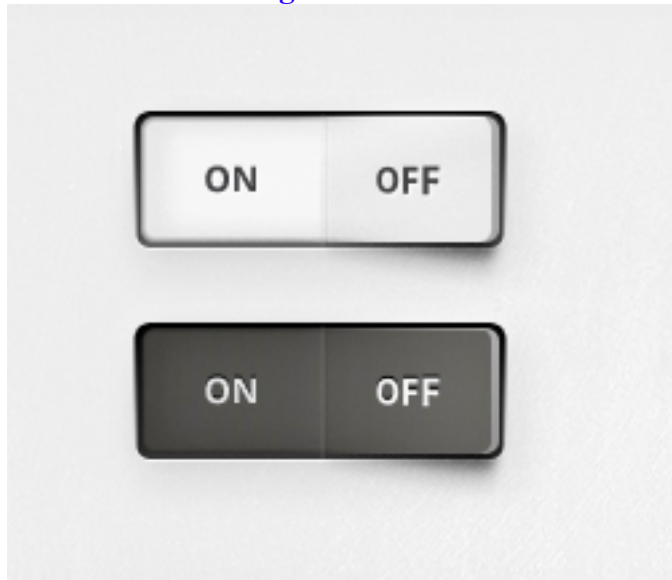


User Interface To-Do List

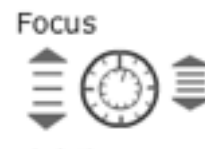
1/16/2014

ICONS FROM JAMIE

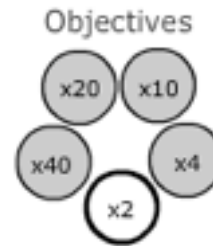
- histogram icons - flow cytometry
- marker icon - western blotting
- back button - user guide
- print button - assignment page
- "home" button - user guide
- navigation arrows (for assignments window and also **small tabbed windows** (experiments pages)) with black arrowhead for when the user hovers over the arrow button
- ? icon
- **Microscope Icons**
 - **light bulb icon: (brightness) with up and down arrows**
 - **on/off switch - turn the light on and off**



- **rectangular buttons with text in them: red, blue, green, and all. perhaps gray/neutral background with black text?**
-



- **course and fine focus. knobs with up and down arrows:**
- **objectives - round buttons with text 4X, 10X, 20X, 40X, 60X, need some way to highlight selected button. We like the way they are positioned**



because it matches a real microscope

- USER_GUIDE Once we have the icons, replace the "back" icon
- FACS - The analysis tool to draw the segments will be accessible by clicking on the icon, once we get it from Jamie.

-

Accessibility

- **green navigation buttons**

Future To-Do's

1. Overlay flow cytometry graphs (along with increased flow cytometry functionality) **Need to talk about.**
2. Add information about antibodies on western blotting pages somewhere so users don't have to navigate back to assignments page **Need to talk about.**
3. Make sure to add an "i" icon for flow cytometry page to explain run samples **Need content and window design to do this.**
4. Add a button to create a pop out window for assignments **Need to talk about format.**
5. **Center the website in the browser window?**

TO-DO ITEMS (from Usability Testing)

Note: Need to delete database on backend to publish many of these changes. Done

Sign-In / Create account

1. Need to make course code case insensitive Done
2. Change error message for course code To what? This is referring to the fact that the error message appeared but then the student was still able to create an account. The error message should not appear if the course code is correct but using the wrong case. Done
1. Did you remove the error message? I don't see this appearing if I type in a weird course code. Done, Fixed
3. Include a message that their work will be saved Done
4. Low priority - In the Create student account window, the green "Sign in now" button is still in the old green. The text in this window for forgot password, etc is also the old green Done
5. Low priority - The Create account button is still in the old green. Done
6. Low priority - The Reset my password button is still in the old green. The text that says "back" in this window is also in the old green. Done
7. Bug: When I click on create student account, it takes me to the Sign in window, not the

