



2018-2019 ACADEMIC YEAR
UPDATE ON RESEARCH ACTIVITY
AND MEDICAL EDUCATION

Eboni Price-Haywood, MD,
Director, Center for Outcomes
and Health Services Research



A Commitment to Better Patient Outcomes Through Research and Education



Front row, from left: Melissa Johnson, Strategic Operations Coordinator; Yvens Laborde, MD, Medical Director of Global Health Education; Ronald Amedee, MD, Dean of Medical Education and DIO, GME; Leo Seoane, MD, Chief Academic Officer and Senior VP; Shelly Monks, System VP, Academic Affairs and Chief Administrative Officer; Carl Tholen, AVP, Undergraduate Medical Education; Edmond Kabagambe, PhD, AVP Research Operations; Beth Kettenring, Director, Office of Sponsored Programs

Middle row, from left: Samantha Bright, Director, Clinical Research; Eboni Price-Haywood, MD, Director, Center for Outcomes and Health Services Research; Mark Effron, MD, Medical Director for Clinical Research; Joseph Breault, MD, Chair, Ochsner Institutional Review Board

Back row, from left: Randy Langford, Academics Chief Financial Officer; Julia Cook, PhD, Director, Institute for Translational Research; Michael Smith, MD, Medical Director, Clinical Simulation and Patient Safety Center; Kristin Tschirn, Director, Continuing Medical Education



RESEARCH

Mission: To enhance, foster and promote translational, clinical and health services research of the highest quality to improve the clinical care of our patients.



EDUCATION

Mission: To educate and train a health professional workforce that is prepared to provide safe and efficient care in an evolving healthcare delivery system.

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Show Your Support

Innovative, high-quality research and education lead to enhanced and more comprehensive patient care. Be a part of our ongoing commitment to these endeavors. Give to Ochsner Academics by visiting ochsner.org/giving/donate or calling **504.842.7135**.



Leonardo Seoane, MD, FACP

Letter from Leonardo Seoane, MD, Chief Academic Officer

We have made great progress in Academics at Ochsner Health System over the past decade. The Ochsner way is, above all, putting patients first. The pursuit of this goal has driven us to embrace our potential as an independent academic medical center. Each year, we've grown in our capacity to create the healthcare of the future for the communities we serve. I am proud to share with you the great work being done by our educators and researchers in Ochsner's Academic Annual Report.

At the forefront of our dedication to the future of healthcare is the work of Ochsner Research, which now has 3,000 patients in trials a year. Additionally, the Center for Outcomes and Health Services Research has leveraged our

access to extensive clinical data to help discover the best therapies for our patients and determine which therapies are most cost-effective.

You'll read in the following pages about work featuring translational research with immediate impact for patients. We're tackling significant public health concerns, seeking effective treatments for opioid addiction in primary care settings and exploring community-based training for caregivers of patients with dementia. In partnership with the Cleveland Clinic and the Mayo Clinic, our physician-scientists are pursuing novel training and treatment options for cardiac care. Offering hope when there are few other options, our Precision Cancer Therapies Program is the only Phase 1 cancer trial center between

Houston and Birmingham and provides results of national significance. Through our clinical trials programs we are providing novel therapies to our patients closer to home.

At Ochsner Academics, the spirit of inquiry and scientific advancement that drives our development of leading-edge care is motivated by our patients. It is that same motivation that undergirds our commitment to superior workforce training.

A 2019 Association of American Medical Colleges study estimates a current shortage of about 20,000 physicians in the United States. Projections show that shortage may quadruple by 2032, and we know that its effects are more pronounced in the south. The patients of tomorrow will be waiting, and Ochsner Education is positioning itself to fill that gap for the communities we serve. Each year, we train about 400 medical students and 300 residents, and over 600 allied health students complete a portion of their clinical training in the Ochsner Health System. We are also excited about our new partnership with Louisiana State University Health Sciences Center Shreveport, which trains an additional 500 medical students and 580 residents and fellows.

We know that physicians who train in an excellent system deliver quality care for their patients. Beyond providing quality technical training in an integrated group practice, the informal curriculum at Ochsner – our compassionate dedication to the patient, innovative thinking, and proactive focus on wellness – creates a learning environment that produces superior care, putting patients first and meeting healthcare needs in a community-focused way.

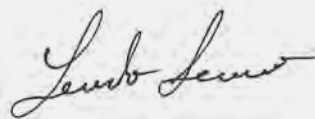
In this report, you'll read about how Ochsner Education is meeting the continuum of medical education needs of the region, from pipeline programs to continuing education units. We are pleased to note that this year we celebrate a decade of partnership with The University of Queensland in founding the UQ Ochsner Clinical School. Our unique medical school program

trains American medical students for two years in the Australian healthcare system at one of the top medical schools in the world before finishing with two years in Ochsner's exceptional clinical environment.

In addition to the UQ OCS, we are partnering with LSU, Xavier University and other Louisiana schools in order to invest together in elevating the clinical curriculum for the healthcare workforce of our state. We continue to expand our residencies, including new programs in emergency medicine. Experience tells us that 70% of physicians will practice within 70 miles of where they finish their residency. This means Ochsner's presence as an academic medical center directly contributes to the well-being of our community and the region.

Every day the men and women who make up Ochsner Academics – from students to physician-scientists to grants managers – demonstrate their professionalism and dedication. Ochsner Health System has birthed a place where academic excellence is shaped by practical realities, spurring creative use of limited resources in order to improve patient care now and in the future.

At Ochsner Academics, our story demonstrates the potency of choosing to propel ourselves forward into excellence, knowing that our community is more than worth such an investment. We are proud to be well on the way to ensuring that we can provide groundbreaking care from the healthcare workforce of the future.



Leonardo Seoane, MD, FACP

**Chief Academic Officer
Senior Vice President
Ochsner Health System**

AWARDS & ACCOLADES



Shelly Monks

Shelly Monks to Become President of AIAMC

Shelly Monks, System Vice President for Academic Affairs at Ochsner and current Vice President of the Alliance of Independent Academic Medical Centers, will officially become President of the AIAMC in April 2020. She will be the first non-physician, and only second female, president of this organization of independent teaching hospitals. The AIAMC has an almost 30-year track record of connecting graduate medical education as a strategic asset for delivering innovative, exceptional patient care. Members, including Ochsner, actively develop and apply real-world solutions to thrive in the continually changing regulatory and accreditation environment.

Ochsner Receives 2018 Innovator Award From the Association of Community Cancer Centers

Ochsner won this award in October 2018 specifically for the Ochsner Cancer Institute's Precision Cancer Therapies Program, a partnership with the non-profit Translational Genomics Institute (TGen). This program offers early phase clinical trials to Ochsner cancer patients based on next-generation genetic sequencing.



