



Imaging Institute Newsletter

2019 Issue

From the Editor

This inaugural issue of the *Imaging Institute Newsletter* is dedicated to celebrating and welcoming our newly elected Chairman of Regional Radiology, Dr. Moulay Meziane, and congratulating our former regional Chair, Dr. Ronald Lorig, for an amazing job of 14 years.

I am thrilled that Dr. Meziane has returned home to Cleveland after completing his mission to build a robust radiology practice in Abu Dhabi, where he served since 2011.

As a radiology resident in the late 1990s, I remember learning from him, reading chest radiographs and CT at the rotating alternator and film box. I gained tremendous knowledge and clinical experience in thoracic imaging (the commons and zebras) thanks to Dr. Meziane. He is an excellent clinician and a revered teacher. He works very hard and is well admired by all who know him. Under his management, Regional Radiology will continue to grow and develop.

Dr. Meziane follows our former Chair, Dr. Lorig, who built Regional Radiology into the national practice it is today. We are truly blessed to have these two leaders' unyielding dedication to Cleveland Clinic, and we treasure their management and clinical expertise.

Sincerely,

Pauline Kwok, MD
Editor

Meet the New Chair of Regional Radiology: Moulay Meziane, MD

Moulay Meziane, MD, is the new Chair of Cleveland Clinic's Department of Regional Radiology, effective June 1. Previously Dr. Meziane was Founding Chairman of the Imaging Institute at Cleveland Clinic Abu Dhabi, where he served since 2011. Before that he was Head of Thoracic Imaging at Cleveland Clinic for 24 years.

The Imaging Institute welcomes Dr. Meziane back to Cleveland and congratulates him on his new role. We are grateful for his clinical expertise, superior leadership and continued dedication to Cleveland Clinic.

About Dr. Meziane

Dr. Meziane earned his medical degree in 1979 from the University of Algiers Medical School in Algiers, Algeria. He then completed a residency in diagnostic radiology.

Upon graduating from Johns Hopkins in 1984, he served the medical center as Co-Head of Thoracic Imaging. Two years later he accepted a similar position at Cleveland Clinic, and then became sole Head of Thoracic Imaging in 1990.

He has been listed among Best Doctors in America and America's Top Radiologists.

During his eight years as head of the Imaging Institute at Cleveland Clinic Abu Dhabi, Dr. Meziane grew the radiology practice from one person (himself) to a team of 17 American-, British- and Turkish-trained radiologists providing 24/7 subspecialty coverage. In 2016 he earned the Caregiver Award as the best doctor at Cleveland Clinic Abu Dhabi.

Today Dr. Meziane is clinical professor of radiology at Cleveland Clinic Lerner College of Medicine. His clinical interests include

Continued on page 2

lung cancer, emphysema, lung biopsy, interstitial lung disease and occupational lung disease.

He has authored more than 70 book chapters, peer-reviewed articles and exhibits — including one that earned the Gold Medal for Best Scientific Exhibit at the American Roentgen Ray Society Annual Meeting in 1987. He has delivered more than 200 lectures at international medical meetings.

Among his most notable research projects, from 2007 to 2012 Dr. Meziane was the principal investigator of a study on early lung cancer detection for which he was awarded Ohio’s \$10 million Biomedical Research and Technology Transfer Grant.

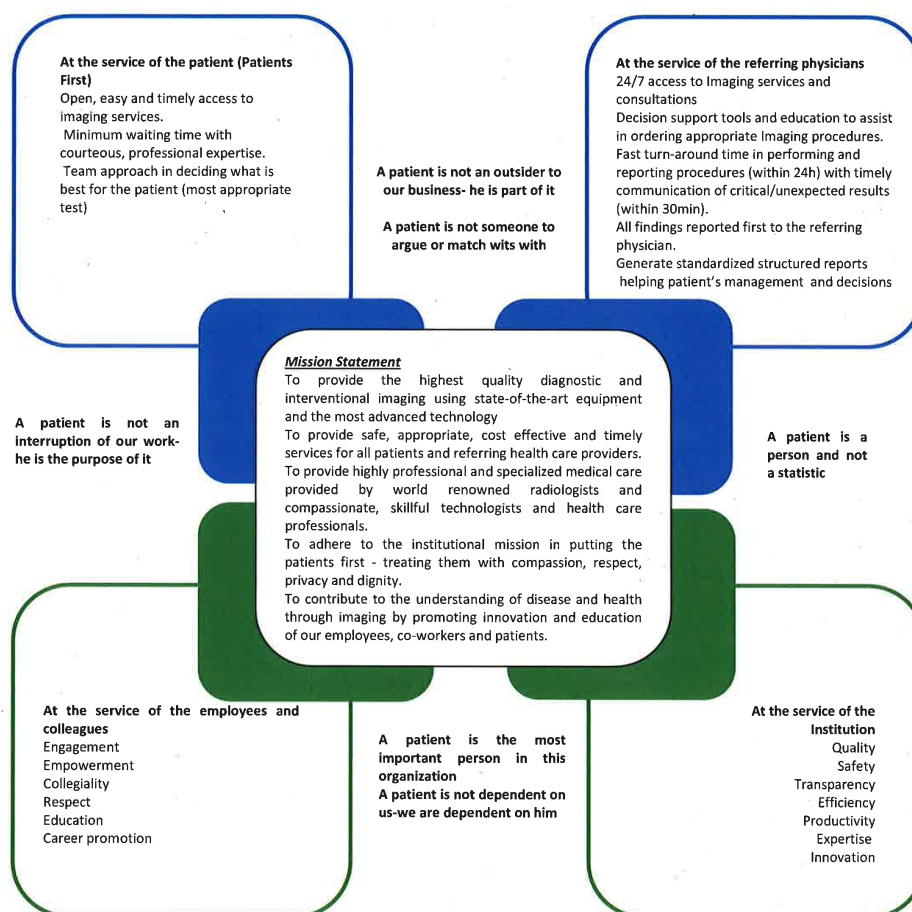


Moulay Meziane, MD

For over three decades Dr. Meziane has played an integral role in Cleveland Clinic’s Continuing Medical Education (CME) efforts and Center for International Medical Education. He served as Director of Radiology Continuing Education from 2001 to 2008. During the last few years he produced an average of 40 hours of radiology CME units annually. In 1989 Dr. Meziane received the Imaging Institute’s Norman Glazer Teacher of the Year Award, and in 2013 he received the Master Educator Hommage by the Société Algérienne de Radiologie et d’Imagerie Médicale.

Dr. Meziane is a member of the Society of Thoracic Radiology, American Thoracic Society, Radiological Society of North America, American Roentgen Ray Society, Société Française de Radiologie, and Société Algérienne de Radiologie et d’Imagerie Médicale.