- create student account window. Done
8. Remove the message about account being confirmed that flashes up when signing in Done
 9. Alternative to Signin Confirm screen? - No confirmation needed - just sign in the user Done
 1. Screen for Error with Sign In? If they type in the wrong email, password, then just have "Incorrect username or password. Try again" Done
 10. Can the sign in window be a little bigger to fit the course code text box? Done
 11. Bug? The "Create Student Account" is not working for me today. But "Try an Experiment" and "Create Instructor Account" are working. When I click on it, nothing happens. Done
 12. I signed in using my email address and password and it took me to the assignments page for the usability test but had this error message. what does this mean? Did you already start an assignment before you logged in? The error message refers to an assignment that was started but not continued. When you log in to your account, it erases all half-finished assignments from the Anonymous "Try an experiment" and only keeps the ones you've saved in your account. So, if you started the Facs Prototype Assignment (assignment_3 course code) and then logged in, the error message states that the Facs assignment you started no longer exists, because you are now only dealing with the usability assignment in your account. Ok - I can't remember what happened this time.

The screenshot displays the StarCellBio Usability Test interface. At the top, there is a navigation bar with the StarCellBio logo, a 'CONTACT' link, a 'REFERENCE LIBRARY' link, a 'USER GUIDE' link, and a 'SIGN OUT' button. Below this is a secondary navigation bar with 'ASSIGNMENTS', 'EXPERIMENTS', and 'LAB NOTEBOOK' tabs. The main content area is divided into two panels. The left panel, titled 'Select Your Assignment:', shows a list of assignments with 'Usability' and 'StarCellBio Usability Test' highlighted. The right panel, titled 'StarCellBio Usability Test', shows a progress bar with 'Welcome ...', 'Introduction', 'Reference...', 'Question 1', and 'Question 2'. The 'Welcome ...' tab is active, displaying a 'Welcome' message and a 'Brief Description of StarCellBio's Usability Test'. An error message box is overlaid on the text, stating 'Error' and 'Assignment assignment_3 does not exist.' with an 'OK' button. At the bottom, there are 'PRINT ASSIGNMENT' and 'START EXPERIMENTS' buttons.

StarCellBio

CONTACT REFERENCE LIBRARY USER GUIDE SIGN OUT

ASSIGNMENTS EXPERIMENTS LAB NOTEBOOK

Select Your Assignment:

Usability

StarCellBio Usability Test

StarCellBio Usability Test

Welcome ... Introduction Reference... Question 1 Question 2

Welcome

Welcome to StarCellBio's Usability Evaluation!

StarCellBio is a virtual experiment simulator in which the user can simulate cell and molecular biology experiments. The educational goal of StarCellBio is to teach fundamental concepts of cell and molecular biology, experimental design, and analysis.

Brief Description of StarCellBio's Usability Test

Error

During this mutations. Assignment assignment_3 does not exist.

To measure cytometry i individual cells within a heterogeneous population of cells.

OK

To examine changes in protein expression, you will use an experimental technique called western blotting. Western blotting is a technique to detect overall changes to a particular protein of interest in an organism or cell. These changes can either be:

1. changes in protein concentration, or
2. changes in the mobility of a protein due to small chemical modifications or change in stability.