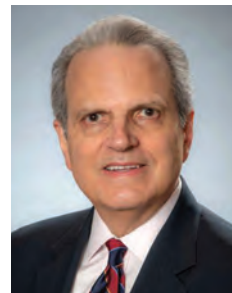
Members of the Precision Cancer Therapies Program team



Michael Smith, MD

College of Residency Directors (CORD) Gives Michael Smith, MD 2018 Distinguished Educator Award

Michael Smith, MD, Medical Director, Clinical Simulation and Patient Safety Center, received this honor, which is presented to emergency medicine faculty for sustained scholarship in emergency medicine education.



Ronald Amedee, MD

Dean of Medical Education Receives 2019 Parker J. Palmer Courage to Lead Award

Ronald Amedee, MD, Dean of Medical Education and Head of The University of Queensland Ochsner Clinical School, has been honored by the Accreditation Council for Graduate Medical Education with the 2019 Parker J. Palmer Courage to Lead Award. This award recognizes Ronald Amedee, MD's decadelong leadership and administrative guidance as a designated institutional officer for the residency programs at Ochsner.



Leo Seoane, MD & Veronica Gillispie, MD

Ochsner 2018 Spirit of Leadership Awards

This program acknowledges leaders, physicians and teams demonstrating outstanding leadership qualities and contributions to their profession, Ochsner and the community. Honorees for 2018 included:

- **Veronica Gillispie, MD**, Senior Physician, Obstetrics and Gynecology, Ochsner Baptist – Physician Academic Contributor of the Year
- **Edward McCoul, MD**, Senior Physician, Otorhinolaryngology, Ochsner Medical Center – Jefferson Highway – Finalist
- **Tamika Webb-Detiege, MD**, Senior Physician, Rheumatology, Ochsner Medical Center – Jefferson Highway – Finalist

Lydia A. Bazzano, MD Appointed to USDA and HHS 2020 Dietary Guidelines Advisory Committee

Lydia Bazzano, MD, PhD, MPH, CIP, internal medicine physician and Chair of the Ochsner Institutional Review Board, was appointed by U.S. Secretary of Agriculture Sonny Perdue and the U.S. Health and Human Services Secretary Alex Azar to serve on the U.S. Department of Agriculture and HHS 2020 Dietary Guidelines Advisory Committee, formed to ensure that America's dietary guidelines reflect the latest scientific findings.

Leo Seoane, MD Named LSU Health Shreveport's Associate Vice Chancellor of Academic Affairs

Leo Seoane, MD, FACP, will be the first Associate Vice Chancellor for Academic Affairs at LSU Health Sciences Center Shreveport. He will work with LSU Health Shreveport's chancellor, provost, deans and the Office of Graduate Medical Education to bolster all aspects of student and residency training, with an initial focus on curriculum updates.

Outstanding UQ Ochsner Clinical School Teachers Receive Teaching Excellence Awards

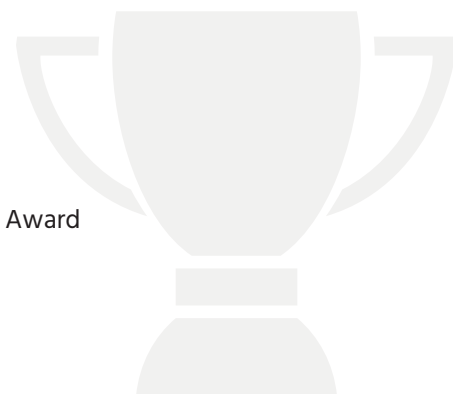
Each year, Ochsner Academics presents the Teaching Excellence Award (TEA) to outstanding UQ OCS teachers in its six core rotations. 2019 honorees are:

- **J. Lindhe Guarisco, MD** – Pediatrics (also 2019 Teacher of the Year)
- **Shilpa Amara, MD** – Psychiatry
- **Ewelina Griffin, MD** – OB/GYN
- **Jason Hill, MD** – Internal Medicine
- **Melissa Montgomery, MD** – Surgery
- **Monica Williams, MD** – General Practice

Ochsner Honors 2018 Research Mentors of the Year

Any Ochsner physician-scientist who has been instrumental in the development of a new researcher may be nominated for this award. Those honored for 2018 include:

- **Maged Guirguis, MD**
Junior Faculty Mentor Award
- **Jose Tafur Soto, MD**
Resident or Fellow Mentor Award
- **Susan Gunn, MD**
UQ OCS Medical Student Mentor Award



RESEARCH: **Innovation & Impact**

The research undertaken at Ochsner Health System puts the patient first. As the largest academic medical center in Louisiana, Ochsner has over 3,000 patients enrolled in clinical trials every year. Our focus is on research that has immediate bedside impact. Clinical trials, such as those offered through our Precision Cancer Therapies Program, provide our community with access to innovative care close to home. The findings from these trials lead to therapeutic breakthroughs that offer new hope to patients nationwide. Our desire to meet the needs of patients in the community we serve provides the impetus for the work we do – whether in precision medicine, in developing treatment options for public health problems based in primary care, in designing novel ways to train the next generation, or in leveraging data to answer clinical questions. From medical students and grant managers to physician-scientists, Ochsner's people dedicate themselves to discovering the future of healthcare. Driven by a spirit of inquiry and care for patients, we are advancing treatment options and changing lives.

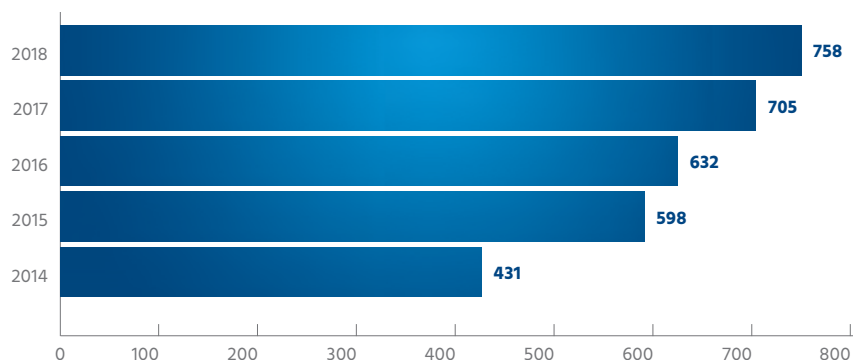
Sponsor Life-Changing Research

Your support is needed for research investigations into the underlying causes of human diseases to clinical trials that provide our patients access to most cutting-edge care. Give to Ochsner Research by visiting ochsner.org/giving/donate or calling **504.842.7135**.

