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SAYBROOK COLLEGE
YALE UNIVERSITY

August 15, 2013

Mr. & Mrs. Angelo S. Leondis
33 Willets Lane
Manhasset, NY 11030-1022

Dear Steve:

It gives me great pleasure to inform you of this past year's recipients of the Stacey Leondis '08 Memorial Fellowship. Six outstanding Saybrook students were funded from your generous Fellowship to pursue summer projects in medical and biomedical research. Below I summarize their research projects.

Paola Severino

Epigenetics, the study of gene expression caused by mechanisms other than DNA, has become a significant area of medicinal research with the potential to contribute largely to new schemes towards disease treatment and therapy. The focus of Ms. Severino's project includes the synthesis of unprecedented heterocyclic drug-like compounds for the study of their potential use in cancer therapeutics. One of these targets, histone lysine methyltransferases (HKMTs) is of particular interest in the epigenetic therapy of cancer. Synthesis of the heterocyclic frameworks allows for the study of their potential use as HKMTi chemotypes.

Karen Tian

Ms. Tan has been researching the neural basis of seemingly irrational decisions at the Shanghai Institute of Neuroscience with Dr. Michael Dorris. The research will translate basic research findings in a monkey model into a more applied understanding of decision-making biases and disorders in humans. The objective is to uncover the neural mechanisms underlying individuals who make irrational decisions, such as those with substance abuse or gambling problems. This will be accomplished through the use of fMRI neuroimaging techniques, eye movement tracking, and the temporary deactivation of identified brain regions of interest.

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James Broughton

Mr. Broughton has been working as a research assistant on the projects that are currently underway in Dr. Arya Mani's lab, located in the Cardiovascular Research Center of the Yale School of Medicine. His research is concerned with determining the genetic factors that cause serious cardiovascular disorders such as patent ductus arteriosus and coronary artery disease, and elucidating the molecular mechanisms that associate these genetic factors with the disease phenotypes.

Eric Chen

Mr. Chen's research has focused on assessing impaired consciousness during epileptic seizures. It is well known what happens during temporal lobe seizures, but other types of seizures are not as well understood. Using behavioral testing and brain imaging with inpatients, he is trying to understand how other types of seizures impair consciousness with the long-term goal of finding a method of prevention.

Francis Mburu

Mr. Mburu and his advisor have hypothesized that tumors are made up of different types of tissues containing many types of cells and that looking at the gene expression of every cell in a tumor would result in detailed mapping of the genes of several types of cells in the tumor mass. Their long-term goal is to identify cancer stem cell populations and various different types of cells. The experiment they conducted used different methods of measuring gene expression, including microarrays and sequencing on low numbers of cells ranging from 50 cells to a single cell.

Manjari Randeria

The research engaged by Ms. Randeria involves the controlled use of CMOS (complementary metal-oxide-semiconductor) technology to fabricate a portable nanoscale field effect transistor. The goal of this innovative project is to functionalize the transistor to detect specific bio-molecules. In particular, to detect important bio-markers such as the prostate specific antigen (PSA) and breast cancer antigens (such as CA15.3).

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I hope that you agree that these are all fascinating projects that promise to positively impact the health and longevity of our population. Their work is made possible by your generous fellowship, and inspired by Stacey's brave journey, love of life, and dedication to a better world. Saybrook College and Yale University are thankful and honored to facilitate this effort.

Thanks again for your generosity, and I wish the best for you and your family.

Sincerely yours,

Paul Hudak
Master of Saybrook College