

research in somatic cell gene therapy, with special emphasis on therapies for primary and metastatic brain tumors.

Minnesota. The world renowned *Mayo Clinic* in Rochester has more than 1200 doctors and researchers. At Mayo, patient-oriented clinical research and research in the basic sciences are tightly woven into the very fabric of the institution. Basic research is conducted in collaboration with clinical research at the four basic science departments: Physiology and Biophysics; Biochemistry and Molecular Biology; Pharmacology; and Immunology. Clinical research activities at the Mayo Clinic cover a broad range: allergy, cardiovascular disease, endocrinology, gastrointestinal disease, lipid disorders, oncology, pediatrics, pharmacology, renal disease, and surgery.

The *University of Minnesota Academic Health Center* is one of the nation's premier health science centers with Schools of Medicine, Dentistry, Nursing, and Public Health; Colleges of Pharmacy and Veterinary Medicine; and the University Hospital and Clinics. UMACH offers professional and graduate degrees to medical students at campuses in Minneapolis and Duluth. The Minneapolis campus is home to the University Hospital and Clinics, Variety Club's Children Hospital, Masonic Cancer Center, Children's Rehabilitation Center, Biomedical Engineering Center, and the Institute of Human Genetics. UMAHC is recognized as a world leader in organ transplantation, with the world's largest pancreas transplant program, and the second largest bone-marrow transplant program. The faculty bring in \$200 million dollars annually in federal funded and private sponsored grants for research in cancer, immunology, cell biology, neurobiology, molecular biology, and gene therapy. The School of Medicine on the Duluth campus is ranked second in the nation in rural medicine training.

Clinical research at UMAHC is often conducted in collaborative one or more affiliated hospitals and medical centers in Minnesota. These institutions include large community, clinical research hospitals such as Abbott Northwestern Hospital, Duluth Clinic, Hennepin County Medical Center, Park Nicollet Medical Center, Ramsey Hospital Foundation, and the Veterans Administration Medical Center. Minneapolis is also home to two major private, non-profit medical research centers: *International Diabetes Center* and *National Marrow Donor Program*. The Diabetes center does research directed toward the clinical assessment of new diabetes-related pharmaceuticals and technologies. The National Marrow Donor Program provides bone marrow for a variety of medical uses and conducts research on allotyping and sterilization technologies.

Nebraska. Omaha, Nebraska has two institutions of medical education and research, *Creighton University* and the *University of Nebraska Medical Center*. Creighton University is a private education, research and public service medical school with schools of dentistry, medicine and nursing. The medical school faculty research programs are centered on infectious diseases, allergic diseases, and immunology. The medical school is affiliated with St. Joseph's Hospital, Omaha Veterans Administration Hospital, Children's Hospital of Omaha, and St. Joseph's Center for Mental Health.