

Senior Design 491 Weekly Report 4

Date : 10/5/2017

Project title : Patch-clamp microchip testing circuit interface

Client & advisor : Que Long

Team member & Roles :

---- Chenhang Xu - team communication leader

---- Daiyuan Ding - team webmaster

---- Li Qian - team leader & time keeper

---- Junhua Hu - Team designer

---- Ningyuan Zhang - team programmer

---- Yigao Li - team test leader

Weekly summary :

We schedule our weekly group meeting and start to build our testing circuit on the computer program.

We finish the circuit design at the end of this week and simulate the testing circuit but the result did not meet our requirement.

Past Week Accomplishments

Member name	Accomplishments
Chenhang Xu	Familiar with the lab environment and learn how to use these equipment for our future project. Do research on the circuit set up.
Daiyuan Ding	Get familiar with our lab equipments and environments. Read the manuals and learned the functions of each tools
Li Qian	Know the basic equipment and steps in the lab. Get familiar with the following steps. Read the material about the patch-clamp.
Junhua Hu	Read the document and do research. Website setup and upload the first document.
Ningyuan Zhang	Having the first look of our necessary tools and equipments for this project and knowing the name and functions of each of them.
Yigao Li	figure out the basic circuit of patch clamp and get familiar with lab environment. Read the manuals.

Pending issues

Member name	Accomplishments
Chenhang Xu	Design the circuit on the computer program and simulate
Daiyuan Ding	Need to get more familiar with the equipments
Li Qian	learn the basic steps and equipments in the lab
Junhua Hu	Don't have chance to use equipment, only first look of those tools
Ningyuan Zhang	Details about the equipments are still needed.
Yigao Li	continue reading the manual and start designing the circuit by computer

Individual contribute

Name	Individual Contributions	Hours this week	Hours Cumulative
Chenhang Xu	Regular group meeting. Design our patch-clamp testing circuit. Simulate on the computer program.	5	5
Daiyuan Ding	Regular group meeting. Get familiar with the equipments and their functions.	3	3
Li Qian	Regular group meeting. Meet the graduate student and know the basic equipment and steps in the lab. Read the material about the patch-clamp.	4	10
Junhua Hu	Reading the Lab	3	9

	policy and documents about how to use the equipments. Getting first look of equipments in lab. Thinking about the design circuit.		
Ningyuan Zhang	Regular group meeting. Review required equipments and their documents. Install necessary developing environment on computer.	5	5
Yigao Li	Regular group meeting. Get familiar with lab environment and project manual.	3	3

Comments and Extended Discussion

For we need to change some small components on our circuit design and these components we use will be fabricate by graduate students. we need to contact with them to get the model and parameter of the op-amp.

Plan for Coming Week

Schedule the group meeting with Dr. Long and let him to check the circuit design for us and show the simulation result for him. Check the circuit fabrication with graduate students, which will done by them at the end of October.

Summary of Weekly Advisor Meeting

Professor Long gave us some advice on our circuit design and he wanted us to change some component on our block diagram.