MEDICAL NEWS

SPRING 2018 VOLUME 20 | NUMBER 1

Neuroendovascular Surgery

New Techniques Expand Care to More Patients, Improve Outcomes





Toe-to-Thumb Transfer



Noninvasive Cardiac Test



Ex Vivo Lung Perfusion



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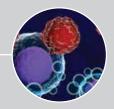
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Loyola to Offer CAR-T Cancer Therapy



Patrick Stiff, MD

Loyola is the only Chicago center that participated in the pivotal clinical trial of a groundbreaking CAR-T cancer treatment.

Patrick Stiff, MD, director of Loyola's Cardinal Bernardin Cancer Center, is a coauthor of the study, published in the *New England Journal of Medicine*. The chimeric

antigen receptor T-cell therapy used in the study is offered by Kite Pharma. Novartis and Juno Therapeutics also are developing CAR-T cell treatments.

Dr. Stiff said Loyola is preparing to offer CAR-T therapy this year to carefully selected lymphoma patients who have failed earlier treatments. He cautioned that while the therapy could potentially cure patients, it also can cause severe side effects. The cost of the treatment is also considerable to patients. Dr. Stiff said Loyola will carefully inform patients of the pros and cons of CAR-T therapy if it is presented as an option.

"We are taking a very measured approach to this new therapy, which is effective, but also potentially toxic," Dr. Stiff said. "The therapy should not be considered a cure-all, since some of the patients did relapse."

Based on results of the study, the FDA approved a CAR-T treatment called YESCARTA*. The study included 111 patients from 22 centers, including Loyola. The patients had certain types of large B-cell lymphoma and had not responded to or had relapsed after undergoing at least two other treatments, including chemotherapy and stem cell transplants.

In CAR-T therapy, T cells are collected from the patient and sent to a lab. There, the cells are genetically modified to include a gene that instructs the cells to target and kill lymphoma cells. The modified T cells are infused back into the patient.

In the study, 42 percent of CAR-T patients were in complete remission after a median follow-up of 15.4 months. "This is impressive, since most patients had exhausted all other care options," Dr. Stiff said.

Details in the report included that 95 percent of patients experienced at least one side effect that was severe. Thirteen percent experienced life-threatening cytokine release syndrome (CRS), which can cause high fever and flu-like symptoms, and 28 percent experienced neurologic problems including encephalopathy, 21 percent; confused state, 9 percent; aphasia, 7 percent; and somnolence, 7 percent. Other side effects included coma, serious infections, low blood cell counts and weakened immune systems.

Dr. Stiff said Loyola's participation in the clinical trial, along with its extensive experience in treating patients with lymphoma and other blood cancers, will help in providing the safest possible CAR-T treatments.

The cure rate in the CAR-T study was similar to the approximate 45 percent cure rate from allogeneic bone marrow transplants.

"Centers such as Loyola, which have expertise in both therapies, now will be able to offer additional treatment options to produce long-term remissions and cures in patients with advanced lymphomas," Dr. Stiff said. ■

42 PERCENT

of patients in complete remission at 15 months

95 PERCENT

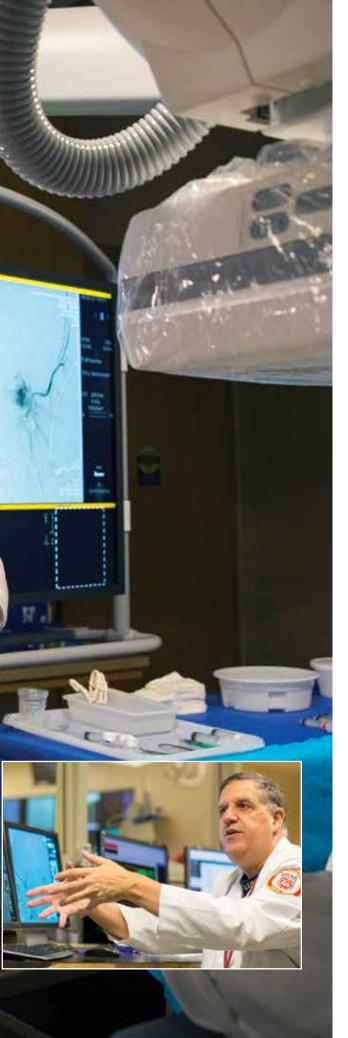
experienced at least one severe side effect

The "Explosive Evolution" of Neuroendovascular Surgery

Embolism coiling, stent retriever thrombectomy and other neuroendovascular techniques have "amplified the dimensions of care" for patients who previously had limited therapeutic options.



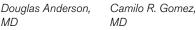






MD







Matthew Reynolds,

MD, PhD



COVER STORY

Joseph Serrone, MD

n a recent review article in MedLink Neurology, Loyola neurosurgeons detailed the "explosive evolution" of endovascular techniques used to restore blood flow to compromised regions of the brain.

Such treatments have "amplified the dimensions of care for many patients whose therapeutic options were previously limited," senior author Camilo R. Gomez, MD, and colleagues wrote.

Dr. Gomez, one of the founders of the field, has performed more than 6,000 neuroendovascular procedures. Recently joining Dr. Gomez at Loyola are neurosurgeons Matthew Reynolds, MD, PhD, and Joseph Serrone, MD. Drs. Reynolds and Serrone, who are co-authors of the MedLink Neurology paper, have fellowship training in endovascular and cerebrovascular surgery.

"They both are extremely competent and well-trained," said Douglas Anderson, MD, chair of the department of neurological surgery.

Dr. Gomez began performing neuroendovascular procedures in 1994 when the field was in its infancy. Since that time, he said, there have been tremendous improvements in devices and techniques. "We have the tools and procedures at our disposal to restore blood flow with endovascular and open surgical procedures, both to prevent strokes and to treat strokes urgently," Dr. Gomez said. "The

chances a stroke patient will have a good outcome are two to three times better now than they were 10 to 15 years ago."

Modern endovascular techniques can, in effect, stop a stroke in its tracks by removing blockages. Patients with the largest blockages and most devastating strokes are

LEFT:

Joseph Serrone, MD, Matthew Reynolds, MD and Camilo R. Gomez, MD

"The chances a stroke patient will have a good outcome are two to three times better now than they were 10 to 15 years ago." - Camilo R. Gomez, MD

"Our only bias is to do **what is best** for the patient," Dr. Reynolds said. deriving the greatest benefits. "Seven clinical trials have shown that endovascular techniques restore significant function in these patients," Dr. Serrone said.

Endovascular procedures used

to improve blood flow to the brain, such as angioplasty and stenting, evolved from similar procedures to treat cardiovascular disease. A major difference is that blood vessels in the brain are smaller and have thinner walls.

"It's one of the most challenging areas of neurosurgery," Dr. Reynolds said.

Newer devices are designed specifically to treat cerebral blood vessels. Among the most effective new devices are stent retrievers. The device pushes the gelatinous clot against the wall of the blood vessel, immediately restoring blood flow. The stent retriever then is used to grab the clot, which is pulled out when the catheter is removed.

The window for performing endovascular thrombectomy,

previously believed to be about six hours, appears to be increasing. The DAWN trial, recently published in the *New England Journal of Medicine*, found that endovascular thrombectomy was beneficial up to 24 hours after initial symptoms in patients who showed clinical deficits disproportionately severe relative to infarct volume. Forty-nine percent of the patients who underwent endovascular thrombectomy six to 24 hours after stroke were functionally independent at 90 days, compared with 13 percent in the control group. The trial was halted when a planned interim analysis showed the superiority of thrombectomy.

"With the advent of mechanical thrombectomy and minimally invasive techniques, patients who otherwise would be permanently disabled from stroke can often lead normal, productive lives," Dr. Reynolds said. "It's truly an exciting time to be an endovascular neurosurgeon."

While an increasing percentage of patients can be treated with endovascular techniques, open surgery remains the best option for many patients. Drs. Reynolds and Serrone are trained in both endovascular procedures and open procedures, such as aneurysm clipping, AVM resection and carotid endarterectomy.

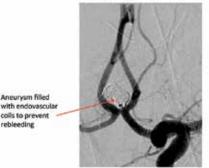
"We don't have a preference for doing either open or endovascular procedures," Dr. Reynolds said. "Our only bias is to do what is best for the patient."

Patient selection is key, Dr. Gomez said. "Our goal is to always perform the right procedure for the right patient at the right moment under the right circumstances."

BELOW: Matthew Reynolds, MD, PhD, (left) and Joseph Serrone, MD

Answerster version communicating artery

Cerebral Angiography After Coiling



CASE REPORT: SUBARACHNOID HEMORRHAGE

Randy Beare, a 48-year-old carpenter, was at work when he experienced the worst headache of his life.

"It felt like someone hit me in the head with a hammer," he said.

Mr. Beare became progressively sleepier and less responsive. He was diagnosed with a subarachnoid hemorrhage due to rupture of a large brain aneurysm. He subsequently was transferred emergently to Loyola in critical condition.

An estimated 30 to 50 percent of people with this condition die before even reaching the hospital. Mr. Beare was fortunate to have survived the initial bleeding episode. However, once a brain aneurysm ruptures, there is a high likelihood it will rupture again. In order to block blood flow to the aneurysm, neurosurgeon Matthew Reynolds, MD, PhD, performed a minimally-invasive procedure called coil embolization. He inserted a catheter into a groin artery and guided it to the lesion, where he deployed soft platinum coils to seal off the aneurysm.