PRINT ASSIGNMENT START EXPERIMENTS

Reference Library

1. Reference Library - add title at top. make "Table of Contents" smaller font Done
2. 'Learn more' hyperlinks don't always work to go to specific section in Reference Library Done I just checked this and the first time I got a server error until I tried a couple times - and used the learn more links from within the program, not on the home page. This is the same as the error from before. Clear the cache on your browser. Because I am making so many changes to this site, errors are being cause on the browser. See if that helps; it's working on my machine when I access the StarCellbio site. It seems ok now.
3. Provide direct hyperlink from references in the reference library to the paper/pubmed resource Need appropriate links to do this - Yes, in the future. This should link to the Pubmed page for this reference. There is only one reference so far and the link is: [http://www.ncbi.nlm.nih.gov/pubmed/?term=%5B1%5D+Eslami%2C+A.%2C+Lujan%2C+J.+Western+Blotting%3A+Sample+Preparation+to+Detection.+J.+Vis.+Exp.+\(44\)%2C+e2359%2C+doi%3A10.3791%2F2359+\(2010\).](http://www.ncbi.nlm.nih.gov/pubmed/?term=%5B1%5D+Eslami%2C+A.%2C+Lujan%2C+J.+Western+Blotting%3A+Sample+Preparation+to+Detection.+J.+Vis.+Exp.+(44)%2C+e2359%2C+doi%3A10.3791%2F2359+(2010).) Done - I don't see this in the reference section. I think we should add a hyperlink - either the whole reference or just have " | Pubmed" after the reference and the pubmed will have the hyperlink. Done, still need to publish
4. The reference library needs to be formatted like the user guide pop out page. Done - I don't see this. Done, still need to publish

Setup page

1. Change "Add Multiple Rows" button to "Add Samples". (Also change the instructions accordingly) Done. Within the "Add Samples" window, the button should say "Add Samples" not "Add Multiple Treatments". The instructions should be updated accordingly. Done
2. Decrease the size of the "cancel button" Done

Assignments page

1. "Typo" in Usability Assignment "Reference Information" instead of "Reference Material" Done
2. Make Reference Material its own page in the assignments Done
3. **Rename reference material so doesn't conflict with reference library To what? Discuss on Wed**
4. Create hyperlink in the assignment to Reference Material so know where to go. Where? If Question 2 says to see the Reference Material, then create a hyperlink to the page with the reference material. Can you do this? Done
5. Add forward and back buttons at bottom of assignment pages to navigate between pages. Done. Can you add a very thin line to divide the forward and back buttons? We may also need a very thin line outlining both buttons. See snapshot



from MITx website:

Done (for 5)

1. If there's not very much text on a page in the assignments window, can the forward and

- back buttons default to the bottom of the window instead of right underneath the text? Done
2. Center the arrows horizontally in the window (they look a little left of center right now) Done
 3. For the forward and back buttons, I think something should change when you hover over the button, otherwise, it doesn't really feel like a button. What do you think should happen? Waiting for Icon
 4. Think about whether should have New Experiment on every page of the assignments or just at the bottom of the question pages Need to talk about. I think it should be on every page otherwise it is confusing.
 5. When clicking back to assignments, the program should remember which page you were looking at in the assignment Done
 6. Add a print assignment button Need pdf and icon image. - Yes, we can ask Jamie the next time we have her make icons for microscopy. Done , just need icon but print button is there for Usability - see note below about this causing a major freeze and the PDF didn't load. Done - I emptied my cache, but this is still having problems loading for me Done
 7. We need to specify in the assignment/instructions HOW a student should submit their answers Need wording. **Yes, this is a note for Lourdes and myself to remember next time we create an assignment.**
 8. Add an arrowhead to the Start Experiments navigation button Done

User guide

1. search bar in the user guide - remove the lines in the lower right corner Done
2. home icon for user guide - this is not intuitive Need new icon - next time we ask Jamie for icons. Icon received.
3. Add contact information in the user guide -Where?- I can add this in to the user guide in the wiki. I changed the StarCellBio Resources section and added a section on Contact in the general information section. I saved the wiki but didn't publish. Done
4. User guide - need a back button In place or in addition to Home Button? Where to put? - In addition to the home button. We will have to figure out where to put it. Put it to the left of the home button. So the icons will be back, home, then pop out (in that order) Done , icon is home icon for now, but it does work with back functionality -
1. See my notes below in the user guide section. I don't think the back button is worked properly.
5. Do more testing with user guide - home button didn't work with tester #3. I haven't been able to recreate the error, so I cannot figure out what went wrong, should talk about this.

