Beth Israel Deaconess Medical Center
A teaching hospital of Harvard Medical School
JANUARY 1, 2012 Volume 4, Number 6

Radical Views...

from the Department of Radiology January

FROM THE CHIEF
Jonathan B. Kruskal, MD PhD

Dear All Members of the Radiology Department

This message comes with my very best wishes for a healthy and happy holiday season, and with a sincere thank you to each of you for all that you do for our department and our many patients. I appreciate the many unrecognized roles that many of you play, the additional unseen and unasked and even unexpected tasks that you perform each day, those many "little things" that you all do that contribute in such a positive manner to our Department. Thank you.

It would be remiss of me not to mention the holiday party, or the lack thereof! No, there was no smaller gathering this year, so we all missed out on the party. I know that many of you were disappointed not to be able to get together outside of our workplace but the current fiscal realities meant that the traditional downtown celebration was simply unaffordable this year. We are exploring other options and have every intention of reinstating this or a similar event in the future.

As 2011 draws to a rapid close, we should reflect on the many successes that occurred this year. These past 12 months can be characterized by the introduction of new clinical programs, many equipment upgrades, new community relations and partners, the arrival of superb new staff and surveys that again show overwhelmingly satisfied customers. Our educational and research missions continue to expand and innovate; more original scientific papers were published by our faculty than ever before. More national awards were received than ever before, and our expanded family of staff now exceeds 650 people, larger than ever before. Yes, over 650 people!

Within the framework of these many successes we must also reflect on the emerging realities of the healthcare industry. As mostly Massachusetts residents we all know that the political and insurance spotlights have sharply directed their focus onto the costs of imaging services. It is no surprise to any of us that the excellent services we provide have become very expensive and healthcare plans have responded in a variety of ways. Our world has become an alphabet soup of confusing terms such as AQC, ACOs, medical homes, tiered plans, medical exchanges and risk sharing. I want to assure each of you that we are responding to these changes as vigorously as we can as our providers seek ways to reduce their costs, to improve our efficiency, and to help us avoid unnecessary imaging studies. Our strategic planning process will continue to address ways in which we can remain nimble and anticipate and respond to each of these changes before they occur.

This time of joy and appreciation is also an opportunity to reflect on those many people living in Boston and beyond who struggle to exist, who see and experience little joy, who cannot afford their heating bills, bus fare, warm coats or gloves, or to put fresh food on the table each day. I am deeply grateful to the many of you who have made actual contributions in kind or in cash to local agencies, homes and community centers in our name. This is truly appreciated and remarkably generous of you. Thank you.

As we move into 2012, we will continue to seek ways to expand our services, to identify new community partners, to provide appropriate imaging at the right time and site, to continue to improve our customer service and more than this, to strive to improve your workplace and satisfaction.

With my very best wishes for a healthy and fulfilling 2012

- Jonny

Radiology Calendar January 2012

Mon	Tues	Wed	Thurs	Fri
2 New Year's Holiday	3 7:30 - 8:15 RUQ US -Kane 8:15-9:00 Itro - Shah 1:00-2:00 MRI meeting (Weekly) [TCC-484]	4 7:30 - 8:15 Emergent Pelvic US - Levine 8:15-9:00 Chest Trauma - Boiselle Weekly Wed Section Meetings: 11:00-12:00 MSK clinical conference 12:00-1:00 Thoracic Imaging, GI Oncology/GU Oncology 3:00-4:00 Mammo [TCC-484]	5 7:30 - 8:15 Scrotal US - Kane 8:15-9:00 Nontraumatic GU Emergencies - Shah Weekly Thurs Section Meetings: 12:00 - 1:30 Abd [WCC-354] 12:00-1:00 MSK	6 8:00 - 9:00 Chiefs Rounds
9 7:30 - 8:15 Upper Abdominal Pain - Lee 8:15-9:00 Lower Abdominal Pain - Lee	10 7:30 - 8:15 Face and Orbit Trauma - TBA 8:15-9:00 Spinal Infection - Keefield 10:30-11:30 Nuc Med meeting (GZ-103)	11 7:30 - 8:15 Bowel Obstruction/Ischemia - Siewert 8:15 - 9:00 Post-opeartive Abdomen Emergencies - Siewert	12 7:30 - 9:00 Pelcin Trauma - Camacho 2:00-3:00 West Med-Rads	13 8:00-9:00 Grand Rounds: Image processing for CT Dose Reduction (Dr. Oleg Pianykh)
16 7:30 - 9:00 No Conference - MLK	17 7:30 - 8:15 IR in ED - Ahmed 8:00 - 9:00 IR meeting [West Recovery Rm]	18 7:30 - 8:15 Chest Nontraumatic Emergencies - Spirn 8:15-9:00 Brain Emergencies - Reddy 7:15 - 8:00 US meeting (WCC-304A Gallery)	19 7:30 - 8:15 Nontraumatic MSK Emergencies - Wu 8:15-9:00 Stroke Imaging - TBA 5:00-6:00 pm "Anorectal MRI" Best in Practice MRI Lecture Series Riesman Lecture Hall, Rabb Bldg	20 7:30 - 9:00 No Grand Rounds/NERRS
23 7:30 - 8:15 Blunt Abdominal Trauma I - Shah 8:15-9:00 Blunt Abdominal Trauma II - Levenson	24 7:30 - 8:15 Spine Trauma - Teich 8:15-9:00 Neuro ED Case Conference - Moonis 10:30-11:30 Nuc Med meeting (GZ-103) 2:00-3:00 West Med-Rads	25 7:30 - 9:00 PE and DVT - Levenson	26 7:30 - 8:15 Lower Extermity Trauma - Didolkar 8:15-9:00 Upper Extremity Trauma - Hochman	27 8:00-9:00 Grand Rounds: Multiple trauma: use of extremity and pelvic CT angiography in the era of 64 MDCT (Dr. Jorge Soto, Vice Chair, Boston Medical Center)
30 7:30 - 9:00 Career Week	31 7:30 - 9:00 Career Week 10:30-11:30 Nuc Med meeting (GZ-103)			

January Grand Rounds speakers:

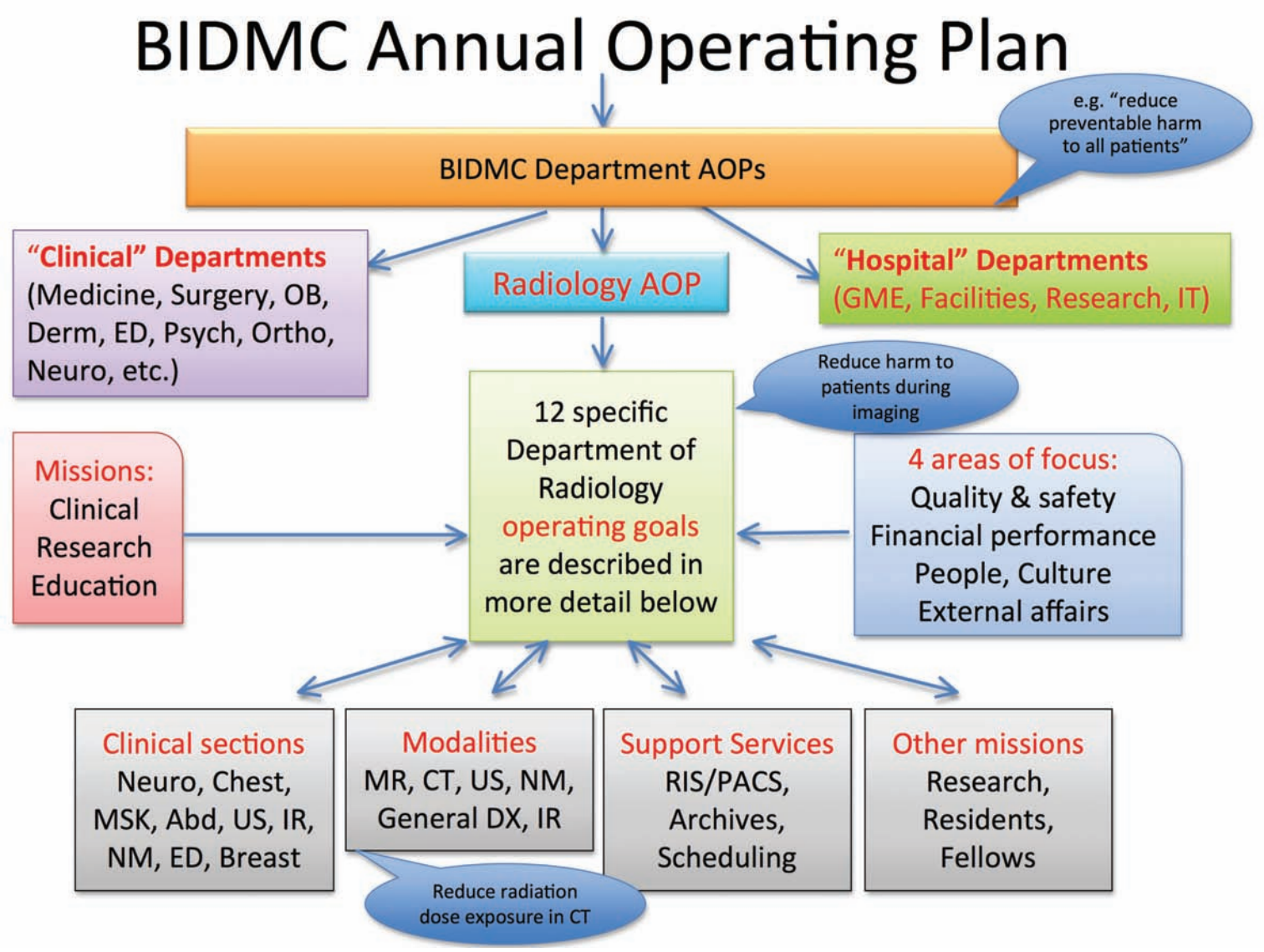
Jan 13 - *Image processing for CT Dose Reduction* by Oleg Pianykh (left), our Lead Imaging Scientist (CT Advanced Imaging Lab)

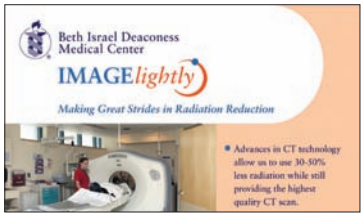
Jan 27 -*Multiple trauma: use of extremity and pelvic CT angiography in the era of 64 MDCT* by Dr. Jorge Soto (right), Vice Chairman of Radiology, BMC. Please see page 7 for for information on Grand Rounds speaker Dr. Jorge Soto.

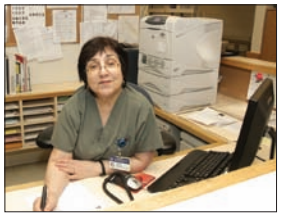
Introducing the Radiology FY2012 Annual Operating Plan (AOP). . . *But what is an Annual Operating Plan?*

Each year, hospital and physician leadership reconsiders our vision (a statement of where we ideally want to be in the future) and how we intend to achieve this (our strategy or roadmap). We are guided by a mission statement (why we exist and what we do to achieve our vision). Our strategic goals, each with specific measures and targets, timelines and responsible persons, are used to guide our progress each year and are presented as the Annual Operating Plan (AOP). We use the framework of our AOP to ensure that we have prioritized our goals in each of our three missions (clinical service, research and education) and the plan is then used to illustrate progress towards each stated goal.

Within our department, we have 12 high level goals that are described below. These goals are distributed to each division and clinical service that in turn select and prioritize their own goals. For example, if we take goal #2 (imaging appropriateness), our ED section may choose to focus on reducing unnecessary abdominal CT scans on ED patients. Similarly, for goal #5, our IR division may seek to minimize the ergonomic impact of wearing lead aprons for long hours each day.







True North

Radiology FY2012 Annual Operating Plan (AOP)

Reflecting the BIDMC Multiyear Goals for Fiscal Year 2012 in Clinical Operations, Financial Performance, People Culture & Communications and External Affairs, Dr. Kruskal presents the following Radiology FY2012 AOP:

1. **Create a strategy for the future of clinical radiology**: Radiology is at the bleeding edge of health care reform. Our services are expensive, non-radiologists are expanding their services into imaging, and insurance payers are looking for ways to minimize reimbursement and reduce the extent of imaging. In order to stay competitive, we need to think strategically and explore options that will allow us to thrive in the future. This year we will launch at least two strategic initiatives: (1) to explore and implement cost-competitive, community-based joint ventures, and (2) to improve the alignment between staff and clinical volume in order to increase our productivity and provide better service.
2. **Improve appropriateness of inpatient imaging**: Many of us have questioned both the need for and utility of certain studies that we have performed. I am sure we can all think of unnecessary repeat studies, exams that imaged too many anatomical regions, and cases where a different modality may be been more useful. All of this contributes to the costs of caring for our patients. We need to focus on doing the right study at the right time to answer the clinical question, and this is what is meant by "appropriate" imaging. Our goal will be to identify the root causes of imaging studies that are potentially inappropriate, and determine their financial impact. Once these data are analyzed, we will introduce pilot interventions to minimize what may be considered 'inappropriate" studies.
3. **Reduce preventable patient harm**: We will continue our work to eliminate causes of patient harm, in keeping with the stated BIDMC goal of reaching this goal by 2012. Through regular environment-of-care and safety walkabouts, we will monitor and seek to identify and eliminate all sources of harm. Specifically, we aim to reduce the number of patient falls and skin burns in MRI in each targeted area compared to results from FY2011. Also through our successful "Image lightly" campaign, we will continue to reduce patient exposure to ionizing radiation through protocol review and optimization in CT scan. We will deploy the widespread reporting of CT dose exposure in our scan reports. Also, as an extension of the National Patient Safety Goals, we will establish more effective ways for monitoring compliance with hand hygiene regulations.
4. **Create integrated service lines**: As we seek to improve our efficiency and the quality of our services, it makes a lot of sense to integrate some of our clinical services. We have already commenced integrating our breast imaging services with the Breast Care division in surgery, and many of our staff have been participating in an extensive Lean program seeking ways to best integrate the physical breast care areas currently located on Shapiro 4 and 5. We will also work toward the integration our interventional services this year. This initiative will include integrating the interventional scheduling process (to a single point of access for referring physicians) the pre- and post-procedure care plans, clinical databases, compliance monitoring, and monitoring of process and outcomes metrics.
5. **Reduce preventable employee injuries**: All of us are exposed to many risks in our imaging work environment. Think of the heavy equipment, lifting heavy patients, needle sticks, the patient with an infection, radiation, ergonomic and repetitive stress injuries, or even wearing heavy lead aprons. We have a very proud national reputation for improvements we have made and will continue to strive to eliminate all preventable sources of harm. Specifically we intend to closely monitor and to reduce number of employee injuries compared to those that occurred in FY2011.
6. **Improve service to patients and referring physician**s: With increasing competition, it is imperative that we provide the best service to our customers. We want our patients to be well satisfied with their experience in our department, and we want our referring physicians to be more than satisfied with the quality and timeliness of our services. We kicked off this program with a special Grand Rounds given earlier this year by Robin Brown on "Improving Customer Service". We will conduct service training for support staff and technologist staff through an Interactive Behavior Assessment Program. We will also conduct training for radiologists in improved patient communication. For referring physician satisfaction, we expect 100% compliance with our time standards for Report Turnaround Time as well as Critical Results Communication policies. We will also implement a new patient satisfaction measurement tool to replace the current Press Ganey system.