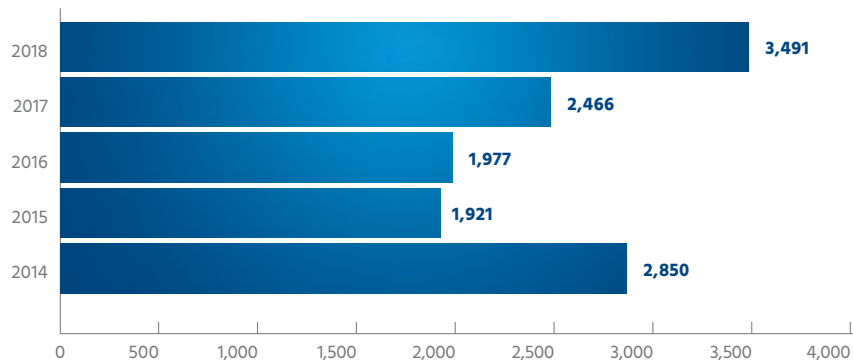
RESEARCH: At a Glance

Ochsner Research saw an **8.6% increase in active clinical trials**, and a nearly **130% increase in patients enrolled in clinical therapeutic trials**, between 2017 and 2018. Researchers also brought in over **\$1.9 million more in grant funding in 2018** versus the previous year.

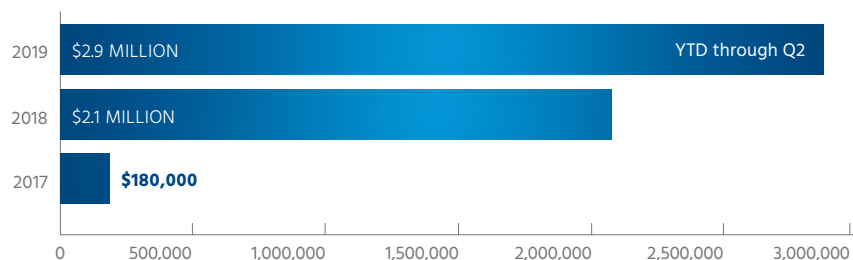
ACTIVE CLINICAL TRIALS



PATIENTS ENROLLED IN CLINICAL THERAPEUTIC TRIALS



GRANT FUNDING



Ochsner's Physician Research Steering Committee

The PRSC contributes to Ochsner's research strategy, offers insight into operational issues and elevates concerns from physicians conducting research. This committee provides feedback that research leadership needs to hear and communicates our research mission and direction to colleagues.

- Hernan A. Bazan, MD (PRSC Chair)
- Bridget A. Bagert, MD
- Stephen F. Bardot, MD
- Joseph Biggio Jr., MD
- Ari J. Cohen, MD
- John T. Cole, MD
- Julia B. Garcia-Diaz, MD
- Naseer A. Khan, MD
- David A. Margolin, MD
- Marc Matrana, MD
- Edward McCoul, MD
- Daniel P. Morin, MD
- Leo Seoane, MD
- W. Charles Sternbergh III, MD
- Olawale Sulaiman, MD

Non-voting Members

- Mark Effron, MD
- Richard D. Guthrie, Jr., MD
- Eboni Price-Haywood, MD



Marc Matrana, MD, meets with a patient

PRECISION CANCER THERAPIES PROGRAM: Creating Hope for Patients Through Innovative Research and Treatment Options

The significance of an independent academic medical center with deep roots in the community, one dedicated to persistent, innovative, patient-centered research, can be seen in the exciting results of the Ochsner Precision Cancer Therapies Program. Not only has PCTP provided life-extending care for patients since it was launched in 2017, but it is also widening the impact of that research to benefit patients across the nation, in all sorts of communities, as evidenced by the Innovator Award granted by the Association of Community Cancer Centers in 2018.

Marc Matrana, MD, MSc, FACP, Medical Director of PCTP, says that their growing reputation is the fruit of dedication and hard work on the

part of the program's physicians, medical and research staff, and partner organizations. "There has been tremendous reward both academically and in patient outcomes," he adds. He sees precision medicine as a key component of the healthcare of the future and predicts that, as information grows, it will become the route to successful treatment for more and more patients.

Using Precision Medicine to Alter Patient Outcomes

The PCTP has two arms: one dedicated to genetic testing of cancers for specific mutations, and the other focused on early phase clinical trials of drugs paired to these

mutations. Due to a strategic partnership with the Translational Genomics Research Institute (TGen), a non-profit research group and leader in precision oncology, PCTP was able to make connections and conduct early phase clinical trials on promising new drugs much more quickly than might have otherwise been possible.

The challenges of precision medicine are many, both medically and in terms of developing the financing to fund treatment with such a significant technological component, as both artificial intelligence and machine learning are required to process mountains of raw data. While the hope of precision medicine is that using the right drugs for a patient immediately will save both money and time, the road to that reality still has a number of obstacles.

Marc Matrana, MD, says that many of the studies done within the program have led either to new trials or FDA approvals of new drugs. Beyond these individual victories, however, PCTP has proven the value of having a coordinating center in the region. Because technology is expanding so rapidly, individual providers cannot keep up. Centers like PCTP can assure the possibility of next-generation care.

Providing Lifesaving Care in Louisiana

Before PCTP opened in the Gayle and Tom Benson Cancer Center, patients who were out of standard treatment options in Mississippi and Louisiana had two choices: enroll in a clinical trial far from home – the closest locations were Houston and Birmingham – or turn to palliative care. The difficulties of this choice were repeated for patient after patient, a reality that was compounded because Louisiana's cancer rates outstrip the national average, due to a combination of health behaviors, environment and genetics.

Starting a precision medicine oncology center was a big undertaking. Marc Matrana, MD, recalls thinking, "Increasing numbers of Americans are hearing that they have cancer. If Louisiana is the epicenter of this national health crisis, couldn't it be the epicenter of the solution?"

Genomics and precision medicine are at the forefront of the fight against cancer. PCTP is not only taking those options to an underserved community, but also working to expand screening protocols for identifying potential patients – both significant steps toward making this level of care more widely available to patients, regardless of where they live.

"All the Difference in the World"

"For individual patients the possibility of treatment is somewhat of a needle in a haystack, but when it is there, there are amazing results," says Marc Matrana, MD. "While precision medicine is still in its infancy, for those patients for whom we have developed this sort of specific treatment, it makes all the difference in the world."

Results show that oncology is moving to an era when the number of patients reached by the potential of precision medicine will continue to grow. After Ochsner participated in the Strata Trial, an effort by a network of academic cancer centers to offer free sequencing of tumor samples, Marc Matrana, MD, co-presented data from screening 12,000 patients at the 2019 American Society of Clinical Oncology meeting. One-third of the tumors screened had mutations that were actionable, and the screening changed the course of the patient's care.

Back in Louisiana, Marc Matrana, MD, shares how rewarding it is to know the stories of patients who were at the end of treatment options, enrolled in one of PCTP's clinical trials, and now have no evidence of disease. The inspiring reality of the work of PCTP is that those stories represent hope for even more patients as the standard of care is improved and the medicines of tomorrow become the care of today. 🙌



"There has been tremendous reward both academically and in patient outcomes."

– Marc Matrana, MD, Director of the Ochsner Precision Cancer Therapies Program

Tackling an Epidemic With Patient-Centered Care

Ochsner Receives Opioid Management Grant From National Institutes of Health



“Given the high prevalence of major depression and anxiety disorders with chronic opioid use, the grant funds a core team of behavioral health specialists embedded in the primary care system.”

