

Request for Establishing a new Academic Department at UMass Chan —
Department of Genetic and Cellular Medicine

The Horae Gene Therapy Center (HGTC) was founded in 2008 at the University of Massachusetts Chan Medical School (UMMS) with two establishing faculty members, Drs. Terry Flotte and Guangping Gao. Dr. Gao was the inaugural Director and has overseen the recruiting, training, and support of gene therapy scientists to advance the field and develop new genetic and cellular medicines. Today, UMass Chan is recognized as a world-leading institution for gene therapy research. Since its founding, HGTC faculty have obtained \$135 million in competitive funding, generated \$45 million in revenue from research core services, published hundreds of research papers in prestigious peer-reviewed journals, been granted hundreds of patents with hundreds more pending, conducted several gene therapy clinical trials, and recognized as leaders in the field of genetic and cellular medicine. Dr. Gao has served as the President of the American Society of Cell and Gene Therapy (ASGCT) from 2019–2020 and Dr. Flotte is the President-elect of ASGCT, and will become the society's President in 2025. In addition to this productivity, a major objective of the HGTC is to train students and junior researchers in conducting rigorous scientific investigation while conducting gene therapy research. To date, we have trained more than 100 research associates, graduate students, and postdoctoral fellows. Many HGTC trainees have been recognized for their talent, training, and accomplishments with prestigious conference and career development awards. Former HGTC trainees have continued their professional training in medical or graduate schools and/or become senior scientists and leaders at biopharmaceutical companies or faculty members at academic institutions. Most importantly, the work done at the HGTC has led to new medicines entering the clinic to treat patients with rare genetic diseases that have previously been incurable.

Because of the rapid growth of the HGTC in basic and clinical research as well as the success in training scientists in the field of gene and cell therapy, we proposed to establish a new academic department to be named the ***Department of Genetic and Cellular Medicine*** at UMass Chan with a total of 19 current faculty members (five Tenured, seven Tenure Track, six Research Track, and one Adjunct). Our faculty members' research programs cover a wide range of scientific areas from basic virology, vector biology, disease biology/pathomechanism, animal modeling, gene and genetic modified cell therapy platform technologies, viral vectorology (including Adenovirus, Lentivirus, and Adeno-associated virus platforms), gene therapy immunology and host interactions, vector manufacturing and product characterization platform technologies, pre-clinical proof-of-concept studies, and translation of Investigational New Drugs (INDs) into the clinic.

This request for elevating the HGTC to an Academic Department coincides with the recent move of the center into the newly constructed state-of-the-art New Educational Research Building (NERB). This will give our faculty primary appointments in the same Department so that junior faculty will be evaluated for tenure and promotion by a uniform set of standards rather than those of different Departments. This will also allow us to better support our faculty, develop gene therapy-focused training resources, and pursue mechanisms of funding that we are not currently eligible for such as an NIH T31/32 grant to develop a gene therapy training program with increased emphasis on training clinician-scientists who are critical for transitioning pre-clinical therapies into first-in-human studies and clinical trials for INDs. These additional sources of funding will expand our training, education, and research capabilities for our members and trainees, who will continue to be leaders at the forefront of developing genetic and cellular medicine.

Our faculty members being together in a shared space rather than being separated across several buildings on campus provides increased opportunities for research collaborations and allows for more social activities and engagement between research groups as well offers space for recruiting additional faculty members. We have recently recruited Dr. Jennifer Adair from the Fred Hutchinson Cancer Center at the University of Washington as a Tenured Professor, who will serve as the Vice Chair for the new Department.

We are proud of what the HGTC has accomplished over the past 15 years to make UMass Chan a world-leading institution in the field of genetic and cellular medicine, and we are excited for more progress in the future. We believe that elevating our center to an Academic Department will allow us to better support our faculty and trainees as we continue to grow our research programs, train the next generation of scientific and clinical leaders, and advance new medicines into the clinic.