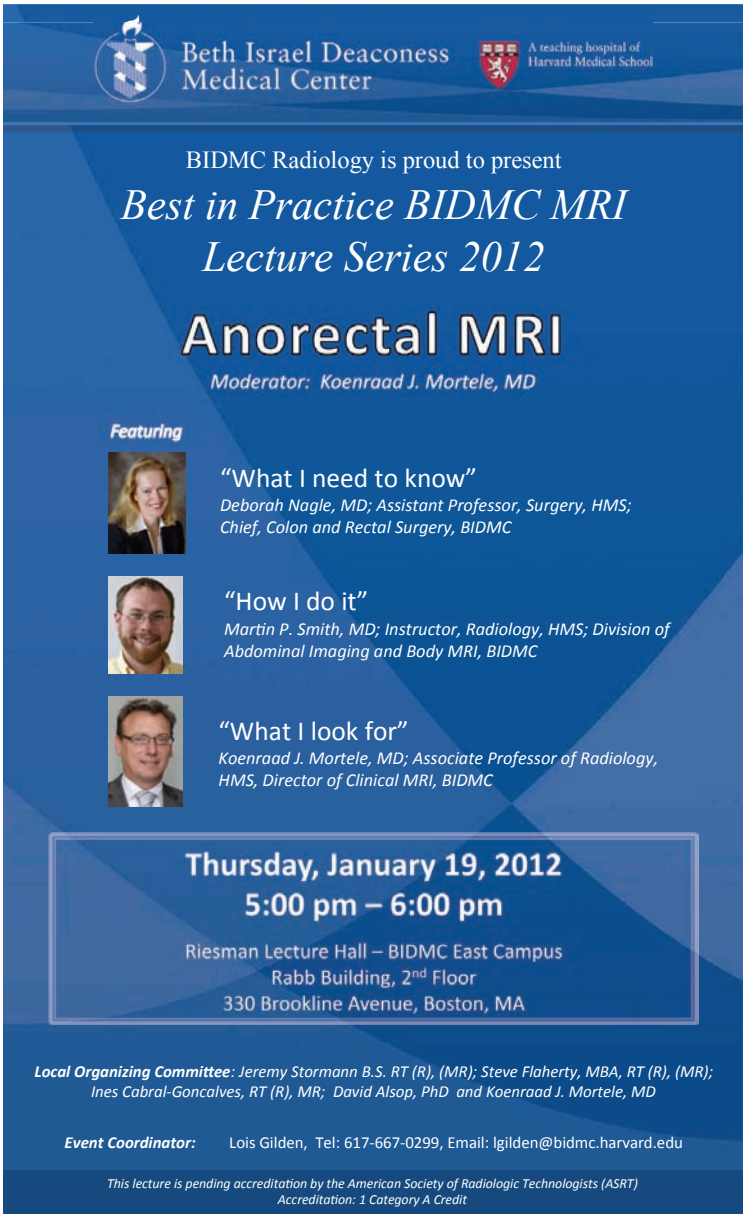
Radiology FY2012 Annual Operating Plan (AOP) *(cont'd)*

7. **Implement supply chain cost reductions**: We need to investigate ways of reducing the costs of services that we provide. Radiology imaging equipment is expensive to purchase and maintain, and the costs of supplies, catheters, stents and contrast materials (the chain of supplies that supports our services) have increased over the years. We will implement a lower cost equipment maintenance, and reduce our Interventional Radiology medical supply expenses through product review and standardization.
8. **Enhance Radiology Information System (RIS) functionality**: We've all become very skilled with electronic information systems, PACS and computers. Many outstanding people in our department have been diligently working behind the scenes to incrementally improve our radiology information system (RIS). Within the next six months, we will implement system components that will support a comprehensive RIS-driven radiologist workflow including front end Voice Recognition. Also, we will implement an Interventional Radiology module that will not only keep track of all studies and materials and equipment used, but will also serve as a database for monitoring and measuring patient outcomes.
9. **Increase staff and manager satisfaction**: We all spend many hours providing patient-related services in our department. It is very important that we also work to improve staff satisfaction and morale. With this in mind, we plan to implement "idea systems" in at least four divisions to collect and share staff suggestions for improving satisfaction. Satisfaction can also be improved by having a better understanding of what's happening in our department and we will display our department and division Annual Operating Plans along with regular progress updates in multiple relevant locations.
10. **Maintain outpatient volume**: With pressures to refer patients to lower cost providers in the community, with higher co-pays and deductibles, and with more careful thought put into ordering expensive imaging studies, we need to identify new sources of outpatient volume, and to maintain those patients who already come to our network for their imaging. We will undertake regular communication with our primary internal and external sources of referral. Many of our physicians are working to establish new relationships with referring physicians and even directly with patients. We need to establish new referral sources and are working diligently with our colleagues at Atrius, with our community affiliates (such as BID Needham), with APG and with others to seek new sources of patient referral. Also we will be actively working to reduce outpatient "leakage"
11. **Improve the educational experience of all staff**: We are a very large department (over 450 staff!) and as part of our educational mission, we strive to provide educational services to all of our staff. One area that has been identified as a challenge is the huge volume of rules and regulations that must be adhered to when working in a hospital. This year we will focus on newly hired physicians. If only everybody started on the same day each year! We will develop and implement a new "on-boarding" program so that all new physicians are familiarized with the array of policies, practice guidelines, passwords, dashboards and related processes that each is expected to become rapidly proficient in. We will also introduce a monthly educational event for MR techs which I hope will be extended to other modalities.
12. **Increase funded research**: Our faculty continue to publish outstanding impactful scientific manuscripts in top peer reviewed journals. Many of these studies have led to improvements in clinical performance and I hope that we can maintain this impressive trajectory. With intense competition for research space and resources, we must identify new ways of supporting our research mission. We have seen a reduction in the total amount of federal grants that support our research and this year we will refocus our efforts on submitting more competitive grants and seeking new means of research support. Specifically, we will implement selected recommendations of our Radiology Research Task Force (ably led by Vassili Raptopoulos, Dave Alsop and Alex Bankier), and we will plan to maintain or increase our publication productivity and quality. Other specific goals in this category include increasing the number of grants that are submitted and awarded. We will also actively seek new sources of revenue to support our research and through Koenraad Mortele's expertise we are already exploring CME offerings and visiting fellowships.

DEPARTMENTAL NEWS, AWARDS & HONORS

Radical Views is pleased to introduce a new column to update the department on the many impressive initiatives aimed at reducing and reporting CT dose as part of our CT radiation dose reduction program, ***Image Lightly***. We hope to publish updates as needed from our CT Advanced Imaging Lab members Vassilios Raptopoulos, Tim Parritt, Carol Wilcox, Rajeev Krishnapillai and others to keep us informed of where we are on our dose reduction journey!

Also new this year is the Best in Practice Lecture Series which carries CME accreditation for technologists.



The Gallery -

Announcing a new show of photographs by neuroradiologist, Dr. Jonathan Kleefield, coming in January, 2012. Check it out at WCC-304A.

IMAGE*lightly* UPDATE

As we discussed in the last Abd Imaging meeting we are starting a pilot program in Reporting Radiation Dose from CTs read by the abdominal section. There are many good reasons to do this, most import of which is awareness. Presently the form has space for DLP but will be adding CTDIvol as well based on feedback from several sections. (As you know DLP is product of CTDIcol x length of scanning). Conversion on effective dose in mSv is made in the chart according to body region scanned. This Form will be linked with the reports as well as with webOMR.

Residents and Staff: when you report a case please add the following 2 numbers:
CTDIvol _____ mGy
DLP _____ mGy-cm

Technologists: Thank you for sending the dose report to PACS, this is an important process in our ability to capture and report on CT doses. Please continue to send dose reports to PACS

Rational on Reporting dose:

1. Increases our awareness toward dose and forces us to think twice before ordering high dose protocols. This is very important. It goes along with Image Lightly and the Hospital's policy of openness and transparency
2. It is the referring clinicians' and the patients' right to know.
3. It is simple and the best tool we have available to monitor what is going on while providing some broad guidance to clinicians.
4. By providing guidance with the report, we decrease clinician's apprehension and may actually optimize CT utilization that may be otherwise curtailed by unfounded anxiety and fear of the unknown.
5. We exhibit leadership in this important issue.

Thank you very much,
- Vassili Raptopoulos

DEPARTMENTAL NEWS, AWARDS & HONORS

Happy New Year!

You may have noticed by now that Radical Views has undergone a facelift. We are now 8.5 x 11 instead of the previous legal size of 8.4 x 14 for easier printing. Our top story is the Radiology Annual Operating Plan due to which we have moved the department monthly calendar - please note the schedule is a moving target and you should confirm events online as needed - and have now feature our visiting professors for Grand Rounds below. The January issue also introduce a new column on CT Dose Reduction. Thanks to everyone who has made commments and suggested new items, you have all helped **Radical Views** maintain its status as our number one instrument for sharing news among our ~650 department members!

- Donna Wolfe, Editor

January Grand Rounds

Friday Jan 27 • 8:00-9:00 am, Sherman Auditorium

Multiple trauma: use of extremity and pelvic CT angiography in the era of 64 MDCT - Jorge A. Soto, MD

Dr. Soto is currently Vice Chairman of Radiology at Boston Medical Center and Professor of Radiology at Boston University School of Medicine. Dr. Soto earned his doctorate in medicine and surgery, as well as residency training, from the Instituto de Ciencias de la Salud (C.E.S.), Medellin, Columbia and in 1995 he completed a Body Imaging fellowship at Boston University Medical Center. He returned to Medellin as section head of Body Imaging at the Hospital Universitario San Vicente de Paúl, and ascended to Assistant Professor of Radiology at the Universidad de Antioquia. In 2002, he returned to Boston to head the Body Imaging Section at Boston Medical Center with the rank of Associate Professor. Among his many awards, he has won Gold and Bronze Medals from ARRS, Cum Laude Awards from the American Society of Emergency Radiology (ASER), and four *Radiology* Editor's Recognition Awards with Special Distinction. In September 2011, he published, *Foster BR, Anderson SW, Uyeda JW, Brooks JG,* ***Soto JA****. Integration of 64-Detector Lower Extremity CT Angiography into Whole-Body Trauma Imaging: Feasibility and Early Experience. Radiology. 2011 Sep 21. [Epub ahead of print]*

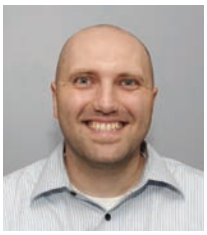
Congratulations Drs. Muneeb Ahmed (IR) and Tejas Mehta (Br Imaging/US)

Muneeb Ahmed, MD

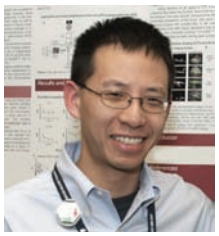
Tejas Mehta, MD, MPH

for being selected as participants in the 2012 course, HMS Leadership Development for Physicians and Scientists in April, 2012. The goal of the Program is to build on participants' knowledge base and skills to enhance their professional development as administrative leaders in academic medicine. Participants will acquire skills in institutional organization, finance, legal and regulatory issues, and the full spectrum of communication skills.

Welcome new Chief Residents, James Knutson and Leo Tsai



James Knutson, MD



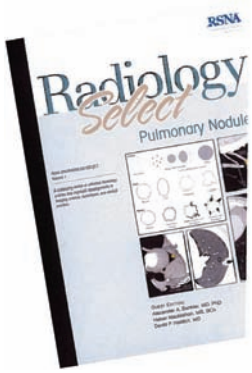
Leo Tsai, MD, PhD, MSc

Effective January 1st, we welcome current 3rd years residents, James Knutson and Leo Tsai as our new Chief Residents. Chief Residents are chosen by their peers (with input from the Residency Program Officials) and is a vote of confidence in their leadership abilities. Special thanks to outgoing Chief Residents, Adam Jeffers and Sachin Pandey!