Mr. Beare was hospitalized for 3 ½ weeks for treatment of hydrocephalus, vasospasm, brain swelling and other issues caused by the hemorrhage. He has since done remarkably well and appears to be on track to make a full recovery and return to work.

"Patients with this condition have a very high rate of morbidity and mortality," Dr. Reynolds said. "Mr. Beare is an example of how patients treated appropriately for this complex problem have the potential to make an excellent recovery and return to their normal lives."



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Loyola Certified as Comprehensive Stroke Center by The Joint Commission

Loyola University Medical Center has joined an elite group of hospitals nationwide to be certified by The Joint Commission as a Comprehensive Stroke Center.

Loyola was certified following a rigorous onsite review by The Joint Commission experts who evaluated Loyola's compliance with stroke-related standards and requirements.

"By achieving this advanced certification, Loyola has thoroughly demonstrated the greatest level of commitment to the care of its patients with a complex stroke condition," said Mark R. Chassin, MD, president and CEO of The Joint Commission. The Joint Commission developed the Comprehensive Stroke Center certification in collaboration with the American Heart Association/American Stroke Association's Brain Attack Coalition. Certification recognizes the significant resources in staff and training that a center must have to treat complex stroke patients. To be eligible, a hospital must be designated a Primary Stroke Center and meet additional requirements related to advanced imaging capabilities, 24/7 availability of specialized endovascular stroke treatments, as well as staff education and comprehensive competencies in all phases of stroke care. $\Theta_{\mathbf{x}}$

CASE REPORT: COIL EMBOLIZATION

In 1998, Burton France nearly died from a ruptured aneurysm at the tip of the basilar artery.

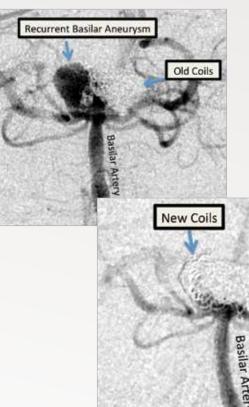
A traditional open surgery to clip the artery would have been extremely high risk for an aneurysm of that size and location.

Fortunately, neuroendovascular surgery techniques had recently become available. Mr. France underwent an early version of a coil embolization that successfully sealed off the aneurysm.

The procedure saved Mr. France's life. But over time, the coils compacted into the dome of the aneurysm. Although Mr. France remained asymptomatic, a surveillance CTA showed the aneurysm had expanded to 9 mm.

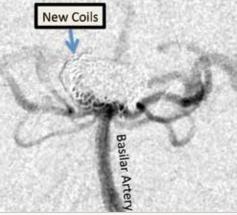
Loyola neurosurgeon Joseph Serrone, MD, re-treated the aneurysm with a stent-assisted coil embolization. The stent, placed across the neck of the aneurysm, helped keep the coils in place.

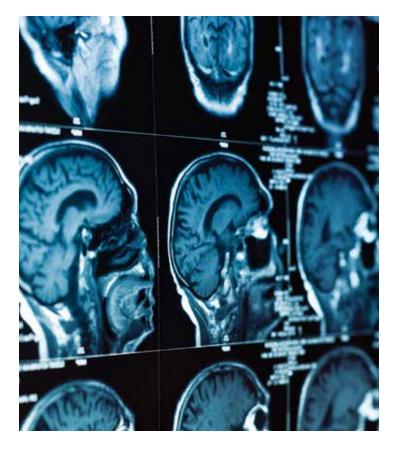
Since Mr. France's first coil embolization, there have been several generations of new devices. Today, better-engineered platinum coils deploy more reliably



and take the desired shape.

"Mr. France is a testament to how improved technology and techniques have helped save his life," Dr. Serrone said.





Loyola Enrolling Patients in Pivotal Neuroendovascular Trials

Loyola was among the centers that participated in the landmark CREST trial, which found that the safety and efficacy of the two main interventions for carotid stenosis - endarterectomy and stenting - are roughly equal.

Now Loyola is enrolling patients in CREST-2, which will compare endarterectomy and stenting with novel intensive medical management that targets risk factors for carotid artery disease such as hypertension, hyperlipidemia, diabetes and smoking.

Another pivotal multicenter trial underway at Loyola is COAST, which will examine the efficacy of soft gel coils for the endovascular treatment of aneurysms smaller than 5 mm.

Loyola also has five humanitarian device exemption protocols. (The FDA exempts such devices from demonstrating a reasonable assurance of effectiveness and instead requires demonstration of probable benefit.) The protocols include three stents used to treat aneurysms (Enterprise®, Neuroform® and LVIS® Jr), a stent designed to treat obstructive lesions in cranial arteries (Wingspan®) and a liquid polymer that hardens almost instantly (Onyx® HD-500) to close aneurysms.

"As an academic medical center, Loyola is able to offer patients novel neuroendovascular therapies that may not be available at most centers," said Camilo R. Gomez, MD, Loyola's medical director of neuroendovascular surgery.

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COVER STORY



Douglas Anderson, MD

Multidisciplinary Neurosurgery Team Performs More Than 1,000 Surgeries per Year

Loyola Medicine has one of the most comprehensive and advanced neurosurgery departments in the Midwest.

Neurosurgeons are fellowship-trained in the surgical treatment of a full range of neurological conditions. Their expertise includes acoustic tumors, CNS malignancies, craniofacial surgery, deep brain stimulation, endovascular therapy, epilepsy surgery, meningioma and other brain tumors, pediatric neurosurgery and pituitary tumors.

At Loyola, neurosurgeons collaborate closely with neurologists, otolaryngologists, pathologists, pediatric surgeons, radiation oncologists and other subspecialists. The multidisciplinary team provides each patient with an individualized treatment plan that addresses the specific condition and employs the most advanced techniques and technology.

Taking on some of the most challenging cases, Loyola neurosurgeons each year perform more than 1,000 cranial surgeries and collaborate on more than 150 cranial-base operations. Loyola's neurosurgeons also play a critical role in trauma and critical care cases.

Loyola recently launched an Auto-Acceptance Transfer program for neurological surgery and neurology. Loyola automatically accepts all transfer requests for all salvageable intracerebral hemorrhages. The transfer program, initiated by neurological surgery chair Douglas Anderson, MD, improves the experience of the referring provider and helps the transfer center facilitate more rapid transports of critically ill patients to Loyola.

Neurosurgery Department Receives \$500,000 Donation for CNS Research

Loyola's department of neurosurgery recently received a generous \$500,000 donation from the Kalmanovitz Charitable Foundation to establish the Paul Kalmanovitz Central Nervous System Repair Research Program.

The program, under the direction of Russ Nockels, MD, will explore new treatment options for patients experiencing lasting effects of a central nervous system injury. The treatments involve stimulating the patient's own cells to reestablish neural connections. Building on preliminary results, the program hopes its research will lead to improved treatment options and improved neurologic function for patients suffering from brain and spinal cord injury, including stroke.

Loyola Telestroke Program Now in 10 Centers

The expanding Loyola Stroke Network now offers telemedicine consultations to 10 centers in three states.

At many hospitals, stroke specialists aren't always available, especially during nights and weekends when most strokes occur. Loyola vascular neurologists are on call 24/7 to examine patients remotely and recommend treatments to physicians at the bedside.

A robotic device, equipped with a microphone and a full-color, high-definition camera, enables the Loyola stroke specialist to receive lab results and images and see, hear and talk to the patient and the patient's family, doctors and nurses.



Telestroke significantly improves the ability of network hospitals to provide timely administration of clot-busting tissue plasminogen activator (tPA) for appropriate ischemic stroke patients. Telestroke-assisted thrombolysis therapy compares favorably with face-to-face approaches, according to a 2017 policy statement from the American Heart Association. Telestroke is evidence-based and recommended as a Class I intervention by the AHA.

"Telestroke changes the paradigm by making it much easier to bring the vascular neurologist with a particularly high level of expertise to the patient rather than losing precious time – and millions or billions of nerve cells – in bringing the patient to the vascular neurologist," said vascular neurologist Sarkis Morales Vidal, MD, medical director of Loyola's telestroke program.

PATHOLOGY NEWS 🕨

Pathology and Laboratory Medicine Department: One Team, 10 Million Lab Results

Loyola Medicine's Department of Pathology and Laboratory Medicine is a vital component of the clinical excellence and leading-edge research that have led to national rankings of programs at Loyola's academic medical center.

The pathology and laboratory medicine team plays an essential role in patient care. "Healing starts with the correct diagnosis," said department chair Eva M. Wojcik, MD. "Every aspect of a patient's management is directed by someone in the laboratory."

The department is research-intensive. Internationally recognized scientists conduct basic research into disease mechanisms and clinical pathologists conduct translational research to bring new technologies and biomarker tests to market. In 2017, the department's researchers published or presented 328 meeting abstracts, posters and journal publications.

The department includes 30 faculty, 6 fellows and 16 residents. Pathologists specialize in every subspecialty of medicine and surgery. The department offers a comprehensive range of technologies and services in anatomic pathology, clinical pathology and molecular pathology. Pathologists provide consultations on inpatients and outpatients throughout Loyola Medicine, and specialized services in anatomic pathology to physicians throughout the Chicago area.

Last year, the 180 full-time equivalent laboratory staff performed 2.5 million billed tests, including more than 10 million lab results. The blood bank transfused 29,000 units and doses of red blood cells, platelets, plasma and cryoprecipitate. The apheresis lab treated 774 patients.

