[redacted]

February [redacted]

Scientific Review Committee
Gilead Sciences Research Scholars Programs

Re: Application of [redacted] for a
Gilead Research Scholars Grant for solid tumors

Dear Committee members:

I write this letter as Senior Vice President and Director of the Clinical Research Division (CRD) at the [redacted], where I hold the [redacted] Chair for Collaborative Research. I am also Head of the [redacted] of Medicine Division of Medical Oncology, and President and Executive Director of our patient care partner, the [redacted]. Our institutions have one of the premier programs in cancer immunotherapy and remain committed to developing the next generation of physician/scientist leaders who are focused on understanding how immunologic modalities can be used to effectively treat cancer. It is my great pleasure to write this letter, affirming our institutional commitment to Dr. [redacted] and the studies that he now proposes for a Gilead Research Scholars Grant, entitled, "[redacted]"

After undergraduate studies at [redacted], Dr. [redacted] joined the [redacted] Program. He did his PhD training with Dr. [redacted] in the [redacted], where he studied mitochondrial function and cellular aging in a budding yeast model, producing a 2009 first-author paper in *Cell*. After completing medical school and residency and having become interested in applying basic science techniques to translational cancer research, Dr. [redacted] joined our medical oncology fellowship program in 2013. He completed clinical training and board certification in hematology and medical oncology in 2016. For the research component of his fellowship training, Dr. [redacted] joined Dr. [redacted] lab in the [redacted] and Immunotherapy Integrated Research Center. After a productive period as an Acting Instructor, Dr. [redacted] will be joining our faculty as an Assistant Professor, starting his independent research group in July [redacted]. He continues to be funded through an NCI K08 that started in [redacted] and is mentored by [redacted]

In Dr. [redacted] lab, Dr. [redacted] embarked on a new project to analyze the role of T cell responses to neoantigens resulting from gene mutations in cancer cells. His initial studies produced two first-author papers ([redacted]) with two important findings. First, he showed that class II MHC-restricted CD4+ T cell neoantigen responses are very prevalent in these tumor types. Although CD4+ T cells are increasing recognized as having a vital role in antitumor immunity, others have focused primarily on class I-mediated CD8+ T cell responses. Second, he identified T cell responses to mutations in genes that are critical for cancer initiation and progression, including in *BRAF*, *K-Ras* and *HER2*, paving the way for using T cell receptor (TCR)-engineered T cells to immunologically target these oncogenic drivers.

Upon obtaining a K08 award from the National Cancer Institute that started in [redacted], Dr. [redacted] then embarked on a project to further understand the potential role of CD4+ T cells recognizing tumor antigens in

[redacted]

solid tumors, starting with melanoma. His intensive analyses identified single cell transcriptional signatures of tumor-specific CD4+ T cells in melanoma and critically enabled Dr. [redacted] to isolate these cells away from "bystander" T cells in tumors. His findings to date also highlight the possibility that tumor-targeting CD4+ T cell products might have the potential to therapeutically modify the tumor microenvironment. A manuscript describing his findings is provisionally accepted at *Cancer Cell* and the results inform an important part of his proposed work, which aims to isolate only tumor antigen-recognizing T cells and use these to create more potent and diverse therapeutic cell products. This line of research and related clinical trials will be the focus of Dr. [redacted]s independent research group. As I already noted, our institution has a strong focus on cancer immunotherapy. We are ideally positioned and fully committed to supporting Dr. [redacted] in this important translational initiative and in his continued career development

We assure that Dr.[redacted] will be able to devote 75% of his time to his research, separate from clinical care and administrative duties. As of July [redacted], Dr. [redacted] will have his own independent laboratory space, comprising approximately 680 square feet (3 modules), lab support space and a faculty office; our commitment to his development as an independent translational scientist is further demonstrated by the $2,000,000 in start-up funding that he will be provided. He has developed key collaborations with our [redacted], [redacted] and will have access to all of our state-of-the-art facilities, including our [redacted] others that will be important to the potential development of future clinical trials informed by the work that he now proposes. In the past year, our Therapeutic Products facility has produced two cGMP-quality lentiviral vectors and more than 70 genetically-modified T cell products for first-in-human trials. The [redacted] the [redacted] Clinic, an outpatient facility dedicated to the treatment of patients on innovative adoptive T cell therapy trials, and we currently have 15 trials that are actively enrolling patients with hematologic malignancies and solid tumors. Dr. [redacted] will have full access to these facilities and the institution will provide regulatory support necessary for filing an Investigational New Drug application to the FDA.

Our institution is fully committed to providing Dr. [redacted] with the resources he needs and overseeing the mentorship and training plans that are so important for career development. He has our full support to develop what we are sure will be a highly successful career in translational immunotherapy.

Sincerely,

[redacted]

[redacted]