— Eboni Price-Haywood, MD, Director, Center for Outcomes and Health Services Research

Eboni Price-Haywood, MD, with the staff of the Center for Outcomes and Health Services Research

The Ochsner Center for Outcomes and Health Services Research, led by Director Eboni Price-Haywood, MD, was awarded in 2018 a \$1.6 million R01 grant by the National Institutes of Health for its Opioid Treatment and Recovery Through Safe Pain Management Program.

“This work is the result of ongoing collaborations with health system leaders on two major population health management projects: opioid stewardship and behavioral health integration in primary care,” says Price-Haywood, MD. “Given the high prevalence of major depression and anxiety disorders with chronic opioid use, the grant funds a core team of behavioral health specialists embedded in the primary care system.”

This multidisciplinary team of specialists, she says, provides whole-person-oriented, patient-centered care to reduce the stigma of mental health conditions while promoting physical, emotional and social wellness for patients on chronic opioid therapy for non-cancer pain.

COHSR is a systemwide research center that designs, evaluates and disseminates next-generation solutions for healthcare delivery. These solutions have the goal of improving both the efficiency and effectiveness of healthcare; translating research into practice;

and disseminating research findings to improve clinical, administrative and policy decision-making.

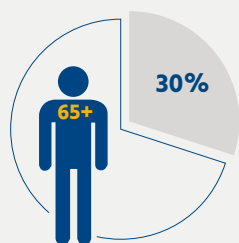
With this grant, COHSR researchers will:

- Explore the role of technology versus care team optimization in changing providers’ opioid-prescribing behaviors
- Offer systematic screenings of patients for depression, anxiety, drug misuse/abuse and addiction to proactively identify patients needing active treatment and explore which combination of treatment options works best
- Explore the role of screening for social determinants of health and the provision of case management to mitigate factors that might inhibit patients’ ability to adhere to care plans

“I anticipate that results of our study will demonstrate that integrated mental/behavioral healthcare for opioid management of chronic non-cancer pain increases value-based care and leads to greater efficiencies in the way that care is delivered,” says Price-Haywood, MD. “This body of work is ultimately part of developing a systemwide standard operating procedure for delivering this model of care on a large scale, as well as an implementation manual that could be replicated in other health systems.” 🙌

Louisiana Geriatrics Workforce Enhancement

Evolving Geriatric Care Needs – By the Numbers



By **2030**, Americans age **65+** will account for nearly **30% of the nation's population**.

According to the Centers for Disease Control and Prevention, by **2050**, the number of Americans 65+ living with Alzheimer's disease is expected to total **13.8 million** and could be as high as **16 million**.

Demand is expected to increase exponentially for healthcare professionals **who treat older adults**, including multidisciplinary, integrated teams in primary care settings.



People with Alzheimer's disease and related disorders, and their families and caregivers, **more frequently visit primary care physicians**, rather than neurologists, for care.

Louisiana has about **50 certified geriatricians** to serve more than **400,000 older adults**.

THERE IS AN ACUTE NEED FOR CARE IN RURAL AREAS.

Bridging a Critical Gap in Dementia-Friendly Care

Ochsner Health System is helping to lead the way in improving the quality of life for Louisiana residents and families living with Alzheimer's disease and related disorders (ADRD).

The new initiative – in partnership with the Louisiana State University School of Social Work, Chamberlain University College of Nursing and Alzheimer's Services of the Capital Area in Baton Rouge – is supported by a \$3.7 million federal grant from the Health Resources and Services Administration.

The grant will fund the Louisiana Geriatrics Workforce Enhancement Program, which works to enhance dementia-friendly integrated practice in Louisiana primary care settings.

The LA-GWEP will offer ADRD and dementia care experts to provide curriculum and experiential training to medical, nursing and social work practitioners, as well as to academic faculty and students within these disciplines across southern Louisiana.

Lydia Bazzano, MD, internal medicine physician and Chair of the Ochsner Institutional Review Board, and Jennifer Couvillon, President of Chamberlain University's New Orleans campus, are LA-GWEP co-investigators, along with principal investigator LSU School of Social Work Professor Scott Wilks and other partner researchers. 🙌

NOTABLE GRANTS

Ochsner Collaborating With Cleveland Clinic on NIH-funded Cardiothoracic Surgical Trials



Gene Parrino, MD

\$1.3M
research
grant

The National Institutes of Health awarded a five-year, \$1.3 million research grant to Cleveland Clinic's Cardiothoracic Collaborative Clinical Center, which has chosen to partner with Ochsner Health System to participate in the Cardiothoracic Surgical Trials Network. The project is intended to identify strategies for bringing proven therapies into clinical practice to improve the treatment of patients with cardiovascular disease. Gene Parrino, MD, Section Head of Thoracic and Cardiovascular Surgery, is Ochsner's principal investigator for the study.

The CTSN has conducted several clinically important randomized trials in heart valve disease, coronary artery disease and heart failure. It is now expanding into implementation research with Ochsner as an affiliate site with the Clinical and Implementation Research Skills Program.

The Ochsner and Cleveland Clinic pairing is one of only four partnerships awarded this important research grant funding. This study will also enrich the skills and knowledge of participating young surgical investigators, helping to fulfill NIH's goal of establishing the next generation of surgeon-researchers.

Ochsner Gets USDA Grant to Assess Pediatric Patients Assigned to Pharmacist Care



Terry King, MD

\$280K
service
grant

Ochsner Health System recently received a United States Department of Agriculture (USDA) Delta Health Care Services grant to expand pediatric cardiology services for pediatric hypertension patients in North Louisiana. The two-year \$280,000 grant will help Ochsner establish, and study the efficacy of, pediatric hypertension telemedicine service based on collaborative drug therapy management.

Terry King, MD, pediatric cardiologist and Medical Director of Pediatric Cardiology at Ochsner Health Center for Children – Monroe, will serve as primary investigator for this study. His colleague, Brandon Phillips, MD, will also support this pediatric hypertension study.

The team will study the assignment of patients to pharmacist care to determine if solving access issues could improve healthcare outcomes for underserved rural populations. Patients in North Louisiana currently lack pediatric cardiology services close to where they live. Pediatric hypertension patients in this area have a lower-than-average follow-up rate for their care visits, which puts them at risk for long-term complications.

PARTNERSHIP STUDIES



Bridget Bagert, MD

Examining Epstein-Barr Virus B-cell Dysregulation in Multiple Sclerosis

In 2014, Bridget Bagert, MD, was awarded an Ochsner Translational Medicine Research Initiative award to conduct multiple sclerosis research in partnership with Michael Pender, MD and Judith Greer, MD at The University of Queensland in Brisbane, Australia. The study explored factors in the blood and spinal fluid that hinder re-myelination and repair in MS.