Faculty members have received many honors and awards. For example, Kamran Mirza, MD, PhD, was named an American Society for Clinical Pathology "Forty Under Forty Top Five" honoree for 2017. Dr. Wojcik has received an educator of the year award from the Papanicolaou Society of Cytopathology. Stephen Kahn, PhD, has received a lifetime achievement award from the American Association for Clinical Chemistry. Jawed Fareed, PhD, has received the Mauro Bartolo Lifetime Achievement Award.

"Our department's primary goal is to provide the most comprehensive information to enable superior patient care," Dr. Wojcik said. "We are dedicated to providing accurate, timely information to our physicians, caregivers and patients."

PATHOLOGY LEADERS IN ACADEMIC MEDICINE



Guliz Akdas Barkan, MD Executive board, American Society of Cytology; American Board of Pathology Test Development Committee; editorial board, *Journal of the American Society of Cytopathology*



Dariusz Borys, MD Executive committee, International Skeletal Society



Phillip DeChristopher, MD, PhD Assistant editor, *Lab Medicine;* Apheresis Physicians Committee, American Society for Apheresis; president-elect, Illinois Society of Pathologists



Mitchell Denning, PhD Board of directors, Society for Investigative Dermatology



Xianzhong Ding, MD, PhD Editor-in-chief, American Journal of Digestive Disease



Andrew Dingwall, PhD Editorial board, *Developmental Biology*, scientific advisory board, Leukemia Research Foundation

Debra Hoppenstadt-



Moorman, PhD Scientific Committee, International Union of Angiology



Amanda Harrington, PhD

President-elect, Illinois Society for Microbiology; Nominating Committee, Association for Molecular Pathology; Steering Committee, American Society for Microbiology; Committee on Postgraduate Educational Programs, American Society for Microbiology

Stephen Kahn, PhD

Past president, American Association for Clinical Chemistry; past president, Academy of the American Association for Clinical Chemistry; representative, TJC Laboratory Professional and Technical Advisory Committee; AACC past president's Leadership Advisory Group; AACC Awards Committee

Ameet Kini, MD, PhD

Quality and Standards Committee, International Clinical Cytometry Society; Educational Resources Group, International Clinical Cytometry Society

Kamran Mirza, MD, PhD

USCAP ambassador; associate editor, AACC Pearls of Laboratory Medicine; member-at-large, Central Group on Educational Affairs (CGEA)

Stefan E. Pambuccian, MD Associate editor, *Diagnostic* Cytopathology; editorial board, *Journal* of the American Society of Cytology



Maria M. Picken, MD

Board of directors, International Society of Amyloidosis; secretary, International Society of Monoclonal Kidney Diseases

Jodi Speiser, MD



American Society for Dermatopathology Continuing Education and Research Committee; USCAP ambassador; CAP House of Delegates

Ping Tang, MD, PhD

Immediate past president, Chinese American Pathologists Association

Jeanine M. Walenga, PhD



Atrial Fibrillation Initiative of the North American Thrombosis Forum; board of directors, North American Thrombosis Forum; scientific director, Georgia Thrombosis Forum

Eva Wojcik, MD



Past president, American Society of Cytopathology; associate editor, *Journal of the American Society of Cytopathology*; editorial board, *Diagnostic Cytopathology*, editorial board, *Archives of Pathology and Laboratory Medicine*; chair, Nominating Committee, American Society of Cytopathology

SURGERY NEWS

Loyola Hand Surgeons Perform Toe-to-Thumb Transfer





Sonya Agnew, MD

Sameer Puri, MD



ABOVE: Certified Hand Occupational Therapist Kim Esposito, OTR/L, CHT, and Melo Hairapetian

The toe-to-thumb transfer is one of the most challenging operations in the delicate field of hand surgery. After Melo Hairapetian lost his left thumb in a carpentry accident, Loyola Medicine hand surgeons Sonya Agnew, MD, and Sameer Puri, MD, replaced it with Mr. Hairapetian's great toe.

Mr. Hairapetian accidently cut off his thumb while using a circular saw. Drs. Agnew and Puri removed the great toe from Mr. Hairapetian's left foot and attached it to his left hand.

"Mr. Hairapetian's great toe is similar in size and bends the same way as a thumb, so this made it a great option," Dr. Agnew said.

The toe-to-thumb transfer is one of the most challenging operations in the delicate field of hand surgery. It's performed only at centers such as Loyola that offer subspecialty, microsurgical expertise and a high level of post-operative care.

Dr. Puri, an orthopaedic surgeon, and Dr. Agnew, a plastic and reconstructive surgeon, both are fellowship trained in hand surgery. They collaborate often on complex cases. "Dr. Puri and I have overlapping skill sets," Dr. Agnew said. "We can do far more together as a team than we can accomplish as individual surgeons."

Dr. Puri noted that, like a thumb, a great toe has tendons that flex and extend and nerves that provide sensitivity to the tip.

When transferred to the hand, a toe does not look identical to a natural thumb, or provide as much range of motion. But Mr. Hairapetian's transferred toe will enable him to perform the activities of daily living. "Ultimately he will have near normal function," Dr. Agnew said.

In sacrificing a great toe, a patient can lose some stability while walking and there may be residual pain. "But only professional athletes would notice a big change," Dr. Agnew said.



GASTROENTEROLOGY NEWS 🕨

Inflammatory Bowel Disease Program Provides Multidisciplinary Academic Care



Amar Naik, MD Director of IBD Program

Inflammatory bowel disease (IBD) affects between 1.4 and 3 million people in the United States.

"It's the invisible illness," said Amar Naik, MD, medical director of Loyola's IBD program. "There is a lot of invisible suffering."

Fortunately, the time lag between onset of symptoms and diagnosis is narrowing. And biologics and other new treatments are improving outcomes of this lifelong illness.

"Our goal and reasonable expectation is for patients to get their lives back," Dr. Naik said.

Loyola's clinically integrated Digestive Health program offers the benefits of academic medicine to patients across a broad range of subspecialties. Among them is Loyola's IBD program, which treats more than 600 patients annually and is growing. The multidisciplinary program provides high-level academic care by gastroenterologists, colorectal surgeons, psychologists and other subspecialists. Loyola offers 24/7 inpatient consultation.

Dr. Naik, gastroenterologist Nikiya Asamoah, MD, and other clinicians treat a full range of IBD conditions, including Crohn's disease, ulcerative colitis, *C. difficile* infection, collagenous colitis, gastrointestinal fistulas, lymphocytic colitis and pouchitis. They also treat specialized IBD issues including pregnancy, management and surveillance of IBD-associated colonic neoplasia and difficult extraintestinal manifestations of IBD. Dr. Asamoah, a med/peds physician, has unique expertise in the challenging pediatric-to-adult transition.



"We offer high-quality, efficient and convenient care by a team genuinely interested in being the patient's treating partner," Dr. Naik said. "We are by our patients' sides when they're at their worst and stay with them until they're at their best."

Treatments include diet modification, behavioral health counseling and medications. Biologics, which target proteins that cause inflammation, are improving outcomes.

Colon and rectal surgeons Joshua Eberhardt, MD, and Marc Singer, MD, employ the latest techniques for the surgical treatment of IBD.

"We avoid surgery when we can, but embrace it when necessary," Dr. Naik said. "Our colorectal surgeons perform state-of-the-art, minimally-invasive surgical techniques for our complex IBD patients."

Loyola is among a handful of centers that have a health psychologist who exclusively treats digestive disorders. Sarah Kinsinger, PhD, offers treatments such as cognitive-behavioral therapy and gut-directed hypnotherapy that target brain-gut pathways.

Loyola provides advanced imaging and access to clinical trials of investigational treatments that are not available at most centers.

Loyola's gastrointestinal cancer risk assessment and inflammatory bowel disease program is offered to patients who are known or suspected to be at high risk for GI cancers. Patients can receive targeted physical exams and be seen by a colorectal surgeon, gastroenterologist and genetics counselor. Each patient receives an individualized plan that can include diagnostic testing, endoscopy and, when needed, surgery.

Dr. Naik has performed research to identify at-risk patients, ensure durability of long-term medical treatment and implement programs that optimize colorectal cancer surveillance and prevention of post-operative recurrence with appropriate timing of medications and surgery.

Loyola provides the latest medical and surgical advances with a collaborative medical and surgical treatment plan. "This improved efficiency of care delivery helps patients down the path to remission," Dr. Naik said.

LEFT: Marc Singer, MD, FACS, Amar Naik, MD, Nikiya Asamoah, MD, and Joshua Eberhardt, MD, FACS

"Our goal and reasonable expectation is for patients to get their lives back," Dr. Naik said.

CARDIOVASCULAR NEWS

Loyola First Academic Center in Illinois to Perform Transcarotid Artery Revascularization



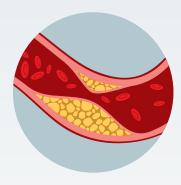
Paul Crisostomo, MD

Loyola is the first academic medical center in Illinois to employ transcarotid artery revascularization (TCAR) to reduce stroke risk during endovascular treatment of carotid artery disease.

Carotid plaque is associated with an elevated risk of stroke. In patients who are symptomatic or have a severe blockage, treatment is often indicated to prevent stroke. While carotid endarterectomy (surgery to remove plaque) has been the mainstay treatment, high-risk patients can benefit from less invasive carotid artery stenting.

In the TCAR procedure, the carotid artery is connected to a system that reverses the flow of blood away from the brain. The blood is filtered and returned to the femoral vein. After the stenting is completed, the TCAR system is removed and blood flow returns to normal.

