Why focus on infectious diseases?
UNMC takes on a leadership role in global health

Academic medical centers, UNMC in particular, must step forward to fill a leadership void in the search for drugs to prevent and to cure infectious diseases, said UNMC Chancellor Jeffrey P. Gold, M.D. This is just one area of the UNMC Center for Drug Discovery, and the research conducted within it, and widely across UNMC’s campus.

The chancellor noted that, worldwide, infectious diseases are the leading killer of children and adolescents and are one of the leading causes of death in adults, particularly those with other chronic diseases, such as heart failure and diabetes.

But for pharmaceutical companies, most of the drug research is in treatments for chronic conditions – prescriptions which must be re-filled over and over again.

And so it falls to those who have a different mission. “The UNMC mission,” Dr. Gold said, “to lead the world in transforming lives.”

UNMC, and its primary clinical partner, Nebraska Medicine, in collaboration with Emory University in Atlanta and Bellevue Hospital Center in New York City, already have been tapped by the U.S. Department of Health and Human Services (HHS) to establish and co-lead the nation’s National Ebola Training and Education Center (NETEC). While NETEC will work with partners on strategies to manage Ebola and other emerging infectious diseases, the UNMC Center for Drug Discovery will be dedicated to developing and delivering new medicines.

To do so is crucial: “The rapidly escalating problem of bacterial resistance to currently available antibiotics has the potential to return us to the pre-antibiotic era of medicine,” said Bradley Britigan, M.D., dean of the UNMC College of Medicine, also a clinician specializing in the treatment of infectious diseases.

The center will bolster and build upon research already being done on campus research, such as the work of Jonathan Vennerstrom, Ph.D., whose work inspired two anti-malaria drugs; pharmacy dean Courtney Fletcher, Pharm.D., whose groundbreaking research discovered at last why a cure for HIV has thus far eluded us, and who is currently looking for a way to finally deliver that cure.

The new UNMC Center for Drug Discovery has already allowed the ability to recruit new faculty to the College of Pharmacy, including:

- Martin Conda-Sheridan, Ph.D., who focuses on synthesis of new antibiotics for resistant bacterial infections;
- Corey Hopkins, Ph.D., who focuses on drug discovery for treatment of mosquito-transmitted infections including malaria, West Nile virus, dengue, yellow fever, and Zika.

And though the need is great, UNMC is one of less than a handful of medical centers nationwide with a similarly-focused drug discovery program, Dr. Fletcher said.

Said UNMC chair of pharmaceutical sciences Ram Mahato, Ph.D.: “Our hope is that the UNMC Center for Drug Discovery will soon emerge as a globally-recognized brand.”