Introducing Radiology Select, a new *Radiology* publication

Series Editor: Deborah Levine (BIDMC Ultrasound)

Guest Editor: Alexander Bankier (BIDMC Thoracic Imaging)



The first issue of RADIOLOGY Select was edited by Alexander A. Bankier, Heber MacMahon, and David P. Naidich. The issue is entitled "Pulmonary Nodules" and includes 33 pertinent articles published on this topic in RADIOLOGY over the past seven years. The articles are grouped according to subtopics and preceeded by a general introduction on the topic. RADIOLOGY Select will be available in a print-on-demand-, a tablet, and an online version. The online version of RADIOLOGY Select includes self-assessment modules (SAMs), which, upon successful completition, will provide the readers with substantial CME credits. The online version is also accompanied by both audio and video podcasts on the various radiological aspects of pulmonary nodules, and on the impact of imaging on patient management. *(See pg. 13 for more information)*

DEPARTMENTAL NEWS, AWARDS & HONORS

➢ Farewell Musculoskeletal imager, Corrie Yablon

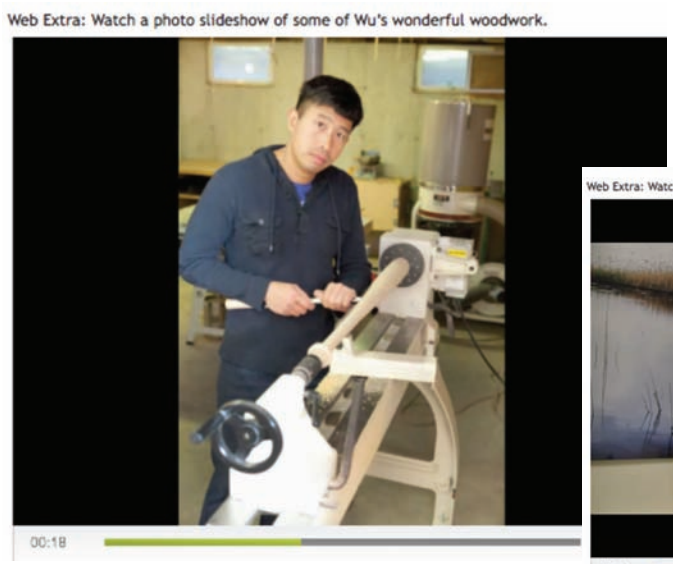
On December 15th, we said good-bye to Corrie Yablon who accepted an Assistant Professorship at the University of Michigan. She has been asked to build a foot and ankle interventional practice and will also serve as co-Director of the MSK Fellowship program. Corrie first came to BIDMC in 2007 after two years in private practice in Boston. Embracing the trifecta of academic medicine, she applied for and was awarded the Rabkin Fellowship in Medical Education at the BIDMC Shapiro Institute in 2010; and that same year, she was inducted into the BIDMC Academy of Medical Educators. She went on to develop the musculoskeletal section's fellowship curriculum and created the new MSK Ultrasound service. Most recently, she became co-editor with Ron Eisenberg of AJR's *Resident Section Career Path* series. She will be missed but we wish her the best in her new position!

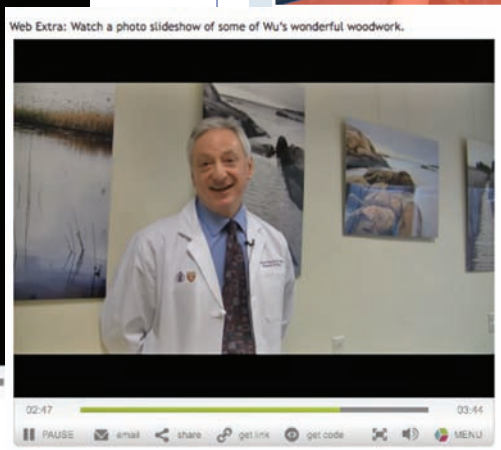
Above: Dr. Yablon's co-workers, (L to R: Mary Hochman, Gunjan Senapati, Manjiri Didolkar, Jay Patel, Seth Berkowitz, Ammar Sarwar, Corrie Yablon, Jim Wu, Colin McArdle and Tejas Mehta) say goodbye to her in the Shapiro Ballroom. Dr. Yablon proudly poses with her farewell gift of a baseball bat made by Jim Wu.

MSK section good bye dinner for Dr. Yablon featured here between her husband Patrick O'Brien and Ferris Hall as they toast her with gifts of a BIDMC ball cap and Harvard monkey.

Did you know...

That Musculoskeletal radiologist Jim Wu and Department Chief Jonny Kruskal are featured on our own BIDMC portal?





Click on or type into Search: "BIDMC Quarterly Web Extras" and then Click on menu of web extras videos of Jim Wu to see, among others, photos of him working on the iconic baseball bat he made for Corrie Yablon; and also click on the the link for Dr. Kruskal's video which was filmed in our own West Campus Clinical Center Gallery, Rm. 304A.

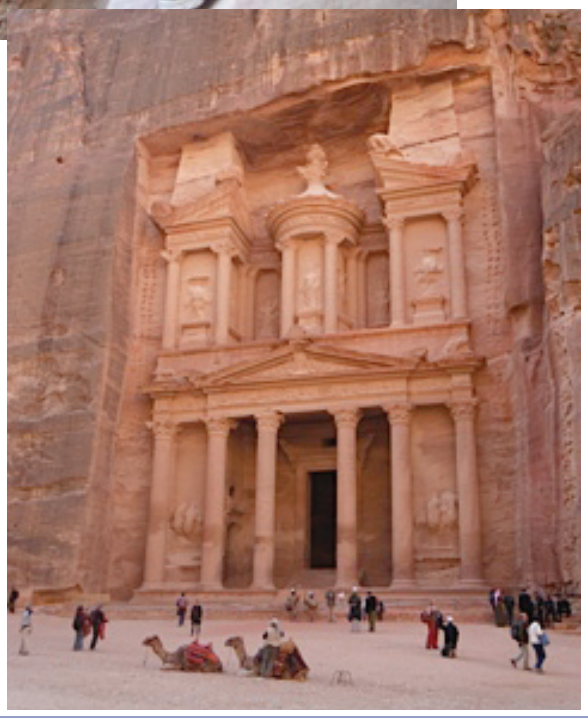
Administrative Staff Holiday Lunch & Outreach

For the second year, the administrative assistants celebrated the holiday with a potluck luncheon that also included an outreach project to help those less fortunate. In addition to a luncheon item to celebrate the holidays, each invitee also brought a scarf that was wrapped and donated to the shelter residents of Rosie's Place in Boston. This year there was such generosity from the admin assistants that not only did Rosie residents received scarves but even the staff got surprise gift scarves!

Front row (L to R): Andrea Baxter, Diana Moran, Tara Bun, Nancy Williams, Lois Gilden, Linda Lintz.
Back row (L to R): Catherine Walsh, Maxima Baudissin, Laura Major, Sheila Blalock, Richard Jennette, Claire Odom, and Jonny Kruskal (with red Boa).

Our own Dr. Nahum Goldberg send his greetings from BIDMC "Middle East Campus" and gives us an unprecedented view of a well-deserved trip to Petra, *the rose-red city half as old as time**, in Jordan with his wife Michelle. When not climbing around historical monuments, Dr. Goldberg is Unit Chief of Image Guided Therapies and Interventional Oncology at Hadassah University, Jerusalem.

**"Petra" by Dean Burgen*



Our Radiology professional practice group (HMFP) contracts with McKesson for diagnosis coding, allowables monitoring, revenue cycle management, accounts receivable, insurance denials, compliance and reporting for the Radiology practice. We offer this new column as an opportunity to keep you informed. During this time of revenue and utilization reductions, compliance scrutiny and increasing payer denials, our partnership with McKesson has been critical to our ability to maintain our financial stability. The content of this section is submitted by Kathleen West, McKesson's Director of Account Management for Radiology.
– Carl F. Nickerson, MBA, Business Manager, HMFP Radiology & BIH Radiologic Foundation

McKESSON
Empowering Healthcare

McKesson Corner

AMA Report Finds Inaccurate Claims Reach Crisis Level — Here's What You Can Do

An article in American Medical News confirms what physicians have known for years: claims processing errors and inaccuracies have reached near catastrophic proportions.
The American Medical Association's Fourth Annual National Health Insurer Report Card reports such errors waste billions of dollars each year. Those dollars translate into lost income for the practice as well as lost opportunities for reinvestment, professional growth and a focus on better patient care.
To minimize the impact of inaccurate claims, physicians need to understand the factors contributing to the situation, but more importantly, what they can do to combat the problem and ensure more accurate and timely reimbursement.

The Startling Statistics

- Commercial health insurers have an average claims-processing error rate of 19.3%, an increase of 2% compared to last year.
- The increase in overall inaccuracy represents an extra 3.6 million in erroneous claims payments compared to last year.
- Errors add an estimated $1.5 billion in unnecessary administrative costs to the health system.
- The AMA estimates that eliminating health insurer claim payment errors would save the industry $17 billion.

American Medical News – 4th Annual Health Insurer Report Card, June 2011

You Don't Know What You Don't Know

One of the more startling statistics reported in the AMA survey was that, "physicians received no payment at all from commercial health insurers on nearly 23% of claims they submitted." The reasons for lack of payment of claims stem from a wide range of factors including:

- Patient has not met deductible. This is often cited as one of the most common reasons for claims denials. It's a simple matter, and happens almost daily, yet costs practice additional dollars to fix.
- Patient not covered by insurer. Another common error is when a patient presents the wrong insurance card. Often, it's for a common oversight, perhaps the patient's employer may have simply switched insurers or the patient is using an older card. Occasionally, fraud is involved.
- Lack of pre-authorization. More insurers are requiring pre-auth for certain services. The AMA survey notes that requests for first-time pre-auth have increased by 20% over the past few years. Again, it's a simple fix, but adds to administrative costs and delays in reimbursement.
- Claims associated with bundled services denied. When a patient presents for one illness such as cold or flu, but during the course of the examination that patient or physician identifies another need resulting in a separate service at the same visit insurers will often automatically deny the claim.
  - o Physicians note that often they are not at fault for the kickback on claims. Even when a coder uses the applicable modifier on the primary procedure to ensure the secondary procedure is paid; insurers are still denying the claim.
- Denials of claims within global service period. Most insurers have a 90-day global period for high-dollar claims, such as those associated with surgeries. As an example, if a patient has rotator cuff surgery, but then comes to visit the physician for a knee injury, often the insurers will deny the claim. And again, practices report that denials frequently occur even when the proper codes and modifiers are used.

Since the onset of initiatives to ensure more prompt payment of claims, it appears that some insurers are finding other ways to delay reimbursements, adding further to administrative costs for providers and creating additional challenges for

revenue cycle management. As another example of delays and administrative hurdles physicians must over come, over the past few years, physicians are reporting a marked increase in insurers' requests for medical records. As a result, often claims that should have been paid in 30 days takes 60 to 90 with manual intervention.

The ripple effects of inaccuracies, coupled with inconsistent adjudication rules often forces medical providers to write off unnecessary lost revenue. One key area to consider is the inability to develop predictive forecasting. Without this data, a practice has no way of accurately predicting claims payment and no way to develop accurate financial plans. In short, if you don't know what claims are owed the practice, how do you know how to budget? How can you plan for new staff, investments, expansion, etc.?

The Game of Cat and Mouse

At times physician efforts to ensure prompt and accurate claims payment may seem like a game of cat and mouse. However, physicians can take several steps to minimize the problem. They should:

1. **Get it right the first time.** Minimize material risk and develop a sound set of policies and procedures to ensure staff meticulously codes, checks insurer guidelines for pre-authorization and takes other steps to ensure a clean claim submission. Know each insurer's policies backward and forward. Practice management technology combined with consulting can help develop effective procedures and ensure accurate submissions.
2. **Conduct pre-appointment or pre-service analysis.** Determining a patient's insurance eligibility and copays prior to the appointment allows for fees to be collected at the point of service, provides time to check on required pre-auth and allows the practice to alert patients of their liability (so no surprises for them).
3. **Train staff, including physicians, and give them the tools, technology and education to code properly.** Noting the complicated processes for submitting claims, many practices are simply opting to hire trained coders or outsource coding entirely. If that's not an option, learn what programs and seminars are available for your staff. That, combined with top practice management systems, can further ensure accurate claims submissions.
4. **Conduct a claims audit to ensure contract compliance.** Most practices assume that insurers are reimbursing within contract guidelines. A claims audit could indicate problems and can better ensure contract compliance. In addition, practice management software provides the ability to delineate reimbursement detail from the system and compare the flat billed allowable rate against contract and actual payment to identify and correct any discrepancies.
5. **Create and implement sound tracking procedures for payment integrity.** Remember that you can't manage what you don't measure. Develop plans to track and trend revenue to gauge your performance based on measurable financial targets. The Medical Group Management Association and American Medical Association provide research to help establish target baselines. This data can help identify inaccuracies as compared to similar practices.
6. **Chase down those dollars.** The AMA notes that it costs $25 to resubmit a single claim, multiplied by the hundreds of claims that require resubmission and that adds more to the revenue practices loss each year. That may lead some practices to simply not resubmit on smaller balances. However, practice management consultants recommend practices chase down every dollar they are entitled to receive. It's the fair thing to do and could also become a deterrent for some insurers. Staffing and time can be an issue for such tracking, so look for practice management systems that provide the features and functions to support your efforts or enlist the help of a business partner.

Ever Vigilant - The take away advice for any practice today is simple: be proactive, not reactive when it comes to your practice's financial health.

The challenge to ensure accurate reimbursement will continue. Some insurers are making inroads to reducing claims inaccuracies and should be recognized for their efforts, but physicians will need to remain vigilant.

For more information about the the 2011 National Health Insurer Report Card visit the AMA website at: www.ama-assn.org/go/psa-webinars or check out their white paper for administrative simplification at: http://www.ama-assn.org/go/simplify.

The findings from the 2011 National Health Insurer Report Card are based on a random sampling of approximately 2.4 million electronic claims, representing about 4 million medical services submitted in February and March of 2011 to leading health insurers.

