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July 31, 2014

Michelle LeBeau
REACT Thyroid Foundation
500 S. Congress Avenue, Apt. 235
Austin, TX 78704

RE: REACT Thyroid Foundation
AURA System ID: FP056402
FAS: 6-34288

Dear Ms. LeBeau:

On behalf of Drs. Erza Cohen and Tanguy Seiwert attached is the final progress report and financial report for the project entitled "*Inhibiting P13K/AKT Pathway Activation in Anaplastic Thyroid Cancer*".

Should you have any questions or require any additional information regarding this grant, please feel free to contact me at (773) 702-5465 or sonyeanusu@medicine.bsd.uchicago.edu. Please cite the University's AURA System ID Number (FP056402) when submitting any future correspondence with this grant.

Sincerely,

Susan Onyeanusu
Grants and Contracts Manager

PI3K inhibitors in Anaplastic Thyroid Cancer

ATC often harbors mutations in targetable kinases such as *PIK3CA* and *BRAF*. We investigated the therapeutic potential of PI3K, MAPK and BRAF inhibitors in mutated versus non mutated cell lines

Cell Lines : OCUT-2, T238, T241 and CAL 62 were obtained from Jim Fagin's laboratory at MSKCC

Drugs :

PI3K inhibitors SAR245408 (XL147) and SAR 245409 (XL765) were provided by Sanofi/Exelixis

MEK1/2 inhibitor U0126 was purchased from Calbiochem

BRAF inhibitor PLX4720 was obtained from Dr Seiwert's lab (University of Chicago)

Effect of PI3K inhibitors on cell survival

In cell viability studies, we found that the OCUT-2 cell line which harbors *PIK3CA* (H1047R) and *BRAF* (V600E) mutations was extremely sensitive to both XL147 and XL765 with IC₅₀ of 2-3 nm. T238, harboring *PIK3CA* (E542K) and *BRAF* (V600E) was sensitive to XL147 at IC₅₀ less than 1 nm and was moderately sensitive to XL765 (IC₅₀ 66 nm). T241

