

# REAPING WHAT WE SOW

PROMINENT RESEARCHERS REFLECT ON WHAT OREF SUPPORT HELPED THEM ACCOMPLISH

After completing my residency training and fulfilling a two-year military obligation in 1976, I developed a strong interest in orthopaedic trauma and decided to join **Dr. Charles Rockwood** in San Antonio. While the two years in the military provided a wealth of clinical experience, I felt I needed a broader base of



▲ James D. Heckman, MD

experience to draw upon. I applied for and received an OREF Berg-Sloat Traveling Fellowship grant, which enabled me to visit 10 academic trauma centers before assuming my full-time appointment in San Antonio. That traveling fellowship opened my eyes to many approaches to the management of musculoskeletal trauma, and gave me ideas about which basic science and clinical research initiatives to pursue. With that foundation, I established a clinical presence at the Level I trauma center in San Antonio, and applied for and received a grant from OREF to investigate the role of bone morphogenic proteins in the fracture repair process. **This seed money provided the foundation for a basic science research endeavor that spanned the next 20 years and was eventually funded by the Veterans Administration and the Department of Defense.** Out of that effort, we demonstrated the effectiveness of bone morphogenic proteins upon the repair of non-united fractures. Without the traveling fellowship, I would not have had as strong an interest in academic medicine, or known the important directions to pursue in both clinical and basic research. Without the grant, it is unlikely that I would have had sufficient resources to initiate a whole new line of investigation that was eventually funded by federal granting agencies.



Joshua J. Jacobs, MD ▲

OREF support was crucial in allowing me to develop a database on serum and urine metal levels in patients with total hip and knee replacements. As this database has matured, it has provided a new noninvasive diagnostic tool for the postoperative surveillance of patients with these

devices. For example, we have been able to diagnose failed metal-backed patellar components from individuals with a total knee replacement whose clinical and plane radiographic findings were equivocal. **There is particular promise for this new diagnostic modality in evaluating metal-on-metal bearing total hip replacements, devices in which there currently is no method to noninvasively determine the amount or rate of wear.** This research is ongoing. I do not know of another career development funding opportunity sufficient to fund the research, other than the NIH. However, career development awards from the NIH to orthopaedic researchers are few and far between. Without OREF, I may not have been able to dedicate the time I needed to develop this research program.