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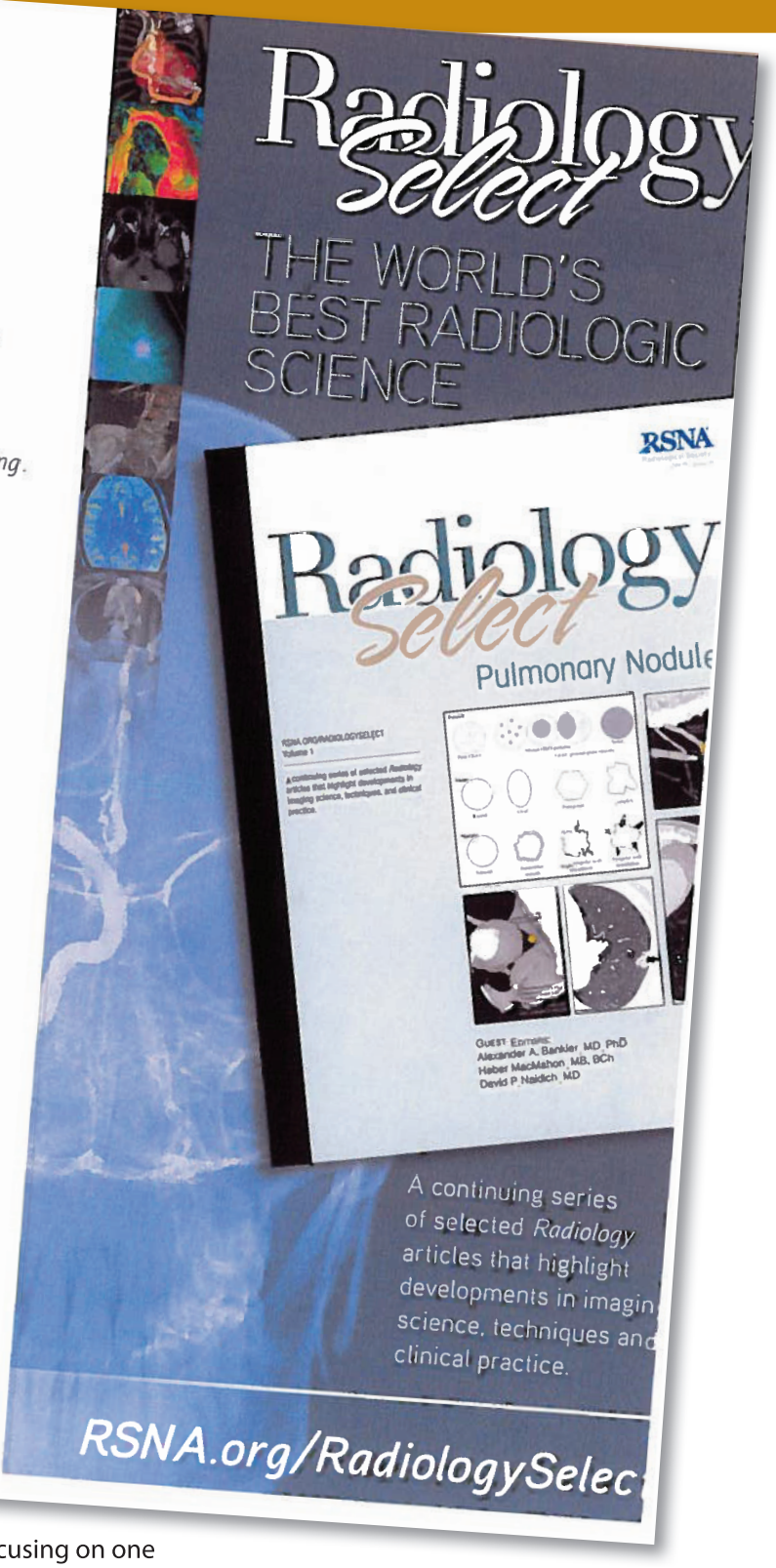

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2012 BIDMC Radiology Publications [New citations in Blue]. *We do a monthly PubMed search for new BIDMC publications and may miss those in which your affiliation is not noted. If we miss your paper, please send the reference to dwolfe@bidmc.harvard.edu.*

Note that publications do not always appear in Pubmed in the same month they are actually published and publications listing an Epub date may be updated into the new year, thus their paper publication will appear in 2012.

Appelbaum L, Ben-David E, **Sosna J**, Nissenbaum Y, **Goldberg SN**. US Findings after Irreversible Electroporation Ablation: Radiologic-Pathologic Correlation. Radiology. 2012 Jan;262(1):117-25. Epub 2011 Nov 21.

Ben-David E, Appelbaum L, **Sosna J**, Nissenbaum I, **Goldberg SN**. Characterization of irreversible electroporation ablation in in vivo porcine liver. AJR Am J Roentgenol. 2012 Jan;198(1):W62-8.

Boiselle PM. A New JTI Milestone. J Thorac Imaging. 2012 Jan;27(1):1.

Boiselle PM, Goodman LR, Litmanovich D, Rémy-Jardin M, Schaefer-Prokop C. Expert Opinion: CT Pulmonary Angiography in Pregnant Patients With Suspected Pulmonary Embolism. J Thorac Imaging. 2012 Jan;27(1):5.

Boiselle PM, Nikolaou K, Schoepf UJ, Seo JB. Expert Opinion: Dual Energy CT: Most and Least Relevant Cardiopulmonary Imaging Applications. J Thorac Imaging. 2012 Jan;27(1):6.

Boiselle PM, Reddy GP. Editors' recognition awards for distinction in reviewing in 2011. J Thorac Imaging. 2012 Jan;27(1):2.

Bulman JC, Toth R, Patel AD, Bloch BN, McMahon CJ, Ngo L, Madabhushi A, **Rofsky NM**. Automated Computer-derived Prostate Volumes from MR Imaging Data: Comparison with Radiologist-derived MR Imaging and Pathologic Specimen Volumes. Radiology. 2012 Jan;262(1):144-51.

Hall FM. Digital mammography versus full-field digital mammography. AJR Am J Roentgenol. 2012 Jan;198(1):240. PubMed PMID: 22194503.

Hall FM, Glynn CG, Farria DM, Monsees BS, Salcman JT, Wiele KN. Transition to digital mammography. Radiology. 2012 Jan;262(1):374.

Hall FM, Yue JJ, Murtagh RD, Quencer RM, Castellvi AE. Transpedicular fusions and lice. Radiology. 2012 Jan;262(1):372.

Hendee W, Bernstein MA, **Levine D**. Scientific journals and impact factors. Skeletal Radiol. 2012 Feb;41(2):127-8.

Slanetz PJ, Boiselle PM. Mentoring matters. AJR Am J Roentgenol. 2012 Jan;198(1):W11-2.

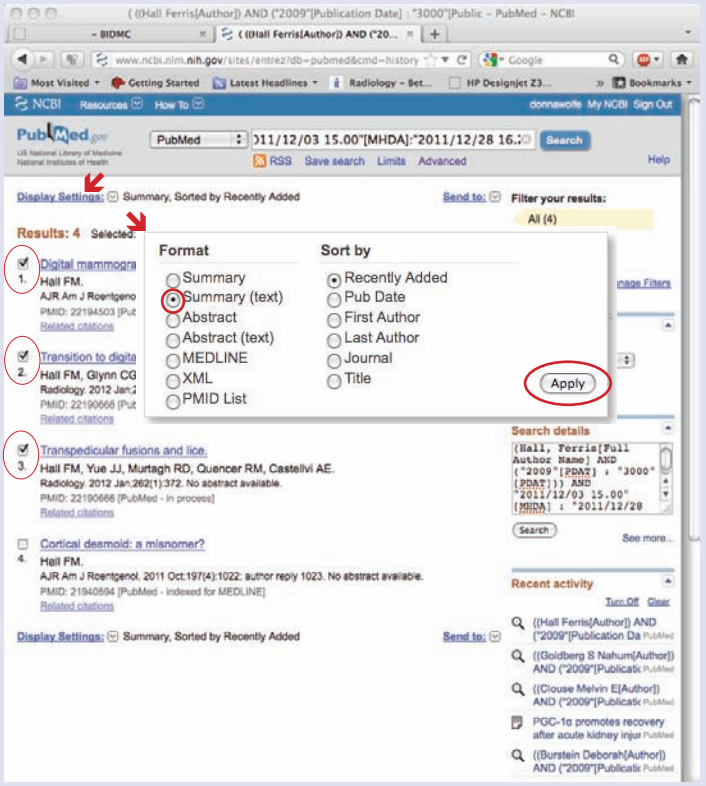
Vinocur DN, Lee EY, **Eisenberg RL**. Neonatal intestinal obstruction. AJR Am J Roentgenol. 2012 Jan;198(1):W1-W10.

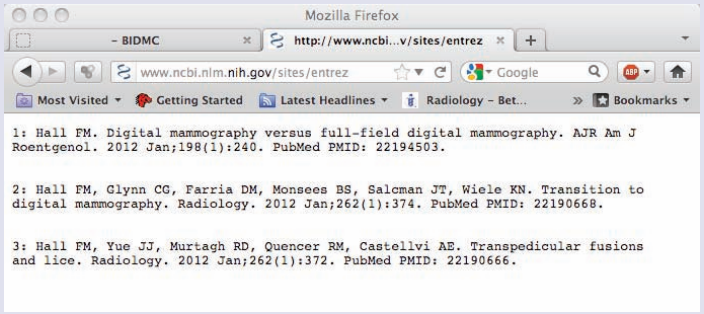
2011 BIDMC Radiology Publications Cumulative Stats:

197 original article and editorials
- 8 with residents
- 33 with fellows

PubMed Tip for automatic formatting:

Did you know that PubMed can automatically convert publication citations into the format we use? For each citation you have checked, instead of retyping, 1) click on "Display Settings" to view a drop down menu and click on 2) Summary (text) and then 3) click on "Apply". PubMed will display all the citations you asked for in the format we use here at HMS. Copy and paste into MS Word. (You will need to change the font and add a return space between citations which are numbered sequentially).





Thanks to Meredith Cunningham for suggesting this tip be included in Radical Views. Please contact Donna Wolfe (dwolfe@bidmc.harvard.edu) if there are other tips you would lke to share with the Radiology community.

2011 BIDMC Radiology Publications - [New citations in Blue].

Below is the cumulative listing of all publications for the year 2011, including, in blue, citations which appeared after our last search in November, 2011 for the December issue of Radical Views. *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.*
Note that publications do not always appear in Pubmed in the same month they are actually published and publications listing an Epub date may be updated into the new year, thus their paper publication will appear in2012.

Agrawal JR, Travis AC, **Mortele KJ**, Silverman SG, Maurer R, Reddy SI, Saltzman JR. Diagnostic Yield of Dual-Phase CT Enterography in Patients with Obscure Gastrointestinal Bleeding and a Nondiagnostic Capsule Endoscopy. J Gastroenterol Hepatol. 2011 Nov 18. doi: 10.1111/j.1440-1746.2011.06959.x.

Ahmed M, Moussa M, **Goldberg SN**. Synergy in cancer treatment between liposomal chemotherapeutics and thermal ablation. Chem Phys Lipids. 2011 Dec 14. [Epub ahead of print]

Ahmed M, Brace CL, Lee FT Jr, **Goldberg SN**. Principles of and Advances in Percutaneous Ablation. Radiology. 2011 Feb;258(2):351-369.

Ahmed M, **Goldberg SN**. Basic science research in thermal ablation. Surg Oncol Clin N Am. 2011 Apr;20(2):237-58.

Akçakaya M, Basha TA, Goddu B, Goepfert LA, Kissinger KV, Tarokh V, **Manning WJ**, Nezafat R. Low-dimensional-structure self-learning and thresholding: Regularization beyond compressed sensing for MRI Reconstruction. Magn Reson Med. 2011 Apr 4. doi: 10.1002/mrm.22841.

Akçakaya M, Hu P, Chuang ML, Hauser TH, Ngo LH, **Manning WJ**, Tarokh V, Nezafat R. Accelerated noncontrast-enhanced pulmonary vein MRA with distributed compressed sensing. J Magn Reson Imaging. 2011 May;33(5):1248-55. doi: 10.1002/jmri.22559. PMCID: PMC3081138.

Akcakaya M, Nam S, Hu P, Moghari MH, Ngo LH, Tarokh V, **Manning WJ**, Nezafat R. Compressed Sensing With Wavelet Domain Dependencies for Coronary MRI: A Retrospective Study. IEEE Trans Med Imaging. 2011 May;30(5):1090-9.

Allouche-Arnon H, Lerche MH, Karlsson M, **Lenkinski RE**, Katz-Brull R. Deuteration of a molecular probe for DNP hyperpolarization - a new approach and validation for choline chloride. Contrast Media Mol Imaging. 2011 Nov;6(6):499-506. doi: 10.1002/cmmi.452.

Appelbaum E, Maron BJ, Adabag S, Hauser TH, Lesser JR, Haas TS, Riley AB, Harrigan CJ, Delling FN, Udelson JE, Gibson CM, **Manning WJ**, Maron MS. Intermediate Signal Intensity Late Gadolinium Enhancement Predicts Ventricular Tachyarrhythmias in Patients with Hypertrophic Cardiomyopathy. Circ Cardiovasc Imaging. 2011 Dec 1.

Appelbaum L, **Sosna J**, Nissenbaum Y, Benshtein A, **Goldberg SN**. Electromagnetic Navigation System for CT-Guided Biopsy of Small Lesions. AJR Am J Roentgenol. 2011 May;196(5):1194-200.

Ashitate Y, Lee BT, Ngo LH, Laurence RG, Hutteman M, Oketokoun R, Lunsford E, Choi HS, **Frangioni JV**. Quantitative Assessment of Nipple Perfusion With Near-Infrared Fluorescence Imaging. Ann Plast Surg. 2011 Aug 22.