Bridget Bagert, MD, and her team collected blood and spinal fluid samples from MS patients treated at the Ochsner Multiple Sclerosis Center, which were sent to UQ for laboratory investigations. This collaboration led to presentations at the 2018 American Academy of Neurology Meeting in Los Angeles and the 2018 International Society of Neuroimmunology Meeting in Brisbane.

New Ochsner-UQ projects are underway, specifically an investigation that explores the role of the Epstein-Barr virus in MS.

Michael Pender, MD, has pioneered the idea that people living with MS have more difficulty managing EBV, and that failure to manage this common virus ultimately leads to MS pathology in susceptible individuals. In Australia, he developed a novel therapeutic approach using EBV-specific T-cells. His preliminary research trial in 10 Australian MS patients was promising.

Michael Pender, MD, is now principal investigator of an international, multicenter, Phase 1 trial sponsored by Atara Biotherapeutics using this same precision medicine approach to treat patients with progressive MS. He invited Bridget Bagert, MD, and the Ochsner Multiple Sclerosis Center team to participate. Bridget Bagert, MD, partnered with the Ochsner Precision Cancer Therapies Program to conduct this Phase 1 trial. As of August 2019, she has enrolled four patients living with MS. 🙌

Ochsner Joins Mayo Clinic in Hypoplastic Left Heart Syndrome Initiative

Mayo Clinic's Todd and Karen Wanek Family Program for Hypoplastic Left Heart Syndrome and Ochsner Hospital for Children are collaborating within a consortium to develop innovative, cell-based solutions for patients with hypoplastic left heart syndrome. This rare and complex form of congenital heart disease is characterized by a severely underdeveloped left side of the heart.

The consortium also includes Children's Hospital of Philadelphia, Children's Hospital Los Angeles, Children's Minnesota, Children's Hospital Colorado, The Children's Hospital at OU Medicine and the advocacy group Sisters by Heart.

All sites will participate in a Phase 2 clinical trial using stem cells from a baby's own umbilical cord blood in regenerative therapy. During the second of three surgeries to repair the heart, stem cells will be injected into the heart muscle to help it grow stronger and delay or prevent the need for transplant. 🙌



Representatives of the hypoplastic left heart syndrome initiative collaboration



Leo Seoane, MD, speaking at Research Day

Research Day 2019 Recognizes Outstanding Work by Ochsner Community

Ochsner Health System's annual Research Day showcases the research conducted throughout the year by Ochsner physician-scientists, clinicians, nurses, pharmacists, students, residents and fellows. The 16th annual Research Day – a day of shared knowledge, inspiration and community – was held on May 24, 2019.

Showcasing the innovative research undertaken at Ochsner, the event featured 138 abstracts and 21 poster presentations. The research presentations included joint projects with Ochsner's strategic research partners at Louisiana State University Health Sciences Center Shreveport and The University of Queensland. **The keynote address was delivered by Christopher G. Kevil, PhD, Vice Chancellor for Research and Dean of the School of Graduate Studies at LSU Health Shreveport.**

In addition to providing an opportunity to share research insights with colleagues, Research Day is an occasion to reward excellence. Leo Seoane, MD, Chief Academic Officer, presented awards for the top abstracts in a range of categories. Excellent and inspiring research was displayed by the awardees. The top presenters from pharmacy

and nursing were recognized. Awards were also given to those at three stages of their medical education: medical students in the UQ OCS program, residents or fellows, and post-doctoral fellows.

In recognition of excellent work, the Pharmacy Research Award was given to Stephanie Anders, PharmD, and the Nursing Research Award was given to Jennilee St. John, MSN, APRN, AGCNS-BC, CCRN. Outstanding research was also recognized by the UQ OCS Medical Student Research Award granted to Carl Haupt, BSc, and the Post-Doctoral Fellow Research Award given to Jeffrey Coote, MD.

For the Resident and Fellow Research Award, three individuals were honored for their work. First place went to Sarah Baker, MD; second place went to Kelly Shum, MBBS; and third place went to Ebubekir Dagililar, MD.

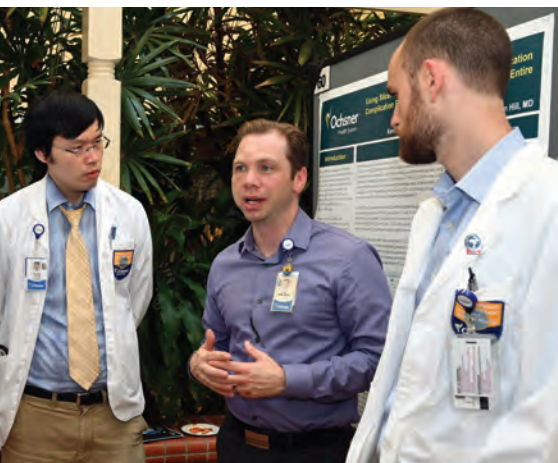
Research Day highlights the priority placed on biomedical research at Ochsner and allows clinicians and scientists to engage with each other's ideas, propelling work, and the care provided, forward. 🙌

Using Augmented Reality Simulations to Train Medical Students

Post-Doctoral Fellow Research Award winner Jeffery Coote, MD, says his research in augmented reality was inspired by his own experience as a medical student at UQ Ochsner Clinical School. Watching a lumbar puncture is no substitute for actually performing one. Coote – together with Bhunit Desai, Jack McGee, Charles Kantrow, MD, Dodd Denton, MD, and Korak Sarkar, MD – designed a project to explore the potential benefits of training students to do the procedure using a simulation mannequin overlaid with an augmented reality hologram. The hologram helped students appreciate anatomical landmarks in order to more accurately place their needles.

A spine hologram was developed in Ochsner's Medical 3D lab. Medical students from UQ OCS were recruited and divided into two groups. One performed lumbar punctures with assistance from the hologram. A control group attempted the same procedure using just the mannequin. Significantly, students using augmented reality were able to place the needle over 1 cm closer to the target than those in the control group.

This project shows great potential for using augmented reality for training medical students in a variety of invasive procedures. This initial study can serve as a basis for exciting new possibilities in equipping future physicians to offer high-quality care to every patient. 🌟



EDUCATION: **The Next Generation**

We are dedicated to providing an educational environment infused with the values of the “Ochsner Way.” Our culture produces professionals who meet challenges with confidence, think innovatively, focus on wellness, and, above all, put patients first. Our investment in educating providers of quality healthcare begins with pipeline programs, introducing young people in our communities to medical careers. Our partnership with The University of Queensland is now in its 10th year and offers a medical education unlike any in the world. Crucial partnerships with other Louisiana schools allow us to extend our capacity to provide clinical training for physicians and physician assistants. Ochsner continues to add new residency programs and now educates about 300 residents and fellows a year. As Ochsner’s continuing education efforts reach even more professionals in the state of Louisiana, our educators provide a lifetime of education for the healthcare workforce of the future. The many talented physicians and healthcare professionals educated at Ochsner are equipped to provide superior care for their patients, in our community and beyond.

