

The University of Nebraska Medical Center is an education, research and public service academic health center with nine academic and clinical research affiliates. These units are: the Colleges of Medicine, Dentistry, Pharmacy and Nursing; the School of Allied Health Professions; University Hospital and associated services; Eppley Cancer Center; Meyer Rehabilitation Institute; and the Office of Graduate Studies and Research. Biotechnology research at UNMC is supported by the Nebraska Research Initiative (NRI). UNMC investigators have major programs in transplantation, cancer, genetics, virology/AIDS, diabetes, drug delivery systems, and immunology. The Eppley Cancer Research Center is one of the NCI designated research centers. Researchers at the Center for Human Genetics are collaborating in basic and clinical studies with investigators in the fields of cancer, transplantation, cardiovascular diseases and neurosciences.

North Dakota and South Dakota. Each state has a School of Medicine dedicated to education and public service, with special emphasis on primary care and rural medicine education. The schools offer graduate degrees (M.S. and Ph.D.) in biochemistry, microbiology, and molecular biology.

Summary

The North Central U.S. has five centers of excellence in medical genetics and biotechnology. They are: Mayo Medical Center, University of Colorado Health Sciences Center, University of Iowa Academic Health Center, University of Minnesota Academic Health Center, and University of Nebraska Medical Center. Each of these institutions aggressively market to the biotechnology industry by fostering research collaborations, joint ventures, new company startups and other commercial relationships. Appendix A lists the various organizations and individuals within each institution that can assist companies with finding resources to meet their special needs.

AGRICULTURAL BIOTECHNOLOGY. In the North Central U.S. agricultural biotechnology research primarily takes place at the land grant colleges. Under the Federal Morrill Act of 1864, land grant universities have the mission of promoting the commercial development of technology for the improvement of industry, agriculture and public welfare. Historically, agricultural research has been partitioned by scientific disciplines (e.g., agronomy, animal science, food technology, horticulture, plant pathology, veterinary pathobiology, etc.) With the invention of biotechnology, many researchers in these fields found that they shared common research interests and needs. Today, Biotechnology Research Centers/Institutes are being formed in Colleges of Agriculture and Veterinary Schools in order to have core research facilities for academic and industry scientists, to provide public education resources, and to develop commercial relationships with industry.

Colorado. *Colorado State University* in Fort Collins is a land grant college with agricultural biotechnology activities located in various research centers. The units are: College of Veterinary and Biomedical Sciences with Animal Reproduction and Biotechnology Laboratory, Arthropod-Borne Infectious Disease Laboratory, and the Painter Center for Animal Care; and the College of Agriculture, with the Plant Biotechnology Laboratory, and the Mycobacteria Research Laboratory. The *University of Colorado* at Colorado Springs provides technical support and collaborative research with industries in applied microbiology, with particular emphasis on yeasts and brewing technology.