

Ochsner Research Update, 2015-2016

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The 2015-2016 academic year has been productive on multiple fronts. For example, in the area of basic science/translational research, the Laboratory of Translational Cancer Research has continued to employ its molecular genetics approach to determine optimal treatment programs for patients with colon and bladder cancer. This work involves close collaboration between scientists and clinicians to better define the role of stromal cells and cancer stem cells in the response to therapy of patients' tumors. Improved methods to direct therapy are the ultimate goal. Other examples are found in multiple collaborations between Ochsner clinicians and basic scientists at The University of Queensland. For example, Ochsner gynecologists, collaborating with The University of Queensland, are investigating the role of exosomes in predicting clinical outcomes and response to therapy in patients with ovarian carcinoma. Ochsner obstetricians are similarly collaborating with basic scientists at The University of Queensland to use exosomes for the early diagnosis of preeclampsia in pregnant women. Again, the goal is to refine treatment options for patients. Also during the year, Ochsner expanded its research training program with the Kingdom of Saudi Arabia. This program brings young Saudi physicians to Ochsner for exposure to Ochsner research activities.

Clinical research has also advanced. For example, 2 device trials are underway in cardiology aimed at using renal denervation as a treatment for refractory hypertension. Another trial is looking at the possible role of baroreceptor stimulation to control refractory hypertension. The goal is to provide therapeutic options to patients with severe high blood pressure who are unresponsive or inadequately responsive to currently available therapies. Another major advance in the area of clinical research was the initiation, after more than a year of planning, of the federally funded ADAPTABLE (Aspirin Dosing: A Patient-centric Trial Assessing Benefits and Long-Term Effectiveness) study. The goal of this trial is to determine if low-dose or high-dose aspirin has the better therapeutic profile in patients with advanced heart disease. Aspirin has long been known to reduce secondary events in these patients, but the optimal dose is unknown. ADAPTABLE will determine the ability of each dose to prevent future cardiovascular events and will also assess the rate of complications, such as bleeding associated with each dose. The results of this large multicenter study could have a major impact on routine heart care in this country. Perhaps even more important, ADAPTABLE is the first randomized controlled clinical trial conducted under the aegis of the Patient-Centered Outcomes Research Institute (PCORI). This federally funded

institute is charged with developing new, efficient ways to conduct clinical research on patient outcomes and with more closely engaging patients in the design and implementation of clinical trials. A major feature of the PCORI approach is the use of electronic medical records to recruit and follow large numbers of patients. In this effort, Ochsner will employ the Pragmatic Trial App Suite (PTAS), a novel tablet-based application that can be used to inform eligible patients of the nature of a research study, including its risks and benefits, and then provide patients with instructions on how to enroll if they choose to participate. This application, developed by Ochsner and its local PCORI partners, has the potential to dramatically facilitate subject recruitment and follow-up. This approach offers the possibility of mounting very large studies at low cost. For example, the Ochsner component of ADAPTABLE will involve all Ochsner sites, as well as Tulane University Medical Center and Baylor Scott & White Health in Texas, all coordinated by the Louisiana Public Health Institute in New Orleans, LA. Our entire regional network, now called REACHnet (consisting of the Louisiana Public Health Institute, Ochsner Health System, Partnership for Achieving Total Health, Louisiana State University, Pennington Biomedical Research Center, Tulane University, and Baylor Scott & White Health), is only 1 of 7 participating ADAPTABLE healthcare systems nationwide. Six additional PCORI networks are not participating in ADAPTABLE but are available for other nationwide studies. Thus, PCORI offers a new and powerful approach to clinical research, and Ochsner is committed to its success.

In the area of health service research, Ochsner researchers continue to make progress. Ochsner participated in the federally funded SPRINT study that investigated the benefits and side effects associated with lowering blood pressure to a systolic level of 120 mmHg as opposed to the customary 140 mmHg in certain hypertensive patients. This trial showed that the lower blood pressure was associated with decreased mortality, although how specifically this information is to be applied clinically remains controversial. Ochsner personnel are working to define the implications of the trial so they can appropriately apply the results to patient care. In another example of health service research, the Center for Applied Health Services Research is participating in multicenter efforts aimed at enhancing patient engagement in research and improving therapeutic outcomes while continuing to analyze care improvements at Ochsner.

At the same time, research administration continues to evolve. Dr David Beck turned over the reins as editor-in-chief of the *Ochsner Journal* to Dr Ronald Amedee. The *Journal* became established under Dr Beck and is now

widely read both in hard copy and online. Dr Amedee has advanced the *Journal* in important ways during the short time he has been at the helm. For example, thanks to his efforts, the *Journal* is now an official organ of the Alliance of Independent Academic Medical Centers. Moreover, the editorial board has been expanded and now includes representatives from The University of Queensland.

On another front, Dr Edward Frohlich, Alton Ochsner Distinguished Scientist, was honored by Harvard Medical School with an endowed chair in cardiology named for him at Brigham and Women's Hospital in Boston. The Edward D. Frohlich, MD Distinguished Chair in Cardiovascular Pathophysiology was announced, and its first recipient, Scott Solomon MD, was named at a ceremony at the Harvard Medical School. This signal honor is emblematic of Dr Frohlich's many contributions to understanding and treating cardiovascular disease. Dr Frohlich also received the Ochsner Lifetime Achievement Award at the Ochsner awards ceremony in April 2016. On a related front, Dr Frohlich has for decades directed the awarding of the Alton Ochsner Award Relating Smoking to Disease. This academic year's awardee is Sir Richard Peto, a major figure in epidemiology at the University of Oxford, whose pathbreaking studies identified and quantified the risks of smoking and the benefits of cessation. This award has traditionally been presented at the annual meeting of the American College of Chest Physicians. In 2016 and future years, the award will be given in association with the American Society of Public Health and will be presented at the annual meeting

of that organization. Dr Frohlich is to be commended for founding and directing this prestigious award.

Dr William Pinsky, Executive Vice President and Chief Academic Officer, retired after 16 years at Ochsner. During Dr Pinsky's time, research expanded and the important close collaboration with The University of Queensland was established. The University of Queensland-Ochsner relationship has led not only to hundreds of medical students and faculty traveling between New Orleans and Brisbane, Australia, thereby expanding the academic environment at both institutions, but it has also greatly expanded research opportunities at both institutions. The Ochsner organization very much appreciates Dr Pinsky's service and has greatly benefited from it. The entire organization wishes him success in his future endeavors. After a successful national search, the Ochsner community now welcomes William McDade, MD, PhD of the University of Chicago who joined the organization as Executive Vice President and Chief Academic Officer in July 2016.

Finally, the 2016 Research Day once again brought the Ochsner community together to share insights into ongoing research. This year's theme was oncology, and 134 abstracts were presented as posters or podium presentations. Dr C. Kent Osborne, Professor and Director of the Dan L. Duncan Comprehensive Cancer Center at the Baylor College of Medicine, was the keynote speaker. His lecture on recent advances in the treatment of breast cancer was the highlight of a productive and enjoyable Research Day.