Play a Part in Preparing Top Providers

We are committed to educating clinicians to provide care that is safe, patient-centered, coordinated, affordable and of the highest quality. You can help! Support Ochsner Education by visiting ochsner.org/giving/donate or calling **504.842.7135**.

EDUCATION: At a Glance

Since 1944, education has been an integral component of the Ochsner mission. Here are some educational highlights from the last year:

467
students

As of January 2019, there were 467 students enrolled in The University of Queensland – Ochsner Clinical School program.

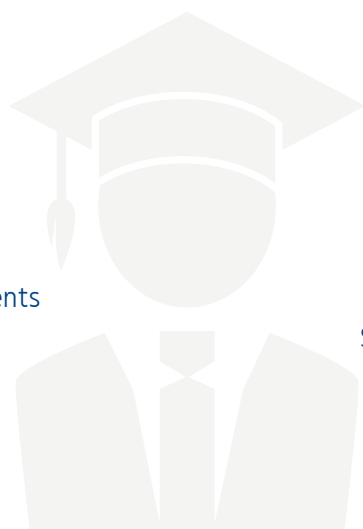


93%
match
rate

The UQ OCS graduating class of 2018 celebrated 2019 Match Day with a 93% match rate through the National Resident Matching Program. 2019 marks the 7th year in a row that UQ OCS's match rate has been 90% or above.

287
residents
& fellows

287 Ochsner residents and fellows were trained in 2018/2019 as Ochsner house staff.



22,971
learning
scenarios

The Ochsner Clinical Simulation and Patient Safety Center delivered 22,971 learning scenarios in the last year.

UQ Ochsner Clinical School Faculty Awarded Professor Titles in 2019

The University of Queensland awards academic titles to UQ OCS faculty who make substantial contributions teaching and mentoring medical students and conducting research to improve patient care. The newest Ochsner faculty awarded with the Professor title include:

- **Hernan A. Bazan, MD**, Professor, Section Head, Vascular/Endovascular Surgery and Program Director, Vascular Surgery Fellowship
- **Joseph Biggio, Jr., MD**, Professor, Section Head, Maternal Fetal Medicine & Program Director, Maternal Fetal Medicine Fellowship
- **Ari J. Cohen, MD**, Professor, Section Head, Abdominal Transplant Surgery & Director, Transplant Research
- **Steven B. Deitelzweig, MD**, Professor, System Chair, Hospital Medicine & Medical Director, Regional Business Development
- **Michael Smith, MD**, Professor, Medical Director, Clinical Simulation and Patient Safety Center & Emergency Medicine Clerkship Director, UQ Ochsner Clinical School

UQ Ochsner Clinical School's Culmination and White Coat Ceremonies

105
graduating
students

The University of Queensland – Ochsner Clinical School honored the graduating class of 2018 with a culmination ceremony on Nov. 17, 2018. Lawrence M. Opas, MD, Associate Dean for Graduate Medical Education, Keck School of Medicine, University of Southern California, delivered the keynote address.

113
doctors-in-
training

The 105 graduating students successfully completed two years of medical school curriculum in Brisbane, Australia, at UQ. In Ochsner's unique program, their final two years of clinical study were completed with the Ochsner Health System at UQ OCS. Their success promises valuable contributions to the field of medicine and to patient care in the years to come.

In January, the work of the UQ OCS continued as a new class began Phase 2 of medical school. On Jan. 5, 2019, UQ OCS's 9th annual White Coat Ceremony honored 113 doctors-in-training. This ceremony, begun

in its modern version in 1889 by Arnold P. Gold, MD, at Columbia University, marks students' entrance into the portion of their medical training that focuses on clinical experiences.

The ceremony recognizes that students assume important responsibilities even at this stage of their training. Leo Seoane, MD, Chief Academic Officer, explains, "Every time a medical student puts on their white coat, it will serve as a physical reminder of the oath these students have taken to serve, to heal, to lead, to educate and to innovate for their patients."

These two ceremonies represent significant annual milestones in the mission of UQ OCS and in the lives of individual medical students. Each one bookends the experiences of a new class as they participate in the clinical training offered here at Ochsner and step forward in their journey to becoming compassionate, highly skilled physicians. 🌟



A HALO EFFECT IN THE COMMUNITY: **Medical Students Give Back**

The Ochsner Medical Student Association sponsors community projects, both locally and abroad, for medical students at UQ OCS. These volunteer-driven projects showcase the commitment of Ochsner's future physicians to the holistic well-being of their community.

One project, Luke's House Clinic, serves a bilingual population including the growing Spanish-speaking community in New Orleans as well as transient English-speaking patients.



Ochsner medical students volunteer alongside students from Tulane University to ensure that this diverse patient population gets affordable primary and OB/GYN care, all provided in their native language. Ochsner volunteers participate in Primary Care Night, held each Thursday evening, and in Women's Night, held the last week of each month. In addition to providing accessible medical care for an underserved population, volunteering in the clinic exposes students to a variety of community-based primary care experiences. 🌟

UQ OCS Accepted Into the Gold Humanism Honor Society Network

The commitment to compassionate community involvement is integral to the culture of Ochsner Academics. In June 2019, the first UQ OCS students were formally inducted into the Gold Humanism Honor Society. UQ OCS is the first internationally accredited medical school to have its own GHHS member chapter.

As members of GHHS, UQ OCS medical students commit to helping create a learning environment that is respectful, empathetic, understanding and caring. These values reflect Ochsner's long-standing commitment to quality patient care as we educate physicians committed to the human element in healthcare. 🌟

Celebrating 10 years of UQ Ochsner Clinical School

2009

First **16** students begin Year 1 in Brisbane.

2011

Inaugural cohort at OCS.

2014

Full AMC accreditation.
420 students across all 4 years.

2017

479 students across all 4 years.
111 students graduate.

2019

340 active UQ Faculty Title Holders.

2010

Australian Medical Council completes review of OCS.
79 UQ Faculty Title Holders.

2012

First 9 students graduate in November.

2015

Revision of MBBS degree to MD degree.

2018

Caldwell Society wins first Medical Society Cup. First class with MD degree.

MATCH DAY: Success for UQ OCS, Welcome to New Ochsner Residents

"Match Day is the culmination of years of hard work and dedication," says Leo Seoane, MD, Chief Academic Officer. At Ochsner, Match Day 2019 was a day for celebration – twice over.

The University of Queensland – Ochsner Clinical School graduating class of 2018 celebrated 2019 Match Day with a 93% match rate through the National Residency Match Program. 2019 is the seventh year in a row that UQ OCS's match rate has been 90% or above. "We are proud of the success our students have had year over year, matching with high-caliber residency programs both here in Louisiana and across the country," says Ronald Amedee, MD, Head of School and Dean of Medical Education.