Dr. Meziane’s mission statement and key objectives for Regional Radiology



Tribute to Outgoing Chair of Regional Radiology, Ronald Lorig, MD

Our heartfelt thanks and praise to **Ronald Lorig, MD**, for 14 years of excellent leadership as Chair of Regional Radiology. On June 1, Dr. Lorig stepped down as Chairman of Regional Radiology. He will continue to serve as Medical Director of Imaging at Cleveland Clinic Euclid Hospital.

Dr. Lorig was instrumental in growing Cleveland Clinic's Department of Regional Radiology from a small group practicing in Bucyrus and Ashtabula into a robust national practice. Thanks to his leadership, the regional practice now reaches as far as Florida and Hawaii and includes 24/7 service to emergency rooms across the country.

The Imaging Institute is grateful for Dr. Lorig's exceptional skill, revered expertise and ongoing service to our regional practice.

About Dr. Lorig

Dr. Lorig earned a PhD in biomedical engineering at Case Western Reserve University (CWRU) in 1973. In the years following, he was a researcher in the Department of Neurosurgery at University Hospitals and an assistant professor in CWRU's schools of medicine and engineering. He later returned to the classroom as a full-time CWRU student and earned a medical degree in 1982.

After completing his residency in diagnostic radiology at Cleveland Clinic, he joined the abdominal imaging staff in 1986. He rotated with the team serving Bucyrus Community Hospital. Through the years, Dr. Lorig served as head of radiology at Ashtabula County Medical Center (the first contracted regional practice, which he chaired beginning in 1996), Beachwood Family Health and Surgery Center, Marymount Hospital and South Pointe Hospital before being appointed Chair of Regional Radiology in 2005. While chair of the regional practice, he also chaired radiology at Euclid Hospital.

Dr. Lorig is a past recipient of Cleveland Clinic's Bruce Hubbard Stewart fellowship for his compassionate care of patients.

He has been an active member of Cleveland Clinic's Quality Committee, and chaired the committee on main campus. He also has served on the American College of Radiology's Committee on Standards.

A prolific researcher, author and lecturer, Dr. Lorig was a reviewer for the *American Journal of Roentgenology* for 15 years.

For many years he taught physics to Cleveland Clinic radiology residents, receiving the Imaging Institute's Norman Glazer Teacher of the Year Award in 1992. He also served on the radiology resident selection committee.

Dr. Lorig is a member of the American College of Radiology, American Roentgen Ray Society, Ohio State Medical Association, Radiological Society of North America, and Society for Imaging Informatics In Medicine.

In his own words

Proudest accomplishment as Chair of Regional Radiology: I think one of the high points of my tenure was the establishment of the overnight radiology service. Prior to its creation, regional radiologists shared overnight responsibilities for the pool of regional hospitals. We started with two dedicated overnight radiologists. With the growth of the regional practice, we now have a total of 24 dedicated overnight readers supplemented by one additional reader drawn from our group in Hawaii. It has led to improved patient care as well as radiologist satisfaction. It expanded to coverage of main campus and Cleveland Clinic Florida emergency services and now also covers Indian River in Florida and, in the near future, Martin Health System in Florida and Union Hospital in Dover, Ohio.

Secrets to success: I believe that a high level of commitment to one's job can and should be balanced with a committed personal life. I try to always remember that there are two sides to every story and that fairness always wins.

Hobbies: I enjoy a number of pursuits. I fall back heavily on my engineering background in electrical and mechanical arts but also enjoy woodworking, photography and gardening.

What fellow radiologists should know about me: I struggle to keep mrems, rads and Sieverts straight.



Ronald Lorig, MD

Regional Radiology Administrative Staff Expands

The Department of Regional Radiology now has nine administrative staffers.

Robert Gallagher has served Cleveland Clinic in numerous capacities for the past 39 years. His current role is Department Analyst. In addition, Bob works with Ruthanne Rennert to coordinate the Imaging Institute's PRN program. Bob is grateful for the knowledge, experience and relationships gained during his career.

Jennifer Gammieri was recently appointed Administrative Assistant to Moulay Meziane, MD, the new Chair of Regional Radiology. For the past seven years, Jen served as Administrative Assistant to our ever-growing group of regional radiologists. Jen is looking forward to supporting the department in her new role.

Joye Grebb has been the Office Coordinator in Regional Radiology for the past nine years. In addition to supporting the Regional Radiology administrative team, she assists with the day-to-day functions of the office. She also provides administrative support to technologists at the family health centers. She enjoys the diversity of her role and loves being part of the regional team.

Mary Huszar has worked in the field of radiology since 1978. She was a medical transcriptionist for 30 of those years. In 2000 she was hired by Cleveland Clinic, serving as Workflow Coordinator for the family health centers and AtStaff scheduler for the radiologists. Mary joined the Regional Radiology group in 2016, where she continues her scheduling role. She enjoys assisting the technologists and radiologists whenever she can help with problem-solving issues.

Scott Klammer is Director of Imaging for Cleveland Clinic's family health centers.

Tom Lampe is Administrative Assistant, Akron locations. He has been with Regional Radiology for the past three years. Before that, he worked for the Akron radiologists group for 15 years and Akron General for 12 years. He supports the physicians in Akron and looks forward to expanding his role on the Regional Radiology administrative team.

Greg Leisure is Administrator of Regional Radiology

Bobbi Levstek has worked with the Department of Regional Radiology for 12 years, first serving as administrative support to Ronald Lorig, MD, then Chairman of Regional Radiology, Beachwood. At the time, there were 40 staffers in the department. In addition to daily support duties for Dr. Lorig, Bobbi processed the hours for moonlighting and coordinated APRs for the staff each year. As the Regional Radiology practice grew — now with more than 90 staffers and multiple locations — Bobbi helped streamline the credentialing process, set up onboarding and coordinate training. This year, when Dr. Lorig stepped down as Chairman, Bobbi changed her role too. She is looking forward to learning new tasks as administrative support for a new group of regional radiologists (to be established) — and, of course, she'll still do some credentialing.

Ruthanne Rennert is Clinical Manager of the Imaging Institute's PRN program.

Bright Ideas Shine in the Imaging Institute

Imagine if there were a smartphone app to help Cleveland Clinic providers select the best imaging studies for their patients. One group of Imaging Institute caregivers did.

Their bright idea will be the first to become reality in the Imaging Institute's new Imaging Innovations program. It was one of more than 100 ideas submitted on the [Imaging Innovations website](#), spearheaded by **Joshua Polster, MD**, Vice-Chair, Imaging Office of Innovation.

Dr. Polster is responsible for helping develop ideas for new processes, products and services in the Imaging Institute.

His first step was using the website to collect everyone's bright ideas — sparked by a recent Innovation Challenge. All caregivers were encouraged to submit ideas on how to improve the imaging order process.

