

# Neff Legacy Continues to Proliferate



## **MTF Establishes Annual J. R. Neff Award**

In January of this year the department received notification that the late Dr. James R. Neff is being honored by the Musculoskeletal Transplant Foundation (MTF) with the establishment of the annual *J. R. Neff Research Award*. Each year, the highest ranked science proposal submitted to the MTF will receive the J. R. Neff peer reviewed grant in the amount of \$125,000.

The first person to be awarded this honor was Edward Schwarz, Ph.D., of the University of Rochester for his proposal entitled, "Revitalizing rAAV-FOP Coated

Allografts." His was one of only 10 peer reviewed grants awarded by the MTF in 2006/2007, selected from 54 proposals.

A press release by the MTF regarding the newly established award in honor of Dr. Neff stated, "The Foundation wishes to recognize his leadership, educational demeanor, and his accomplished past by naming the highest ranked science proposal by peer review the J. R. Neff Grant." The MTF is the world's largest tissue bank. It's internationally recognized Board of Directors and Medical Board of Trustees primary intent is to further orthopaedic research and education through its granting program.

Dr. Neff was president of MTF's Medical Board of Trustees and also a member of the Board of Directors. Regarding Dr. Neff the MTF wrote, "[he] was a MTF Board activist who strongly supported orthopaedic research and education." Dr. Neff was chairman of the Department of Orthopaedic Surgery and Rehabilitation from 1991-2000.

## **New Patent Issued for Neff Invention**

The Dynamic Compression Device and Driving Tool was one of several inventions Dr. James Neff conceived during his lifetime. Although he was not here to see it come to fruition, in February of this year the dynamic compression device and driving tool was officially patented by the United States Patent and Trademark Office. Envision a

specialized screw used to fasten portions of a fractured bone together, tightly securing them in place while allowing the bone to heal. Although there are several types of these devices, the screw Dr. Neff developed is designed to alleviate a common issue that can arise with some other screws.

For instance, one of the techniques for fixing and stabilizing fractures is termed interfragmentary compression. In this technique, the two fracture fragments are aligned perfectly and a screw is placed perpendicular to the fracture fragment. When the screw head engages into the outer surface of the bone, screw threads on the other side of the fracture pull the fracture together with continued tightening of the screw. This is called rigid fixation. As the bone heals, 1-2 millimeters of bone is resorbed at the fracture interface, theoretically loosening the rigid fixation.

"The dynamic compression device continuously imparts a force that pulls the bone together even as bone is resorbed to prevent loosening as the bone heals," explained Dr. Sean McGarry, who specializes in Orthopaedic Oncology in the Department of Orthopaedic Surgery at UNMC.

This device is not the only patent held by Dr. Neff. Over twenty-five years ago Dr. Neff also developed and patented the "Neff Nail", a device still widely used today as a knee fusion device for failed knee surgeries.