A number of those students, along with others from around the globe, matched into residency programs at Ochsner. In July they embarked on the next step of their journey. This year, the Ochsner Department of Graduate Medical Education filled 100% of first-year residency positions.

It is a testament to Ochsner Education's reputation in the region that more than a quarter of the students from UQ OCS chose to remain in Louisiana for their medical training. Of that number, 27% are continuing their education in one of the 30 residency programs offered at Ochsner. The others matched to programs at Tulane University, LSU Health Sciences Center New Orleans and LSU Health Sciences Center Shreveport. Likewise, 22 of the 58 first-year intern positions at Ochsner were students from the state of Louisiana.

"We are truly honored that so many of our students will remain not only in Louisiana, but here at Ochsner for the next step of their medical training," says G. Dodd Denton, MD, Assistant Dean for Students, Ochsner Health System.

As a class, UQ OCS students matched into residency training programs in a variety of specialties and at many prestigious institutions across the country. Aside from Ochsner Health System, those institutions include: Johns Hopkins University, Beth Israel Deaconess Medical Center, University of Chicago, University of Southern California, University of Texas – Houston and University of Vermont Medical Center. 🏡



"We are truly honored that so many of our students will remain not only in Louisiana, but here at Ochsner for the next step of their medical training."

– G. Dodd Denton, MD, Assistant Dean for Students



GME Graduation Recognizes Excellence From Residents and Fellows



On June 5, 2019, Ochsner Academics held a graduation ceremony to honor physicians completing their specialty training at Ochsner Health System. The event marked the completion of intensive ACGME-accredited training for 89 medical residents and fellows from 30 Ochsner-sponsored training programs. As these physicians move into the next step of their careers, 28% of them will remain at Ochsner.

At the graduation ceremony, residents and fellows were recognized for demonstrating excellence in a number of areas. The Ochsner Resident Teacher of the Year, awarded to honor a resident or fellow who supports Ochsner's academic mission through outstanding involvement in resident

and medical student education, was given to Madhav P. Upadhyaya, MD.

The Alton Ochsner Resident Leader of the Year was awarded to Ebubekir S. Daglilar, MD, for displaying a spirit of caring, excellence, service and leadership, symbolizing Ochsner's collective commitment to our patients.

Other awards recognized excellence in writing and process improvement. The Case Report Writing Award was presented to Ryan S. Latimer, MBBS. The Dean H. Echols Writing Award was given to Kristen Gurtner, MD. The Ochsner Performance Improvement and Quality Initiative Award was presented to Tripti Gupta, MBBS.

In appreciation of the faculty and in honor of their dedication to teaching excellence, the Hurst B. Hatch Outstanding Teacher of the Year Awards were presented to Robin Stedman, MD, (Anesthesiology) and Rajan Patel, MD (Cardiology). 🙌

Meeting Patient Needs Through New Residency Programs

At Ochsner, education is always in service to patients. Our deep experience with a wide patient population allows us to anticipate growing patient needs. We are proactively developing new residency programs designed to train physicians and pharmacists in specialties calibrated to meet those needs. Over the next four years, five new graduate medical education physician residency programs are planned, with training having already begun in the first two. Our pharmacy residency program also recently expanded its offering with a new program focusing on community pharmacy.

PGY1 Community Pharmacy Residency

Approved: 9/1/2017
First learners started July 2018

Maternal Fetal Medicine

Approved: 9/12/2018
First learner started July 2019

Regional and Acute Pain Anesthesiology

Approved: 1/28/2019
First learner started July 2019

Critical Care Anesthesiology

Approved: 1/29/2018
First learner expected July 2020

Emergency Medicine

Approved: 9/6/2019
First learners expected July 2020

Physical Medicine and Rehabilitation (PM&R)

Application in process
Expected start for new program July 2022 or 2023

Focusing on the Future of Healthcare



Ochsner and Xavier Launch PA Program

According to the Bureau of Labor Statistics, the demand for physician assistants is projected to grow 37% from 2016 to 2026. To better meet that demand, Ochsner Health System has partnered with Xavier University of Louisiana to launch a new physician assistant program in New Orleans.

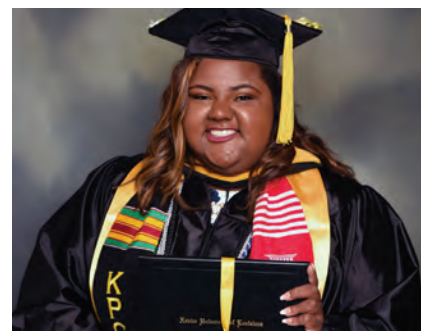
Students will undertake three semesters of classroom instruction followed by 16 months of clinical training within Ochsner Health System. Their 2,000 hours of hands-on clinical experience will include 11 rotations with healthcare professionals across a variety of specialties, including family medicine, internal medicine, pediatrics, general surgery, emergency medicine, behavioral health and women's health.

Ochsner Academics Summer Internship for Students Has Strong Start

OASIS offers formative experiences for undergraduate students interested in pursuing careers as physicians, physician assistants or researchers in the biomedical sciences. It is offered as a benefit to Ochsner employees for their children interested in applying to a medical or physician assistant school.

In June 2019, 15 physician mentors provided OASIS participants with more than 200 hours of one-on-one clinical shadowing time, and 50 employees from more than 35 clinical and non-clinical areas offered tours, lectures and hands-on training throughout the system. Students enjoyed a wide range of experiences in the Simulation Center and Suturing Lab, and they learned from experts in the Cardiology Department, Ochsner Rehabilitation Hospital and Ochsner Pharmacy. Students also met with the Ochsner Flight Care team. An expanded program will be offered in summer 2020.

First Ochsner–LSU Health Shreveport School of Medicine Scholarship Awarded



Recent Xavier University of Louisiana graduate Sarah Bertrand received the inaugural Ochsner Health System Medical School Scholarship. The scholarship encourages students to stay in Louisiana for their medical education – an investment in the future of our state's medical capabilities. In addition to their academic accomplishments, applicants must show how they have overcome adversity in an effort to incorporate diverse experiences and perspectives into the medical program. Bertrand graduated Magna Cum Laude with a degree in biology. This scholarship award covers her tuition and fees for the four-year program at LSU Health Shreveport School of Medicine.



Ochsner Clinical Simulation and Patient Safety Center

Simulated Scenarios Prepare Providers to Deliver Safe, Comprehensive Care

Imagine treating a patient with hypothermia in New Orleans or resuscitating a patient in cardiac arrest over and over with no ill effects on their health. With no geographic restraints and advanced, adaptable technologies, it is all possible with simulation.

