Research Night 2005

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The Ochsner Clinic Foundation Annual Research Night serves several important functions. Modern science, especially modern biological science, increasingly operates through the formation of multi-investigator collaborations. These joint ventures link scientists and clinicians in different disciplines and produce synergy. The Ochsner Research Night program hosts clinicians and scientists in multiple disciplines and provides an opportunity for cross-fertilization of scientific thinking and for the establishment of collaborations – in particular, collaborations involving translational research linking research bench and bedside. The First Research Night in 2004 produced several such collaborations, and it is entirely likely that this year's activities will do so as well. Research Night also provides the entire Ochsner professional family with an understanding of the breadth and depth of scientific and scholarly activities ongoing in the organization. This permits individual staff members to better appreciate the complexity and strengths of the OCF academic arm. Finally, Research Night provides an opportunity for collegial discussion and the renewal of academic friendships. The activities of Research Night stimulate us all to contribute, each in his own way, to ongoing scholarship in the organization.

The Ochsner research effort has grown enormously over the last twenty years. Increasingly, clinicians interested in both basic and clinical research are joining the staff and are striving for extramural funding. Ochsner basic scientists similarly are increasingly achieving more success in obtaining extramural and, in particular, National Institutes of Health funding. This phenomenon will help to guarantee the innovation and quality of Ochsner medical care. But to achieve this goal, research and scholarly activities must necessarily be integrated into the fabric of the organization and into the provision of patient care. This integration of scholarship into clinical care is facilitated by the many research seminars, lecture series, and programs which are held at Ochsner. So, too, Research Night contributes in linking scholarship, including research, with patient care at all levels.

Research Night also provides the opportunity for us all to reflect on the role and direction of research at Ochsner. Since its inception, research at Ochsner has been patient directed in that even the most fundamental of laboratory investigations are conducted with an eye towards eventually producing diagnostic or therapeutic procedures and devices. In common parlance, this philosophy of patient directed research has been subsumed under the term "translational research." In a sense, Ochsner research has always been translational and, by virtue of organizational priorities, always will be. However, as the science of medicine and biology has continued to evolve over the lifespan of the Ochsner Medical Institutions, the nature and form which Ochsner translational research assumes has and should evolve. This then leads to the question of what the translational research direction of the Ochsner Clinic Foundation should be as we enter the 21st century.

The canonical definition of translational research is the application of basic biological insights to the development of patient care modalities. For example, the basic science effort which has sequenced the human genome is currently being translated into tests for inherited diseases and for the predisposition to chronic disease. Similarly, the basic science that has produced an understanding of bone marrow stem cell biology is already being translated into the replacement of dead heart tissue in patients who have sustained myocardial infarctions. This is classical translational research, and is the translational research usually referred to by policymakers. However, the term translational research can be enriched when one realizes that insights can flow from the bedside to the bench as well as the other way around. Ochsner scientists and clinicians have considerable experience with this form of translational research as well. Research efforts in the Section of Endocrinology, for example, have identified patient families with unique disorders of bone, and these kindreds have been extensively studied clinically. Appropriate basic science collaborations were then established and the molecular defects behind the disorders in question have been identified. This process has occurred on multiple occasions in the Endocrine Section, and other departments undertake similar kinds of translational research on a regular basis. Still another form of translational research links practicing clinicians with Ochsner basic scientists in efforts to clarify the mechanisms of patient disease. A representative example here is a study joining the Ochsner molecular genetics initiative with Cardiology, leading to the testing of patient carotid endarterectomy samples for a variety of infectious agents which potentially could play a role in atherosclerosis. These examples demonstrate that so-called translational research can take many forms. But that said, the hallmark of translational research is the linking of basic and clinical science in an innovative fashion, irrespective of whether the initiative for such linkage resides with the clinician or the basic scientist. Viewed in this light, Ochsner translational research is alive and well. Moreover, given the explosion in basic biology which is currently taking place, the future looks bright for the productive interaction of fundamental scientists with innovative clinicians.

Sixty years ago, New Orleans was a major, internationally recognized, center of medical excellence and innovation. It is not today because of past failures to adequately incorporate biological science into clinical activities. Today, much more than in the past, basic biological science is generating new insights with enormous clinical potential. Our challenge is to realize that potential.

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