The second step occurred one evening in August when “an intrepid group of brainstormers” spent three hours reviewing and ranking the submissions, as well as generating new ideas. Ultimately, the group selected one idea, the smartphone app, for the Imaging Institute to pursue immediately. Other ideas will be saved for future consideration.

“We had contributions from multiple institutes and from a wide variety of roles — physicians, radiologists, technologists, nurses, billing and coding, IT, patient service representatives and others,” says Dr. Polster.

Dr. Polster now is forming a team to implement the idea. You can follow their progress on the Imaging Innovations website.

Dr. Polster encourages everyone to keep the bright ideas coming and to watch for the next Innovation Challenge.



Dr. David Piraino and his group develop ideas for new processes, products and services to help improve the imaging ordering process.

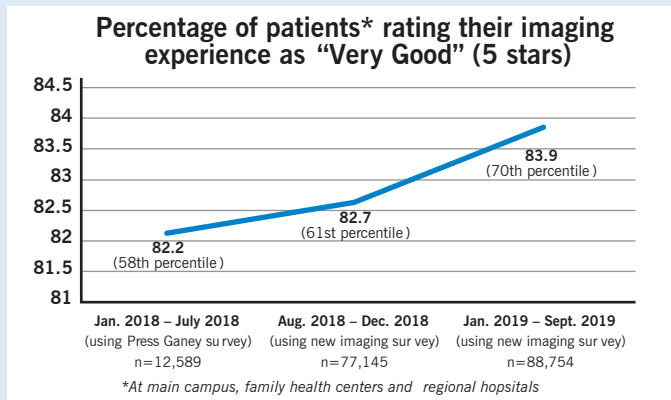


Dr. Polster leads a team discussion of problems related to ordering imaging.

Fast Facts: Imaging Patient Experience

By Laura Shepardson, MD, Imaging Institute Patient Experience Officer

In August 2018, we transitioned from using the Press Ganey survey of patient experience to a new, internally developed survey that asks patients to rate their imaging experience on a scale of 1 (very poor) to 5 (very good). Results are below:

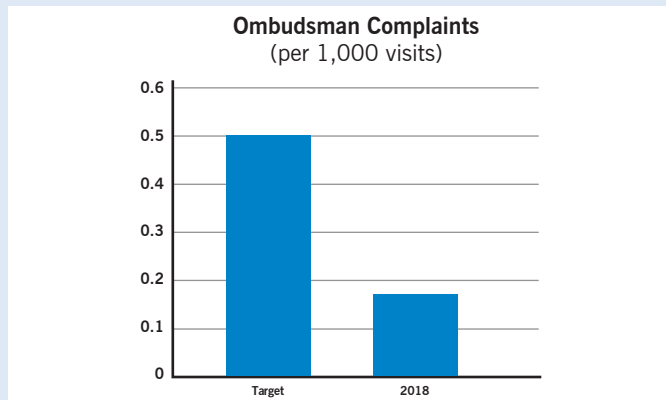


Areas that have met or surpassed the 90th percentile:

- Main campus desks JB3, M61 and CA4-1.
- Avon Hospital.
- 11 of the 26 family health centers providing imaging services.

Ongoing patient experience initiatives

- **Reducing patient wait times at main campus.** Wait time dashboards, “in process” monitors and wait time improvement committees are just some of the strategies used throughout main campus imaging departments. Wait times are down at all desks at main campus. Several desks (General x-ray, A21 ultrasound, nuclear medicine and GI imaging) have wait times less than our target of five minutes.
- **Reducing patient wait times at family health centers.** The MRI department at Beachwood Family Health and Surgery Center standardized the check-in process, adjusted staffing and staggered exam scheduling to reduce wait times an average of 10.5 minutes. The Imaging Institute Patient Experience Team plans similar projects at other family health centers.
- **Emphasizing customer service with the Respect, Appreciation, Expectation and Support (RAES) Program.** Developed by our imaging frontline staff, this program highlights the customer service behaviors expected of all imaging patient service specialists. RAES guidelines are reviewed at team meetings and incorporated into annual performance reviews. Team members round in patient waiting areas every 30 minutes. Staff has developed “best practice” scripts.
- **Using structured reporting.** The clear, concise and uniform report format makes it easier for ordering providers and patients to understand radiologist recommendations, preventing delays in care.
- **Increasing accessibility to radiologists.** All imaging sections at main campus have at least one radiologist integrated into daily clinics (e.g., neurosurgery, breast health, gastroenterology). This makes it more efficient for referring providers to contact radiologists to discuss results and recommendations, as well as concerns with ordering and scheduling.
- **Fighting caregiver burnout.** Cleveland Clinic recognizes all providers are under considerable stress as we work tirelessly to provide our increasing patient volumes with the best experiences possible. Imaging Institute is no exception, as institute leadership has made improving caregivers’ (including physicians, technologists, nurses and support staff) experiences a priority. We have formed engagement teams at all levels to identify challenges in the workday and forge relationships among all imaging caregivers at all facilities.



We hope our continued efforts and new initiatives will continue to reduce this number even more.

Imaging Institute Announcements



Carl Creagh, MS, an administrator in the Imaging Institute, was selected by the Global Leadership and Learning Institute to host a change management training [video](#) about how the imaging customer service team took ownership of a culture change that affected how they interacted with patients and each other. Carl's professional background includes leadership positions in operations, finance and organizational development. His current responsibilities include administration of Star Imaging Columbus, Imaging Customer Service, Research, eRadiology and the Image Library.



Frank Dong, PhD, Abdominal Imaging, has been elected Fellow of the American Association of Physicists in Medicine, recognizing his contributions to medical physics and the respect of his peers.



Steve Huang, MD, PhD, Nuclear Medicine, was awarded Outstanding Innovation in Therapeutics and Diagnostics by Cleveland Clinic Innovations. Dr. Huang's team is working on next-generation diagnostic and therapeutic agents targeting prostate-specific membrane antigen (PSMA). The preliminary animal test has demonstrated specific PSMA-expressing-tumor-targeting with minimal nonspecific background activity. The team is working to develop this into an imaging-based therapeutic agent that has minimal toxicity. With support from Imaging Institute, Cleveland Clinic Innovations and Ohio Third Frontier grants, the team intends to pursue human trials soon.



Pauline Kwok, MD, Regional Radiology, was re-elected for a second term on the Board of Directors of The Academy of Medicine of Cleveland & Northern Ohio (AMCNO), one of the largest regional medical associations in the nation. The AMCNO supports physicians in being strong advocates for patients and promotes the practice of the highest quality of medicine.



