

Bronchoalveolar Lavage Trap

Group 17

Client: Christopher Green, M.D.

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Team: Laura Zeitler (Team Leader)

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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

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

Summary of Accomplishments

- Chose a final design and began research on ordering materials
- Contacted polymer lab to determine if materials can be synthesized on campus
- Contacted client with final design choice requesting opinion
- Began work on mid-semester presentation

This Week's Goals

- Go to polymer lab
- Finish mid-semester report
- Research and be ready to order materials
- Meet with Client to go over design and align specifications with design

Project Difficulties

Having to wait for responses from contacts has slowed the pace of the project down slightly; however, we are still on schedule.

Activities

Collaboration Group Activities		
Date	Activity	Duration
2/20/09	Advisor Meeting, Update Design Matrix, Design Selection	2 hours

Team Member	Date	Activity	Duration
Elise Larson	2/20/2009	Scan / Email Design Idea to Dr. Green	~15 minutes
	2/26/2009	Video Review/ Email about Mid-semester	1hour 45 minutes
Ali Johnson	2/26/2009	Website and Research	30 minutes
Kim Kamer	2/27/2009	BSAC Meeting	45 minutes
Laura Zeitler	2/21/2009	Polymer Lab research and e-mail	15 mintes
	2/26/2009	Progress Report	30 minutes
	2/26/2009	Learning more Solidworks and start design	1.5 hours

Expenses

Date	Item	Cost	Comments
N/A	N/A	0.00	No Expenses Yet

