

To: The Dean of Graduate Studies

From: PhD student

Name: Adi Kfir

I.D. 039512124

Department Neurobiology

Stage: (please circle) 1st Stage / 2nd Stage

## Annual Progress Report

submission to the Graduate studies Authority by the departmental secretary only

### Part A – designated for PhD Student

Describe the goals as presented on your letter of intentions/ research proposal, and your current research achievements.

My research focuses on the electrophysiological modifications that appear following learning and memory, especially the intrinsic properties of cells in the piriform cortex of rats. The subject of my PhD project is the role of GluR6, a kainate-sensitive subtype of glutamate receptors, which has been suggested to have a specific central role in higher-order learning. This research is planned with the ultimate goal of developing a novel cognitive enhancer. By combining behavioral studies, single cell recordings, pharmacological tools, and genetically modified animals, our research will investigate the relation between kainate receptor activation and learning in the mammalian brain.

Furthermore, we aim to point towards possibilities of enhancing learning skills in young and aging brains.

This year we published a paper on inhibition processes in the brain. I did a major part of this paper's experiments. Furthermore, I have been continuing to investigate the kainate effects on synaptic and intrinsic processes in the brain. Additionally we are currently performing a novel experiment with knockout mice lacking the kainate receptor subunit Glur6. We are also continuing to inject GluR6-viruses into rat and we have already started with the first part of the behavioral training to investigate their behavioral features. In the near future we are willing to perform the electrophysiological experiments on these virus-injected rats.

Estimated date for submitting PhD research proposal/ dissertation to the PhD departmental committee

Ph.D. student Name: Adi Kfir Signature: אדי כפר Date: 25/06/2019

**Part B - designated to the research the Chairperson of PhD Committee)**

Please refer to the student progress and to the estimated date for submission of research proposal / dissertation

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**PhD research evaluation**

(The evaluations relate to all researches previously supervised by you)

Evaluation	Poor	Average	Good	Very good	Ranked in the top 5%
Novelty				+	
Clarity of research and hypothesis				+	
Criticism				+	
Knowledge of Background material				+	
Knowledge of research methods				+	
Comments					

Supervisors Name: Eli Parlan Signature: Eli Parlan Date: 28.6.14

Chairperson of PhD Committee Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

