!

"Chris, Thank you so much for taking good care of me today and wheeling me all the way back to podiatry so that I did not get lost. You treated me with respect,

compassion and excellence. I am a patient, but I got a nurse to help me send this e-card (she knew exactly who you were when I told her what good care I got). I hope BIDMC recognizes you for your efforts!"

...and Congratulations!

Mohammed Elsayed, MD who will be a 3rd resident July 1, 2018 has been selected to receive an **Outstanding Resident Teaching Award**. The awards are given based on the incredibly positive student feedback and endorsement of his teaching abilities by the 17-18 BIDMC PCE HMS Class.



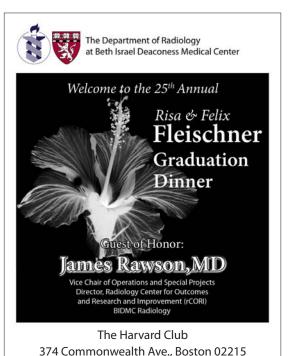
Mohammed Elsayed, MD, 3rd yr Resident (July 2018)

Dr. Elsayed will be honored with other

BIDMC Residents who have been designated as outstanding teachers at BIDMC's Education Week Teaching Awards ceremony on Monday, June 4th at 4:30pm in the Shapiro Clinical Center, 10th Floor, Rabkin Board Room.

Katharyn Meredith Atkins, MD
Director, Undergraduate Medical Education and the Principal Clinical
Experience
Associate Director Carl J. Shapiro Contor for Education and Becareth

Associate Director, Carl J. Shapiro Center for Education and Research



Congratulations to the graduating class of 2018:

Residents

Beth Israel De Medical Cent

Thomas JT **Anderson**, MD Benjamin W **Carney**, MD John **Cavanaugh**, MD Anthony M **Esparaz**, MD Daon **Ha**, MD Christopher A **Hostage** Jr, MD Suma C **Kannabiran**, MD Stella **Lam**, MD Jason E **Song**, M.D. Catherine **Wei**, MD, PhD

Fellows

Elisabeth Appel, MD – VIR Research Arwa Osamah M Badeeb, MBBS - Abd A Fourie Bezuidenhout, MD - Neuro Andrew D Chung, MD, FRCPC - Abd Andrew T Colucci, MD - Neuro Matthew F Del Guzzo, MD - VIR Sujithraj **Dommaraju**, MD - CT Research Adam Fang, MD, MBA - Br Andrew S Fox, MD, FRCPC - Abd David B Khatami, MD, PhD - MSK Brian Hae Young Lee, MD - MSK Yehuda Malul, MD - Cardiothoracic Bardia Moosavi, MD, FRCPC - Abd Pratik S Patel, DO - VIR Hannah Perry, MD, MSc - Br Jeffrey Rappleye, MD, MS - Neuro Sarah E. Schroeppel DeBacker, MD - VIR Arvind K Shergill, MBBS DNB FRCPC Amanda L Steinberger, DO - VIR Jennifer A Steinkeler, MD - Body MRI Komal K Talati, MD - Body MRI Jeffrey York, DO - Neuro

Stay in touch:

Check out our **BIDMC Radiology Alumni Society page** and access our monthly Radical Views

Also contact Radical Views Editor Donna Wolfe at **dwolfe@bidmc.harvard.edu** with updates, especially after completion of your residency or fellowship!

http://radnet.bidmc.harvard.edu/education/newsletters.asp





Aideen Snell, MSW, CPXP Manager, Service Excellence Program x72570 asnell@bidmc.harvard.edu AIDEEN SNELL: SERVICE EXCELLENCE & ACTION PLANNING (SEAP) COMMITTEE Radiology Action Planning Committee on Patient Engagement

JUNE Tip of the Month: When you go into the waiting rooms to get your patient, scan the room, give each patient eye contact and try to read their non-verbal communication. You do this every day in and out of work and probably don't even realize it. Our brain does it automatically ~ what does it tell you?

Non-Verbal Communication is a powerful tool

Many people believe non-verbal communication is more important than what we say. When interacting with others our facial expression and body posture speak before we say any words and it's the same on the receiving end, you are reading the person you are communicating with before they begin to speak. Consider Dr. Albert Mehrabian's 7-38-55 Rule of Personal Communication:



In communication, a speaker's words are only a fraction of his/her efforts. The pitch and tone of his voice, the speed and rhythm of the spoken word, and the pauses between those words may express more than what is being communicated by words alone. Furthermore, gestures, posture, pose and expressions usually convey a variety of subtle signals. These non-verbal elements can present a listener with important clues to the speaker's thoughts and feelings and thus substantiate or contradict the speaker's words.

