

Newly Dedicated Morrison Center Home to Virology

By University Communications

UNL scientists associated with the Nebraska Center for Virology have settled into a new home – a state of the art research building designed to promote collaboration and enable research into some of the most devastating viral and neuroimmune disorders facing the global community.

The Ken Morrison Life Sciences Research Center – the newest building on campus – was dedicated Aug. 29. The building is located on UNL's East Campus near the Veterinary Basic Sciences Building.

UNL researchers associated with the center, who previously worked at several locations across campus, moved into the new building in April 2008. The \$21 million, 74,000-square-foot research facility is designed to foster interactions and collaborations among researchers, students and staff.

The building provides space for the virology center to expand research on many of the leading viral threats to people, animals and plants. The Morrison Center features full labs for 12 scientists with separate areas for cell culture and polymerase chain reaction spaces, cold and dark rooms, shared microscopy and cell-flow cytometry facilities, a Biological Safety Level 3 laboratory suite, offices and meeting rooms.

The Nebraska Center for Virology links virologists at UNL, University of Nebraska Medical Center and Creighton University. It was established in 2000 as a Center for Biomedical Research Excellence with a five-year, \$10.7 million NIH/National Center for Research Resources grant and earned a five-year, \$10.6 million renewal in 2005. It is among the university's most productive research programs.

The center's scientists study the molecular mechanisms viruses use to cause disease. Their discoveries could lead to new tools to prevent or treat diseases caused by HIV, human papilloma virus, herpes and other major viruses. Research projects include the investigation of mechanisms of HIV replication and pathogenesis – the origin and chain of events that lead to disease. Other scientists are studying neurodegenerative diseases such as Alzheimer's disease, prion diseases (such as Chronic Wasting Disease and "mad cow" disease) and HIV-1-associated dementia. Other projects involve chronic and latent infections caused by viruses such as herpes simplex, Epstein-Barr and Kaposi's Sarcoma associated herpesvirus. Investigators are also studying viral-host interactions including the mechanism of viral induced cellular transformation.

"The Nebraska Center for Virology is a signature research program here at UNL and we're very proud of the world-class research team we've established," said Prem Paul, UNL's vice chancellor for research and economic development.

Charles Wood, Lewis Lehr/University Professor of Biological Sciences and director of the virology center, said the building is key to the next level of scientific advances at UNL.

The new building not only gives us space for us to expand and do things we could not do at the Beadle Center (the center's former home), but it will provide newer technologies, newer space and a biocontainment facility, Wood said. "It also enables people to collaborate, interact and get better ideas and do better work, all under one roof."

Wood said the Center for Virology has worked on the interactions and relationships among viruses and virus transmission with the goal of discovering how immune responses

occur, leading to greater abilities to create vaccines or medicines to boost immunity to viruses causing diseases like AIDS or cancer.

"We need a state-of-the-art facility for what we're doing, and this building does that," Wood said.

In addition to its research program, the Nebraska Center for Virology has developed signature programs in outreach and education. For instance, Wood leads a program funded by the John E. Fogarty International Health Center through the National Institutes of Health that trains scientists in Zambia and China to prevent the transmission of HIV and AIDS-associated diseases. UNL's program focuses on developing skills to apply molecular techniques and novel medical science approaches to prevent transmission, to diagnose, and to treat the HIV and AIDS-related diseases in order to address local and global health needs for effective disease prevention strategies.

Wood's work in Zambia and China takes advantage of research projects and long-standing research collaborations with the University of Zambia; the University Teaching Hospital in Lusaka, Zambia; and Nankai University in the city of Tianjin, China.

The center also has supported an Undergraduate Summer Research Experience in Virology program for undergraduates who are interested in exploring options for careers as scientists in biomedical research by working with research faculty, graduate students and postdoctoral research associates in their labs.

During the 10-week summer program, undergraduates design and implement a research project. The experience culminates in a research fair where students showcase their findings and progress.

Morrison, a Hastings businessman and longtime university advocate and University of Nebraska Foundation trustee, provided the lead gift for the building. This is the latest of Morrison's numerous contributions to the university, which have included establishing the Morrison Biotechnology Fund, supporting UNL's microscopy research facility at the Beadle Center, and funding the Kenneth Morrison professorship in food engineering.

"Ken Morrison's historic support of the life sciences is extraordinary," UNL Chancellor Harvey Perlman said. "Our university has benefited tremendously from his generosity."

Morrison is a general partner and business manager of Morrison Enterprises, a Nebraska-based agricultural company engaged in alfalfa production and marketing, grain storage, livestock production, farmland development and management, aquaculture and cotton and feed grain production. A longtime promoter of biotechnology, Morrison has played a major role in enhancing UNL's ag biotechnology capabilities.

Morrison grew up in Kansas and attended McPherson College. In 1947 he and his wife



Ken Morrison

Marjorie moved to Hastings where he and other family members began their agricultural business ventures. Recognized by Ak-Sar-Ben as a Leader in Business and Industry, he received the University of Nebraska Builders Award in 1991. He has had memberships in the university's Chancellor's and President's clubs. He also has helped fund a computer lab for UNMC's College of Dentistry, the Lois G. Roskens professorship in educational administration at UNO, and has been a strong supporter of university athletics.



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