Brooke Lampl, DO, Pediatric Imaging, has been selected to join the 2020-2021 cohort of the Women's Professional Staff Association (WPSA) at Cleveland Clinic. The WPSA represents the interests of women serving on the professional staff at Cleveland Clinic, preparing them for advancement, establishing a meaningful network for support in their development, and advocating for resources to foster their engagement and happiness at work.



Xiang Li, PhD, Diagnostic Radiology, has been elected to the College of Fellows by the American Institute for Medical and Biological Engineering (AIMBE). Fellows are nominated each year by their peers for supporting AIMBE's mission to provide medical and biological engineering innovation for the benefit of humanity.

Continued on page 8

Imaging Institute Announcements *continued*



Mark Lowe, PhD, Diagnostic Radiology, has been recognized for his mentoring of Cleveland Clinic Lerner College of Medicine student **Robert Unger**. Robert was awarded the RSNA medical student fellowship grant for his research in non-invasive brain stimulation in stroke rehabilitation.



Charles Martin, MD, Interventional Radiology, has been elected a Fellow of the Society for Interventional Radiology. This prestigious recognition is for the time, talents and leadership that Dr. Martin has dedicated to the development of the field.



Rekha Mody, MD, Abdominal Imaging, has been appointed Medical Director of Quality Improvement for Enterprise Quality and Safety. She will partner with project managers, analysts and other quality professionals to enhance patient care and outcomes. She also will help ensure quality improvement initiatives promote safety and high reliability.



Joshua Polster, MD, has been named Vice-Chair, Imaging Office of Innovation. Dr. Polster will develop the innovation infrastructure for the Imaging Institute. He will engage all members of the institute in idea generation and lead the incubation, implementation and validation of ideas, with the goal of developing new Imaging Institute processes, products and services.



Erick Remer, MD, Abdominal Imaging, presented the Society of Abdominal Radiology Honorary Lecture, "GU Imaging Pitfalls for GI Radiologists," at the European Society of Gastrointestinal and Abdominal Radiology Annual Meeting in Rome.



Erick Remer, MD, presents at the European Society of Gastrointestinal and Abdominal Radiology 2019.

Continued on page 9

Imaging Institute Announcements *continued*



Volodymyr Statevych, MD, Diagnostic Radiology, and **Manmeet Ahluwalia, MD**, Brain Tumor Center, were recognized by the *American Journal of Neuroradiology* for their December 2018 publication "[Shape Features of the Lesion Habitat to Differentiate Brain Tumor Progression from Pseudoprogession on Routine Multiparametric MRI: A Multisite Study.](#)"



Naveen Subhas, MD, has been named Vice-Chair, Clinical Effectiveness & Efficiency. Dr. Subhas will lead the effort to collect and report meaningful measures showing the benefit of the Imaging Institute to our patients and ordering physicians. He also will help optimize our resources and clinical workflow to improve the efficiency of our imaging services.



Kevin Wunderle, PhD, Diagnostic Radiology, was nominated by the American Association of Physicists in Medicine to be a board member of the Intersocietal Accreditation Commission's Carotid Stenting Accreditation Program. Dr. Wunderle has accepted the nomination.

Megan Griffiths, Scientific Medical Writer, obtained her Editor in Life Sciences (ELS) accreditation. The Imaging Institute greatly appreciates her insights and contributions to achieving the institute's publication goals.

Gregory Leisure, RT(N); Anthony Salupo, RT(R); Greg Belko, RT(R); Scott Berg, RT(R); Starla Paige, RT(R); and Mark Puletti, RT(R), Regional Hospital Administration, published "A Simplified, In-House Survey Solution for Measuring Outpatient Satisfaction in Radiology" in *Radiology Management*. The insightful and informative article focuses on timely and accurate measurement of patient satisfaction in a cost-effective manner in addition to identifying process improvement activities, both internally and across multiple hospitals.

Special Thanks to...

Imaging Institute. Cleveland Clinic's Office of Child Life thanks the Imaging Institute for its collaboration on the Kids Try MRI program. In June, the program had its first pediatric patient, who was able to complete an MRI while awake. According to the patient survey, the family was "very satisfied" with the experience.

Susan Chabek, South Pointe technologist. Susan was recognized by **Edmund Sabanegh, MD**, President of Main Campus and Regional Hospitals, for her diligent efforts in avoiding a serious safety event. She identified an incorrect order and exhibited courage to "stop the line" and make sure that the correct procedure occurred on the correct patient.

Susan Chabeck, Ashley Cluggish, Steve Conn, Matthew Hales and David Samuel, South Pointe technologists. These technologists identified and corrected orders placed incorrectly, thus avoiding unnecessary and/or repeat exams. Imaging greatly appreciates their dedication to outstanding patient care.

Cassie Ciekanski and Deb Ruddy, Brunswick MRI technologists. Cassie and Deb prevented an unnecessary MRI for a patient with a programmable shunt. The Epic notes were not clear, so they viewed the prior images where it was ultimately determined that the shunt meter needed to be reset, thus negating the need for an MRI.

Dani Long, Medina MRI technologist. Dani identified and corrected a scheduling error for an MRI patient with a bladder stimulator. She took the time to scrutinize the MRI screening form and discovered that the patient should have been scheduled at main campus instead of Medina.

Imaging Institute Renovations and Upgrades

At main campus

- Construction of the new Resident Relocation began in June.
- Replacement of the 1.5T pediatric MRI with a 3T, along with an upgrade to the entire area, will begin in late 2019 or early 2020.
- Bay 5 and Bay 7 in Qb received new Vida MRs.
- Renovation has started on the back work area of A21. Renovation of the front desk area is being planned.
- Construction of the EOIS (standup unit) at A21 will begin soon.
- The 3D printing and processing lab will move to the first floor of the P building, where the children's pharmacy used to be. Design has begun.
- Room 22 in Angio will be upgraded and is in the early stages of design.

Around the region

- **Avon Hospital.** The mobile 1.5T MR project is underway.
- **Euclid Hospital.** The fluoroscopy room replacement project is complete.
- **Fairview Hospital.** A new 3T MR was installed and has already resulted in an impressive volume increase. In Nuclear Medicine, the SPECT camera will be replaced.
- **Lutheran Hospital.** The 1.5T MR will be replaced.
- **Marymount Hospital.** The new Siemens fluoroscopy unit and Shimadzu general radiographic room are up and running.
- **South Pointe Hospital.** The 1.5T MR will be replaced.

Introducing Scala Monitors

Scala monitors are the Imaging Institute's newest communication tool. We will use them to share news, celebrate successes, publicize upcoming events, introduce new caregivers and more.

Monitors are currently located at:

- Main campus at A21 and in Nuclear Medicine and Interventional Radiology.
- Hillcrest Hospital.
- Lorain Family Health and Surgery Center.
- Lutheran Hospital.
- Strongsville Family Health and Surgery Center.