"Throughout the procedure, we constantly monitor the patient's neurological status, and if necessary, we can stop the reversal of blood flow," said Loyola vascular surgeon Paul Crisostomo, MD.



Dr. Crisostomo said TCAR prevents strokes more effectively than any umbrella filters previously used.



www.loyolamedicine.org/transcarotid

Medicare Now Covers Noninvasive FFR-CT Cardiac Test



Mark Rabbat, MD

Loyola is the leading center in Illinois offering the FFR-CT cardiac test, which now is covered by Medicare.

Fractional flow reserve-computed tomography (FFR-CT) was developed by HeartFlow, Inc. It has been approved by the FDA, and on January 1, CMS began paying for the technical component of the test. Some major private insurers have begun covering the test, and others are expected to follow Medicare's lead.

"Medicare coverage is a major milestone," said Loyola cardiologist Mark Rabbat, MD, who pioneered the use of FFR-CT at Loyola. "Millions of Americans can potentially benefit from this game-changing technology."

Loyola was the first center in Illinois and the second in the country to offer FFR-CT. Loyola has performed the test on more than 400 patients. Also, Dr. Rabbat led an international expert panel of leading cardiologists and radiologists that published a report in the *Journal of Cardiovascular Computed Tomography* on how to interpret the FFR-CT test.

Dr. Rabbat said FFR-CT can answer important clinical questions such as whether plaque in a coronary artery is restricting blood flow, thereby helping determine whether a patient would require medications alone, stenting or bypass surgery.

Until now, the standard test for measuring FFR involved an angiogram. FFR-CT is noninvasive. CT scans create a digital 3D model of the arteries leading to the heart. Computer models then simulate the flow within those arteries to assess whether there has been any narrowing. A color-coded map helps physicians determine, vessel by vessel, if sufficient blood is flowing to the heart.

"In many patients, FFR-CT can safely eliminate the need for an invasive angiogram," Dr. Rabbat said. "In other cases, it can detect heart disease that standard-of-care tests are missing."

For more information, call (708) 327-2772, option 2.



www.loyolamedicine.org/ffr-ct-cardiac

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TRANSPLANT NEWS 🕨

Loyola Transplants First Lung Following Ex Vivo Perfusion



As many as 80 percent of lungs from organ donors are not used, either because they are not in good enough condition to transplant, or there are doubts about their quality and there is no way to verify their condition.

Daniel Dilling, MD

An investigational technology called ex vivo lung perfusion (EVLP) potentially

could increase the organ supply by providing a more informed evaluation of lungs that otherwise would be deemed ineligible for transplant.

Loyola recently performed a transplant using a lung assessed with EVLP.

The transplant was performed as part of a multi-center clinical trial. A donor's lungs that appear to need further evaluation are flown to a lung assessment center in Silver Spring, MD. After spending three to six hours functioning on the EVLP machine, the lungs are tested and examined. If they are found suitable for transplant, the lungs are flown to a participating center.

The clinical trial is comparing 66 lung transplant patients who receive EVLP lungs with 66 patients who receive standard-of-care lungs. Loyola is the only Illinois center participating in the study.

Most donor lungs are not suitable for transplant because the organs are compromised by trauma, pre-existing lung diseases, medical treatments, pneumonia or the dying process.

"Transplant physicians tend to be very conservative in what donor lungs they will accept for transplant," said Daniel Dilling, MD, Loyola's medical director of lung transplantation.

During EVLP, lungs are inflated with a ventilator and blood vessels are perfused at body temperature with a solution of proteins and nutrients. The condition of the lungs is monitored with tests such as X-rays, bronchoscopies and oxygen level analyses. Donor blood is diluted and filtered away. Also removed are blood clots. Antibiotics and anti-inflammatory drugs are administered as a precaution.

The trial is titled: "Phase 2, Multicenter, Open-label Study to Measure the Safety of Extending Preservation and Assessment Time of Donor Lungs Using Normothermic Ex Vivo Lung Perfusion and Ventilation (EVLP) as Administered by the SPONSOR Using the Toronto EVLP System[™]." ■

Simultaneous Paired Kidney Exchange Started With Altruistic Donor

Terri Thede generously decided to donate one of her kidneys to a Loyola transplant patient she had never met.

Ms. Thede's altruism jump-started a living-donor kidney exchange that enabled two other Loyola patients to also receive lifesaving kidney transplants.

Ms. Thede's kidney was transplanted into William Parra. Mr. Parra's wife, Paula, paid it forward by donating a kidney to Vitalii Stasiuk. Mr. Stasiuk's mother, Svitlana Gotska, then paid it forward by donating a kidney to Irene Zapata.

The three transplants were performed simultaneously at Loyola University Medical Center. The paired exchange was coordinated by Amishi Desai, DO, medical director of kidney transplant, and Raquel Garcia Roca, MD, surgical director of kidney transplant.

Some patients have friends or family members who are willing to donate, but may not be a good match. Kidney exchanges solve that problem by connecting willing donors to matching patients.

The kidney exchange involved three operating rooms and three surgical teams. After the kidneys were removed from each donor, the recipients were brought in for their surgeries.

"Loyola has the resources and experience to successfully complete such a complex and challenging endeavor," Dr. Garcia Roca said.



ABOVE: Raquel Garcia Roca, MD, (far left) and Amishi Desai, DO, (far right) with donors and recipients who participated in a three-way paired kidney exchange

OPHTHALMOLOGY NEWS

Raising Awareness About Floppy Eyelid Syndrome and Sleep Apnea



Charles Bouchard, MD

Just by examining patients' eyelids, ophthalmologists can determine whether they're at risk for obstructive sleep apnea (OSA), which occurs in 25 percent of adults in the U.S. and is undiagnosed in 80 percent of those affected.

MD Multiple studies have determined that between 35 and 90 percent of patients with "floppy eyelid syndrome" (FES) also have OSA.

First described in 1981, FES is characterized by chronic conjunctivitis. Eyelids, deficient in elastin, can easily be distorted or turned inside out. The reasons for the association with OSA are unclear. Researchers in the ophthalmology department are investigating a theory that OSA generates systemic inflammation that leads to digestion of elastin in multiple tissues, including eyelids.

Charles Bouchard, MD, ophthalmology chair, said he sees about 10 patients per week with lax eyelids who appear to be at risk for OSA, but are undiagnosed and unaware. He suggests they ask their primary care provider about undergoing a sleep study.

OSA patients who sleep with a CPAP machine feel much more rested, and are at lower risk for cardiovascular events including stroke, arrhythmias and low-tension glaucoma.

Dr. Bouchard also is working to raise awareness of OSA among ophthalmologists. In the new textbook "Ocular Surface Disease: A Case-Based Guide," Dr. Bouchard contributed a chapter on the recognition and management of OSA.

"Careful examination of the laxity of the eyelids will increase the clinical support for the diagnosis of OSA," Dr. Bouchard wrote.

Multiple studies have determined that between 35 and 90 percent of patients with "floppy eyelid syndrome" (FES) also have OSA.

OPHTHALMOLOGY NEWS 🕨

Ophthalmologists Studying Microbiome, Antioxidants as Potential Therapies for Ophthalmic Diseases



Ping Bu, MD

In 2008, the National Institutes of Health established the Human Microbiome Project to investigate how the microbiome affects human health and disease.

The initial focus has been on five sites: nasal passages, oral cavity, skin, GI tract and urogenital tract. Recently, the microbiome of the GI track was shown to play a critical

role in autoimmune eye disease (uveitis), and other reports demonstrate the role of the ocular microbiome in the immune regulation of the ocular surface.

The researchers have found that microbiome diversity decreases in ocular surface disease. Each disease also has a unique microbiome signature. For example, compared with healthy controls, patients with Stevens-Johnson syndrome had higher levels of *Staphylococcus aureus* and MRSA. Ocular GVHD patients had higher levels of *Lactobacillus*, and patients with SJS and floppy eyelid syndrome had higher levels of *Corynebacterium*.

"Once we understand the role bacteria play in a normal ocular microbiome, it may be possible to alter the ocular microbiome to treat a variety of immune-mediated ocular surface diseases," said Charles Bouchard, MD, chair of Loyola's department of ophthalmology.

The microbiome research is an example of how the department of ophthalmology is advancing the understanding of ophthalmic diseases and disorders. Faculty members have been nationally and internationally recognized for their biomedical research in other areas, including corneal stem cell biology and ischemic retinal disease.

For example, studies led by Ping Bu, MD, demonstrated that systemically administered antioxidants can attenuate the effects of a high pressure-induced stroke in an animal model of retinal ischemia.

The retina is exquisitely sensitive to the damaging effects of free radicals and inflammation following stroke. To investigate whether the antioxidant resveratrol (found in lower concentrations in red wine) could cross the blood-retina barrier and protect against retinal ischemic reperfusion injury, researchers administered resveratrol before and after strokes were induced in rat retinas. In the control groups, strokes caused marked damage and thinning of the inner retinal layers. However, in the resveratrol-treated animals, there was clear evidence of reduced thinning in the entire retina, especially the inner retinal layers. "Resveratrol in high concentrations may provide therapeutic value for the management of retinal ischemic disorders," researchers concluded. The study was published in *Experimental Eye Research*.

In a later study published in *Experimental Eye Research*, Dr. Bu and colleagues reported similar findings for the antioxidant sulforaphane, a naturally occurring isothiocyanate found in cruciferous vegetables such as broccoli and cabbage.