To implement after usability testing:

I think we need to add in forward and back buttons at the bottom of each page to navigate to the next section. It is a little cumbersome to click 'home' and then find the section I was looking at, and then select the next section. What do you think? We are only putting a back button in the mix

When doing a search, the formatting of the text is not maintained (I think the main thing is that the sub-headings are indented) Need to talk. Ok Done

Design page

1. Change in color when select technique is not very obvious To what?
2. Think about these technique boxes Need to talk
3. Insert vertical dark gray lines in-between the three techniques - like we have on the home page. Done
 1. Decrease the thickness of the lines to match the thickness of those on the home page Done
4. Increase number of characters allowed for experiment name To how many? currently at 30 Done Can you make the text box bigger so it fits 30 characters? Done
5. Delete the message about selecting a technique in question #3. "Please note..." Done (Not for usability testing) - The three buttons for each of the techniques appear to get shorter when selected. I cannot see this problem...

Setup page

1. Clarify 'Confirm Set-up' message - add in a sentence that can add another experiment. And tell them where to add a new experiment. Need exact wording - Yes ok Here's the text. Start the text on a new line in the dialog message. To create a new experiment set-up, select New Experiment + above the navigation tool bar. Done
2. Low Priority - format the 'X' in the upper right corner just like the others. Done I still see the old X. Done
3. **Low Priority** - Format this Add samples window like the other error messages. Green bar at the top, X in the upper right corner. Text in green bar is left aligned and should read "Add Samples". White outline around the window. Done **I think the green bar should be a little thicker at the top? It looks like the X doesn't quite fit in the green bar. Done**

Flow Cytometry

1. Clarify instructions for flow cytometry instructions - apply to all shows up even when doesn't show up yet. And say that you can add more than one segment. Match the case of "Apply to all" in instructions and the button Need exact wording, and apply to all button mentioned in instructions before it shows up visually. **Yes will provide.**
2. Add icon(s) for analysis tools in flow cytometry Need icons to proceed. - Yes, next round of icons from Jamie. Histogram icon received.
3. Change instructions so they don't "re-open" when click between samples. Done
4. In general - make the instructions more intuitive - have a pop up window with instructions that you can select to "not show again?" Need to talk about. Done, moved instructions to new dialog window
5. Bug?: If you click on Flow Cytometry in the navigation bar, it shouldn't add a new FC tab. Done
6. Run Samples is vague for button, possible to call it something else? - I think the button is clear. Do you have any ideas?
7. Change name of placeholder text in tabs - do you mean F.C. 1, F.C. 2 etc?
8. Make it clear that you can edit tab names - see note in Western blotting section below Done - see note below in western section Done

Western Blotting

1. Allow the marker to be re-ordered, along with the rest of the samples - model after Netflix (See Lourdes' notes on usability testing) Need to talk
2. Make the boxes around the sample names a lighter gray background without a shadow. possibly with a darker gray outline instead of a black outline. Done
3. Bug: deleted a western blot experiment and took her back to the select techniques page Done
4. Make the other gel type options work or hide them when unavailable What should happen differently for these options? Yes I can tell you - see information below. Can you model it after the diagram below? The ladders need to be adjusted- the 12% and 15% ones look good, but the bands are appearing in the wrong order on the 10% gel. Done
5. When on the Sample prep page, the "Select Technique" button looks longer than it needs to be whereas the Prepare lysates button is just the right size for the text. How are you determining how the green buttons should be sized? There is a standard size for green buttons, but based on the todo list, I've had to adjust the size for specific green buttons to allow more space before and after the text, making it longer. Select Technique was one button where I had to specifically make it longer, because a todo list item said it needed more space around the text, several rounds back. Which version would you like? I think the Select Technique button is ok as long as all the buttons have the same margins around the text. There seems to be varying amounts of space around the text and the outline of the button. Done **All of the buttons seem to be consistent except for the back button for select technique when on the sample prep page in western blotting and flow cytometry.**



