

# Ochsner Research Update

**Richard N. Re, MD**

*Scientific Director, Ochsner Clinic Foundation, New Orleans, LA*

Ochsner Clinic Foundation (OCF) research continues to make great progress, although the effects of Hurricane Katrina can still be felt in such areas as study patient recruitment into clinical trials. The following are representative examples of recent OCF research activities.

The Cardiology Department has undertaken a major initiative in the use of bio-markers to identify subtle tissue injury at the time of interventional therapy so that improved techniques can be developed to limit these sub-clinical abnormalities. Ochsner Cardiology is a national leader in interventional therapy in the coronary, cerebral, renal, and peripheral vasculature, and is continually looking for ways to make these effective therapies even better and safer. Cardiology is also developing initiatives in stem cell replacement therapy for peripheral vascular disease and other cardiovascular disorders. These efforts are driven by Drs. Christopher White, Corey Goldman, and colleagues.

The OCF Center for Health Research, headed by Dr. Tonette Krousel-Wood, launched a major study dealing with medication adherence in older patients suffering from hypertension. Over 2,000 patients in the OCF health system will be followed to ascertain those characteristics which influence patient adherence to medical therapy. This work has clear

implications for the treatment of hypertension, as well as for the therapy of other chronic diseases. The recent population displacements caused by Hurricane Katrina offer the opportunity for this study to identify factors associated with environmental disasters that affect medical care consumption and medication compliance.

Ochsner's basic/translational scientists also continue to make progress. Dr. T. Cooper Woods was recently awarded funding from the American Heart Association and from the Center of Biomedical Research Excellence (COBRE) program at Louisiana State University Health Sciences Center to investigate intracellular signaling mechanisms involved in the pathogenesis of diabetic sequelae and in the response of diabetic patients to interventional therapies. Dr. Ari Cohen continues his studies of novel molecular interventions that can prolong the life of donor organs and, by doing so, increase the availability of transplantation therapy. Drs. Li Li and Yong Sung Choi continue their work on B-cell growth and differentiation factors. This work has taken Dr. Li Li into the area of cancer stem cell biology—the notion that cancerous tissue consists of a slowly dividing population of stem cells which gives rise to a rapidly dividing population of pathogenic daughter cells. This idea has important implications for the therapy of cancer because therapies directed solely at rapidly dividing cells will miss the stem cell population and therefore permit tumor recurrence. Dr. Edward Frohlich and his team continue their studies demonstrating direct, blood-pressure-independent effects of dietary salt on the heart and kidney. Drs. Julie Cook, Jawed Alam, and Richard Re continue their work on intracellular angiotensin action and on the actions of other extracellular signaling proteins. These so-called intracrine actions of hormones

---

*Address correspondence to:  
Richard N. Re, MD  
Research Operations  
Ochsner Clinic Foundation  
1514 Jefferson Highway  
New Orleans, LA 70121  
Tel: (504) 842-3562  
Fax: (504) 842-3899  
Email: rre@ochsner.org*

and growth factors are increasingly being shown to influence the growth of cardiovascular and other tissues. Indeed, recent evidence suggests a role for intracellular angiotensin action in the pathogenesis of diabetic heart disease. Dr. Om Prakash has identified a novel intracellular signaling mechanism that appears to play an important role in cancer cell growth, especially in chronic lymphocytic leukemia, which could be important for the design of novel therapeutic agents. Pediatric endocrinologist Dr. Robert Gensure and his colleagues at the University of Arkansas are working on the development of a new and more powerful agent to treat osteoporosis which involves the molecular engineering of a peptide hormone to produce a novel therapeutic agent. Dr. Alan Burshell and colleagues in Endocrinology continue their clinical investigations into the role that collagen molecular abnormalities play in bone disease.

The OCF Research Division also had the opportunity to participate in a variety of educational and planning activities during the last quarter. Ochsner participated in hosting a National Institutes of Health (NIH) delegation to New Orleans in March 2006. Representatives from NIH viewed the problems created by Hurricane Katrina and the response of the New Orleans scientific community to those challenges. Immediately after the storm, OCF was pleased to have the opportunity to provide temporary research space to displaced investigators from Tulane University School of Medicine and Louisiana State University Health Sciences Center (LSUHSC). This led to an enhanced sense of collegiality between the scientists involved, which in turn has led to long-term collaborations. Dr. Elias Zerhouni, Director of NIH, visited New Orleans in October and met with representatives from Ochsner, Tulane University Medical Center, LSUHSC, Xavier, University of New Orleans, and Children's Hospital to learn of the progress that has been made and the challenges that remain. Ochsner also participated in the New Orleans Biomedical District planning process to explore ways to expand basic and translational biomedical research in the New Orleans area. In addition, the Research Division has for the last two years presented the Basic Science in Clinical Medicine lecture series in order to enhance awareness of the role of biomedical science in day-to-day practice. This semester's series began with a lecture by Dr. Hector Ventura on the history of research at Ochsner, and is scheduled to continue with lecturers from Tulane University Medical Center, M. D. Anderson Cancer Center, University of Miami, and Ochsner.

On the administrative front, Ochsner has acquired

three area hospitals and has assumed oversight of the research activities at those sites. This has required an expansion of OCF Institutional Review Board activities. Dr. Joseph Breaux, Chair of the Ochsner IRB, is spearheading these efforts. Similarly, Janice Piazza, Vice President, Academics, has initiated an effort to integrate Ochsner research informatics and administration with the systems operative at these hospitals. Dr. William Pinsky, Chief Academic Officer, recently was appointed Executive Vice President, System Medical Affairs and now oversees both academic activities and hospital-based clinical activities at all OCF locations; this will lead to better integration of research and clinical activities, thereby improving the quality of both.

In summary, Ochsner research is characterized by steady scientific productivity and an optimistic view of the future—a view that seems to involve steady growth and increasing collaboration with our scientific neighbors.

**Erratum**

We regret that there was an error in the spelling of Dr. Joseph Breault's name on page 45, Volume 7, Number 1, Spring 2007.