Minnesota Partnership for Biotechnology and Medical Genomics UNIVERSITY OF MINNESOTA University of Minnesota Communications 420 Delaware Street SE, MMC 735 Minneapolis, MN 55455 Tel. 612.624.5100

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June 29, 2020

The Honorable Tim Walz Office of the Governor & Lt. Governor Room 130 State Capitol 75 Reverend Dr. Martin Luther King Jr. Blvd. Saint Paul, MN 55155

Dear Governor Walz:

A model of collaboration for 17 years, the Minnesota Partnership for Biotechnology and Medical Genomics (the Partnership) has brought together researchers from the University of Minnesota and Mayo Clinic to advance research aimed at improving the economic and human health of our state. The 2019 Legislature demonstrated its continued support of the Partnership by authorizing the base appropriation of roughly \$8 million in annual funding.

Research in brain cancer, pancreatic cancer, and breast cancer dominated the Partnership's research grant program in 2019. Five projects were awarded roughly \$4.6 million to research new treatments for disease and develop novel diagnostics. The projects include:

- Development of new imaging techniques for the early detection of pancreatic cancer
- Creation of a new drug delivery system to improve treatment for pediatric brain cancer
- Study of an implantable magnetic nanodevice to treat multiple neurological diseases
- Development of methods to overcome hormone therapy resistance in ER+HER2- breast cancer
- Study of genetic mutations in pediatric brain cancer

The Partnership also utilized 2019 funding to award \$2.8 million to address critical infrastructure needs. This includes:

- Innovative methods to detect and characterize senescent cells
- Artificial intelligence assisted high-content microscopic image analysis for understanding human disease processes
- Development of vector core for adeno-associated virus vectors production and toxicology evaluation

In addition, in response to the present health care needs prompted by COVID-19, the Partnership has awarded \$2 million to the following study prevention and treatment of COVID-19: "Angiotensin receptor blockers for novel SARS-CoV-2: A multicenter randomized controlled trial". This study is being conducted as a joint clinical trial at both the University of Minnesota and Mayo Clinic.

Finally, \$1.8 million of current year and previous year funds were allocated to the Translational Product Development Fund, which supports the advancement of projects that have the potential to be commercialized, such as projects that aim to form a start-up company or create a license agreement with an established commercial entity. This program is facilitated in cooperation with each institution's Clinical and Translational Science Award from the NIH.

Previous Partnership awards have led to successful licensing, patents and other commercialization of discoveries including therapies for glaucoma, multiple sclerosis, type 2 diabetes, congestive heart failure, fungal infections, Alzheimer's disease, and various types of cancer. As of 2019 there have been at least 165 patent filings, 13 issued patents, more than 29 new technologies stemming from Partnership-funded projects, 10 licensed technologies to existing companies, and one new start-up company (CoreBiome, Inc.).

If you would like more information, please do not hesitate to contact us or our legislative staff, Kelly Mellberg at 262.960.4000 or Kate Johansen at 651.900.3482. Thank you.

Sincerely,

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Gregory Gores, M.D. Executive Dean for Research Mayo Clinic

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Jakub Tolar, M.D., Ph.D. Dean of the Medical School Vice President for Clinical Affairs University of Minnesota

cc: Senator Paul Anderson, Chair, Higher Education Finance and Policy Representative Connie Bernardy, Chair, Higher Education Finance and Policy Division