

# Neurochemical Sampling Device

**Week 8 & 9** – March 13 to March 27, 2008

**Team Members:** Kara Barnhart – Team Leader  
Angwei Law – BSAC  
Paul Schildgen – BWIG  
Grant Smith – Communicator

**Client:** Ei Terasawa  
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**Advisor:** Bill Murphy  
Assistant Professor, Dept. of Biomedical Engineering  
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## **Problem Statement:**

Our goal is to construct a device that protects the microdialysis apparatus used during cranial experiments on non-human primates. This device will free the monkey from the constraints of chairing while the experiment is conducted and will provide a more comfortable and realistic environment for the monkey. The device should be lightweight, durable, and removable to meet the needs of both the researcher and the subject.

## **Restatement of Team Goals:**

This week we would like to determine exactly what materials we are going to need and then order them. We would also like to work on using the measurements, the MRI, and the skull to figure out the exact dimensions of our device.

## **Summary of Accomplishment:**

We met with Bruce and were able to determine what materials we should use, what materials he already has, and what we need to order. We have a way of determining the final dimensions, but still need to complete that.

## **Statement of Team Goals:**

We hope to have our dimensions defined so we can give our plans to Bruce so he can start work on making our device. Bruce has everything we need except for one piece that we need to order. We would also like to figure out the exact polymer we are going to use. We will continue figuring out how we will test our design.

## **Difficulties:**

We need to meet with our client again before we can make any more progress, so that has slowed us down somewhat.

**Activities:**

Angwei	BSAC Meeting	1.0 hour	2.0 hours
	Self-Peer Evaluation	0.5 hour	
	Materials Searching	0.5 hour	
Paul	Self-Peer Evaluation	0.5 hours	0.5 hours
Grant	Researched skull devices for humans and primates	3.0 hours	3.0 hours
Kara	Self-Peer Evaluation	0.5 hours	1.0 hours
	Worked on getting software to view MRI	0.5 hours	
Team	Met in class to meet with advisor	1.0 hour	2.0 hours
	Met with Bruce to talk about materials he has and what is needed	1.0 hour	

**Project Timeline:**

	Jan	February					March				April				May
Tasks	25	1	8	15	22	29	7	14	21	28	4	11	18	25	2
Project research	█	█	█	█	█	█	█								
PDS		█	█	█	█	█	█	█	█	█	█	█	█		
Brainstorming			█	█	█	█	█	█	█						
Prototype design				█	█	█	█	█							
Prototype building					█	█	█	█	█	█	█	█	█		
Ordering					█	█	█	█	█	█	█	█	█		
Expected shipping					█	█	█	█	█	█	█	█	█		
Device manufacturing							█	█	█	█	█	█	█	█	
Testing										█	█	█	█		
Re-designing												█	█	█	
Re-testing														█	
Meeting with client		█		█		█		█		█		█		█	
Group meeting	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
Presentation							█								█
Progress report	█	█	█	█	█	█	█	█	█	█	█	█	█	█	
Website	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

**Expenses:**

There are no expenses so far.