6. The outline for the W.B tabs is extending slightly passed the outline that goes around the whole "folder" Done



7. If there are a lot of samples (probably more than about 8) can you make the samples scrollable so that the "Add Marker" and "Load all" buttons are always visible? I can't tell that the window is scrollable. Another option (instead of or in addition to making the samples list scrollable) is to fade out the bottom of the window to indicate that more is below it. Done **Let's try to fit 2 more samples in the list though.**
8. Bug: even though the marker can be re-sorted in the list of samples, the marker does not change positions appropriately on the blot once you develop the blot. The marker appears in the correct location when you just click "Run and Transfer"

though. As a result, I can't tell whether the rest of the samples are being correctly re-ordered. Done

9. When re-ordering the list of samples, the last selected sample remains a darker gray (highlighted) even when you click outside of the samples window to "clear" your past selection. Done
10. The 'Load all' button should be visible at the bottom of the window at all times - just like 'Run samples' in the flow cytometry experimental technique. If the load all button is clicked prior to the marker being added, then the error message appears that says something like: "you have not added a protein marker. would you like to continue?" - or whatever it said before. Done
11. Once you click "Load all" the list of samples loses its left margin in the samples window. Done
12. Once you click "Load all" the up and down arrows should disappear in the samples window. Done
13. Once your gel type is selected and the samples are loaded, the Gel type should appear as text only and say: 'Gel Type: 10%' - without the other options visible. Done
14. Change cursor to a hand when hovering over the Icon for Add Marker. Done
15. The add marker icon is rather small. Can you embed it within a square button that is approximately the same height and width as the current image? (See information in flow cytometry section about making this into a button) Done
Very low priority, but eventually we should have all of the icons look the same and be the same dimensions.
16. Move the "Load Gel" button down to the bottom of the Samples window (same positioning as "Run Samples" in flow cytometry). I think this will allow more samples to be displayed and the Add Marker button to be moved down.

7.2 Denatured proteins

It is easier to choose suitable gel concentrations (%T) for SDS-PAGE than for native protein gels because the separation of SDS-polypeptides is dependent mainly on chain length. Laemmli gels with 7.5%T resolve proteins in the 40- to 200-kDa range, those with 10%T resolve 20- to 200-kDa proteins, 12%T gels separate proteins in the 15- to 100-kDa range, and 15% gels separate 6- to 90-kDa proteins (*Figure 6*).