"These findings suggest that further research is warranted in elucidating the use of sulforaphane for the management of diabetic retinopathy, retinal vascular occlusions and other such disease pathways resulting in retinal ischemia," Dr. Bu and colleagues concluded. ■



Loyola researchers are studying the ocular surface microbiome and how it varies in four autoimmune ocular surface diseases:

- Ocular graft vs. host disease (GVHD), a complication of stem cell transplantation to treat cancer
- Stevens-Johnson syndrome (SJS), a rare, serious disorder of the skin and mucous membranes, triggered by an autoimmune response to medications
- Sjögren's syndrome (dry eyes and dry mouth)
- Floppy eyelid syndrome associated with obstructive sleep apnea

W NECCA FOR

EXUAL HEALT

46 Loyola Medicine Physicians Named to *Chicago* Magazine's 2018 Top Doctors List

Forty-six Loyola physicians have been named to Chicago magazine's 2018 Top Doctors list.

Castle Connolly Medical Ltd., a healthcare research and information company, compiled the Top Doctors list for *Chicago* magazine. Castle Connolly's online nomination process is open to all licensed physicians in the United States. Physicians' educational and professional experiences are carefully screened before final selections are made from those physicians most highly regarded by their peers. Doctors cannot nominate themselves, nor pay to appear on the list.

Chicago magazine's 2018 Top Doctors list includes the following Loyola Medicine physicians

CARDIOVASCULAR MEDICINE

Alain Heroux, MD (cardiovascular disease)

Fred Leya, MD (interventional cardiology)

John Lopez, MD (interventional cardiology)

David Wilber, MD (cardiac electrophysiology)

CANCER

Kathy Albain, MD (medical oncology) Joseph Clark, MD (medical oncology) Bahman Emami, MD (radiation oncology) Ellen Gaynor, MD (medical oncology) Sucha Nand, MD (hematology) Ronald Potkul, MD (gynecologic oncology) William Small, Jr., MD (radiation oncology) Patrick Stiff, MD

ENDOCRINOLOGY, DIABETES AND METABOLISM

(hematology)

Mary Ann Emanuele, MD

FAMILY MEDICINE Eva Bading, MD Susan Locke, MD

INFECTIOUS DISEASE J. Paul O'Keefe, MD

INTERNAL MEDICINE James Boblick, MD William Boblick, Jr., MD Maureen Fearon, MD Michael Gill, MD, PhD Brian Ing, MD Mary Jo Liszek, MD Gregory Ozark, MD Robert Sulo, MD Linda Tayeh, MD Keith Veselik, MD

MATERNAL-FETAL MEDICINE Jean Ricci Goodman, MD

NEONATAL-PERINATAL MEDICINE Jonathan Muraskas, MD **NEUROLOGY** José Biller, MD

OPHTHALMOLOGY Charles Bouchard, MD James McDonnell, MD

ORTHOPAEDIC SURGERY Terry Light, MD (hand surgery)

OTOLARYNGOLOGY

Andrew Hotaling, MD (*pediatric otolaryngology*) John Leonetti, MD James Stankiewicz, MD

PEDIATRIC GASTROENTEROLOGY James Berman, MD

PEDIATRICS John Boblick, MD Hannah Chow, MD Sean Diamond, MD Garry Sigman, MD (adolescent medicine)

PULMONARY DISEASE Martin Tobin, MD

SURGERY Bipan Chand, MD

TOP DOC

THORACIC AND CARDIAC SURGERY

Mamdouh Bakhos, MD Wickii Vigneswaran, MD

UROLOGY Robert Flanigan, MD

Gottlieb Memorial Hospital Lloyd Klein, MD

(cardiovascular disease) MacNeal Hospital

Marc A. Freed, DO (*pediatrics*) Mary E. Gruszka, MD (*pediatrics*) Oscar R. Linares, MD (*pediatrics*)

LOYOLA IN THE NEWS **>**

Loyola Named to Becker's List of 100 Great Orthopaedic Programs

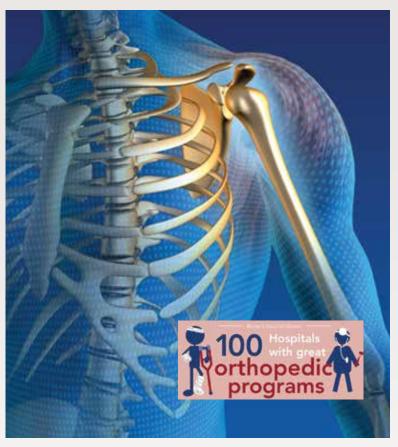
Loyola University Medical Center has been named to Becker's Hospital Review's recent list of "100 Hospitals and Health Systems with Great Orthopaedic Programs."

Becker's said hospitals on the list are national leaders in orthopaedic care. Many are high-volume centers recognized locally and nationally for quality care, outcomes, innovations, leading research departments and well-respected surgeons. Centers may not pay to be included on the list.

In developing the list, Becker's editorial team examined several rankings and ratings, including *U.S. News & World Report* rankings for orthopaedics, CareChex rankings for major orthopaedic surgery, Blue Cross Blue Shield Blue Distinction Centers for hip and knee replacement and the program's reputation for innovation.

Loyola's orthopaedic program is ranked 39th in the country in *U.S. News & World Report*'s 2017-18 Best Hospital rankings.

Becker's Hospital Review is a monthly publication offering business and legal news and analysis about hospitals and health systems. ■



Stroke Program Wins Gold Plus Award

For the ninth year in a row, Loyola University Medical Center has received the American Heart Association/American Stroke Association's Get With The Guidelines[®]-Stroke Gold Plus Quality Achievement Award.



The award recognizes Loyola's commitment to providing the most appropriate stroke treatment according to nationally recognized, research-based guidelines based on the latest scientific evidence.

To receive the Gold Plus award, hospitals must achieve 85 percent or higher adherence to all Get With The Guidelines-Stroke achievement indicators for two or more consecutive 12-month periods and achieve 75 percent or higher compliance with five of eight Get With The Guidelines quality measures.

Loyola also was named to the American Heart Association/American Stroke Association's Target: StrokeSM Honor Roll Elite. To qualify, a hospital must meet quality measures developed to reduce door-to-needle times for administering tPA.

Loyola Re-Designated Level III Perinatal Facility

The Illinois Department of Public Health (IDPH) has re-designated Loyola as an administrative perinatal center and Level III perinatal facility, the top designation such a facility can receive.

IDPH, which re-certifies centers every three years, noted Loyola's commitment to providing quality care for perinatal patients at Loyola and the region.

The perinatal center serves as a liaison between IDPH and member hospitals.

Loyola Physicians in the News



Cardiologist David Wilber, MD, has

received the Stritch Medal, the highest honor given by Loyola University Chicago Stritch School of Medicine. The Stritch Medal recognizes outstanding accomplishments of a Loyola graduate or faculty member who exhibits dedication to research, education and patient care. Dr. Wilber stepped down as director of cardiology in 2017. He remains medical director of clinical electrophysiology.



Kathleen Ward, MD, has been inducted into the first fellowship class of the American Association for Women Radiologists. Dr. Ward previously was named a fellow of the American College of Radiology.



Ob/Gyn Akua Afriyie-Gray, MD,

medical director of women's health, was honored as one of Chicago's most prominent African-Americans in medicine at the Harlem Fine Arts Show opening night gala. The Harlem Fine Arts Show is the largest traveling art show that profiles achievements in the arts, education, healthcare and economics.



Nephrologist Holly Kramer, MD,

MPH, has been named president-elect of the National Kidney Foundation, Inc. Dr. Kramer will assume leadership in October. The kidney foundation is the largest, most comprehensive and longstanding organization dedicated to the awareness, prevention and treatment of kidney disease. Dr. Kramer's research interests include the effects of nutrition and obesity on kidney disease and genetic variants of kidney disease.



Ongoing Clinical Trials

BMT - LEUKEMIA

208437: A Multicenter, Pivotal Phase 3 Study of Iomab-B Prior to Allogeneic Hematopoietic Cell Transplantation versus Conventional Care in Older Subjects with Active, Relapsed or Refractory Acute Myeloid Leukemia.

PRINCIPAL INVESTIGATOR: Patrick Stiff, MD ENROLLMENT PHONE: 708-327-2241

208941: An Open Label, Single Arm, Single Center Pilot Study to Evaluate the Safety, Efficacy and Feasibility of Haploidentical Stem Cell Transplantation (Haplo-SCT) Using Post-Transplant Cyclophosphamide (PTCy) as an Alternative Donor Source for Patients who Lack a Matched Sibling/Unrelated Donor Options

PRINCIPAL INVESTIGATOR: Zeina Al-Mansour, MD ENROLLMENT PHONE: 708-327-2241

CARDIOLOGY - CV SURGERY

208454: Transcatheter Aortic Valve Replacement in Patients with the Medtronic Evolut R System in Patients with Low Risk for Surgical Aortic Valve Replacement-Randomized Trial

PRINCIPAL INVESTIGATORS: J. Michael Tuchek, DO and Fred Leya, MD ENROLLMENT PHONE: 708-327-2494 or 708-327-2761

CARDIOLOGY - REDO-FIRM

208906: Randomized Evaluation of Redo Ablation Procedures of Atrial Fibrillation With Focal Impulse and Rotor Modulation Guided Procedures (REDO-FIRM) PRINCIPAL INVESTIGATOR: David Wilber, MD ENROLLMENT PHONE: 708-216-2644

GASTROLOGY - CROHN'S DISEASE

208649: An Open-Label, Phase 4 Study to Evaluate the Efficacy and Safety of Triple Combination Therapy with Vedolizumab IV, Adalimumab SC and Oral Methotrexate in Early Treatment of Subjects with Crohn's Disease Stratified at Higher Risk for Developing Complications **PRINCIPAL INVESTIGATOR:** Amar Naik, MD **ENROLLMENT PHONE:** 708-216-2058

GASTROLOGY INFECTIOUS DISEASE

209609: A Phase 3 Prospective, Randomized, Double-blinded, Placebo-controlled Clinical Study to Evaluate the Efficacy and Safety of Rebiotix RBX2660 (microbiota suspension) for the Prevention of Recurrent *Clostridium difficile* Infection.

