

VANDERBILT UNIVERSITY

MEDICAL CENTER

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Dear CEOs Against Cancer, Pennsylvania Chapter Members,

It is my great pleasure to provide this letter to share my gratitude for funds you raised to support my four-year American Cancer Society Research Scholar Grant, which just started on August 1, 2017. I was an Assistant Professor at the University of Pittsburgh and moved my laboratory to Vanderbilt University Medical Center in March of this year. As you may recall, my research program focuses on the development and evaluation of new molecular probes for optical surgery guidance and phototherapy, with the ultimate goal of moving our basic science discoveries to the clinic. The main objective of my ACS investigation is to develop a light-based therapeutic technique to treat metastatic ovarian cancer in a target-specific manner.

Ovarian cancer is one of the deadliest malignancies in women because most patients are diagnosed at late stages when tumors have spread throughout the peritoneal cavity. Surgery and postoperative chemotherapy are the standard treatments for most ovarian cancer; however, tiny tumors are often left behind after surgery and most patients develop resistance after drug treatment. As a result, disease recurrence happens in almost all ovarian cancer patients with an advanced stage of disease on average 15 months after diagnosis. To overcome these challenges, we aim to develop a light-based therapeutic technique to selectively bind to and destroy ovarian cancer cells without adversely affecting normal cells. Since our molecular target is expressed at high levels in drug-resistant ovarian cancer cells, our novel approach may prove effective at killing cancer cells that are refractory to mainstay chemotherapeutic agents.

I feel very fortunate that my ACS Research Scholar Grant was funded at this critical stage of my career, which allows me to now focus on advancing our proposed science. I am currently setting up a state-of-the-art optical imaging and phototherapy lab at Vanderbilt University Institute of Imaging Sciences, while maintaining a productive collaboration with a researcher at the University of Pittsburgh. I am also in the process of recruiting team members ideally suited to help me conduct the proposed bench work. I feel confident that me and my research team are well positioned to achieve our scientific and career goals. I am greatly indebted for your support, and I look forward to keeping you abreast of our progress during the award period.

Sincerely,



Mingfeng Bai, Ph.D.