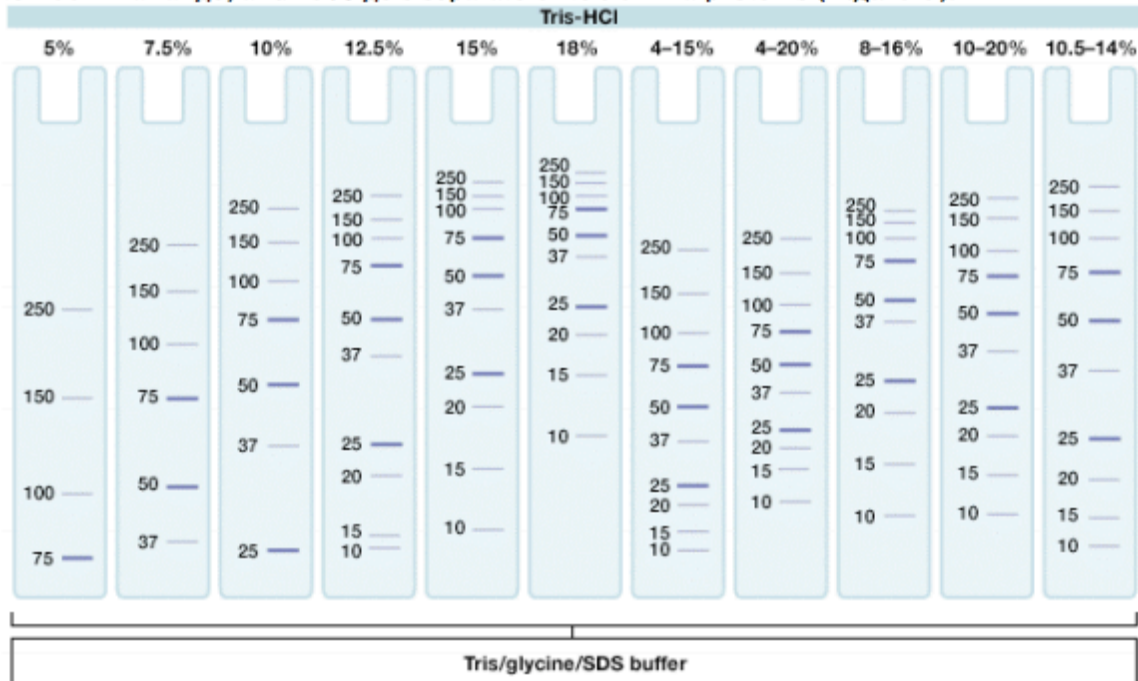


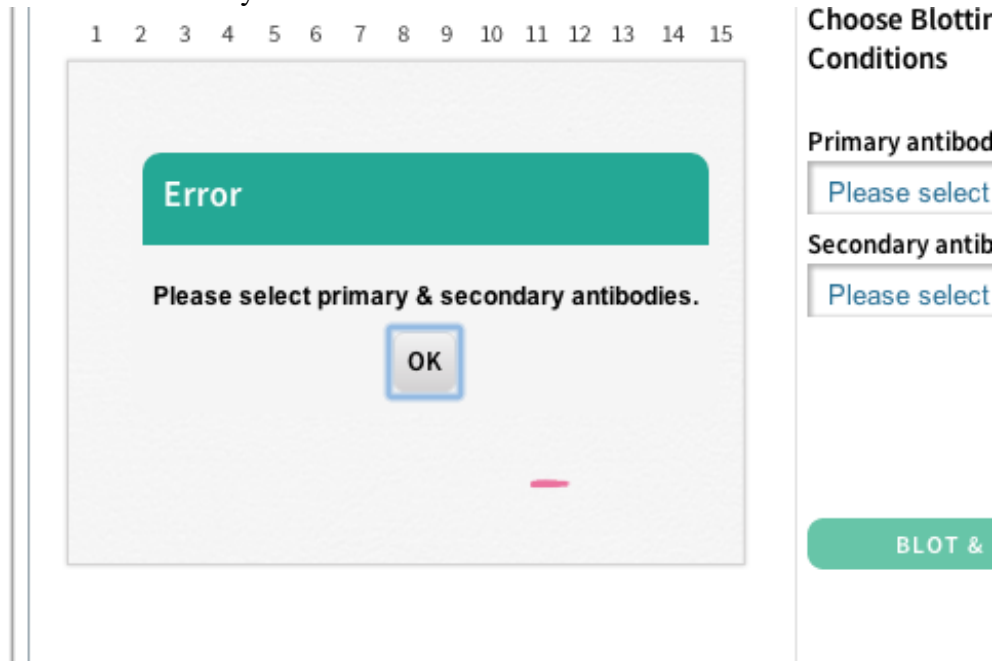
Figure 6. Protein migration charts. Relative positions of standard proteins are shown for several SDS-PAGE gels of the Laemmli type ("Tris-HCl") and two Tricine SDS-PAGE gels ("Peptide").

