

Vaginal Self-Swab Device to Minimize Contact Contamination

Client: Dr. Jean Riquelme

Advisor: Prof. Randolph Ashton

Date: 09/17/2024

Team:

Jackie Behring jbehring@wisc.edu (Co-Team Leader & BSAC)

Tatiana Predko tpredko@wisc.edu (Co-Team Leader & Communicator)

Mariah Smeeding jimenezsmeed@wisc.edu (BWIG)

Ava Fevold fevold@wisc.edu (BPAG)

PROBLEM STATEMENT

Vaginal infections and STIs can be detrimental to the wellbeing of an individual, often leading to, and being associated with infertility. The vaginal self-swab is a device to be utilized by patients to self-collect samples from the vaginal canal in the diagnosis of vaginal infections and STIs. The aim of this device design is to provide a convenient, accessible method of sample collection while minimizing cross-contamination of the self-collected sample. Cross-contamination of the sample typically occurs during the process of transferring the sample to the culture media, which can alter the results. In order to overcome this, the device should allow the testing swab to directly break into the culture media solution, and to prevent media leakage.

BRIEF STATUS UPDATE

- The team met to go over the expectations and instructions provided for the first draft of the PDS. Additionally, the team met to discuss the beginning phases of the design process and clarifications regarding the PDS.

SUMMARY OF WEEKLY TEAM MEMBER DESIGN ACCOMPLISHMENTS

- Team:
 - Met advisor (Friday) to set expectations for the semester project
 - Emailed and introduced the team to the client
 - Introduced team to one another and determined meeting times
 - Finished the PDS
- Jackie Behring:
 - Began to research more about competing designs
 - Continued to review the past semester projects to really gage the scope of the new project
 - Completed and reviewed the PDS
 - Met with team to discuss any uncertainties about the PDS and project
 - Met with advisor to review the PDS and update on project progression
- Tatiana Predko:
 - Prepared and shared progress report outline with the team
 - Hosted a team meeting via Zoom
 - Emailed and set up meeting times with both the client and the advisor
 - Researched competing designs for the vaginal self-swab; recorded in LabArchives
 - Completed assigned sections of the PDS
- Mariah Smeeding:
 - Successfully assigned to project and started researching competing designs
 - Set team roles and responsibilities
 - Submitted to our team website
 - Met client
 - Successfully completed PDS
- Ava Fevold:

- Met with team to discuss PDS
- Researched needed aspects for PDS
- Completed assigned PDS sections
- Continue researching competing designs and read over past semesters' research/work

PROJECT DIFFICULTIES

- None to report

UPCOMING TEAM AND INDIVIDUAL GOALS

- Team:
 - Meet with our advisor, Prof. Randolph Ashton on 9/20
 - Meet as a team between 9/23 - 9/27
 - Take and upload a team picture to the website
 - Begin drafting design ideas for the design matrix

Jackie Behring:

- Continue researching
- Make edits and changes to the PDS as needed
- Begin drafting up design ideas for the design matrix

- Tatiana Predko:
 - Send the PDS to the client and upload it to the team website
 - Revise the PDS based on provided feedback
 - Conduct additional research on design improvements (to be used for the design matrix)
 - Based on research, identify relevant criterion to be used in the development of a design matrix
 - Add possible design ideas to LabArchives
 - Email both the client and advisor to establish a meeting time
- Mariah Smeeding:

Final Report															
Final Evaluations															
Meetings															
Team															
Advisor															
Client															

EXPENSES

Item	Description	Manufacturer	Part Number	Date	QTY	Cost Each	Total	Link	
TOTAL:								\$0.00	