Job Description: **POSTDOCTORAL ASSOCIATE**, Center for Biomedical Innovation (CBI), to develop innovative processes for viral vector production as part of a collaborative, interdisciplinary team at the forefront of gene therapy vector production. Recombinant adeno-associated virus (rAAV) is one of the most important gene therapy vectors with almost 200 rAAV-based therapies in clinical trials worldwide (ClinicalTrials.gov). However, current production approaches are not expected to meet growing demand, thereby limiting access to these therapeutics for pivotal clinical trials. MIT CBI is developing new, intensified production processes for viral vector manufacturing using the baculovirus expression system and the insect cell line Sf9 to provide a solution to meet this increased demand. The Postdoctoral Associate will design and execute experiments to establish the kinetics of infection and production in shake-flask and stirred-tank bioreactor culture; develop and optimize upstream processes for cell growth, infection, and vector harvest; analyze and characterize cell culture and viral vector production processes using a variety of methods, such as ELISA, ddPCR, analytical ultracentrifugation (AUC), electrophoresis, and HPLC. The candidate will be working in a team that includes researchers in the MIT Chemical Engineering department and the Koch Institute for Integrative Cancer Research.

Job Requirements: REQUIRED: Ph.D. in biochemical/chemical engineering, biological sciences, or related field; demonstrated experience with the growth of insect cells, especially Sf9, and/or virus production in small-scale vessels and bioreactors; experience with bioreactor set-up, operation, and maintenance; experience with analysis of cell culture medium components using qPCR or ddPCR, HPLC, ELISA, or similar methods; ability to prioritize multiple responsibilities, troubleshoot technical issues, and develop and execute detailed technical protocols; strong documentation and written and oral communication skills; and ability to work independently and as part of a team. PREFERRED: experience developing and engineering recombinant baculovirus. **Job #**

This is a one-year appointment with the possibility of extension based upon satisfactory performance and availability of funding.