PRINCIPAL INVESTIGATOR: Gail Hecht, MD ENROLLMENT PHONE: 708-216-2057

209779: SERES-012: ECOSPOR III: A Phase 3 Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Safety, Tolerability, and Efficacy of SER-109 vs. Placebo to Reduce Recurrence of *Clostridium-difficile* Infection (CDI) in Adults Who Have Received Antibacterial Drug Treatment for Recurrent CDI (RCDI) **PRINCIPAL INVESTIGATOR:** Gail Hecht, MD **ENROLLMENT PHONE:** 708-216-2057

GASTROLOGY - ULCERATIVE COLITIS / CROHN'S DISEASE

208212: Entyvio (Vedolizumab) Long-Term Safety Study: An International Observational Prospective Cohort Study Comparing Vedolizumab to Other Biologic Agents in Patients with Ulcerative Colitis or Crohn's Disease

PRINCIPAL INVESTIGATOR: Amar Naik, MD ENROLLMENT PHONE: 708-216-2057

HEMATOLOGY - LEUKEMIA

208603: A Phase 3, Multicenter, Randomized, Double-blind Study to Compare the Efficacy and Safety of Oral Azacitidine Plus Best Supportive Care versus Placebo Plus Best Supportive Care in Subjects with Red Blood Cell Transfusion-dependent Anemia and Thrombocytopenia Due to IPSS Lowerrisk Myelodysplastic Syndromes (NCT# 01566695)

PRINCIPAL INVESTIGATOR: Scott Smith, MD, PhD

ENROLLMENT PHONE: 708-327-3095

209342: UTX-TGR-304 A Phase 3, Randomized Study to Assess the Efficacy and Safety of Ublituximab in Combination with TGR-1202 Compared to Obinutuzumab in Combination with Chlorambucil in Patients with Chronic Lymphocytic Leukemia (CLL) **PRINCIPAL INVESTIGATOR:** Kathleen Phelan, MD **ENROLLMENT PHONE:** 708-327-3095 208238: KTE-C19 103 A Phase 1-2 Multi-Center Study Evaluating the Safety and Efficacy of KTE-C19 in Adult Subjects with Relapsed/Refractory B-precursor Acute Lymphoblastic Leukemia (r/r ALL) (KTE-C19-103) PRINCIPAL INVESTIGATOR: Patrick Stiff, MD ENROLLMENT PHONE: 708-327-3095

HEMATOLOGY - LYMPHOMA

208555: A Phase III, Randomized, Open-label, Clinical Trial to Compare Pembrolizumab with Brentuximab Vedotin in Subjects with Relapsed or Refractory Classical Hodgkin Lymphoma MK3475-204-0018 (Protocol Amendment 1_30Jun2016) PRINCIPAL INVESTIGATOR: Patrick Stiff, MD ENROLLMENT PHONE: 708-327-3148

HEPATOLOGY - CIRRHOSIS

210050: BCAA Supplemental Pilot Study: Branched Chain Amino Acid and Physical Activity to Improve Muscle Mass in Patients with Cirrhosis **PRINCIPAL INVESTIGATOR:** Eric Kallwitz, MD **ENROLLMENT PHONE:** 708-216-2058

HEPATOLOGY - NONALCOHOLIC STEATOHEPATITIS (NASH)

209030: GFT202-315-1 A Multicenter, Randomized, Double-Blind, Placebo-Controlled Phase III Study to Evaluate the Efficacy and Safety of Elafibranor in Patients with Nonalcoholic Steatohepatitis (NASH) and Fibrosis

PRINCIPAL INVESTIGATOR: Natasha Von Roenn, MD ENROLLMENT PHONE: 708-216-3268

207512: A Phase 3, Double-Blind, Randomized, Long-Term, Placebo-Controlled, Multicenter Study Evaluating the Safety and Efficacy of Obeticholic Acid in Subjects with Nonalcoholic Steatohepatitis (NASH) **PRINCIPAL INVESTIGATOR:** Natasha Von Roenn, MD **ENROLLMENT PHONE:** 708-216-3268

HEPATOLOGY - NONALCOHOLIC FATTY LIVER DISEASE (NAFLD)

209717: Procurement of Blood Samples from Subjects with Diagnosed Nonalcoholic Steatohepatitis (NASH) or Nonalcoholic Fatty Liver Disease (NAFLD) for Use in the Development of a Liver Fibrosis Test. **PRINCIPAL INVESTIGATOR:** Natasha Von Roenn, MD **ENROLLMENT PHONE:** 708-216-3268

MEDICAL ONCOLOGY - BREAST

209526: S1418/BR006 A Randomized, Phase III Trial to Evaluate the Efficacy and Safety of MK-3475 (Pembrolizumab) as Adjuvant Therapy for Triple Receptor-Negative Breast Cancer With 1 cm Residual Invasive Cancer or Positive Lymph Nodes (ypN+) After Neoadjuvant Chemotherapy -NCT02954874

PRINCIPAL INVESTIGATOR: Kathy Albain, MD ENROLLMENT PHONE: 708-327-3102

207344: PENELOPEB A Phase III Study Evaluating Palbociclib (PD-0332991), A Cyclin-Dependent Kinase (CDK) 4/6 Inhibitor in Patients With Hormone-Receptor-Positive, HER2-Normal Primary Breast Cancer With High Relapse Risk After Neoadjuvant Chemotherapy **PRINCIPAL INVESTIGATOR:** Kathy Albain, MD **ENROLLMENT PHONE:** 708-327-3102

MEDICAL ONCOCOLGY -GASTROINTESTINAL

209121: A021501 Preoperative Extended Chemotherapy vs. Chemotherapy Plus Hypofractionated Radiation Therapy for Borderline Resectable Adenocarcinoma of the Head of Pancreas **PRINCIPAL INVESTIGATOR:** Asha Dhanarajan, MD **ENROLLMENT PHONE:** 708-327-2831

MEDICAL ONCOLOGY -GENITOURINARY

208769: CA209-274 A Phase 3 Randomized, Double-blind, Multi-center Study of Adjuvant Nivolumab versus Placebo in Subjects with High Risk Invasive Urothelial Carcinoma -NCT02632409 **PRINCIPAL INVESTIGATOR:** Elizabeth Henry, MD **ENROLLMENT PHONE:** 708-327-3153

MEDICAL ONCOLOGY - LUNG

207993: A Phase 2, Parallel-Arm Study of MGCD265 in Patients with Locally Advanced or Metastatic Non-Small Cell Lung Cancer with Activating Genetic Alterations in Mesenchymal-Epithelial Transition Factor PRINCIPAL INVESTIGATOR: Kathy Albain, MD ENROLLMENT PHONE: 708-327-3102

MEDICAL ONCOLOGY -MELANOMA OR RENAL

209364: Predictive Biomarker Identification in Checkpoint Blockade Therapy in Cancer Patients PRINCIPAL INVESTIGATOR: Jose Guevara, MD ENROLLMENT PHONE: 708-327-3155

MEDICAL ONCOLOGY - RENAL

208806: S1500 A Randomized, Phase II Efficacy Assessment of Multiple MET Kinase Inhibitors (Cabozantinib [NSC #761968], Crizotinib [NSC #749005], Savolitinib [NSC #785348] and Sunitinib [NSC #736511]) in Metastatic Papillary Renal Carcinoma (PAPMET) NCT# 02761057 **PRINCIPAL INVESTIGATOR:** Elizabeth Henry, MD **ENROLLMENT PHONE:** 708-327-3153

208030: AV-951-15-303 A Phase 3, Randomized, Controlled, Multi-Center, Open-Label Study to Compare Tivozanib Hydrochloride to Sorafenib in Patients with Refractory Advanced Renal Cell Carcinoma NCT#02627963 **PRINCIPAL INVESTIGATOR:** Joseph Clark, MD

ENROLLMENT PHONE: 708-327-3236

NEPHROLOGY - BBC

209476: Blood Pressure, Blacks and Calcium (BBC) and Vitamin D Study. PRINCIPAL INVESTIGATOR: Holly Kramer, MD ENROLLMENT PHONE: 708-216-2058

NEPHROLOGY -CALCIPHYLAXIS

208956: A Phase 3, Intravenous Sodium Thiosulfate for Acute Calciphylaxis Treatment: A Multicenter, Randomized, Double-blind, Placebo-controlled Clinical Trial **PRINCIPAL INVESTIGATOR:** Vinod Bansal, MD **ENROLLMENT PHONE:** 708-216-3268

NEPHROLOGY - CHRONIC KIDNEY DISEASE

209332: ASCEND-D Study in Dialysis Subjects With Anemia of Chronic Kidney Disease to Assess Safety and Efficacy of Daprodustat Compared to Erythropoietin **PRINCIPAL INVESTIGATOR:** Vinod Bansal, MD **ENROLLMENT PHONE:** 708-216-3268

