# Weekly Team Task Report

**#21**

| **Team: PathLab** | **Date:04/10/2019** |
|---|---|
| **Project Title: Graphical User Interface for massively multiplexed pathogen detection** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
|  | **Turan**<br>Present<br>On-time |  | **Alex**<br>Present<br>On-time |  | **Chance**<br>Present<br>On-time |  | **Austin**<br>Present<br>On-time |

## Recent Meetings:

Client Meeting: Friday 04/05

## Upcoming Meetings:

Client Meeting: Friday 04/12

## TASKS COMPLETED since last meeting:

| **Task Title:** Module 1 Visualization (Box plot Summarization) | **Task Initiation:** 3/25 | **Orig. Due Date:** 4/5 | **Status:** Complete |
|---|---|---|---|
| **Who (%):** Turan | | | |
| **Description:** Summarize sequence information based on parameters like GC and TM. | | | |
| **Expected Outcome:** Interactive and informational visualization which allows the user to understand the sequences so they can remove or modify parameters in module 1. This should also allow | | | |

| **Task Title:** Module 2 Visualization | **Task Initiation:** 3/20 | **Orig. Due Date:** 4/5 | **Status:** Complete (basic) |
|---|---|---|---|
| **Who (%):** Turan | | | |
| **Description:** Ideal: By default, the top 10% of primers from each target and each flank will be moved forward to be considered in the primer set optimization. However, the user should be able to modify this value for each primer group. There should be some indication of how many primers will be included from each set and it should update anytime the percent changes. Additionally, the user should be able to open up a table for each primer group that shows each of the primers in order of rank (best to worst) and summarizes their features. Within this table, the primers that are in the currently selected top X% should have marked check boxes indicating that they are to be included. The user should then be able to remove any of the checked boxes and check any additional primers they want to be included. | | | |

| **Task Title:** Final Results Summary Visualization | **Task Initiation:** 3/20 | **Orig. Due Date:** 4/5 | **Status:** Complete (basic) |
|---|---|---|---|
| **Who (%):** Turan | | | |

| |
|---|
| **Description:** Provide a summary table of features for each selected primer. Provide the primers in fasta format that can be copied or saved locally. Ideally provide some additional graphics 1. For each target sequence, illustrate the location of the primers and the target sequences and provide the expected size and sequence of the amplicon, allow the amplicon sequences to be saved to a file. 2. Provide average, min, and max melting temperature for the primers and offer suggested annealing temperature for PCR. 3. Show alignments of top X number of strong hybridizations. 4. Color code extreme values in summary table. |

| | | | |
|---|---|---|---|
| **Task Title:** Module 1 Refinement | **Task Initiation:** 3/20 | **Orig. Due Date:** 4/3 - 4/10 | **Status:** Complete |
| **Who (%):** Chance | | | |
| **Description:** Start the refinement process by fixing bugs, visual issues and any functional problems in the software. | | | |
| **Expected Outcome:** No visual glitches and simple bugs should be present in module 1. | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Module 2 Refinement | **Task Initiation:** 3/20 | **Orig. Due Date:** 4/3 - 4/10 | **Status:** Complete |
| **Who (%):** Turan | | | |
| **Description:** Start the refinement process by fixing bugs, visual issues and any functional problems in the software. | | | |
| **Expected Outcome:** No visual glitches and simple bugs should be present in module 2. | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Module 3 Refinement | **Task Initiation:** 3/20 | **Orig. Due Date:** 4/5 | **Status:** Complete |
| **Who (%):** Austin & Alex | | | |
| **Description:** Start the refinement process by fixing bugs, visual issues and any functional problems in the software. | | | |
| **Expected Outcome:** No visual glitches and simple bugs should be present in module 3. | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Software Test Plan | **Task Initiation:** 3/26 | **Orig. Due Date:** 4/5 | **Status:** Complete |
| **Who (%):** Everyone | | | |
| **Description:** A test plan outlines activities that are aimed at ensuring that our project's implementation exhibits the necessary functional and non-functional characteristics. In this document, we are asked to describe how we intend to ensure that the expectations presented in the requirements and design specification documents are met, via a well-planned software testing regime. | | | |
| **Expected Outcome:** Delivered to mentor at the next meeting/end of the week | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Software Test Plan: Integration Testing | **Task Initiation:** 3/26 | **Orig. Due Date:** 4/5 | **Status:** In Progress (75%) |
| **Who (%):** Chance | | | |
| **Description:** Write an overview of the plen to create an integration testing suite for the final product, justifying and identifying all module relationships. | | | |
| **Expected Outcome:** Delivered to mentor at the next meeting/end of the week | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Design Review 3 | **Task Initiation:** 4/5 | **Orig. Due Date:** 4/11 | **Status:** In Progress (75%) |
| **Who (%):** Everyone | | | |
| **Description:** | | | |
| **Expected Outcome:** | | | |

## This week's Tasks: Work plan for coming week

| | | | |
|---|---|---|---|
| **Task Title:** Final Results Summary Visualization | **Task Initiation:** 3/20 | **Orig. Due Date:** 4/5 | **Status:** In Progress |
| **Who (%):** Turan | | | |
| **Description:** Provide a summary table of features for each selected primer. Provide the primers in fasta format that can be copied or saved locally. Ideally provide some additional graphics 1. For each target sequence, illustrate the location of the primers and the target sequences and provide the expected size and sequence of the amplicon, allow the amplicon sequences to be saved to a file. 2. Provide average, min, and max melting temperature for the primers and offer suggested annealing temperature for PCR. 3. Show alignments of top X number of strong hybridizations. 4. Color code extreme values in summary table. | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Unit Testing Visualization Data | **Task Initiation:** 4/10 | **Orig. Due Date:** 4/15 | **Status:** In Progress |
| **Who (%):** Turan | | | |
| **Description:** Create unit test to ensure data created for visualizations are correct and error free. | | | |

| | | | |
|---|---|---|---|
| **Task Title:** Pipeline Integration | **Task Initiation:** 4/08 | **Orig. Due Date:** 4/15 | **Status:** In Progress |
| **Who (%):** Chance | | | |
| **Description:** Start the integration process with the pipeline (module 1 & 2 available) | | | |