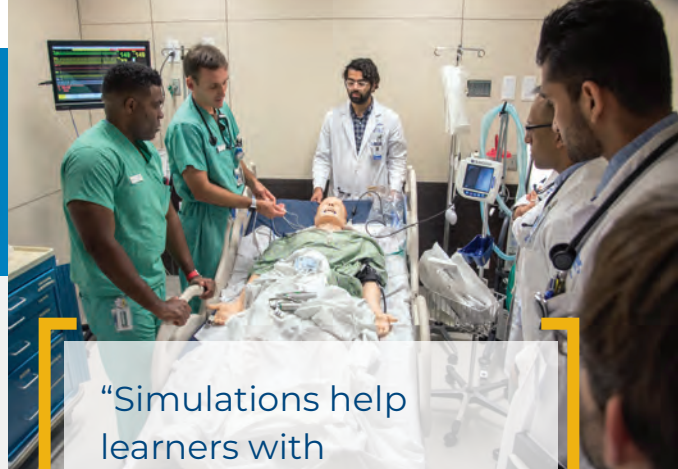
The Ochsner Clinical Simulation and Patient Safety Center is an innovative educational asset to nearly everyone within Ochsner Health System, including residents and medical students. Simulation allows learners to experience almost any behavior or interaction they may encounter in practice.

“After each simulation, we hold a debriefing,” explains Michael Smith, MD, Medical Director, Clinical Simulation and Patient Safety Center. “The majority of learning happens during that debriefing. When you go through these scenarios and then have opportunities to analyze them, concepts learned are internalized and the potential to change your behavior is stronger.”

Approximately 23,000 learning scenarios were delivered through the Sim Center in 2018. In the 8,500-square-foot facility – which features eight outpatient exam rooms, four inpatient flex rooms, two intensive care unit rooms, two operating rooms and classroom space – instructors simulate everything from procedures and resuscitations to staff-patient and employer-employee interactions.

“Simulations help learners with multitasking, layered decision-making and communication,” Michael Smith, MD, says.

Each simulation’s complexity can be set based on what an instructor is trying to teach and



“Simulations help learners with multitasking, layered decision-making and communication.”

– Michael Smith, MD,
Medical Director, Clinical Simulation
and Patient Safety Center

the level of the learners. Sources for Sim Center scenarios come from challenging cases instructors have experienced and standardized curriculum. Michael Smith, MD, encourages simulations that include handoffs or transfers of care, as these are peak times for medical errors.

Michael Smith, MD, says simulation is more about technique than technology. While the center’s “fancy manikins can do a lot of things,” simulation effectiveness really comes down to the instructor’s planning and dedication in using these – as well as cadavers, computer models or actors – as teaching tools.

Feedback from instructors and learners has been overwhelmingly positive.

“Even with the nervousness that comes with performing in front of a group, the fear of not being prepared in a real clinical scenario outweighs it,” says Michael Smith, MD. “We know from looking at data, and intuitively and anecdotally, that these simulations make a big impact.”

There is proof of that impact. When an Ochsner employee suffered cardiac arrest on campus, he was resuscitated by residents who had just undergone training in Ochsner’s new form of evidence-based advanced cardiac life support at the Sim Center. 🙌

Continuing Medical Education

1976

Accredited by the Accreditation Council for Continuing Medical Education since 1976.

Collaborates with

20+ joint providers

to issue CME credits for joint provider-sponsored activities.

Approved by the Louisiana State Board of Medical Examiners to provide CME credit for the mandatory Controlled Dangerous Substance (CDS) license requirement.



Offers **130+**

CME educational activities providing

14,500+

practicing physicians with **54,000 CME credits** annually.

Australian Medical Association Queensland Holds Annual Conference in New Orleans

AMA Queensland's 2018 Annual Conference in New Orleans featured several Ochsner presenters, including Leo Seoane, MD, who spoke about the transpacific, cross-cultural collaboration between UQ and Ochsner. This unique partnership seeks to train the next generation of physicians with a global perspective of different healthcare systems so they can become leaders in medicine.

Other Ochsner presenters included:

- **Richard Milani, MD**, Chief Clinical Transformation Officer
- **Korak Sarkar, MD**, Senior Neurologist
- **Todd Burstain, MD**, Chief Medical Information Officer
- **Rajiv Gala, MD**, Vice Chairman of Women's Services
- **Jody Morris, MD**, Chairman of Women's Services
- **George Chimento, MD**, Chair of Orthopedic Surgery
- **Dana H. Smetherman, MD**, Chair of the Department of Radiology
- **Gabriel Uwaifo, MD**, Senior Clinical Research Scientist and Endocrinologist

Ochsner Offers CME Credits for Opioid Education

Since July 1, 2018, Ochsner has provided CME credit for state-mandated opioid education for healthcare providers. This one-time three-hour course must be completed by all providers before their license renewal in 2019. More than 8,000 Ochsner physicians have completed the course, which features content approved by the Louisiana State Board of Medical Examiners.

In addition to opioid education, Ochsner has taken steps to combat the opioid epidemic by utilizing its electronic health records to provide prescription data to emergency department physicians, substantially reducing prescribing rates. Ochsner's integrated opioid risk tool and morphine equivalent daily dose calculator also aid providers in understanding opioid potency.



RECENT PUBLICATIONS

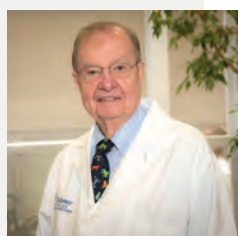
Ochsner researchers saw their innovative and impactful work published in many high-profile journals over the last year. In total, there were 427 total published articles by Ochsner authors and co-authors from July 2018 to June 2019, including:



Daniel P. Morin, MD

"Wearable Cardioverter-Defibrillator after Myocardial Infarction"

The New England Journal of Medicine – Sep. 2018



George A. Pankey, MD

"Performance of the T2Bacteria Panel for Diagnosing Bloodstream Infections: A Diagnostic Accuracy Study"

Annals of Internal Medicine – May 2019



Ari J. Cohen, MD

"Interleukin-33 / Cyclin D1 Imbalance in Severe Liver Steatosis Predicts Susceptibility to Ischemia Reperfusion Injury"

PLOS ONE – Apr. 2019



George Therapondos, MD

"Outcomes of Early Liver Transplantation for Patients With Severe Alcoholic Hepatitis"

Gastroenterology – Aug. 2018



Christopher J. White, MD

"Acute Stroke Intervention: The Role of Interventional Cardiologists"

Journal of the Am. College of Cardiology – Apr. 2019



THE OCHSNER JOURNAL

The *Ochsner Journal* is a quarterly, peer-reviewed publication designed to support Ochsner's mission to improve community health through a commitment to innovation in healthcare, medical research and education. The *Ochsner Journal* highlights topics of societal and medical significance and evolving practice standards in an ever-changing healthcare environment.

Visit ochsnerjournal.org to read current and archived issues from featured contributors and see content published ahead of print.

Ochsner Center for Academic Excellence
1401A Jefferson Highway
New Orleans, LA 70121



“Of all the highlights in my medical career, the thing that means the most to me is to have had the opportunity to influence the thinking of young physicians. I cherish this more than anything else.”

– Alton Ochsner, MD,
One of Ochsner’s Founders