NEPHROLOGY - ESSENTIAL HYPERTENSION

209116: Feasibility of a Web-Based Telephone Application to Monitor Home Blood Pressure Reading: MyLoyola Blood Pressure Study. PRINCIPAL INVESTIGATOR: Holly Kramer, MD ENROLLMENT PHONE: 708-216-2028

NEUROLOGY - ARAMIS

208004: Management of Acute Stroke Patients on Treatment with New Oral Anticoagulants: Addressing Real-world Anticoagulant Management Issues in Stroke (ARAMIS) Registry

PRINCIPAL INVESTIGATOR: Sean Ruland, DO ENROLLMENT PHONE: 708-216-8122

NEUROLOGY - CREST-2

209475: Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial (CREST-2) PRINCIPAL INVESTIGATOR: Camilo Gomez, MD ENROLLMENT PHONE: 708- 216-8122

NEUROLOGY - COAST

208777: Coiling of Aneurysms Smaller Than 5mm with Hypersoft [®] and Hydrogel Coils PRINCIPAL INVESTIGATOR: Camilo Gomez, MD ENROLLMENT PHONE: 708- 216-8122

OBSTETRICS AND GYNECOLOGY -UROGYNECOLOGY AND RECONSTRUCTIVE SURGERY

210146: The Predictive Value of the Active Straight Leg Raise on the Efficacy of a Sacroiliac Joint Belt in Posterior Pelvic Girdle Pain during Pregnancy. PRINCIPAL INVESTIGATOR: Colleen Fitzgerald, MD ENROLLMENT PHONE: 708-216-3268

Ongoing Clinical Trials (continued)

PSYCHIATRY - MAJOR DEPRESSIVE DISORDER

210386: Real-Life Effectiveness of Vortioxetine in Patients with Major Depressive Disorder (MDD) and Cognitive Symptoms. A Non-Interventional, Prospective Cohort Study to Assess Real-Life Effectiveness of Vortioxetine in Three Countries

PRINCIPAL INVESTIGATOR: Angelos Halaris, MD, PhD ENROLLMENT PHONE: 708-216-3268

PSYCHIATRY - TREATMENT-RESISTANT DEPRESSION

209618: 54135419TRD3008 An Open-Label Long-Term Extension Safety Study of Intranasal Esketamine in Treatment-Resistant Depression **PRINCIPAL INVESTIGATOR:** Angelos Halaris, MD, PhD **ENROLLMENT PHONE:** 708-216-3268

PULMONARY - TRAUMA

209555: External Validation of Phosphatidylethanol (PEth) in Trauma Patients PRINCIPAL INVESTIGATOR: Majid Afshar, MD ENROLLMENT PHONE: 708-216-2028

SURGERY - BEST-CLI

209337: Trial to Compare Best Endovascular versus Best Surgical Therapy in Patients with Critical Limb Ischemia (BEST) PRINCIPAL INVESTIGATOR: Bernadette Aulivola, MD ENROLLMENT PHONE: 708-216-8122

UROLOGY - KIDNEY STONES

208983: Kidney Stone Urinary Microbiota in the Context of Metabolic Syndrome PRINCIPAL INVESTIGATOR: Kristin Baldea, MD ENROLLMENT PHONE: 708-216-2057



Upcoming CME Events

Pre-registration is required. Please contact Loyola's Division of CME at **708-216-3236** or **1-800-424-4850** or visit **ssom.luc.edu/ cme/events/upcomingevents/**

15TH ANNUAL APPROACHES TO HEMATOLOGY/ONCOLOGY CARE AND SCREENING FOR PRIMARY CARE PHYSICIANS

SATURDAY, APRIL 28, 2018 LOCATION: Loyola University Chicago Stritch School of Medicine

This course is designed for primary care and family practice physicians and other healthcare professionals who treat patients with cancer or have a special interest in recent advances in diagnosis and care. The course will focus on evolving cancer treatments, management strategies, screening for early detection and intervention.

NEUROVASCULAR AND IMMUNOLOGICAL COMPONENTS OF OPHTHALMIC DISEASE CURRENT CONCEPTS OF EMERGING TREATMENT STRATEGIES

SATURDAY, MAY 19, 2018 LOCATION: Loyola University Chicago Stritch School of Medicine 5.5 AMA PRA Category 1 credits™

This course is designed for healthcare professionals who treat patients with neurovascular problems. The program will provide attendees with an understanding of emerging mechanisms associated with the occurrence of glaucoma, diabetic retinopathy and ocular inflammation; increase knowledge of evolving pharmacotherapies through discussion of current and planned clinical trials and pipeline drugs; and provide participants with an understanding of translational research opportunities as applied to current ocular disease pathobiology.

CARDIOLOGY ON THE MAGNIFICENT MILE

JUNE 1 – 3, 2018 LOCATION: Loyola University Chicago, Corboy School of Law 25 E. Pearson St., Chicago, IL 17.25 AMA PRA Category 1 credits™

This course is designed for cardiologists, primary care physicians and all healthcare professionals who evaluate and treat patients with cardiovascular conditions.

This conference will highlight evidencebased approaches for:

- Acute and chronic coronary artery disease
- Valvular heart disease
- Heart failure
- Pulmonary embolism management
- Atrial fibrillation
- Cardiac devices
- Hypertension management new definitions and guidelines
- Diabetes mellitus and heart disease
- Comprehensive lipid management
- Cardiovascular imaging

Loyola Research News

CHARCOT FOOT SURGERY SUCCESS RATE

Following Charcot foot surgery that employs an external fixator, 77.6 percent of feet had favorable outcomes, including the ability to walk outside the home using commercially available therapeutic footwear. **LOYOLA LEAD AUTHOR:** Michael Pinzur, MD **JOURNAL:** Foot & Ankle International

NEW DIAGNOSTIC TOOL FOR BIPOLAR DISORDER/DEPRESSION

Heart rate variability, as measured by an electrocardiogram, indicated whether subjects had major depression or bipolar disorder. A noninvasive, easy-to-use and affordable test to differentiate between major depression and bipolar disorder could be beneficial in both psychiatric and primary care practices.

LOYOLA LEAD AUTHOR: Angelos Halaris, MD, PhD JOURNAL: World Journal of Biological Psychiatry

BLOOD TEST IDENTIFIES ALCOHOL ABUSERS IN THE ICU

A blood test for phosphatidylethanol (PEth) can accurately identify critically ill hospital patients who misuse alcohol. With a half-life of four to 12 days, PEth lasts longer than blood alcohol concentration and remains detectable for up to three weeks.

LOYOLA LEAD AUTHOR: Majid Afshar, MD

JOURNAL: Alcoholism: Clinical & Experimental Research

BEDSIDE PHARMACIST SPEEDS ADMINISTRATION OF rtPA

Having a pharmacist at the bedside of an ischemic stroke patient reduces rtPA door-to-needle time by a median of 23.5 minutes. Pharmacists can help evaluate rtPA contraindications, elicit and review medical histories and medication lists, manage blood pressure, calculate the rtPA dose, etc.

LOYOLA LEAD AUTHOR: Megan A. Rech, PharmD JOURNAL: Annals of Pharmacotherapy

HOW REPEATED C. DIFF INFECTIONS CHANGE BEHAVIOR

After experiencing repeated bouts of *Clostridium difficile* infections, many patients significantly change their behaviors (such as more frequent hand washing) but some precautions (such as avoiding certain foods or using probiotic supplements) may do little to prevent future infections.

LOYOLA LEAD AUTHOR: Frances M. Weaver, PhD JOURNAL: Infection Control & Hospital Epidemiology

29TH ANNUAL LOYOLA OPHTHALMOLOGY RESIDENT-ALUMNI DAY

FRIDAY, JUNE 8, 2018 LOCATION: Loyola University Chicago Stritch School of Medicine

This activity is designed for ophthalmologists, optometrists, residents, and medical students who have an interest in expanding knowledge in vision science, cataract surgery, retina, cornea/ external disease, oculoplastics, glaucoma, neuro-ophthalmology and strabismus. Participants will gain updated knowledge in the diagnosis, treatment and efficient management of ocular disease.

COMPREHENSIVE REVIEW COURSE OF MUSCULOSKELETAL IMAGING

SEPTEMBER 8–9, 2018 LOCATION: Loyola University Chicago Stritch School of Medicine

This two-day course is designed to enhance general knowledge and reinforce prior information applicable to patient care as well as provide focused musculoskeletal knowledge for optimized patient outcomes and clinical communication. The first day of the course will focus on basic musculoskeletal imaging findings and strategies. The focus for the second day will be advanced-level knowledge. Challenge sessions allow participants to actively apply presented material. Course participants will be prepared for various levels of imaging complexity.

11TH ANNUAL GLAUCOMA/ CATARACT SYMPOSIUM: INNOVATIONS IN GLAUCOMA CARE AND CATARACT SURGERY

SATURDAY, SEPTEMBER 15, 2018 LOCATION: Loyola University Chicago Stritch School of Medicine

This symposium is designed to provide physicians with the newest information, designs, and techniques in the treatment of glaucoma and cataracts. Participants will gain updated scientific knowledge and guidance to adapt new practices and/or modify existing practice patterns to improve quality patient care.

