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Donald Brennan, Dean
College of Arts and Sciences, SLU
Verhaegen Hall

Dear Don,

The purpose of this letter is to submit a written report of my Sabbatical leave activities as requested in Provost Weixlmann's February 2, 2009 letter approving the leave.

The sabbatical project grew out of a collaboration (that started Summer 2008) with Prof Eissenberg, Professor of Biochemistry and Molecular Biology at SLU's Doisy Research Center. He has been investigating how a protein named GGA affects transport of vesicles in cells in the fruit fly *Drosophila*. I justified my request for a research sabbatical since I could make unique contributions to a productive colleague's research.

An interdisciplinary set of approaches, the cottage industry of my lifelong research career, enabled that portion of Prof Eissenberg's project that utilized the eye as a model system to investigate the function of his protein of interest. Since Summer, 2008, virtually all of my research, at its most productive level in a decade, has been contributed to this collaboration. Throughout the project, I had been delivering my findings by this web site <http://starklab.slu.edu/JCE/JCE.htm> and that portion of my work funded by the sabbatical (Jan 1 to May 20, 2010) is easy to identify on this site. Importantly, by the end of the sabbatical, I have packaged many of my findings with text that could serve as a draft for an upcoming paper or grant.

I am one author on a refereed manuscript presently under revision (Eissenberg, J. C., Ilvarsonn, A. M., Stark, W. S., Sly, W. S., Waheed, A, Pohlmann, R., Waschkau, D., Dennes, A. C. *Drosophila* GGA-model an ultimate gateway to GGA analysis. Traffic.) Also, a joint NSF grant proposal with Prof Eissenberg is planned for mid-July.

Just knowing that Saint Louis University was willing to make this investment (the sabbatical) in my research offerings motivated me. I applied for and was awarded the President's Seed Grant for the project (Visual receptor cells as a model system to understand how cells target gene products to the correct locations). I appreciated your personal letter of congratulations, Don.

The sabbatical rejuvenated my contributions in shoulder-to-shoulder lab bench apprenticeships that earned me the 2008 Finch mentoring award. In addition to having Asmir Selimovic (senior biology BS) and Imran Shaikh (sophomore med scholar) working on my research project, I elaborate on two students:

(1) Shan Luan was brought to my laboratory in mid-February when my Chair, Prof Wood, explained that she wanted to change mentors from Prof Xiao. Since she is a second year PhD student, it was fortunate that I could mobilize substantial effort to initiate her on *Drosophila* eye research (after her previous work on plants). This crash course in her new research area allowed her to apply for and be awarded a coveted research assistantship for academic year 2010-2011. According to Shan "You always find most simple funny ways to describe the difficult topics and provide me with very insightful references afterwards. I am always encouraged by Prof Stark with even a tiniest progress in lab." She is working on the molecular cloning of the gene for the GGA protein with most of her advice from Prof Eissenberg and most of her facilities at the Doisy Research Center; Her long term goal will be to rescue the mutant with the normal gene and then determine the sites in the gene that are critically important.

(2) George Denny is an outstanding premedical student. Already, his research had warranted publication of a research note (Denny, G., Stark, W. S. Vitamin A deprivation does not decrease fluorescence of ARF72-RFP, a label for Golgi apparatus, in *Drosophila* visual receptors. *Drosophila* Information Service, 2009, 92: 117-119). His work that I mentored during my sabbatical (Timeline of rhodopsin trafficking in *Drosophila* and GGA knockdown's effect upon it) earned him second place in Biology's Keath research award and earned him a place in the Senior Legacy Symposium. According to George "I have really enjoyed working in your lab, and have had a great sense of accomplishment during my year of doing research with you. Working in your lab has really allowed me to experience my classroom course work in a new and first-hand nature. I have never felt constrained or underappreciated while in your lab; in fact it has always been the exact opposite."

Since I stayed in St Louis, I felt it was a privilege to be able to maintain a foothold with the following contributions:

(1) I contributed one week to Vince Spaziano's Medicinal Chemistry course.

(2) I continued much of my advising (mentoring), especially eager to work with Profs Buchanan and Anch in co-advising the ever-growing number of students with contract majors in neuroscience (13 approved so far, 7 more in process as of this date). There were, of course, many letters of recommendation. Also as chair of Prof Yuqi Wang's tenure committee, I helped to see that the necessary documents for the promotion process next academic year are being produced in a timely manner. Finally, I served on several Ph.D. committees.

(3) I continued on the undergraduate affairs committee working on some of the department's most important missions with the inspirational collegueship of Profs Russell and Aldridge

I hope that you consider this report to be timely and useful. I have always considered a university to be a community of scholars dedicated to the acquisition and dissemination of knowledge. The "cost" (of funding a sabbatical) is, in my opinion, more than repaid in maintaining the scholarship that distinguishes a research university such as Saint Louis University.

Sincerely,

William S. Stark, Ph.D., Professor

Copies to Profs Wood and Eissenberg