Ashitate Y, Stockdale A, Choi HS, Laurence RG, **Frangioni JV**. Real-Time Simultaneous Near-Infrared Fluorescence Imaging of Bile Duct and Arterial Anatomy. J Surg Res. 2011 Jul 14. [Epub ahead of print]

Ashitate Y, Tanaka E, Stockdale A, Choi HS, **Frangioni JV**. Near-infrared fluorescence imaging of thoracic duct anatomy and function in open surgery and video-assisted thoracic surgery. J Thorac Cardiovasc Surg. 2011 Apr 6. [Epub ahead of print]

Bankier AA, Gevenois PA, Hackx M, Madani A, Lynch DA, **Boiselle PM**. Expert opinion: quantitative computed tomography analysis of chronic obstructive pulmonary disease. J Thorac Imaging. 2011 Nov;26(4):248.

Baratz MD, **Gupta E**, **Yablon C**, Rodriguez EK. Pyogenic Sacroiliac Arthritis Resulting in Septic Shock in a Postpartum Patient: A Rare Problem with a Rare Organism: A Case Report. JBJS Case Connector. 2011; 01:e4 1-4 doi:10.2106/JBJS.CC.K.00001

Bello N, **Manning WJ**. Acute Adverse Reactions to Gadolinium in CMR "Gadol" News! JACC Cardiovasc Imaging. 2011 Nov;4(11):1177-9.

Boiselle PM. The journal of thoracic imaging welcomes the European society of thoracic imaging. J Thorac Imaging. 2011 Feb;26(1):2.

Boiselle PM. In with the new! J Thorac Imaging. 2011 Feb;26(1):1.

Boiselle PM, Erasmus JJ, Ko JP, Ravenel JG, Vlahos I. Expert opinion: lung cancer staging. J Thorac Imaging. 2011 May;26(2):85.

Boiselle PM, Hurwitz LM, Mayo JR, Schoepf UJ, Tack D. Expert opinion: radiation dose management in cardiopulmonary imaging. J Thorac Imaging. 2011 Feb;26(1):3.

Boiselle PM, Reddy GP. Editors' recognition awards for distinction in reviewing in 2010. J Thorac Imaging. 2011 Feb;26(1):7.

Boiselle PM. The Neoplasm Formerly Known as BAC. J Thorac Imaging. 2011Aug;26(3):188.

Boiselle PM. Cardiopulmonary radiologists: the next generation. J Thorac Imaging. 2011 Aug;26(3):187.

Bollen TL, Singh VK, Maurer R, Repas K, van Es HW, Banks PA, **Mortele KJ**. Comparative evaluation of the modified CT severity index and CT severity index in assessing severity of acute pancreatitis. AJR Am J Roentgenol. 2011 Aug;197(2):386-92.

Bollen TL, Singh VK, Maurer R, Repas K, van Es HW, Banks PA, **Mortele KJ**. A Comparative Evaluation of Radiologic and Clinical Scoring Systems in the Early Prediction of Severity in Acute Pancreatitis. Am J Gastroenterol. 2011 Dec 20. doi: 10.1038/ajg.2011.438. [Epub ahead of print]

Brodoefel H, Tognolini A, Zamboni GA, Gourtsoyianni S, Claussen CD, **Raptopoulos V**. Standardisation of liver MDCT by tracking liver parenchyma enhancement to trigger imaging. Eur Radiol. 2011 Nov 5.

Brook OR, Eran A, Engel A. CT multiplanar reconstructions (MPR) for shrapnel injury trajectory. Emerg Radiol. 2011 Oct 14. [Epub ahead of print]

Brook OR, Hakmon T, Brook A, Dudnik E, Kuten A, Engel A. The Effect of Radiology Conference Consultation on Cancer Patients Management. Ann Oncol. 2011 May;22(5):1204-8.

Brook OR, **Kane RA, Tyagi G**, **Siewert B**, **Kruskal JB**. Lessons Learned From Quality Assurance: Errors in the Diagnosis of Acute Cholecystitis on Ultrasound and CT. AJR Am J Roentgenol. 2011 Mar;196(3):597-604.

Brook OR, Mendiratta-Lala M, **Brennan D**, **Siewert B**, **Faintuch S**, **Goldberg SN**. Imaging findings after radiofrequency ablation of adrenal tumors. AJR Am J Roentgenol. 2011 Feb;196(2):382-8.

Byrnes V, Miller A, Lowry D, Hill E, Weinstein C, **Alsop D**, **Lenkinski R**, Afdhal NH. Effects of Anti-Viral Therapy and HCV Clearance on Cerebral Metabolism and Cognition. J Hepatol. 2011 Oct 22.

Cambers CE, Fetterly KA, Holzer R, **Lin PJ**, Blankenship JC, Balter S, Laskey WK. Radiation safety program for the cardiac catheterization laboratory. Catheter Cardiovasc Interv. 2011 Mar 1;77(4):546-56. doi: 10.1002/ccd.22867. Review.

Carlsson CM, Xu G, Wen Z, Barnet JH, Blazel HM, Chappell RJ, Stein JH, Asthana S, Sager MA, **Alsop DC**, Rowley HA, Fain SB, Johnson SC. Effects of Atorvastatin on Cerebral Blood Flow in Middle-Aged Adults at Risk for Alzheimer's Disease: A Pilot Study. Curr Alzheimer Res. 2011 Nov 28. [Epub ahead of print]

Chappelow J, Bloch BN, **Rofsky N**, Genega E, **Lenkinski R**, DeWolf W, Madabhushi A. Elastic registration of multimodal prostate MRI and histology via multiattribute combined mutual information. Med Phys. 2011 Apr;38(4):2005-18. PMCID: PMC3078156.

Choi HS, Nasr K, Alyabyev S, Feith D, Lee JH, Kim SH, Ashitate Y, Hyun H, Patonay G, Strekowski L, Henary M, **Frangioni JV**. Synthesis and in vivo fate of zwitterionic near-infrared fluorophores. Angew Chem Int Ed Engl. 2011 Jul 4;50(28):6258-63. doi: 10.1002/anie.201102459. Epub 2011 Jun 7.

Cohen AB, Neema M, Arora A, Dell'oglio E, Benedict RH, Tauhid S, Goldberg-Zimring D, Chavarro-Nieto C, Ceccarelli A, Klein JP, Stankiewicz JM, Houtchens MK, Buckle GJ, **Alsop DC**, Guttmann CR, Bakshi R. The Relationships among MRI-Defined Spinal Cord Involvement, Brain Involvement, and Disability in Multiple Sclerosis. J Neuroimaging. 2011 Mar 29. doi: 10.1111/j.1552-6569.2011.00589.x.

Cohen SB, Proudman S, Kivitz AJ, Burch FX, Donohue JP, **Burstein D**, Sun YN, Banfield C, Vincent MS, Ni L, Zack DJ. A randomized, double-blind study of AMG 108 (a fully human monoclonal antibody to IL 1R1) in patients with osteoarthritis of the knee. Arthritis Res Ther. 2011 Jul 29;13(4):R125.

Corwin MT, **Siewert B**, **Sheiman RG**, **Kane RA**. Incidentally detected gallbladder polyps: is follow-up necessary?--Long-term clinical and US analysis of 346 patients. Radiology. 2011 Jan;258(1):277-82. Epub 2010 Aug 9.

Crema MD, Roemer FW, Marra MD, **Burstein D**, Gold GE, Eckstein F, Baum T, Mosher TJ, Carrino JA, Guermazi A. Articular Cartilage in the Knee: Current MR Imaging Techniques and Applications in Clinical Practice and Research1. Radiographics. 2011 Jan-Feb;31(1):37-61.

Cullen G, Vaughn B, **Ahmed A**, Peppercorn MA, **Smith MP**, Moss AC, Cheifetz AS. Abdominal phlegmons in Crohn's disease: Outcomes following antitumor necrosis factor therapy. Inflamm Bowel Dis. 2011 Jun 6. doi: 10.1002/ibd.21783. [Epub ahead of print]

Dai W, Robson PM, **Shankaranarayanan A**, **Alsop DC**. Reduced resolution transit delay prescan for quantitative continuous arterial spin labeling perfusion imaging. Magn Reson Med. 2011 Nov 14. doi: 10.1002/mrm.23103. [Epub ahead of print]

Dai W, Robson PM, **Shankaranarayanan A**, **Alsop DC**. Sensitivity calibration with a uniform magnetization image to improve arterial spin labeling perfusion quantification. Magn Reson Med. 2011 Apr 26. doi: 10.1002/mrm.22954. [Epub ahead of print]

Dialani V, Hines N, Wang Y, **Slanetz P**. Breast Schwannoma. Case Report Med. 2011;2011:930841. Epub 2011 Feb 9.

Dialani V, **Litmanovich D**, **Bankier AA**, Decamp M, Gangadharan SP, **Boiselle PM**. Subcarinal collection following mediastinoscopy: a normal post-procedural CT finding. Clin Radiol. 2011 May;66(5):399-404.

Douglas PS, Garcia MJ, Haines DE, Lai WW, **Manning WJ**, Patel AR, Picard MH, Polk DM, Ragosta M, Ward RP, Weiner RB. ACCF/ASE/AHA/ASNC/HFSA/HRS/SCAI/SCCM/SCCT/SCMR 2011 Appropriate Use Criteria for Echocardiography A Report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, American Society of Echocardiography, American Heart Association, American Society of Nuclear Cardiology, Heart Failure Society of America, Heart Rhythm Society, Society for Cardiovascular Angiography and Interventions, Society of Critical Care Medicine, Society of Cardiovascular Computed Tomography, and Society for Cardiovascular Magnetic Resonance Endorsed by the American College of Chest Physicians. J Am Coll Cardiol. 2011 Mar 1;57(9):1126-66.

Duhamel G, Callot V, Tachrount M, **Alsop DC**, Cozzone PJ. Pseudo-continuous arterial spin labeling at very high magnetic field (11.75 T) for high-resolution mouse brain perfusion imaging. Magn Reson Med. 2011 Oct 19. doi: 10.1002/mrm.23096.

Eisenberg RL, Khabbaz KR. Are chest radiographs routinely indicated after chest tube removal following cardiac surgery? AJR Am J Roentgenol. 2011 Jul;197(1):122-4.

Eisenberg RL, Ngo L, **Boiselle PM**, **Bankier AA**. Honorary Authorship in Radiologic Research Articles: Assessment of Frequency and Associated Factors. Radiology. 2011 May;259(2):479-86.

Eisenberg RL, **Yablon CM**. Career development for residents and beyond: filling in the gaps. AJR Am J Roentgenol. 2011 Jan;196(1):W6-7.

Fong TG, Inouye SK, Dai W, Press DZ, **Alsop DC**. Association cortex hypoperfusion in mild dementia with Lewy bodies: a potential indicator of cholinergic dysfunction? Brain Imaging Behav. 2011 Mar;5(1):25-35.

Frangioni JV. The myth of multimodality diagnostic agents. Mol Imaging. 2011 Apr;10(2):79-80.

Franks TJ, Galvin JR, Jett JR, Naidich DP, **Boiselle PM**. Expert Opinion: Role of Percutaneous Biopsy of Part-Solid Nodules in the IASLC/ATS/ERS International Multidisciplinary Classification of Lung Adenocarcinoma. J Thorac Imaging. 2011 Aug;26(3):189.

Fregni F, Potvin K, Dasilva D, Wang X, **Lenkinski RE**, Freedman SD, Pascual-Leone A. Clinical effects and brain metabolic correlates in non-invasive cortical neuromodulation for visceral pain. Eur J Pain. 2011 Jan;15(1):53-60. Epub 2010 Sep 6. PMCID: PMC3000866.

Fujii H, Idoine JD, Gioux S, Accorsi R, Slochower DR, Lanza RC, **Frangioni JV**. Optimization of Coded Aperture Radioscintigraphy for Sentinel Lymph Node Mapping. Mol Imaging Biol. 2011 May 13.

Gansler DA, Lee AK, Emerton BC, D'Amato C, **Bhadelia R**, Jerram M, Fulwiler C. Prefrontal regional correlates of self-control in male psychiatric patients: Impulsivity facets and aggression. Psychiatry Res. 2011 Jan 30;191(1):16-23. Epub 2010 Dec 9.

George RT, Arbab-Zadeh A, Cerci RJ, Vavere AL, Kitagawa K, Dewey M, Rochitte CE, Arai AE, Paul N, Rybicki FJ, Lardo AC, **Clouse ME,** Lima JA. Diagnostic Performance of Combined Noninvasive Coronary Angiography and Myocardial Perfusion Imaging Using 320-MDCT: The CT Angiography and Perfusion Methods of the CORE320 Multicenter Multinational Diagnostic Study. AJR Am J Roentgenol. 2011 Oct;197(4):829-37.

Gibbs-Strauss SL, Nasr KA, Fish KM, Khullar O, Ashitate Y, Siclovan TM, Johnson BF, Barnhardt NE, Tan Hehir CA, **Frangioni JV**. Nerve-highlighting fluorescent contrast agents for image-guided surgery. Mol Imaging. 2011 Apr;10(2):91-101.

Gioux S, Mazhar A, Lee BT, Lin SJ, Tobias AM, Cuccia DJ, Stockdale A, Oketokoun R, Ashitate Y, Kelly E, Weinmann M, Durr NJ, Moffitt LA, Durkin AJ, Tromberg BJ, **Frangioni JV**. First-in-human pilot study of a spatial frequency domain oxygenation imaging system. J Biomed Opt. 2011 Aug;16(8):086015.

Goldberg SN. Science to practice: which approaches to combination interventional oncologic therapy hold the greatest promise of obtaining maximal clinical benefit? Radiology. 2011 Dec;261(3):667-9. PMCID: PMC3219913.

Grant AK, **Vinogradov E**, Wang X, **Lenkinski RE**, **Alsop DC**. Perfusion imaging with a freely diffusible hyperpolarized contrast agent. Magn Reson Med. 2011 Mar 22. doi: 10.1002/mrm.22860.

