Cincinnati’s proud history of neurosurgery is focus of exhibit

Cincinnati—A bronze bust of the late Frank H. Mayfield, M.D., pioneering technologies developed by Cincinnati brain surgeons, and the story of the University of Cincinnati’s trailblazing path in neurosurgery highlight a new exhibit at the Henry R. Winkler Center for the History of the Health Professions.

“History of Neurosurgery in Cincinnati” is on display through June 1 and is free and open to the public. The Winkler Center is housed in the Donald C. Harrison Health Sciences Library, which straddles UC’s Medical Sciences Building and the new CARE/Crawley Building, located at the corner of Eden Avenue and Albert Sabin Way.

The exhibit examines Cincinnati’s rich history of neurosurgical innovation and progress, beginning with the first electrical stimulation of the human brain, by Roberts Bartholow, M.D., in 1874, and the arrival of George Heuer, M.D., from Johns Hopkins University in 1921.

Dr. Heuer and his equally famous contemporary, Walter Dandy, M.D., both trained at Johns Hopkins during the era of Harvey Cushing, M.D., the “father of neurosurgery.” Giants in their field, Dr. Cushing left Johns Hopkins for Harvard University, Dr. Dandy remained at Johns Hopkins, and Dr. Heuer came to UC as the first Christian R. Holmes Professor of Surgery. Under Heuer’s leadership, UC became the third university, behind Harvard and Johns Hopkins, to embrace a modern method of surgical residency education developed by William Halsted, M.D.

When UC created a new subspecialty section of neurosurgery in 1937, it attracted two stellar candidates. The position went to Joseph Evans, M.D., who served as chair until 1954. Dr. Evans and his team were pioneers in the recording of intracranial pressure and are credited with one of the earliest uses of computers in medicine.

Dr. Evans’s runner-up, Frank Mayfield, remained in Cincinnati and created a legacy that includes not only the 72-year-old Mayfield Clinic, which is today one of the largest neurosurgical practices in the United States, but also a more broadly influential UC College of Medicine. While on the UC Board of Directors, Dr. Mayfield played a key role in building affiliations among UC and nearby community hospitals (Jewish, Christ and Good Samaritan), changing admissions policy at University Hospital (then General Hospital) to allow for the care of private patients, and converting medical faculty to full-time status to allow them to spend more time teaching students and conducting research.

The portrait bust of Dr. Mayfield, the visual highlight of the exhibit, was sculpted by John Hebenstreit, a Cincinnatian whose work includes busts of the late Cincinnati Mayor Theodore M. Berry and musicians Jimi Hendrix and Muddy Waters.

The exhibit also highlights neurosurgical instrumentation and technologies of historical significance, including:

- the Mayfield aneurysm clip and clip applier; developed in 1952 by Dr. Mayfield and medical illustrator George Kees, these tools revolutionized the treatment of brain aneurysms;
- the Mayfield headrest and skull clamp; developed in 1967 by Dr. Mayfield and Mr. Kees, they are the most widely used neurosurgical headrests today;
- the Tew curved electrode kit; developed in 1974 by Dr. Tew, Clinical Director of the UC Neuroscience Institute, and Eric Cosman, it is widely used for percutaneous radiofrequency treatment of trigeminal neuralgia; and
- the Budde Halo self-retaining retractor; developed in 1981 by Richard Budde, M.D., and Mr. Jim Day, it allows surgeons to retract the brain and rest their hands comfortably during procedures.

The exhibit was designed by Tonya Hines and Martha Headworth of the Mayfield Communications department, with contributions from Dr. Tew, Jeffrey Keller, Ph.D., and Stewart Dunsker, M.D. (emeritus), of the department of neurosurgery; Frank Mayfield, Jr.; and Integra LifeSciences, manufacturer of the Mayfield and Budde lines of instruments.

The exhibit is open to the public from 8 a.m. to 5 p.m., Monday through Friday. Because meetings are occasionally scheduled at the center, visitors are advised to call 513-558-5120 prior to their visit to ensure that the center is not occupied.

More information about the Henry R. Winkler Center for the History of the Health Professions is available at www.libraries.uc.edu/hsl/history.

The Mayfield Clinic is recognized as one of the nation's leading physician organizations for clinical care, education, and research of the spine and brain. Supported by 20 neurosurgeons, three neurointensivists, an interventional radiologist, and a pain specialist, the Clinic treats 20,000 patients from 35 states and 13 countries in a typical year. Mayfield's physicians have pioneered surgical procedures and instrumentation that have revolutionized the medical art of neurosurgery for brain tumors and neurovascular diseases and disorders.

A PDF of the exhibit can be viewed at http://www.mayfieldclinic.com/History.htm