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2-2-2012

Re: REACT Request for Grant Funding

Dear REACT Board Members,

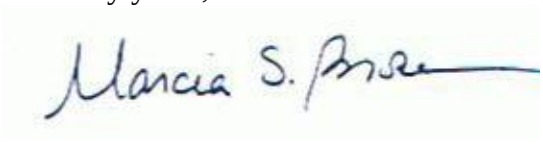
I am writing to send you a proposal for a research project we are planning here at the University of Pennsylvania. As you know we have a long track record of ground breaking research of novel treatments for advanced thyroid cancer and this continues to be our central and core mission.

This year we have developed an approach that allows us to identify genetic changes in tumor tissue at a much faster and efficient rate. The platform uses a technology called Sequenom, which allows us to study approximately 300 genetic alterations (mutations) at a time, in a single sample, in about the same amount of time and effort that it takes us to identify only 10! This allows us to comprehensively study all the mutations that might be present in a single tumor in a very short time. To do this, we put together a set of 300 probes to identify just the specific mutations that are present in thyroid cancer. Commercially available sets do not take thyroid cancer into consideration, and thus only approximately 10% of the genes included in those sets are informative for thyroid cancer.

As you are also aware, we have enrolled a large number of patients with advanced thyroid cancer in our program, and while medullary thyroid cancer is rarer than differentiated thyroid cancer, we have quite a large number of medullary patients that we treat in our clinic and our clinical trials. In addition we have access to additional patients with medullary thyroid cancer through our tissue bank run in the department of Otorhinolaryngology: Head and Neck Surgery and the Department of Pathology at the Hospital of the University of Pennsylvania. While quite a bit of information is known about the mutations that are found in advanced thyroid cancer patients, less is known about how the different RET mutations found in medullary thyroid cancer, and other mutations that are found in these patients, contribute to the course of the disease. We are therefore requesting funding (up to $25,000) in order to design the additional mutation panel needed to perform our comprehensive analysis on medullary thyroid cancer samples, which will provide valuable data in this understudied area.

If you have any questions, please don't hesitate to contact me at (215) 746-6344.

Sincerely yours,



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