

# ***Bronchoalveolar Lavage Trap***

*Group 17*

*Client: Christopher Green, M.D.*

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*Team: Laura Zeitler (Team Leader)*

*Kim Kamer (BSAC)*

*Ali Johnson (BWIG)*

*Elise Larson (Communicator)*

*February 13, 2009- February 19, 2009*

## **Problem Statement:**

In order to diagnose respiratory problems in immunosuppressed patients, bronchoalveolar lavage is used to obtain a bronchiole fluid sample. A bronchoscope is guided through the respiratory tract and wedged into a bronchiole, which is then flushed with saline solution. The solution is then extracted with a vacuum and accumulates in the sterile collection trap. In the current procedural setup, the lavage trap is free-hanging and unstable. Manipulation of the bronchoscope and surrounding movement can displace the trap resulting in loss of sample to the vacuum line. To prevent unnecessary expense and patient inconvenience from sample loss, a new trap needs to be developed.

## **Last Week's Goals**

- Meet with advisor to discuss brainstorming ideas
- Find an expert in the field of valves/membrane materials to talk to
- Continue with research
- Generate any other new ideas through individual brainstorming
- Start to funnel top ideas and create multiple design matrices

## **Summary of Accomplishments**

- Met and discussed brainstorming ideas with advisor
- Attended Engineering World Health session
- Furthered research on materials and feasibility of brainstorming ideas
- Created Design Matrix- analyzed results

## **This Week's Goals**

- Contact someone in industry and academia that has knowledge about valves
- Pick a final design and research materials to order

## **Project Difficulties**

None this week.

## Activities

<b>Collaboration Group Activities</b>		
<b>Date</b>	<b>Activity</b>	<b>Duration</b>
2/13/09	Advisor Meeting and Design Matrix	1.5 hours

<b>Team Member</b>	<b>Date</b>	<b>Activity</b>	<b>Duration</b>
Elise Larson	2/13/2009	Email Contact, Ebling Material Review/Orders	30 minutes
	2/14/2009	Brainstorming	1 hour
	2/15/2009	Research and Communication	1 hour
Ali Johnson	2/18/2009	Research and Brainstorming	1.5 hrs
	2/19/2009	Website	15 minutes
	2/13/2009	Mid-semester Presentation Power Point	1 hour
Kim Kamer	2/13/2009	BSAC Meeting	45 minutes
	2/15/2009	Design Research	1.5 hours
	2/13/2009	Mid-semester Presentation Power Point	1 hour
	2/12/2009	Engineering World Health Session	1 hour
Laura Zeitler	2/18/2009	Progress Report	30min
	2/13/2009	Mid-semester Presentation Power Point	1 hour

## Expenses

<b>Date</b>	<b>Item</b>	<b>Cost</b>	<b>Comments</b>
N/A	N/A	0.00	No Expenses Yet

