

---

## **Progress Report**

April 27, 2007 – May 3, 2007

---

**Team:** Interpenetrating networks for delivery systems

**Team Members:** Ashley Huth- Team Leader  
Claire Flanagan- Communicator  
Jon Sass- BSAC  
Adam Rieves- BWIG

**Client:** Professor John Kao  
UW School of Pharmacy & Department of Biomedical Engineering  
7123 Rennebohm Hall  
Phone: 263-2998  
Email: wjkao@pharmacy.wisc.edu

### **Problem Statement:**

Interpenetrating networks are a type of biomaterials that polymerize in situ and have been used in drug delivery, wound healing, and tissue engineering applications. This design project involves the development of novel delivery mechanisms that should be clinically easy to use with improved storage life.

### **Summary of Accomplishments**

- Performed surface area tests with atomizer tip.
- Performed pressure tests with atomizer tip using Professor Chesler's pressure gauge and Lab View software.
- Completed second prototype.
- Constructed an effective seal for upper compartment in our prototype.
- Finished poster.
- Made more water soluble gelatin, at varying degrees of percent composition.
- Made cost projection table.
- Finished solid works models.

### **This Week's Goals**

- Give poster presentation.
- Finish final design paper.

### **Expenses**

Product	#	Supplier	Price
ACS Reagent Grade 500mL	S70090	Fischer Scientific	\$5.94
Isopropanol 500mL	AC42383-5000	Fischer Scientific	\$15.90
One-way drinking straws	ST1001	Allegro-Medical	\$24.95
5 atomizer connetors for syringes	MAD300	Wolfe Tory Medical	\$0.00
<b>Total Cost</b>			<b>\$46.79</b>

### Activities

Team Member	Activity	Time	Running Total
Claire	Team meeting Sunday, team meeting Monday, work in shop and lab, work on poster, work on gelatin	15 hours	76.5 hours
Ashley	Team meeting Sunday, team meeting Wednesday, team meeting Monday, work in shop and lab, work on poster, progress report	10 hours	69 hours
Jon	Team meeting Sunday, team meeting Wednesday, team meeting Wednesday, work in shop and lab, work on solid works design, BSAC meeting	10 hours	68 hours
Adam	Team meeting Sunday, team meeting Wednesday, team meeting Monday work in shop and lab, updated website, work on gelatin	15 hours	75.5 hours
<b>Team Total</b>		<b>50 hours</b>	<b>289 hours</b>

### Project Timeline

Task	February				March					April				May		
	2	9	16	23	2	9	16	23	30	6	13	20	27	4	11	18
<b>Design</b>																
Design Brainstorming		O	O	O				O	O							
Preliminary Design					O			O	O							
Friday Team Meeting	O	O	O	O	O	O	O	O	O	O	O	O	O			
Research	O	O	O	O	O	O	O	O	O	O						
<b>Deliverables</b>																
Progress Report	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲			
PDS	O	O				O										
Mid Semester Paper					O	O										
Mid Semester Presentation				O	O	O										
End Semester Presentation													O			
End Semester Paper																
<b>Meetings</b>																
Client	O	O		O												
Advisor	O	O	O	O	O	O	O	O		O	O	O	O			
Other																
Website		X	X	X	X	X	X	X	X	X	X	X	X			
BSAC	◆		◆		◆		◆		◆		◆		◆			

	<b>Done</b>	<b>Goal</b>
All	O	
Adam	X	
Ashley	▲	
Claire	■	
Jon	◆	