Greenman RL, Smithline HA. The Feasibility of Measuring Phosphocreatine Recovery Kinetics in Muscle Using a Single-shot (31)P RARE MRI Sequence. Acad Radiol. 2011 Apr 30. [Epub ahead of print]

Greenman RL, Wang X, Smithline HA. Simultaneous acquisition of phosphocreatine and inorganic phosphate images for Pi:PCr ratio mapping using a RARE sequence with chemically selective interleaving. Magn Reson Imaging. 2011 Jun 3. [Epub ahead of print]

Guermazi A, Roemer FW, **Burstein D**, Hayashi D. Why radiography should no longer be considered a surrogate outcome measure for longitudinal assessment of cartilage in knee osteoarthritis. Arthritis Res Ther. 2011 Nov 24;13(6):247. [Epub ahead of print]

Hall FM. Hip fractures and other problematic radiologic terminology. AJR Am J Roentgenol. 2011 Aug;197(2):523.

Hall FM. Cortical desmoid: a misnomer? AJR Am J Roentgenol. 2011 Oct;197(4):1022.

Hall FM. Celebrating the achievements of women radiologists and physicians. Radiology. 2011 Oct;261(1):9-11.

Hall FM, Kim S, Yoon CS, Chung TS, Kim H. Re: More about Scoliosis Imaging for Radiologists * Dr Kim and colleagues respond. Radiographics. 2011 Jul-Aug;31(4):1191-2.

Hall FM, **Mehta TS**, **Magaram D**. Sonographic confirmation of mammographic abnormality. AJR Am J Roentgenol. 2011 Sep;197(3):764.

Hall FM. Celebrating the achievements of women radiologists and physicians. Radiology. 2011 Oct;261(1):9-11.

Hall FM. Morbidity of Direct MR Arthrography. AJR Am J Roentgenol. 2011 Dec;197(6):1524.

Hara AK, Blevins M, Chen MH, Dachman AH, Kuo MD, Menias CO, **Siewert B**, Cheema JI, Obregon RG, Fidler JL, Zimmerman P, Horton KM, Coakley KJ, Iyer RB, Halvorsen RA Jr, Casola G, Yee J, Herman BA, Johnson CD. ACRIN CT Colonography Trial: Does Reader's Preference for Primary Two-dimensional versus Primary Three-dimensional Interpretation Affect Performance? Radiology. 2011 May;259(2):435-41. Epub 2011 Mar 1. PMCID: PMC3079118.

Hara AK, Kuo MD, Blevins M, Chen MH, Yee J, Dachman A, Menias CO, **Siewert B**, Cheema JI, Obregon RG, Fidler JL, Zimmerman P, Horton KM, Coakley K, Iyer RB, Halvorsen RA Jr, Casola G, Johnson CD. National CT Colonography Trial (ACRIN 6664): Comparison of Three Full-Laxative Bowel Preparations in More Than 2500 Average-Risk Patients. AJR Am J Roentgenol. 2011 May;196(5):1076-82.

Harrigan CJ, Peters DC, Gibson CM, Maron BJ, Manning WJ, Maron MS, Appelbaum E. Hypertrophic cardiomyopathy: quantification of late gadolinium enhancement with contrast-enhanced cardiovascular MR imaging. Radiology. 2011 Jan;258(1):128-33. Epub 2010 Nov 2.

Hautvast GL, Salton CJ, Chuang ML, Breeuwer M, O'Donnell CJ, **Manning WJ.** Accurate computer-aided quantification of left ventricular parameters: Experience in 1555 cardiac magnetic resonance studies from the Framingham Heart Study. Magn Reson Med. 2011 Oct 21. doi: 10.1002/mrm.23127.

Hendee W, Bernstein MA, **Levine D**. Scientific journals and impact factors. Med Phys. 2011 Dec;38(12):i.

Henkin RE, Del Rowe JD, Grigsby PW, Hartford AC, Jadvar H, Macklis RM, **Parker JA**, Wong JY, Rosenthal SA. ACR-ASTRO Practice Guideline for the Performance of Therapy With Unsealed Radiopharmaceutical Sources. Clin Nucl Med. 2011 Aug;36(8):e72-e80.

Hochberg AR, **Rojas R**, Thomas AJ, **Reddy AS**, **Bhadelia RA**. Accuracy of On-Call Resident Interpretation of CT Angiography for Intracranial Aneurysm in Subarachnoid Hemorrhage. AJR Am J Roentgenol. 2011 Dec;197(6):1436-41.

Hu P, Chan J, Ngo LH, Smink J, Goddu B, Kissinger KV, Goepfert L, Hauser TH, **Rofsky NM**, **Manning WJ**, Nezafat R. Contrast-enhanced whole-heart coronary MRI with bolus infusion of gadobenate dimeglumine at 1.5 T. Magn Reson Imaging. 2011 Feb;66(2):392-398.

Hu P, Hong S, Moghari MH, Goddu B, Goepfert L, Kissinger KV, Hauser TH, **Manning WJ**, Nezafat R. Motion correction using coil arrays (MOCCA) for free-breathing cardiac cine MRI. Magn Reson Med. 2011 Aug;66(2):467-75. doi: 10.1002/mrm.22854. Epub 2011 Feb 24.

Hutteman M, Choi HS, Mieog JS, van der Vorst JR, Ashitate Y, Kuppen PJ, van Groningen MC, Löwik CW, Smit VT, van de Velde CJ, **Frangioni JV**, Vahrmeijer AL. Clinical Translation of Ex Vivo Sentinel Lymph Node Mapping for Colorectal Cancer Using Invisible Near-Infrared Fluorescence Light. Ann Surg Oncol. 2011 Apr;18(4):1006-14.

Hutteman M, Mieog JS, van der Vorst JR, Liefers GJ, Putter H, Löwik CW, **Frangioni JV**, van de Velde CJ, Vahrmeijer AL. Randomized, double-blind comparison of indocyanine green with or without albumin premixing for near-infrared fluorescence imaging of sentinel lymph nodes in breast cancer patients. Breast Cancer Res Treat. 2011 Mar 1.

Hutteman M, van der Vorst JR, Gaarenstroom KN, Peters AA, Mieog JS, Schaafsma BE, Löwik CW, **Frangioni JV**, van de Velde CJ, Vahrmeijer AL. Optimization of near-infrared fluorescent sentinel lymph node mapping for vulvar cancer. Am J Obstet Gynecol. 2011 Jul 30.

Inoue K, Liu F, Hoppin J, Lunsford EP, Lackas C, Hesterman J, **Lenkinski RE**, Fujii H, **Frangioni JV.** High-resolution Computed Tomography Of Single Breast Cancer Microcalcifications In Vivo. Mol Imaging. 2011 Apr 1.

Iuanow E, Kettler M, **Slanetz PJ**. Spectrum of Disease in the Male Breast. AJR Am J Roentgenol. 2011 Mar;196(3):W247-59. [CME. WEB. Pictorial Essay]

Jefferson AL, Himali JJ, Au R, Seshadri S, Decarli C, O'Donnell CJ, Wolf PA, **Manning WJ**, Beiser AS, Benjamin EJ. Relation of Left Ventricular Ejection Fraction to Cognitive Aging (from the Framingham Heart Study). Am J Cardiol. 2011 Aug 29.

Khan A, Khosa F, **Eisenberg RL**. Cystic lesions of the pancreas. AJR Am J Roentgenol. 2011 Jun;196(6):W668-77.

Khan A, Khosa F, Nasir K, Yassin A, **Clouse ME**. Comparison of Radiation Dose and Image Quality: 320-MDCT Versus 64-MDCT Coronary Angiography. AJR Am J Roentgenol. 2011 Jul;197(1):163-8.

Khan A, Nasir K, Khosa F, Saghir A, Sarwar S, **Clouse ME**. Prospective Gating With 320-MDCT Angiography: Effect of Volume Scan Length on Radiation Dose. AJR Am J Roentgenol. 2011 Feb;196(2):407-11.

Khosa F, Khan AN, **Eisenberg RL**. Hypervascular liver lesions on MRI. AJR Am J Roentgenol. 2011 Aug;197(2):W204-20. Review.

Khosa F, Romney BP, Costa DN, **Rofsky NM**, **Manning WJ**. Prevalence of noncardiac findings on clinical cardiovascular MRI. AJR Am J Roentgenol. 2011 Apr;196(4):W380-6.

Khurd P, Bahlmann C, Maday P, Kamen A, Gibbs-Strauss S, Genega EM, **Frangioni JV**. COMPUTER-AIDED GLEASON GRADING OF PROSTATE CANCER HISTOPATHOLOGICAL IMAGES USING TEXTON FORESTS. Proc IEEE Int Symp Biomed Imaging. 2010 Apr 17;14-17 April 2010:636-639. PMCID: PMC3017375.

Kirtane AJ, **Manning WJ**. Hypothyroid Cardiomyopathy: A Reversible Form of Systolic Heart Failure. Am J Med. 2011 Sep 7.

Klein JP, Arora A, Neema M, Healy BC, Tauhid S, Goldberg-Zimring D, Chavarro-Nieto C, Stankiewicz JM, Cohen AB, Buckle GJ, Houtchens MK, Ceccarelli A, Dell'oglio E, Guttmann CR, **Alsop DC**, **Hackney DB**, Bakshi R. A 3T MR Imaging Investigation of the Topography of Whole Spinal Cord Atrophy in Multiple Sclerosis. AJNR Am J Neuroradiol. 2011 May Koshkareva YA, Weinstein GS, Feldman M, **Moonis G**. Steatocystoma simplex of the infratemporal fossa: An uncommon location for a rare entity. Ear Nose Throat J. 2011 Jan;90(1):E16-8.

Krajewski KM, Giardino AA, Zukotynski K, Van den Abbeele AD, **Pedrosa I**. Imaging in renal cell carcinoma. Hematol Oncol Clin North Am. 2011Aug;25(4):687-715. Review.

Krajewski KM, Guo M, Van den Abbeele AD, Yap J, Ramaiya N, Jagannathan J, Heng DY, Atkins MB, McDermott DF, Schutz FA, **Pedrosa I**, Choueiri TK. Comparison of Four Early Posttherapy Imaging Changes (EPTIC; RECIST 1.0, Tumor Shrinkage, Computed Tomography Tumor Density, Choi Criteria) in Assessing Outcome to Vascular Endothelial Growth Factor-Targeted Therapy in Patients With Advanced Renal Cell Carcinoma. Eur Urol. 2011 Feb 1. [Epub ahead of print]

Kressel HY. Scientific dialogue: vestige of the past or hope for the future? Radiology. 2011 Jan;258(1):12-4.

Kressel HY. Editor's Note. Radiology. 2011 Apr;259(1):306.

Kressel HY. Challenges and opportunities for imaging journals: emerging from the shadows. Skeletal Radiol. 2011 Sep;40(9):1239-43.

Kressel HY, Dixon AK. Where Is the Honor in Honorary Authorship? Radiology. 2011 Mar 8.

Krishna S, Mittal V, Saxena AK, Sodhi KS, Lee MS, Kim MJ, Lee MJ, Yoon CS, Han SJ, Oh JT, Park YN, **Levine D**, **Kressel HY**. Biliary atresia in neonates and infants. Radiology. 2011 Dec;261(3):997-8.

Kruskal JB, **Eisenberg R**, Sosna J, **Yam CS**, Kruskal JD, **Boiselle PM**. Quality initiatives: quality improvement in radiology: basic principles and tools required to achieve success. Radiographics. 2011 Oct;31(6):1499-509.

Kung JW, **Yablon CM**, **Eisenberg RL**. Bone marrow signal alteration in the extremities. AJR Am J Roentgenol. 2011 May;196(5):W492-510.

Lee EY, Greenberg SB, **Boiselle PM**. Multidetector Computed Tomography of Pediatric Large Airway Diseases: State-of-the-Art. Radiol Clin North Am. 2011 Sep;49(5):869-93.

Lee EY, Tracy DA, **Eisenberg RL**, Arellano CM, Mahmood SA, Cleveland RH, Zurakowski D, **Boiselle PM**. Screening of asymptomatic children for tuberculosis is a lateral chest radiograph routinely indicated? Acad Radiol. 2011 Feb;18(2):184-90. Epub 2010 Nov 20.

Lee EY, Tracy DA, Mahmood SA, Weldon CB, Zurakowski D, **Boiselle PM**. Preoperative MDCT Evaluation of Congenital Lung Anomalies in Children: Comparison of Axial, Multiplanar, and 3D Images. AJR Am J Roentgenol. 2011 May;196(5):1040-6.

Lee EY, Tse SK, Zurakowski D, Johnson VM, Lee NJ, Tracy DA, **Boiselle PM**. Children Suspected of Having Pulmonary Embolism: Multidetector CT Pulmonary Angiography--Thromboembolic Risk Factors and Implications for Appropriate Use. Radiology. 2011 Nov 21. [Epub ahead of print]

Lee EY, Zucker EJ, Tsai J, Tracy DA, Cleveland RH, Zurakowski D, **Boiselle PM**. Pulmonary MDCT Angiography: Value of Multiplanar Reformatted Images in Detecting Pulmonary Embolism in Children. AJR Am J Roentgenol. 2011 Dec;197(6):1460-5.

Lee JH, Choi HS, Nasr KA, Ha M, Kim Y, **Frangioni JV**. High-throughput small molecule identification using maldi-tof and a nanolayered substrate. Anal Chem. 2011 Jul 1;83(13):5283-9. Epub 2011 Jun 8.

Lee KS, Muñoz A, Báez AB, **Ngo L**, **Rofsky NM**, **Pedrosa I**. Corticomedullary differentiation on T1-Weighted MRI: Comparison between cirrhotic and noncirrhotic patients. J Magn Reson Imaging. 2011 Oct 26. doi: 10.1002/jmri.22852.