If you have information to share or recommendations on what you'd like to see displayed, contact Becky Blything at ImagingInstComm@ccf.org.

Becky is a Quality Coordinator in the Imaging Institute. She has been with Cleveland Clinic for 17 years and has worked in Medicare Physician Billing, in Hospital Transfers and Admissions, and as a Nuclear Medicine Technologist for seven years. In her current role, she oversees the lung cancer screening program, provides education and resources while performing quality rounds, and supports other initiatives like communication via the Scala monitors.

Evaluating Imaging Vendors for Cleveland Clinic London

Imaging Institute leaders **Greg Borkowski, MD, FACR**; **Rodolfo Blandon, MD**; and **Joe Parker** traveled to London in June to help Cleveland Clinic London caregivers evaluate vendors for diagnostic radiology, MRI, CT and IR, and cath labs.

The week-long effort highlighted Cleveland Clinic's growing global capabilities and "team of teams" approach. It was a collaboration of the extensive knowledge of Cleveland Clinic imaging leaders and imaging experts in London.

Clinical feedback from Cleveland Clinic caregivers will help select each imaging modality to best serve patients.



May 2018. The building that will become Cleveland Clinic London is gutted, preparing for the new hospital.



May 2019. Cleveland Clinic London is a new hospital within an old building.

Cleveland Clinic Hosts Second Annual Imaging Art Show

Caregivers submitted 42 works for Cleveland Clinic's second annual art show, this time held in Cleveland, in July. The gallery showing was organized by Cleveland Clinic's We Hear You Committee.



From left to right:
Dr. Greg Borkowski, Jerika Jordan and Joe Parker

"Imaging artists" created their masterpieces with X-rays, CT scans, mammography and other modalities. Imaging Institute caregivers voted online for their favorite works.

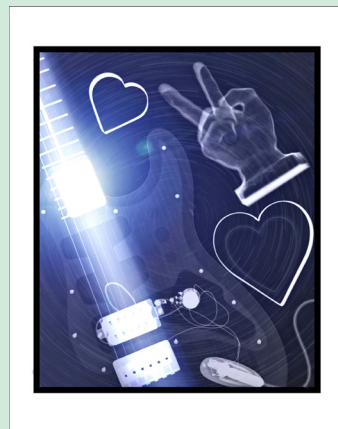
The Best in Show award went to "Clockwork Blue" by Team Marrero.

Winners also were awarded in four categories:

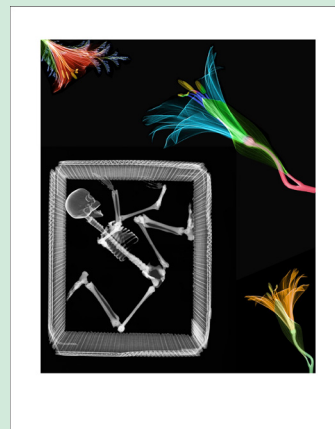
- **Entertainment.** "Peace, Love and Rock & Roll" by Sarah Beasley (popular vote); "Work, Am I Right?" by Ashley Claypool (judge panel).
- **Food & Drink.** "Tea on a Cold Night" by Katie Hulme (popular vote and judge panel).
- **Industrial & Abstract.** "The Heart of Imaging Nursing" by Eastern Region Imaging Nursing Team (popular vote); "Sunburst" by Jim Wetzel (judge panel).
- **Nature.** "North Star" by Dave Belmont and Maria Middy (popular vote); "Forest Floor" by Rebecca Schaefer (judge panel).



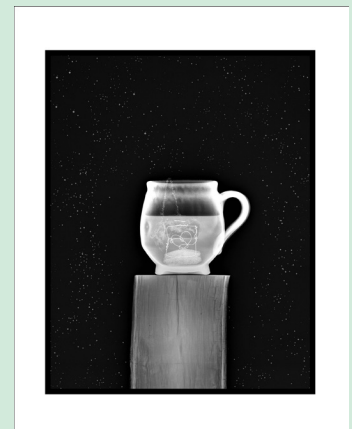
"Clockwork Blue" by Team Marrero



"Peace, Love and Rock & Roll" by Sarah Beasley



"Work, Am I Right?" by Ashley Claypool



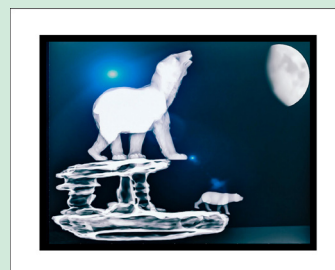
"Tea on a Cold Night" by Katie Hulme



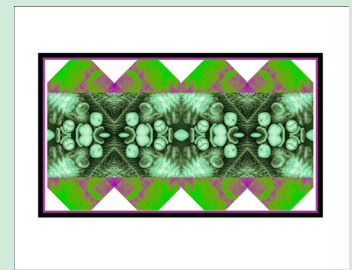
"The Heart of Imaging Nursing" by Eastern Region Imaging Nursing Team



"Sunburst" by Jim Wetzel



"North Star" by Dave Belmont and Maria Middy



"Forest Floor" by Rebecca Schaefer

See more photos on the [Imaging Institute's Alumni Events webpage](#).

Five Trainees Awarded on Annual Meaney Research Day

For the third year, the Imaging Institute celebrated Thomas F. Meaney Radiology Research Day. The half-day event held each May is a nod to Thomas Meaney, MD, Chair of the Division of Radiology from 1966 to 1987. Before his death in 2006, Dr. Meaney donated funds to support Imaging Institute research.

The highlight of the day, nine radiology trainees presented their research, followed by an awards luncheon.

Endovascular surgical neuroradiology fellow **Nina Moore, MD**, (faculty mentor: **Nadeem Parkar, MD**) received the \$700 grand prize for her research on “Histological Analysis of Intracranial Cerebral Arteries for Elastin Thickness for a Fluid Structure Interaction Model of Cerebral Arteriovenous Malformations.”

Two honorable mentions, along with \$150 awards, went to:

- Resident **Gaurav Gadodia, MD (R2)**, (faculty mentor: **Ram Gurajala, MD**) for “Y90 Radioembolization: Does Dosimetry and Distribution of Planning Tc99m MAA on SPECT/CT Correlate with Post-Treatment Y90 PET/CT?”
- Resident **Ryan Ward, MD (R4)**, (faculty mentor: **Erick Remer, MD**) for “Renal Donor Visceral Adipose Tissue Measurement Predicts Transplant Renal Functional Decline.”

Best Research Poster was awarded to resident **Nathan Mielke, DO (R4)**, (faculty mentor: **Andrei Purysko, MD**) for “Impact of Patient Preparation on Prostate MRI Quality.”

