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October 3, 2017

W.E. Smith
When Everyone Survives Leukemia Research Foundation
6555 Sugarloaf Parkway Suite 307, Box 202
Duluth, GA 30097

Dear Mr. Smith,

On behalf of myself and my research team, I would like to offer my sincere thanks to the When Everyone Survives Leukemia Research Foundation for the generous funding of our project titled "MERTK Inhibitor Combination Therapy for Treatment of AML".

We had previously developed a new treatment for AML that targets a protein called MERTK by blocking its activity. This targeted agent, MRX-2843, is effective in animal models with minimal toxicity and has received FDA approval for clinical trials. The overarching goal of our research is to devise strategies for the successful translation of this new agent into clinical use to help cure patients with AML. Through this award we were able to carry out a large-scale screen of other targeted therapies to identify ones that can cooperate with MRX-2843 to have enhanced anti-leukemic effects. We screened over 350 compounds and identified several promising candidates that lead to increased inhibition of leukemia cell growth in tissue culture models when combined with MRX-2843. Based upon analysis of the interacting pathways and the magnitude of the cooperative effect, we selected several inhibitors of epidermal growth factor receptor (EGFR) and Rho-associated coiled kinase (ROCK) for further study. These targets are of particular interest because they contribute to the abnormal cell growth and proliferation that is the hallmark of AML. We were able to validate in several different AML cell lines that combination therapy with MRX-2843 and each of these inhibitors was superior to the single agent. Additionally, we were able to define optimal combination dosing of MRX-2843 and a EGFR inhibition in mouse models that was well tolerated. Further combination studies are ongoing to determine whether the enhanced effect observed in tissue culture is also present in mouse models of AML with the eventual goal of advancing these combination therapies into clinical trials for patients.

These results will aid in the successful translation of MERTK inhibition into the clinic with the goal of providing better outcomes with reduced toxicities for patients with AML. Additionally, our unbiased screen identified of a number of targets with the potential to seed multiple projects and grant applications thereby expanding the impact this funding will have on the search for a cure. We appreciate your support of our project and continue to strive tirelessly towards the day when our shared goal of a cure will be realized.

Sincerely,

Katherine A. Minson, MD
Assistant Professor, Pediatric Hematology-Oncology-BMT
Aflac Cancer and Blood Disorders Center
Emory University and Children's Healthcare of Atlanta