Leung AN, Bull TM, Jaeschke R, Lockwood CJ, **Boiselle PM**, Hurwitz LM, James AH, McCullough LB, Menda Y, Paidas MJ, Royal HD, Tapson VF, Winer-Muram HT, Chervenak FA, Cody DD, McNitt-Gray MF, Stave CD, Tuttle BD; on behalf of the ATS/STR Committee on Pulmonary Embolism in Pregnancy. An Official American Thoracic Society/Society of Thoracic Radiology Clinical Practice Guideline: Evaluation of Suspected Pulmonary Embolism In Pregnancy. Am J Respir Crit Care Med. 2011 Nov 15;184(10):1200-1208.

Levenson RB, Pearson KM, Saokar A, Lee SI, Mueller PR, Hahn PF. Image-guided Drainage of Tuboovarian Abscesses of Gastrointestinal or Genitourinary Origin: A Retrospective Analysis. J Vasc Interv Radiol. 2011 May;22(5):678-86.

Lewis EI, Ozonoff A, Nguyen CP, Kim M, **Slanetz PJ**. Breast cancer close to the nipple: does this increase the risk of nodal metastasis at diagnosis? Can Assoc Radiol J. 2011 Aug;62(3):209-14. Epub 2010 May 27.

Liang W, **Eisenberg RL**, Ngo L, **Boiselle PM**, **Bankier AA**. Honorary Authorship: A Hawk Hovers over the Lower-Rank Academic. Radiology. 2011 Dec;261(3):996-7.

Li Y, Estroff JA, **Mehta TS**, Robertson RL, Robson CD, Poussaint TY, Feldman HA, Ware J, **Levine D**. Ultrasound and MRI of fetuses with ventriculomegaly: can cortical development be used to predict postnatal outcome? AJR Am J Roentgenol. 2011 Jun;196(6):1457-67.

Li Y, Sansgiri RK, Estroff JA, **Mehta TS**, Poussaint TY, Robertson RL, Robson CD, Feldman HA, Barnewolt C, **Levine D**. Outcome of fetuses with cerebral ventriculomegaly and septum pellucidum leaflet abnormalities. AJR Am J Roentgenol. 2011 Jan;196(1):W83-92.

Litmanovich D, Tack D, **Lin PJ**, **Boiselle PM**, **Raptopoulos V**, **Bankier AA**. Female Breast, Lung, and Pelvic Organ Radiation From Dose-Reduced 64-MDCT Thoracic Examination rotocols: A Phantom Study. AJR Am J Roentgenol. 2011 Oct;197(4):929-34.

Madhuranthakam AJ, **Sarkar SN**, Busse RF, Bakshi R, **Alsop DC**. Optimized double inversion recovery for reduction of T(1) weighting in fluid-attenuated inversion recovery. Magn Reson Med. 2011 May 16. doi: 10.1002/mrm.22979.

Maleki N, **Alsop DC,** Dai W, Hudson C, Han JS, Fisher J, Mikulis D. The Effect of Hypercarbia and Hyperoxia on the Total Blood Flow to the Retina as Assessed by Magnetic Resonance Imaging. Invest Ophthalmol Vis Sci. 2011 Mar 29.

Maleki N, Dai W, **Alsop DC**. Blood flow quantification of the human retina with MRI. NMR Biomed. 2011 Jan;24(1):104-11. doi: 10.1002/nbm.1564. Epub 2010 Sep 22.

Maleki N, Dai W, **Alsop DC**. Optimization of background suppression for arterial spin labeling perfusion imaging. MAGMA. 2011 Oct 19.

Margulis AR, **Eisenberg RL**. Advancing in your career. AJR Am J Roentgenol. 2011 Sep;197(3):W382-3.

Maron MS, Olivotto I, Harrigan C, Appelbaum E, Gibson CM, Lesser JR, Haas TS, Udelson JE, **Manning WJ**, Maron BJ. Mitral Valve Abnormalities Identified by Cardiovascular Magnetic Resonance Represent a Primary Phenotypic Expression of Hypertrophic Cardiomyopathy. Circulation. 2011 Jun 13. [Epub ahead of print]

Mazhar A, Dell S, Cuccia DJ, Gioux S, Durkin AJ, **Frangioni JV**, Tromberg BJ. Wavelength optimization for rapid chromophore mapping using spatial frequency domain imaging. J Biomed Opt. 2010 Nov-Dec;15(6):061716.

McAlindon TE, Nuite M, Krishnan N, Ruthazer R, Price LL, **Burstein D**, Griffith J, Flechsenhar K. Change In Knee Osteoarthritis Cartilage Detected By Delayed Gadolinium Enhanced Magnetic Resonance Imaging Following Treatment With Collagen Hydrolysate: A Pilot Randomized Controlled Trial. Osteoarthritis Cartilage. 2011 Jan 17.

McMahon CJ, Madhuranthakam AJ, **Wu JS**, **Yablon CM**, **Wei JL**, Rofsky NM, **Hochman MG**. High-resolution proton density weighted three-dimensional fast spin echo (3D-FSE) of the knee with IDEAL at 1.5 tesla: Comparison with 3D-FSE and 2D-FSE-initial experience. J Magn Reson Imaging. 2011 Oct 27. doi: 10.1002/jmri.22829.

Melenevsky Y, **Yablon CM**, Ramappa A, **Hochman MG**. Clavicle and acromioclavicular joint injuries: a review of imaging, treatment, and complications. Skeletal Radiol. 2011 Jul;40(7):831-42. Epub 2010 Jun 6. Review.

Melzer TR, Watts R, Macaskill MR, Pearson JF, Rüeger S, Pitcher TL, Livingston L, Graham C, Keenan R, Shankaranarayanan A, **Alsop DC**, Dalrymple-Alford JC, Anderson TJ. Arterial spin labelling reveals an abnormal cerebral perfusion pattern in Parkinson's disease. Brain. 2011 Mar;134(Pt 3):845-55. Epub 2011 Feb 9.

Mendiratta-Lala M, **Brennan DD**, Brook OR, **Faintuch S**, Mowschenson PM, **Sheiman RG**, **Goldberg SN**. Efficacy of radiofrequency ablation in the treatment of small functional adrenal neoplasms. Radiology. 2011 Jan;258(1):308-16. Epub 2010 Oct 27.

Mendiratta-Lala M, **Eisenberg RL**, Steele JR, **Boiselle PM**, **Kruskal JB**. Quality Initiatives: Measuring and Managing the Procedural Competency of Radiologists. Radiographics. 2011 Jun 30. [Epub ahead of print]

Mieog JS, Troyan SL, Hutteman M, Donohoe KJ, van der Vorst JR, Stockdale A, Liefers GJ, Choi HS, Gibbs-Strauss SL, Putter H, Gioux S, Kuppen PJ, Ashitate Y, Löwik CW, Smit VT, Oketokoun R, Ngo LH, van de Velde CJ, **Frangioni JV**, Vahrmeijer AL. Toward Optimization of Imaging System and Lymphatic Tracer for Near-Infrared Fluorescent Sentinel Lymph Node Mapping in Breast Cancer. Ann Surg Oncol. 2011 Mar 1.

Moghari MH, Akçakaya M, O'Connor A, Basha TA, Casanova M, Stanton D, Goepfert L, Kissinger KV, Goddu B, Chuang ML, Tarokh V, **Manning WJ**, Nezafat R. Compressed-sensing motion compensation (CosMo): A joint prospective-retrospective respiratory navigator for coronary MRI. Magn Reson Med. 2011 Jun 10. doi: 10.1002/mrm.22950. [Epub ahead of print]

Moghari MH, Hu P, Kissinger KV, Goddu B, Goepfert L, Ngo L, **Manning WJ**, Nezafat R. Subject-specific estimation of respiratory navigator tracking factor for free-breathing cardiovascular MR. Magn Reson Med. 2011 Aug 29. doi:10.1002/mrm.23158.

Moghari MH, Peters DC, Smink J, Goepfert L, Kissinger KV, Goddu B, Hauser TH, Josephson ME, **Manning WJ**, Nezafat R. Pulmonary vein inflow artifact reduction for free-breathing left atrium late gadolinium enhancement. Magn Reson Med. 2011 Jul;66(1):180-6. doi: 10.1002/mrm.22769. Epub 2011 Feb 28.

Mohammed TL, Chowdhry A, Reddy GP, Amorosa JK, Brown K, Dyer DS, Ginsburg ME, Heitkamp DE, Jeudy J, Kirsch J, Macmahon H, **Parker JA**, Ravenel JG, Saleh AG, Shah RD. ACR Appropriateness Criteria® Screening for Pulmonary Metastases. J Thorac Imaging. 2011 Feb;26(1):W1-W3.

Molinari F, **Bankier AA**, **Eisenberg RL**. Fat-containing lesions in adult thoracic imaging. AJR Am J Roentgenol. 2011 Nov;197(5):W795-813.

Nadig SN, **Pedrosa I**, Goldsmith JD, Callery MP, Vollmer CM. Clinical Implications of Mucinous Nonneoplastic Cysts of the Pancreas. Pancreas. 2011 Oct 19.

Novak V, Zhao P, Manor B, Sejdic E, **Alsop D**, Abduljalil A, Roberson PK, Munshi M, Novak P. Adhesion Molecules, Altered Vasoreactivity, and Brain Atrophy in Type 2 Diabetes. Diabetes Care. 2011 Sep 16.

O'Donnell CR, **Litmanovich D**, Loring SH, **Boiselle PM**. Age and Gender Dependence of Forced Expiratory Central Airway Collapse in Healthy Volunteers. Chest. 2011 Dec 22. [Epub ahead of print]

Olmsted WW, **Kressel HY**. Challenges and opportunities in scientific publications in 2011: an analysis by the editors of the journals of the Radiological Society of North America (RSNA). Radiologia. 2011 Feb 9. [Epub ahead of print] English, Spanish.

Orcutt KD, Slusarczyk AL, Cieslewicz M, Ruiz-Yi B, Bhushan KR, **Frangioni JV**, Wittrup KD. Engineering an antibody with picomolar affinity to DOTA chelates of multiple radionuclides for pretargeted radioimmunotherapy and imaging. Nucl Med Biol. 2011 Feb;38(2):223-33. Epub 2010 Oct 27.

Pahade JK, Lebedis CA, **Raptopoulos VD**, Avigan DE, **Yam CS**, **Kruskal JB**, **Pedrosa I**. Incidence of Contrast-Induced Nephropathy in Patients With Multiple Myeloma Undergoing Contrast-Enhanced CT. AJR Am J Roentgenol. 2011 May;196(5):1094-101.

Palmer MR, **Donohoe KJ**, Francis JM, A Mandelbrot D. Evaluation of relative renal function for patients who had undergone simultaneous liver-kidney transplants using Tc-99m-MAG3 scintigraphy with attenuation correction from anatomical images and SPECT/CT. Nucl Med Commun. 2011 Aug;32(8):738-44.

Pedrosa I, Rafatzand K, Robson P, Wagner AA, Atkins MB, Rofsky NM, **Alsop DC**. Arterial spin labeling MR imaging for characterisation of renal masses in patients with impaired renal function: initial experience. Eur Radiol. 2011 Aug 30.

Pennell DJ, Firmin DN, Kilner PJ, **Manning WJ**, Mohiaddin RH, Prasad SK. Review of Journal of Cardiovascular Magnetic Resonance 2010. J Cardiovasc Magn Reson. 2011 Sep 13;13(1):48. Review.

Perrone RD, Abebe KZ, Schrier RW, Chapman AB, Torres VE, Bost J, Kaya D, Miskulin DC, Steinman TI, Braun W, Winklhofer FT, Hogan MC, Rahbari-Oskoui F, Kelleher C, Masoumi A, Glockner J, Halin NJ, Martin D, Remer E, Patel N, **Pedrosa I**, Wetzel LH, Thompson PA, Miller JP, Meyers CM, Bae KT; for the HALT PKD Study Group. Cardiac Magnetic Resonance Assessment of Left Ventricular Mass in Autosomal Dominant Polycystic Kidney Disease. Clin J Am Soc Nephrol. 2011 Sep 8.

Pfefferbaum A, Chanraud S, Pitel AL, Müller-Oehring E, **Shankaranarayanan A**, **Alsop DC**, Rohlfing T, Sullivan EV. Cerebral blood flow in posterior cortical nodes of the default mode network decreases with task engagement but remains higher than in most brain regions. Cereb Cortex. 2011 Jan;21(1):233-44. Epub 2010 May 19. PMCID: PMC3000573.

Pianykh OS. Perfusion linearity and its applications in perfusion algorithm analysis. Comput Med Imaging Graph. 2011 Aug 24.

Pier DB, **Levine D**, Kataoka ML, Estroff JA, Werdich XQ, Ware J, Beeghly M, Poussaint TY, Duplessis A, Li Y, Feldman HA. Magnetic resonance volumetric assessments of brains in fetuses with ventriculomegaly correlated to outcomes. J Ultrasound Med. 2011 May;30(5):595-603.

Pillen S, van Alfen N, Sorenson EJ, Boon AJ, **Wu JS**, Darras BT, Rutkove SB. Assessing spinal muscular atrophy with quantitative ultrasound. Neurology. 2011Mar 8;76(10):933-4.

Pritchett Y, Jemiai Y, Chang Y, Bhan I, Agarwal R, Zoccali C, Wanner C, Lloyd-Jones D, Cannata-Andía JB, Thompson T, Appelbaum E, Audhya P, Andress D, Zhang W, Solomon S, **Manning WJ**, Thadhani R. The use of group sequential, information-based sample size re-estimation in the design of the PRIMO study of chronic kidney disease. Clin Trials. 2011;8(2):165-74.

Rahimi AR, York M, Gheewala N, Markson L, Hauser TH, **Manning WJ**. Trends in outpatient transthoracic echocardiography: impact of appropriateness criteria publication. Am J Med. 2011 Aug;124(8):740-6.

Rana RS, **Moonis G**. Head and neck infection and inflammation. Radiol Clin North Am. 2011 Jan;49(1):165-82.