The most commonly and casually cited study on the relative importance of verbal and nonverbal messages in personal communication is by Dr. Albert Mehrabian of the University of California in Los Angeles. In the 1970s, his studies suggested that we overwhelmingly deduce our feelings, attitudes, and beliefs about what someone says not by the actual words spoken, but by the speaker's body language and tone of voice. In fact, Dr. Mehrabian quantified this tendency: *words, tone of voice, and body language respectively account for 7%, 38%, and 55% of personal communication*.

If a speaker's words and body language differ, listeners are more likely to believe the nonverbal communication of the speaker, not his words. For example, if a person states, "I don't have a problem with you!" while avoiding eye-contact, looking anxious, and maintaining a closed body language, the listener will probably trust the predominant form of communication, which according to Dr. Mehrabian's findings is non-verbal (38% + 55%), rather than the literal meaning of the words (7%).

<u>SEAP FY18 Goal</u>: Improve communication with patients & families through rounding waiting/sub-waiting areas & providing service recovery when needed. Improve proactive response to environmental needs when rounding

BIDMC Residents at AUR 2018



BIDMC radiology were well-represented at the 2018 annual Association of University Radiologists (AUR) conference in Orlando, Florida by rising chief residents Chris Maxwell, Michael Johnson and Alexei Kudla, residency program director Priscilla Slanetz, associate program director Anu Shenoy-Bhangle, and second year radiology resident Trevor Lewis (winner of a 2018 AUR leadership scholarship).

BIDMC residents placed 3rd in the AUR R&E Foundation's Wacky Golf Fundraiser tournament and all participated in dedicated professional development tracks. It was a great opportunity for team-building and learning about best practices among radiology residency programs nation-wide.

- Alexei Kudla

2018-2019 Chief Resident for Quality









AUR Wacky Golfers 3rd place champions - Alexei Kudla, Mike Johnson, Trevor Lewis, and Chris Maxwell

June 2018 Radical Views / 7

Publication Call Out:



Research Article:

A new method for CT dose estimation by determining patient water equivalent diameter from localizer radiographs: geometric transformation and calibration methods using readily available phantoms

Da Zhang*, Georgeta Mihai*, Larry G Barbaras**, Olga R Brook***, Matthew R Palmer*

*Physicists, , **Sr. Programmer/Analyst, ***IR/Abd Faculty

Medical Physics

First published: 10 May 2018

Abstract

<u>Purpose</u>

Water equivalent diameter (Dw) reflects patient's attenuation and is a sound descriptor of patient size, and is used to determine size specific dose estimator from a CT exam. Calculating Dw from CT localizer radiographs makes it possible to utilize Dw before actual scans, and minimizes truncation errors due to limited to utilize Dw before actual scans, and minimizes truncation errors due to limited reconstructed fields of view. One obstacle preventing the user community from implementing this useful tool is the necessity to calibrate localizer pixel values so as to represent water equivalent attenuation. We report a practical method to ease this calibration process.

Methods

Dw is calculated from water equivalent area (Aw) which is deduced from the average localizer value (LPV) of the line(s) in the localizer radiograph that correspond(s) to the axial image. The calibration process is conducted to establish the relationship between Aw and LPV. Localizer and axial images were acquired from phantoms of different total attenuation. We developed a program that automates the geometrical association between axial images and localizer lines and manages the measurements of Dw and average pixel values. We tested the calibration method on three CT scanners: a GE CT750HD, a Siemens Definition AS, and a Toshiba Acquilion Prime80, for both posterior-anterior (PA) and lateral (LAT) localizer directions (for all CTs) and with different localizer filters (for the Toshiba CT).

<u>Results</u>

The computer program was able to correctly perform the geometrical association between corresponding axial images and localizer lines. Linear relationships between Aw and LPV were observed (with R2 all greater than 0.998) on all tested conditions, regardless of the direction and image filters used on the localizer radio graphs. When comparing LAT and PA directions with the same image filter and for the same scanner, the slope values were close (maximum difference of 0.02 mm), and the intercept values showed larger deviations (max. diff. of 2.8 mm). Water equivalent diameter estimation on phantoms and patients demonstrated high accuracy of the calibration: percentage difference between Dw from axial images and localizers was below 2%. With five clinical chest exams and five abdominal-pelvic exams of varying patient sizes, the maximum percentage difference was approximately 5%.

Conclusions

Our study showed that Aw and LPV are highly correlated, providing enough evidence to allow for the Dw determination once the experimental calibration process is established.

https://aapm.onlinelibrary.wiley.com/action/doSearch?field1=AllField&text1=Zhang%2C+da&Ppub=&Ppub=20180427-20180527

2018 BIDMC Radiology Publications - A PubMed search for new BIDMC publications is made each month; however, if we miss your paper, please send the reference to dwolfe@bidmc.harvard.edu. Note that 1) Epub dates are included only in publications where the Epub and paper publication dates occur in different years, i.e., Epub in 2017 and paper publication in 2018; and 2) doi addresses are only included until citations are updated with print citations; and 3) <u>Underlined names</u> = relatively current trainees/alumni; **BOLD** names = Faculty/Staff

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