Best Research Presentation was awarded to resident **Akriti Khanna, MD (R2)**, (faculty mentor: **Rekha Mody, MD**) for “Reducing Procedure Start Times for Emergency Department Abdominal and Pelvic Ultrasounds on the Main Campus.”

About Thomas F. Meaney, MD

According to a tribute published in the *American Journal of Roentgenology*, Dr. Meaney may be best known for “elaborat[ing] new concepts in renal vascular hypertension by arteriography and pioneer[ing] further developments in techniques for the diagnosis and treatment of this important disease.” He and Cleveland Clinic research giants Drs. Harriet P. Dustan and Irvine H. Page published “classic dissertations” on the “radiologic-pathologic classifications of renal vascular occlusive diseases, the discovery of spontaneous transient arterial contraction, and angiographic findings in abdominal neoplasms, to name a few.”

The terms “neoplastic vascular encasement” and “digital subtraction angiography (DSA)” were coined by him.

Dr. Meaney published more than 100 articles, some with more than 200 citations. His contributions furthered scientific areas such as biliary drainage, abscess drainage, tumor embolization, clot lysis and biopsy.

After a 1972 visit to England, where he first saw CT, Dr. Meaney bought the fourth unit ever made. He was instrumental in bringing CT and MRI technologies to Cleveland Clinic and helped further the development of digital radiography, body CT and MRI by collaborating with General Electric and other imaging equipment manufacturers.

A former president of both the American College of Radiology and American Board of Radiology, Dr. Meaney was passionate about improving the quality of residency training. He worked to standardize training programs and helped initiate standard written exams.

Dr. Meaney’s influence continues through his numerous mentees, including Imaging Institute Chair Gregory Borkowski, MD, FACR.

Grand Prize

Histological Analysis of Intracranial Cerebral Arteries for Elastin Thickness for a Fluid Structure Interaction Model of Cerebral Arteriovenous Malformations

With advances in fluid dynamics and fluid structure interaction modeling, it is becoming increasingly feasible to create a cerebrovascular model of vascular malformations using techniques derived from mechanical engineering. In the first step to obtain accurate parameters for use in a cerebrovascular arteriovenous malformation model, we evaluated the elastin concentration of cerebral arteries in each vascular territory. Tissue was taken from 5 cadaveric heads preserved in formaldehyde and stained with the elastin stain Van Gieson. Two reviewers measured the elastin thickness for each sample and statistical testing was performed. 150 normal cerebral vascular artery specimens were evaluated. Of note, there was a significantly different thickness between anterior circulation vasculature and posterior circulation vasculature (anterior being greater) which may explain why posterior circulation aneurysms are more prone to rupture. These findings will additionally provide more precise parameters for our ongoing development of a model which incorporates flow measurement data from angiographic images with the goal of creating a predictive model of arteriovenous malformation natural history.

The paper is planned for submission to the Journal of Biomechanical Engineering. Ongoing work is now being performed in Dr. Moore’s new laboratory for cerebrovascular fluid structure interaction testing at Cleveland Clinic’s Lerner Research Institute. Dr. Moore recently received a grant from the Society of NeuroInterventional Surgery to build an angiography phantom that will use a 3D-printed AVM within a pump circuit to measure pressure and velocity of flow within the malformation to get data for the model. This work will be in conjunction with Lerner Research Institute’s 3D printing group (Ryan Klatte, engineer) and radiology staff Nadeem Parkar, MD.

Congrats to Our 2019 Graduates

by Stephen F. Hatem, MD, Vice-Chair, Education

On Thursday night, June 6, 2019, at Cibrèo Privato in Cleveland's Playhouse Square, we celebrated the graduating residency classes of 2019 for both Diagnostic Radiology and Medical Physics. Almost 100 attendees joined in the festivities led by Program Directors **Joseph Veniero, MD, PhD**, and **Paul Johnson, MS, PhD**.

Special thanks to administrative staff **Lisa Kempton** and **Danielle Berry** for organizing a beautiful evening. All present contributed to a wonderful celebration of our graduates and their teachers. **Thomas Masaryk, MD**, Chairman of Cleveland Clinic's Department of Diagnostic Radiology, congratulated the graduating class and welcomed them into the Cleveland Clinic Alumni Association.

Please consider joining us next June for one of the most rewarding nights of the year.

We extend congratulations to our Diagnostic Radiology graduates and wish them the best during their fellowship training.

- **Furquan Baqui, DO** – Cleveland Clinic, Musculoskeletal Radiology
- **Abed Ghandour, MD** – Cleveland Clinic, Interventional Radiology
- **Maggie Glenn, MD** – University of Michigan, Breast Imaging
- **Sandhya Jacob, MD** – University of Washington, Body Imaging
- **Michael Lach, DO** – Cleveland Clinic, Neuroradiology
- **Nathan Mielke, DO** – University of Texas-Southwestern, Abdominal Imaging
- **Leyla Nasehi, MD** – University of California, Irvine, Breast Imaging
- **Ryan Ward, MD** – Massachusetts General Hospital, Abdominal Imaging



See more photos on the [Imaging Institute's Alumni Events webpage](#).



Front row, from left to right:
Michael Lach, DO; Sandhya Jacob, MD; Leyla Nasehi, MD; Furquan Baqui, MD.
Back row, from left to right:
Nathan Mielke, DO; Maggie Glenn, MD; Ryan Ward, MD; Abed Ghandour, MD.



Medical Physics graduate Mitya Barreto, PhD, with Paul Johnson, MS, PhD.

Congratulations also to Medical Physics graduate **Mitya Barreto, PhD**, who has joined National Physics Consultants in Ohio.

Continued on page 15

Congrats to Our 2019 Graduates *continued*

2019 Residency Award Winners

Class of 2019 Department Researcher: Ryan Ward, MD

Best Resident in Interventional Radiology: Michael Lach, DO

Emergency Radiology Resident of the Year: Hannah Barnard, MD

Most Case Log Entries: Michael Lach, DO

Most Protocolled Studies: Sandhya Jacob, MD

Best Conference Attendance: Ryan Ward, MD

Most Brain Attack Studies: Sandhya Jacob, MD

Formal Teaching Award: Gaurav Gadodia, MD

Viewbox Teaching Award: David Sweet, MD

Teaching Excellence Awards: Furquan Baqui, DO; Trent Dixon, MD; Gaurav Gadodia, MD; Abed Ghandour, MD; Sara Hunter, MD; Sandhya Jacob, MD; Akriti Khanna, MD; Michael Lach, DO; Scott Poswilko, MD; Faisal Siddiqui, MD; David Sweet, MD; Ryan Ward, MD

Biggest Heart: Sandhya Jacob, MD

Special thanks to our fantastic Chief Residents for 2018-19: Ryan Ward, MD; Nathan Mielke, DO; and Sara Hunter, MD

Dr. Daniel Lockwood Named Teacher of the Year

Cleveland Clinic's Diagnostic Radiology Class of 2019 announced **Daniel Lockwood, MD**, as the Norman Glazer Teacher of the Year, the Imaging Institute's highest teaching honor.

