

Osteochondral Transplant System—Week 6, Progress Report

Client: Dr. Brian Walczak

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Problem Statement

Osteochondral allografting is a common procedure performed on patients that require replacement of diseased bone. Current methods of implantation require the application of mechanical forces that have a detrimental effect on the live chondrocytes present on the implant. Maximizing the amount of viable tissue during and after the surgery is a crucial factor for the success of the procedure. Hence, the client requests a delivery system that will reduce the amount of mechanical forces required to securely place the implant into the donor site.

Previous Week's Goals

- Finalize dimensions of the guide tool we intend to fabricate ✓
- Construct a protocol for the fabrication of our guide tool ✓
- Purchase steel from CAE shop ✓

Summary of Team Accomplishments

- Steel was purchased from the CAE shop (free of charge) and the guide tool was fabricated
- A tentative protocol for confocal microscope imaging was written

This Week's Goals (Team and Individual)

- At least one member must receive confocal microscope training
- Establish a source for obtaining media and PBS needed for testing
- Edit bone plug extraction protocol to incorporate the guide tool

Project Difficulties

We currently do not have access to any culture media or PBS. However, Dr. Walczak can provide us with the live/dead stains that we will need for imaging.

Expenses

No expenses to report.

Individual Activity Log

Person	Task	Time (hr)	Weekly Total (hr)	Semester Total (hr)
Rodrigo (Leader)	Weekly progress report	0.5	2.5	22.5
	Adviser meeting	0.5		
	Team meeting	0.5		
	Individual research & work	1		
Eduardo (Communicator)	Team meeting	0.5	2	17
	Adviser meeting	0.5		
	Individual research & work	1		
Nick (BSAC & BWIG)	Adviser meeting	0.5	2	19
	Team Meeting	0.5		
	Individual research & work	1		
Bilin (BPAG)	Adviser Meeting	0.5	4	18.5
	Team Meeting	0.5		
	Individual research & work	3		