Ridge CA, **Bankier AA**, **Eisenberg RL**. Mosaic attenuation. AJR Am J Roentgenol. 2011 Dec;197(6):W970-7.

Ridge CA, O'Donnell CR, Lee EY, Majid A, **Boiselle PM**. Tracheobronchomalacia: Current Concepts and Controversies. J Thorac Imaging. 2011 Nov;26(4):278-289.

Riley AB, **Manning WJ**. Atrial fibrillation: an epidemic in the elderly. Expert Rev Cardiovasc Ther. 2011 Aug;9(8):1081-90.

Roberts-Klein S, **Iuanow E**, **Slanetz PJ**. Avoiding pitfalls in mammographic interpretation. Can Assoc Radiol J. 2011 Feb;62(1):50-9. Epub 2010 Sep 15. Review.

Robich MP, Osipov RM, Chu LM, Han Y, Feng J, Nezafat R, Clements RT, **Manning WJ**, Sellke FW. Resveratrol modifies risk factors for coronary artery disease in swine with metabolic syndrome and myocardial ischemia. Eur J Pharmacol. 2011 Aug 16;664(1-3):45-53. PMCID: PMC3107708.

Rosen MP, Ding A, Blake MA, Baker ME, Cash BD, Fidler JL, Grant TH, Greene FL, Jones B, Katz DS, Lalani T, Miller FH, Small WC, Spottswood S, Sudakoff GS, Tulchinsky M, Warshauer DM, Yee J, Coley BD. ACR Appropriateness Criteria(®) Right Lower Quadrant Pain-Suspected Appendicitis. J Am Coll Radiol. 2011 Nov;8(11):749-55.

Rosen MP, Oake N, Forster AJ, Goelman A, Levy F. The effect of imaging capacity on the imaging workup of patients with stroke: a preliminary case for a cross-country comparison. J Am Coll Radiol. 2011 Jun;8(6):428-435.e3.

Sanchez LD, Straszewski S, Saghir A, Khan A, Horn E, Fischer C, Khosa F**, Camacho MA**. Anterior Versus Lateral Needle Decompression of Tension Pneumothorax: Comparison by Computed Tomography Chest Wall Measurement. Acad Emerg Med. 2011 Sep 26. doi: 10.1111/j.1553-2712.2011.01159.x. [Epub ahead of print]

Santelli C, Nezafat R, Goddu B, **Manning WJ**, Smink J, Kozerke S, Peters DC. Respiratory bellows revisited for motion compensation: Preliminary experience for cardiovascular MR. Magn Reson Med. 2011 Apr;65(4):1097-102. doi: 10.1002/mrm.22687. Epub 2010 Nov 3.

Sarkar SN, **Alsop DC**, Madhuranthakam AJ, Busse RF, Robson PM, **Rofsky NM**, **Hackney DB**. Brain MR Imaging at Ultra-low Radiofrequency Power. Radiology. 2011 May;259(2):550-7.

Schaafsma BE, Mieog JS, Hutteman M, van der Vorst JR, Kuppen PJ, Löwik CW, **Frangioni JV**, van de Velde CJ, Vahrmeijer AL. The clinical use of indocyanine green as a near-infrared fluorescent contrast agent for image-guided oncologic surgery. J Surg Oncol. 2011 Sep 1;104(3):323-32. doi: 10.1002/jso.21943. Review. PMCID: PMC3144993.

Scheidegger R, **Vinogradov E**, **Alsop DC**. Amide proton transfer imaging with improved robustness to magnetic field inhomogeneity and magnetization transfer asymmetry using saturation with frequency alternating RF irradiation. Magn Reson Med. 2011 Nov;66(5):spcone. doi: 10.1002/mrm.23179.

Seth P, **Grant AK**, Tang J, **Vinogradov E**, Wang X, **Lenkinski RE**, Sukhatme V. On-target inhibition of tumor fermentative glycolysis as visualized by hyperpolarized pyruvate. Neoplasia. 2011 Jan;13(1):60-71.

Shaheen R, Schimmelpenninck CA, Stoddart L, Raymond H, **Slanetz PJ**. Spectrum of diseases presenting as architectural distortion on mammography: multimodality radiologic imaging with pathologic correlation. Semin Ultrasound CT MR. 2011 Aug;32(4):351-62. Review.

Shaheen R, **Slanetz PJ**, Raza S, **Rosen MP**. Barriers and opportunities for early detection of breast cancer in Gaza women. Breast. 2011 Feb 11.

Singh VK, Bollen TL, Wu BU, Repas K, Maurer R, Yu S, **Mortele KJ**, Conwell DL, Banks PA. An Assessment of the Severity of Interstitial Pancreatitis. Clin Gastroenterol Hepatol. 2011 Sep 3.

Slanetz PJ. Teaching appropriate, cost-effective care using the american college of radiology appropriateness criteria. Acad Med. 2011 Nov;86(11):e14.

Slanetz PJ. Ten steps to finding the right balance between career and family. AJR Am J Roentgenol. 2011 Nov;197(5):W814-6.

Son JK, Lee EY, **Eisenberg RL**. Focal nonvascular thoracic masses in children. JR Am J Roentgenol. 2011 Mar;196(3):W224-39.

Stolen CM, Lam YM, Siu CW, Lau CP, **Parker JA**, Hauser TH, Tse HF. Pacing to Reduce Refractory Angina in Patients with Severe Coronary Artery Disease: A Crossover Pilot Trial. J Cardiovasc Transl Res. 2011 Oct 26. [Epub ahead of print]

Sun X, **Bhadelia R**, Liebson E, Bergethon P, Folstein M, Zhu JJ, Mwamburi DM, Patz S, Qiu WQ. The relationship between plasma amyloid-β peptides and the medial temporal lobe in the homebound elderly. Int J Geriatr Psychiatry. 2011 Jun;26(6):593-601. doi: 10.1002/gps.2568.

Taylor-Phillips S, **Bankier AA**, **Levine D**, Halpern EF, **Kressel HY**. Considerations of prevalence and reporting environment for achieving realistic test conditions. Radiology. 2011 Mar;258(3):959-60.

Thadhani R, Appelbaum E, Chang Y, Pritchett Y, Bhan I, Agarwal R, Zoccali C, Wanner C, Lloyd-Jones D, Cannata J, Thompson T, Audhya P, Andress D, Zhang W, Ye J, Packham D, Singh B, Zehnder D, **Manning WJ**, Pachika A, Solomon SD. Vitamin D Receptor Activation and Left Ventricular Hypertrophy in Advanced Kidney Disease. Am J Nephrol. 2011 Jan 18;33(2):139-149. [Epub ahead of print]

Thornton E, Brook OR, Mendiratta-Lala M, **Hallett DT**, **Kruskal JB**. Application of failure mode and effect analysis in a radiology department. Radiographics. 2011 Jan-Feb;31(1):281-93. Epub 2010 Oct 27.

Thornton E, Mendiratta-Lala M, **Siewert B**, **Eisenberg RL**. Patterns of fat stranding. AJR Am J Roentgenol. 2011 Jul;197(1):W1-W14.

Tokuda J, Mamata H, Gill RR, Hata N, Kikinis R, Padera RF Jr, **Lenkinski RE**, Sugarbaker DJ, Hatabu H. Impact of nonrigid motion correction technique on pixel-wise pharmacokinetic analysis of free-breathing pulmonary dynamic contrast-enhanced MR imaging. J Magn Reson Imaging. 2011 Apr;33(4):968-73. doi: 10.1002/jmri.22490. PMCID: PMC3069717.

Toth R, Bloch BN, Genega EM, **Rofsky NM**, **Lenkinski RE**, **Rosen MA**, Kalyanpur A, Pungavkar S, Madabhushi A. Accurate Prostate Volume Estimation Using Multifeature Active Shape Models on T2-weighted MRI. Acad Radiol. 2011 Jun;18(6):745-54.

Tran M, Tam D, Bardia A, Bhasin M, Rowe GC, Kher A, Zsengeller ZK, Akhavan-Sharif MR, Khankin EV, Saintgeniez M, David S, **Burstein D**, Karumanchi SA, Stillman IE, Arany Z, Parikh SM. PGC-1α promotes recovery after acute kidney injury during systemic inflammation in mice. J Clin Invest. 2011 Oct 3;121(10):4003-14. doi: 10.1172/JCI58662. Epub 2011 Sep 1. PMCID: PMC3195479.

Tsao CW, Gona P, Salton C, Danias PG, Blease S, Hoffmann U, Fox CS, Albert M, Levy D, O'Donnell CJ, **Manning WJ**, Yeon SB. Subclinical and Clinical Correlates of Left Ventricular Wall Motion Abnormalities in the Community. Am J Cardiol. 2011 Jan 17. [Epub ahead of print]

Tsao CW, Gona P, Salton C, Murabito JM, Oyama N, Danias PG, O'Donnell CJ, **Manning WJ**, Yeon SB. Relationship between central and peripheral atherosclerosis and left ventricular dysfunction in a community population. Vasc Med. 2011 Aug;16(4):253-9. Epub 2011 Jun 27.

Vachha B, **Sun MR**, **Siewert B**, **Eisenberg RL**. Cystic lesions of the liver. AJR Am J Roentgenol. 2011 Apr;196(4):W355-66. Review.

van der Vorst JR, Hutteman M, Mieog JS, de Rooij KE, Kaijzel EL, Löwik CW, Putter H, Kuppen PJ, **Frangioni JV**, van de Velde CJ, Vahrmeijer AL. Near-Infrared Fluorescence Imaging of Liver Metastases in Rats using Indocyanine Green. J Surg Res. 2011 Feb 2.

van der Vorst JR, Hutteman M, Gaarenstroom KN, Peters AA, Mieog JS, Schaafsma BE, Kuppen PJ, **Frangioni JV**, van de Velde CJ, Vahrmeijer AL. Optimization of near-infrared fluorescent sentinel lymph node mapping in cervical cancer patients. Int J Gynecol Cancer. 2011 Nov;21(8):1472-8. PMCID: PMC3202695.

Vavere AL, Arbab-Zadeh A, Rochitte CE, Dewey M, Niinuma H, Gottlieb I, **Clouse ME**, Bush DE, Hoe JW, de Roos A, Cox C, Lima JA, Miller JM. Coronary artery stenoses: accuracy of 64-detector row CT angiography in segments with mild, moderate, or severe calcification--a subanalysis of the CORE-64 trial. Radiology. 2011 Oct;261(1):100-8. Epub 2011 Aug 9. PMCID: PMC3176425.

Vavere AL, Simon GG, George RT, Rochitte CE, Arai AE, Miller JM, Di Carli M, Zadeh AA, Dewey M, Niinuma H, Laham R, Rybicki FJ, Schuijf JD, Paul N, Hoe J, Kuribyashi S, Sakuma H, Nomura C, Yaw TS, Kofoed KF, Yoshioka K, **Clouse ME**, Brinker J, Cox C, Lima JA. Diagnostic performance of combined noninvasive coronary angiography and myocardial perfusion imaging using 320 row detector computed tomography: design and implementation of the CORE320 multicenter, multinational diagnostic study. J Cardiovasc Comput Tomogr. 2011 Nov;5(6):370-81. Epub 2011 Nov 12.

Venkataraman S, **Dialani V**, Gilmore HL, **Mehta TS**. Stereotactic core biopsy: Comparison of 11 gauge with 8 gauge vacuum assisted breast biopsy. Eur J Radiol. 2011 Nov 27.

Venkataraman S, Hines N, **Slanetz PJ**. Challenges in mammography: part 2, multimodality review of breast augmentation--imaging findings and complications. AJR Am J Roentgenol. 2011 Dec;197(6):W1031-45.

Wang X, Zhang L, **Goldberg SN**, Bhasin M, Brown V, **Alsop DC**, Signoretti S, Mier JW, Atkins MB, Bhatt RS. High dose intermittent sorafenib shows improved efficacy over conventional continuous dose in renal cell carcinoma. J Transl Med. 2011 Dec 21;9(1):220. [Epub ahead of print]

Wu JS, Buettner C, Smithline H, Ngo LH, **Greenman RL**. Evaluation of skeletal muscle during calf exercise by 31-phosphorus magnetic resonance spectroscopy in patients on statin medications. Muscle Nerve. 2011 Jan;43(1):76-81.

Xiao G, Bloch BN, Chappelow J, Genega EM, **Rofsky NM**, **Lenkinski RE**, Tomaszewski J, Feldman MD, Rosen M, Madabhushi A. Determining histology-MRI slice correspondences for defining MRI-based disease signatures of prostate cancer. Comput Med Imaging Graph. 2011 Jan 19.

Yablon CM, Kapustin AJ, **Eisenberg RL**. Private practice: what is expected of the new graduate? AJR Am J Roentgenol. 2011 Jul;197(1):W21-2.

Yablon CM, **Wu JS**, **Slanetz PJ**, **Eisenberg RL**. A report on the current status of grand rounds in radiology residency programs in the United States. Acad Radiol. 2011 Dec;18(12):1593-7.

Yang W, **Ahmed M**, Tasawwar B, Levchenko T, Sawant RR, Collins M, Signoretti S, Torchilin V, **Goldberg SN**. Radiofrequency ablation combined with liposomal quercetin to increase tumour destruction by modulation of heat shock protein production in a small animal model. Int J Hyperthermia. 2011;27(6):527-38.

Zhang L, Bhasin M, Schor-Bardach R, **Wang X**, Collins MP, Panka D, Putheti P, Signoretti S, **Alsop DC**, Libermann T, Atkins MB, Mier JW, **Goldberg SN**, Bhatt RS. Resistance of renal cell carcinoma to sorafenib is mediated by potentially reversible gene expression. PLoS One. 2011 Apr 29;6(4):e19144. PMCID: PMC3084751.

Zheng X, **Alsop DC**, Schlaug G. Effects of transcranial direct current stimulation (tDCS) on human regional cerebral blood flow. Neuroimage. 2011 Jun 16. [Epub ahead of print]