Residents and fellows also recognized Sectional Teachers of the Year:

- **Medical Physics** – Katie Hulme, PhD
- **Abdominal Imaging** – Andrei Purysko, MD
- **Breast Imaging** – Julie Ritner, MD
- **Cardiac Imaging** – Michael Bolen, MD
- **Vascular & Interventional Radiology** – Ben Tritle, MD
- **Thoracic Imaging** – Ruchi Yadav, MD
- **Musculoskeletal Imaging** – Mike Forney, MD
- **Neuroradiology** – Doksu Moon, MD
- **Nuclear Medicine** – Steve Huang, MD, PhD
- **Pediatric Imaging** – Brooke Lampl, DO



Teacher of the Year
Daniel Lockwood, MD

Changes in Residency Administrative Staff

The Diagnostic Radiology Residency Program extends heartfelt thanks to **Sylvia Zavatchen** for her 12 years of excellent work as Diagnostic Radiology Residency Program Coordinator and Imaging Institute Education Manager. Sylvia has become the Administrator of Education within the Department of Neurological Surgery at The University of Washington School of Medicine. She will manage the residency, clerkship, and fellowship programs; Grand Rounds; and the summer student program. Sylvia is a published author, has spoken at national conferences and is the immediate past president of the Association for Program Coordinators in Radiology.

Danielle Berry, who has worked at Cleveland Clinic since 2009, joined the residency team as Education Program Manager this March. Earlier in her career, Danielle was Education Coordinator for the Ob/Gyn & Women's Health Institute. There she helped create the current residency tracking program. In 2014 she became Residency Coordinator for Radiation Oncology. She was named the Charles L. Hartstock, MD, GME Program Coordinator of the Year in 2016. That same year she graduated from Cleveland Clinic's Emerging Leaders Program. While in Radiation Oncology, Danielle worked with her fellow residents and program director to create a leadership curriculum, igniting her passion for leadership development. She currently is attending the Master's in Education program developed by Cleveland State University and Cleveland Clinic's Education Institute.

Completing the residency program team are:

- **Lisa Kempton**, Education Program Administrator, who oversees radiology residency and fellowship programs, manages CME activities including [Grand Rounds](#), and coordinates educational activities.
- **Janelle Daher**, new coordinator for the Interventional Radiology Integrated and Independent Programs, which will begin in 2020. She is collaborating with her new team to develop these programs, including working on recruitment, graduation, onboarding, schedule maintenance, evaluations and GME guidelines. Janelle has been at Cleveland Clinic for nine years and most recently worked for the Internal Medicine Residency Program. Her passion is education, and she loves working with residents to help them achieve their goals.



Residency administrative staff, from left to right: Janelle Daher, Danielle Berry and Lisa Kempton.

You're Invited!

2019 RSNA Cleveland Clinic Radiology Alumni Reception

Drs. Greg Borkowski, Alice Rim and Darlene Holden invite you to a reception in honor of alumni and staff attending the annual meeting of the Radiological Society of North America (RSNA). All former and current Cleveland Clinic residents, fellows, staff and their guests are welcome.

Monday, Dec. 2, 2019

5:30-7:30 p.m.

Location: Cindy's Rooftop at the Chicago Athletic Association Hotel, 12 South Michigan Ave., 13th Floor, Chicago, IL 60603

RSVP by Monday, Nov. 11, to alumni@ccf.org or 216.445.6961

Apply for a Michener Grant in Leadership Development

The Dr. William and Roxanna Michener Grant in Leadership Development and Medical Humanities and Arts seeks applicants whose projects will further the “art of doctoring.” Residents or fellows at Graduate Level 2 or above, with at least one additional year of medical or surgical training at Cleveland Clinic, are eligible.

Applications are due Feb. 1.

For more information, see <http://portals.ccf.org/education/EI-Programs/Academic-Awards>.

Best Wishes to Retiree Richard Brunken, MD

Best wishes to **Richard Brunken, MD**, who is retiring from the Imaging Institute at the end of 2019.

After more than a decade at the UCLA School of Medicine, Dr. Brunken joined Cleveland Clinic in 1994 as a staff physician in the Department of Nuclear Medicine and Director of Molecular Cardiac Imaging.

He is a founding member of the American Society of Nuclear Cardiology and the Society of Cardiovascular Computed Tomography. He is a Fellow of the American College of Cardiology, the American Heart Association and the American Society of Nuclear Cardiology.

Dr. Brunken received numerous honors for his research and has published more than 300 journal articles, book chapters and abstracts. He served on the editorial board of *The Journal of Nuclear Medicine* and *Journal of Nuclear Cardiology* for many years and was instrumental in reviewing and rewriting cardiac PET imaging guidelines for the American Society of Nuclear Cardiology in 2004 and 2005.

A professor in the Department of Radiology at Cleveland Clinic Lerner College of Medicine, Dr. Brunken taught and inspired nuclear radiology and cardiology fellows, and radiology and internal medicine residents for more than two decades. He also presented dozens of postgraduate CME lectures.

Dr. Brunken was named a Top Doctor in Nuclear Medicine by Castle Connolly from 2015 to 2019.

Education: University of Nebraska-Lincoln (1974); University of Nebraska College of Medicine (1978); Internal Medicine Residency, Hines Veterans Hospital (Hines, Illinois) (1981); Adult Cardiology Fellowship, UCLA School of Medicine (1984); Nuclear Medicine Fellowship, UCLA School of Medicine (1987)

Proudest achievement: Reported that dysfunctional but viable myocardium in patients with coronary artery disease would exhibit improved function if PET imaging with FDG indicated preserved tissue glucose metabolism. This provided a noninvasive means of identifying “hibernating myocardium” that is currently used in clinical practice to gauge the risks/benefits of coronary

revascularization in patients with ischemic cardiomyopathy.

Favorite thing about Cleveland Clinic: Being able to work with highly skilled physicians who literally are experts in their specialties. They have inspired me, taught me and given me enthusiasm for my clinical practice and research endeavors.

Retirement plans: Spending more time with family and friends.

Parting words: I am grateful for the opportunity to work at Cleveland Clinic, and I will miss interacting with care providers and patients.

Thank you, Dr. Brunken!

You and your remarkable career are an inspiration to us all. We have been blessed by your professionalism, commitment to excellence and dedication to Cleveland Clinic. May the next phase of your life — your retirement — bring all you seek and more.



Dr. Brunken with his wife.



Dr. Brunken with his daughter.

