RE: Google PhD fellowship mentor statement

Dear members of the selection committee,

I am writing in most enthusiastic support of the application of Emily Schwenger, an outstanding M.D./Ph.D. student in my laboratory, for the Google PhD Fellowship.

Emily has worked in my laboratory as a student assistant since 2017 and officially joined as an MSTP student in 2019. She has a very strong academic record, having graduated from McGill University with a 3.85 GPA and distinction, along with two years of industry experience at AstraZeneca. Emily frequently thinks outside of the box, owing to her diverse research experiences in both wet lab and computational biology.

Emily impressed me from the first day she joined our team; she is an extremely goal-oriented, creatively thinking, and hardworking student, quickly grasping novel concepts of leukemia pathogenesisand stem cell biology. Initially, she assisted a postdoc on a project analyzing whole-genome sequencing data obtained from a pre-leukemic to leukemia progression mouse model and quickly developed into the actual intellectual driver of the project. She not only refined and improved the data analysis strategy, but also began to implement changes in the experimental strategy based on a deep biological understanding of the project, despite doing this alongside her regular medical school curriculum.

Emily is currently performing clonal trajectory analysis of purified stem cell populations from longitudinal samples of patients with myelodysplastic syndrome. She has been pushing the boundaries of the project’s translational potential by means of incorporating evolutionary and systems biology principles and taken it upon herself to study these and relevant mathematics topics in her spare time.

I have had the great pleasure of mentoring some of the most outstanding MSTP students in our program, and, based on my close interactions with Emily over the past 2.5 years, I would firmly place her in the top 5%. Her creative thinking, hard-working attitude, and outstanding team skills, represent a terrific (but rare) combination that bodes extremely well for her future. In order for healthcare to truly benefit from data science, more future physicians will need to truly embody a multidisciplinary mindset, and Emily is an ideal candidate to do so.