LOYOLA CASE REPORTS 🕨



Adolescent Sleep Apnea

Sleep apnea prevented high school student Jason Johnson from getting a good night's sleep. Otolaryngologist Paul Jones, MD, performed a supraglottoplasty. Now Jason falls asleep more easily and stays asleep through the night.

www.loyolamedicine.org/sleep-apnea



Lung-Sparing Surgery for Lung Cancer

After Victor Gryniewicz was diagnosed with lung cancer, surgeons at two hospitals said his entire right lung would have to be removed. Mr. Gryniewicz did not want to limit his active lifestyle, so he sought a third opinion from thoracic surgeon James Lubawski, MD. Dr. Lubawski resected the entire tumor while preserving 65 percent of the lung's function.

www.loyolamedicine.org/lung-surgery



Two-Day Surgery for Scoliosis and Sagittal Imbalance

Mary Pat Sieck had chronic pain from severe scoliosis and sagittal imbalance, and it kept getting worse. Ms. Sieck needed a cane to walk and was told that without surgery she would end up in a wheelchair. Spine surgeon Russ Nockels, MD, corrected her deformity with a major surgery performed over two days.

www.loyolamedicine.org/surgery-scoliosis

Bilateral Lung Transplant for New Mother

Cystic fibrosis patient Fanny Vlahos was nearing the end of the second trimester of her pregnancy when she caught pneumonia and her lung function declined drastically. By the time her son was born, Ms. Vlahos was too weak to pick him up. After undergoing a bilateral lung transplant, Ms. Vlahos was able to breathe easily again.

www.loyolamedicine.org/bilateral-lung-transplant



Loyola Launches Pancreas Transplant Program

Loyola's new pancreas transplant program has cured patient Anthony Law of his type 1 diabetes. Before his transplant, Mr. Law had brittle diabetes, characterized by extreme, life-threatening swings in blood sugar levels. Since his transplant, Mr. Law no longer has to take insulin and he has not experienced hypoglycemia.

www.loyolamedicine.org/pancreas-transplant

IDEC



Meet Our New Physicians



Mary Barsanti-Sekhar, MD

Assistant Professor General Internal Medicine Pediatrics

CLINICAL EXPERTISE

Infectious Diseases, internal medicine, pediatrics, preventive medicine

FELLOWSHIP

Washington University in St. Louis – Infectious diseases

RESIDENCY

Rush University Medical Center – Internal Medicine and Pediatrics

MEDICAL SCHOOL

St. Louis University School of Medicine



Anna Cooper, MD, MPH

Instructor Orthopaedic Surgery and Rehabilitation

CLINICAL EXPERTISE

Benign and malignant tumors of bone and soft tissue, broken bones, metastatic bone disease, orthopaedic oncology

FELLOWSHIP University of Florida – Orthopaedic Surgery

RESIDENCY

University of Rochester – Orthopaedic Surgery

MEDICAL SCHOOL University of Rochester School of Medicine and Dentistry



Larissa Ghadiali, MD

Assistant Professor Ophthalmology

CLINICAL EXPERTISE

Blepharospasms, Botox, cosmetic and reconstructive surgery, double vision, droopy eyelids, dry eyes, eyelid lesions, hemifacial spasms, hyaluronic acid fillers, itchy eyes/ocular allergy, neuro-ophthalmology, ocular trauma, thyroid eye disease

FELLOWSHIP

Columbia University – Oculoplastic Surgery and Neuro-Ophthalmology

RESIDENCY

New York Medical College – Ophthalmology MEDICAL SCHOOL

New York Medical College



Antonio Iglesias, MD

Assistant Professor Neurology

CLINICAL EXPERTISE

Dementia and Alzheimer's disease, EEG, epilepsy, epilepsy surgery, general neurology, headache, memory loss, migraine, motor neuron diseases or disorders, multiple sclerosis, neurofibromatosis, neuromyelitis optica, Parkinson's disease, pediatric epilepsy, seizures, stroke prevention, tuberous sclerosis

FELLOWSHIP University of Chicago – Clinical Neurophysiology

RESIDENCY

Loyola University Medical Center - Neurology

MEDICAL SCHOOL Universidad El Bosque, Bogota, Colombia

Haseeb Ilias Basha, MD

Assistant Professor Cardiology

CLINICAL EXPERTISE Heart failure, heart transplant, left ventricular assist devices, pulmonary hypertension

FELLOWSHIP State University of New York Medical Center – Cardiology Columbia University Medical Center – Heart Failure/Cardiac Transplantation

RESIDENCY Hurley Medical Center – Internal Medicine

MEDICAL SCHOOL Tamil Nadu M.G.R. Medical University, India

Eden Lake, MD

Assistant Professor Dermatology

CLINICAL EXPERTISE

Acne, autoimmune skin disorders, connective tissue diseases, cosmetic dermatology, general dermatology, psoriasis, rosacea, skin cancer

RESIDENCY

University of Illinois at Chicago – Dermatology

MEDICAL SCHOOL University of Illinois at Chicago

Monica Langer, MD

Affiliate Assistant Professor Pediatric Surgery

CLINICAL EXPERTISE Laparoscopic surgery, minimally invasive surgery, pediatric surgery

FELLOWSHIP University of British Columbia – Pediatric Surgery

RESIDENCY

University of British Columbia Canada – General Surgery University of British Columbia Canada – Pediatric Surgery

MEDICAL SCHOOL University of Saskatchewan, Canada







Monica Maalouf, MD

Instructor General Internal Medicine

CLINICAL EXPERTISE

Adult medicine, care of Spanish-speaking patients, diabetes, general medicine/women's health, hypertension, primary care, STD screening and treatment, smoking cessation counseling and treatment

RESIDENCY

New York University Medical Center - Internal Medicine

MEDICAL SCHOOL

University of Minnesota Medical School



Charles Palin, DMD

Assistant Professor Oral Surgery

CLINICAL EXPERTISE

Cosmetic dentistry/veneers, dental care for the medically compromised, dental Implants, dental oncology, general dentistry, head and neck cancer, mandibular reconstruction, maxillofacial prosthodontics, prosthodontics



Purvi Patel, MD

Assistant Professor Trauma, Surgical Critical Care and Burns

CLINICAL EXPERTISE

Blood management, gallbladder disorders, general surgery, hernia, surgical critical care, trauma

FELLOWSHIP University of Nevada School of Medicine -Surgical Critical Care

RESIDENCY Rush University Medical Center/Stroger Hospital of Cook County - General Surgery

MEDICAL SCHOOL

Rush Medical College of Rush University



Paul Prinz, MD

Assistant Professor Orthopaedic Surgery and Rehabilitation

CLINICAL EXPERTISE General orthopaedics, hand problems, joint replacement, knee ligament reconstruction, broken bones

FELLOWSHIP Loma Linda University Medical Center -Hand Surgery

RESIDENCY University of Illinois College of Medicine -Orthopaedic Surgery

MEDICAL SCHOOL University of Chicago Pritzker School of Medicine







prevention, transient ischemic attack FELLOWSHIP Loyola University Medical Center - Vascular

Neurology RESIDENCY

John H. Stroger, Jr. Hospital of Cook County -Internal Medicine: General Loyola University Medical Center - Neurology

MEDICAL SCHOOL Universidad Central del Este, Dominican Republic

Jasmine Walton, MD

Assistant Professor Family Medicine

CLINICAL EXPERTISE Family medicine, primary care

FELLOWSHIP Cook County/Loyola/Provident Family Medicine Residency Program - Family Medicine

RESIDENCY

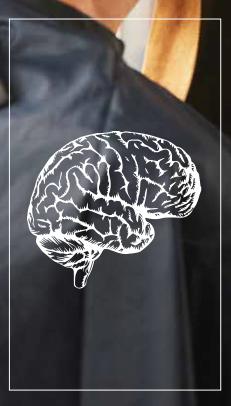
Cook County/Loyola/Provident Family Medicine Residency Program - Family Medicine

MEDICAL SCHOOL Ross University School of Medicine, West Indies



Monica Bembry, 37 Loyola stroke patient

BODY FSOUL



A stroke can happen to anyone, even healthy, active people like Monica. Loyola Medicine is revolutionizing treatment for disabling strokes. Advanced equipment and procedures performed by highly skilled neurologists enable patients like Monica to fully recover. Thanks to Loyola Medicine, Monica is working again.

Our patients are our inspiration and they count on us to meet not only their physical needs, but emotional needs as well.

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Loyola Medicine cares for both body and soul.

We also treat the human spirit.®

loyolamedicine.org #BodyAndSoul Connect with Loyola Medicine online



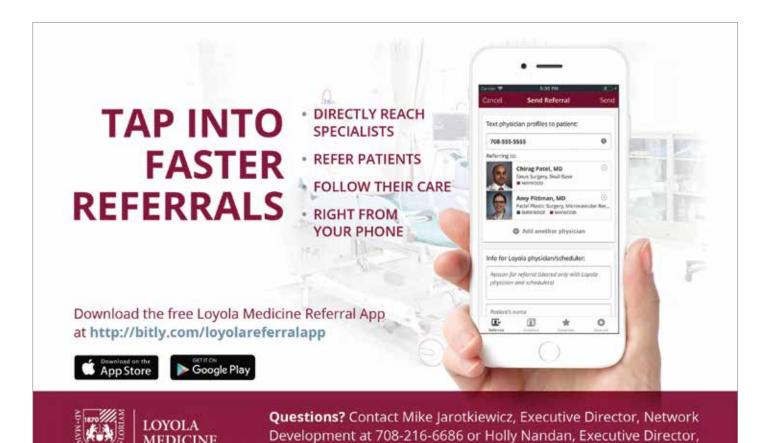


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MEDICINE



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