New Staff

We welcomed 27 Imaging Institute staff members to Cleveland Clinic in 2019.

Regional Radiology

Nicholas Bhojwani, MD
Dean Busby, MD
Michael Cole, MD
Clinton Davidson, MD
Edward Derrick, MD
Dameon Duncan, MD
Michelle Galvez, MD
Amar Gupta, MD
Joseph Hunt, MD
Ryan Incledon, DO
Rati Patel, MD
Rosan Patel, MD
Ingrid Wu, MD

Breast Imaging

Fouzyah Ali, MD
Suruchi Dewoolkar, MD
Yasmin Mekhail, MD

e-Radiology

Kasim Ali, MD

Pediatric Radiology

Deborah Brahee, MD
Albair Guirguis, MD
Brendan McCleary, MD

Neuroradiology

Scott Johnson, MD
Emmanuel Obusez, MD

Medical Physics

Vivek Singh, PhD

Interventional Radiology

Avi Beck, MD
Sameer Gadani, MD
Alex Paratore, DO
Sasan Partovi, MD

Around Cleveland Clinic

State of the Clinic Recap

During the [State of the Clinic](#) address in February, Cleveland Clinic CEO and President **Tom Mihaljevic, MD**, highlighted the successes of 2018 and announced a five-year strategic plan.

Throughout 2018, Cleveland Clinic cared for more than 2 million patients — the highest annual total in its history. Operating revenue increased 6.2 percent to \$8.9 billion. Contributions to state and local economies — in the form of jobs, wages and taxes — totaled \$17.8 billion. The heart and urology programs were ranked No. 1 in the nation by *U.S. News & World Report*. And Cleveland Clinic's footprint continued to expand — in Northeast Ohio, with the addition of Union Hospital in Dover and the opening of Cleveland Clinic Children's new home; and in Florida, with the addition of four hospitals in 2019.

To position Cleveland Clinic to thrive in today's complex healthcare environment, Dr. Mihaljevic unveiled a five-year strategy based on healthcare industry trends, the needs of the communities we serve, and Cleveland Clinic's history.

"We will stay true to who we are — working as a team with the patient at the center of everything we do," said Dr. Mihaljevic. "We will care for patients and families across their lifetimes, with proactive care, supported with the very best of digital technology. And we will grow and double the number of patients we serve over the next five years."

In 2019, Cleveland Clinic will continue to focus on the four care priorities it introduced in 2018: care for patients, caregivers, the organization and the communities we serve.

Caring for Caregivers Continues

"Cleveland Clinic will become the best place to receive care anywhere and the best place to work in healthcare," says **Herb Wiedemann, MD, MBA**, Chief of Staff at Cleveland Clinic.

To that end, Dr. Wiedemann encourages all Cleveland Clinic staff to be aware of the many ways the Practice Innovations & Professional Fulfillment Office (PIPFO) supports them.

PIPFO links you to resources that support your personal and professional well-being, such as:

- **Center for Career Transitions.** Get help when making career changes, such as switching from part-time to full-time practice, preparing for retirement, or even working through an illness or disability.
- **Center for Excellence in Coaching and Mentoring.** This program provides nationally recognized education and matching programs for staff members interested in all facets of coaching and mentoring.
- **Confidential Professional Staff Assistance Program.** Find personal well-being and professional growth resources.
- **Professional Staff Back-up Care Program.** Get temporary care for children and adults/elders during a lapse or breakdown in normal care arrangements.
- **Wellness Programs.** Incorporate fitness, nutrition and stress-relief activities into your daily life.

Centennial Legacy Society Recognizes Alumni Pledging \$5,000 or more

Since its founding in 1921, Cleveland Clinic has become one of the most famed healthcare institutions in the world, pioneering medical achievements such as:

- Heart breakthroughs that can repair valves and bypass blockages
- Deep brain stimulation to treat Parkinson's disease
- Sports health medicine
- Face transplant

There's a lot to be proud of through nearly a century of medical care, research and education. We salute the contributions of all who have made Cleveland Clinic what it is today.

Philanthropy allows us to continue to innovate, advance from the routine, and find new ways to make procedures safer, better and more accessible for patients — not to mention increase the quality of training for students, residents and fellows.

In anticipation of Cleveland Clinic's 100th anniversary in 2021, the Centennial Legacy Society is recognizing alumni who continue the tradition of excellence by making a gift of \$5,000 or more to an alumni fund supporting The Power of Every One Centennial Campaign.

We welcome you to join the Society and encourage colleagues and friends of the Cleveland Clinic Alumni Association to do likewise. Members will be inducted during a pinning ceremony at the annual Centennial Legacy Society and Alumni Awards Reception, which takes place each fall.

For more on becoming a [Centennial Legacy Society](#) member, contact Alumni Association Senior Director Mindy Stroh at strohm@ccf.org. Or [make an online gift](#) today.

The Centennial Legacy Society includes these Imaging Institute staff and alumni:

- Dr. Kuniaki Hayashi
- Dr. Brian Herts
- Dr. Paul Janicki & Dr. Christine Quinn
- Dr. Pauline Kwok
- Dr. James M. Lieberman
- Dr. Carl Linge
- Dr. Joseph LiPuma
- Dr. Barbara Risius
- Dr. Guy Syvertsen
- Dr. Riaz Tarar
- Dr. Jack Thome

For a full list of Centennial Legacy Society members, see <https://my.clevelandclinic.org/departments/alumni-association/giving#centennial-legacy-society-members-tab>.

From Your Legacy Project Leaders

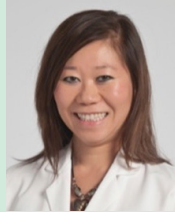
Cleveland Clinic's educational mission has played a pivotal role in the lives and careers of Imaging Institute alumni and staff. In honor of Cleveland Clinic's 100th anniversary in 2021, we encourage you to join the Centennial Legacy Society (see above). This is a very meaningful way of giving back to the institution that has given each of us so much.

Your generous support will continue this tradition through Professional Development Grants in the Education and Lerner Research institutes, as well as Cleveland Clinic Lerner College of Medicine student scholarship, research, training and development programs.

We sincerely appreciate your support,



Thomas Masaryk, MD, FACR
Chairman, Diagnostic Radiology



Pauline Kwok, MD
Regional Radiologist, Fairview Hospital
Editor of *Imaging Institute Newsletter*

Editor's Note

Special thanks to Danielle Berry, Becky Blything, Carl Creagh, Dr. Stephen Hatem, Lisa Kempton, Dr. Joshua Polster and Dr. Laura Shepardson for contributing to this issue of *Imaging Institute Newsletter*.

I welcome everyone's ideas, suggestions and special announcements for our next issue.

Please contact me at kwokp@ccf.org. I look forward to hearing from you and staying connected!

— Pauline