1. Check that if you change the exposure time on one gel then shouldn't change it for all of them Done
 2. Have a Load Samples button along with Load Marker Need to talk, thought it should automatically load samples? Done - see note in #4 below.
 3. Check bug that adds a new western blot experimental technique tab when navigating back and forth between assignments and experiments Done
 4. Western blotting buttons in samples window: "Add Marker" and then "Load Gel" Need to talk Done The button for the marker should be "Add marker" not "Load Marker". It should also appear as "Add Marker +" (Is that right from your notes?) left aligned underneath the last sample in the samples window. The button for "Load Gel" should be at the bottom of the samples window. If the user clicks "Load Gel" before they add the marker to their samples list, then an error message will appear asking if they would like to continue without adding the marker (as we have it now). Only after the gel is loaded will the Run Gel & Transfer button appear.
 5. Change name of placeholder text in tabs - - do you mean W.B 1, W.B. 2 etc?
 6. Make it clear that you can edit tab names - when hover over the name, can you outline the text box? Done
1. Is this confusing about where you can click within a tab to select it now? I think

so. Any ideas of what we should do? What about if the text box doesn't highlight but the cursor changes to a text cursor. This still won't eliminate the confusion about where to click on the tab. If a user clicks on a tab, it is usually to switch tabs. And the inactive tabs don't have the text-edit ability. The text-edit only becomes active on the current active tab, so if that's the case, then there won't be confusion. **So should we leave it as is or change it so that the text box border doesn't highlight and only the cursor changes?**

7. Ability to drag wells to reorder? (possibility) - no since they will re-order the samples and then load the gel. Ok

not for usability testing: I think the green bar should contain a title that says something like "Error" or a similar heading - we can research what it should say. And then the text "Select at least one lysate to prepare" should be within the dialog box and formatted like regular text. (This is for all error messages) Need to talk Create an outline/border for the window. It is really hard to see. Done



We need to provide some indication that the samples can be re-ordered at the "Load Gel" stage. I know the cursor switches to a hand, but maybe it should switch to an up and down arrow icon (do you know what I mean by that?) Discussed, could use boxes later, need to decide Need to talk - Should the cursor change to the 4 arrows instead of the hand to indicate that they can be moved? I think so, I've changed it

Bug: When an error message window is up, disable clicking on the main window until "Ok" is selected. Done

Bug: When clicking "add" in western blotting technique, it adds a new experiment, but does not automatically scroll to the right to display the new western experimental technique tab (and the add tab). Please check that this isn't happening in the flow cytometry too. Done

Bug: prior to selecting gel type, the boxes surrounding the sample name move/change state when hovering the cursor over them. Done

Overall Changes

1. Rename "Support" at the bottom of the program so it isn't confused with Contact. Make it "Funding" Done
2. Add ability to delete an experiment - in drop down menu that lists all of the experiments? If so, then would need a confirmation dialog box for the delete experiment functionality. Need to talk about - **wait for now. Would have to create a Delete Experiment button - possibly in the upper right corner of the experiments window.**
3. Remove options that are not available as the grayed-out version is causing confusion. **Which ones? All? Including buttons in Navigation Bar?**
4. Make New Experiment button more prominent Need to talk about. Done
5. Radio button - keep green button but add a black dot in the middle Done
6. Add in functionality to move the Feedback pop-up window Done. Great! I don't think the user should be able to click on the main screen without either clicking 'submit' or the 'x'. - see my note about the feedback window in the 'feedback' section below Done
7. The bottom of the feedback window shows the page underneath it.
8. Make progress bar (for the experimental techniques) less prominent in the design Need to talk about. Will we need to ask Jamie for new progress bar? Looks good to me! Done
9. Add arrow head to progress bar, to make clearer - Not sure what this means? Leave as is. Done
10. **Can't see video, too small, find another place to feature video**
11. Find another way to indicate inactive areas (buttons), many users attempted to click them.
12. Rename "Try an Experiment"

HOME PAGE

Add a shadow to the bottom of the header to make it look like the other pages (at the border of the gray and white areas)

Add white space (a margin) underneath the Experimental Design bar before the footer

Add white space underneath the shadow on the header bar and above the "Welcome to StarCellBio" image and information

Change font color of "Sign In"/"Sign Out" to match the new blue - color 316f94 Need new images, these are images, not text; Need new 'Sign In' and 'Sign out' images

Can we make these text instead? Done

Format the Contact window like the SIGN IN window

Can you change the other text on the homepage to be the new blue or are they images too? I'm thinking about "Try an Experiment", "Create a student account" etc. Done

The learn more links on the home page should take the user directly to the appropriate section in the reference library. This is true for each of the experimental techniques and for each of the sub-sections in Experimental Design.

