

Ms. Samuels is a graduate student in the Neuroscience Department at CWRU. She has completed all of her required course work. She has passed both her preliminary and qualifying examinations at an exceptionally high level. She is clearly one of the most talented graduate students in the Department.

The primary focus of this application is the completion of Ivy's thesis project. When Ivy entered the laboratory she initiated a breeding program which has resulted in the generation of a conditional ERK2 knockout in cells expressing GFAP through use of a GFAP-cre transgene. The present proposal was written following her initial analysis of the mice, as she wanted substantial preliminary data to support the application. I hope you agree that she has obtained very interesting animals that shed substantial light on the role of the ERKs in CNS development. Ivy has prepared the application essentially unassisted. I have edited the document but the aims and thinking are entirely hers. She has assembled a thesis committee comprised of myself, Drs. Robert Miller, Karl Herrup and Steve O'Gorman. Each of these individuals is an expert in specific aspects of neuronal development that are pertinent to the phenotype she has uncovered so far. The Landreth laboratory provides very substantial experience and resources for her in the signaling aspects of the project. Ivy has established collaborative relationships with several labs within the Department of Neurosciences and at the Cleveland Clinic. Specifically, she has an active collaboration with Dr. Sherry Ball at the Lerner Institute of the Cleveland Clinic, and with the Herlitze, Miller and Herrup laboratories within the Department.

Ms. Samuels attends the weekly Departmental Journal Club that meets to discuss a current paper. This journal club is attended by the entire department and all postdoctoral fellows and students participate. The trainees are expected to have one presentation per year. This is not a trivial exercise and it is taken very seriously by the Department. The Department has a weekly seminar that brings in outside speakers and the entire department attends. The trainees in the Department have lunch with the speaker. The typical trainee will attend one of these a month, depending on the topics and research interests of the trainee. Attendance at the seminar and journal club is mandatory.

The Alzheimer Laboratory comprises my lab and that of Dr. Karl Herrup. The combined laboratory has about 25 researchers, most of which are trainees. The two labs meet jointly quarterly for a presentation by the trainees on their projects. The Landreth lab meets weekly. The trainees present their current data and there is an open discussion of the projects (typically 4 times/year). In addition, there is a Signaling Journal Club that meets once every other week that focuses on the discussion of a paper with a signaling theme. The trainees select one paper and an appropriate review as background. This meeting is attended by everyone in my laboratory and about half of the Herrup lab. It has been remarkably successful in keeping us current on the signaling literature. Ms. Samuels and I meet privately about once every two weeks or whenever she wants to talk about her project. We typically look over the outcomes of current experiments and discuss the details of future experiments.

Ivy has attended and presented a poster at the Neuroscience meeting for the past two years. She presented the work provided in the preliminary data section of the application at the Federation of European Biochemical Societies meeting in Dubrovnik, Croatia in May, 2004. She will attend the Neuroscience Meeting each year of the grant period.