The learn more links take me to a new tab with an error message (Not found. The requested URL /static/static/ref_lib/full_library.html was not found on this server. Actually, once I clicked "Try an Experiment" and navigated to the design page and clicked on those learn more links, then navigated back to the home page, then the links worked. But, the link for microscopy just took me to the table of contents. Done, discussed Not for usability testing: Center the Welcome to StarCellBio message/image and the "Try an Experiment" box on the page. Done

FEEDBACK

Disable clicking elsewhere on the page while the Feedback form is up (I could open the user guide while the feedback form is up and then feedback form went transparent)

The green bar at the top of the feedback form looks like it has little "tails" in the lower left and right corners.

The green submit button is still in the old green. Done - I don't see this change. Still looks like the old green to me. Done

USER GUIDE

Can you center the user guide window over the page?

Center the "x" in the upper left circle

The text box for "Search User Guide" is smaller than the text box that is visible. Can it align with the text box as shown? - The text box is still smaller than the white box that is displayed in the user guide window. Need to ask what 'smaller' means

The main text in the user guide should be in regular font, not bold I checked the font, and it doesn't seem to be bold. None of the text is bold. Ok - let me show you what I see because I see bold font. Done Text is normal now

Increase the margins around the text so it does not overlap with the scroll bar

Create space between sections in the User Guide

Headings should be in blue color and the left side of the heading should align with the left side of the search bar The headings are blue, but the same shade as the blue in the main app. I was referring to the headings in the main text, not just in the table of contents.

Is this something strange just on my computer again? Once you click a section in the table of contents, all of the headings should be left aligned. The headings are currently appearing on the left side for the big sections (Assignment, Complete Assignment, etc), but not for sub-sections such as Progress Bar, Saving etc. (I am currently finalizing the word document for the User guide so don't spend a lot of time formatting the text - I'm just bringing this up in case the code to format the text needs to change).

The headings should be in semi-bold font while the rest of the text should be in regular font.

The bullets should be tab indented slightly. - All of the text within a bullet should be indented, not just the first line of text. Remove the tab in the first line of text in a bullet.

The pop out button doesn't work Hmm...it seems to work for me when I tested it. Maybe you could show this to me. Yes ok, I got an error message. Done, should work, let me know if there are issues.

Once you navigate off the home page and the home and pop out buttons appear, the text box moves up and is no longer aligned with the search button

The green bar across the top of the user guide appears to be a darker green than that used in the main StarCellBio pages. (This may be true for all dialog boxes - such as "Confirm Set-Up") They are the same...

The user guide pop up window should always be visible even when a user clicks on the StarCellBio page - until the user closes the pop up window. Done

In the pop out of the user guide, the headings are appearing in green, not in blue.

The pop out button should work all the time - not just once you select a section on the table of contents

Switch positions of the up and down arrows in the search bar

Vertically center the up and down arrows in the search bar

Change the background color behind the arrows to be paler gray - perhaps D5DCE4?

Actually why don't we go with white arrows on a light gray background when inactive and white arrows on a dark gray background when active? That would match the theme that we have for the rest of the program.

If the search doesn't turn up any words, can you display '0 of 0' instead of having the dialog box appear?

If the search doesn't turn up any words, the arrows should remain on a pale gray background Done

Can you make the 'x' a little bigger and move it closer to the search text box? It is not clear that it is to clear the search bar.

The formatting of the text looks great when you click on a sub-heading in the table of contents. But if you click on a main heading, for example General Information, then the subheading of 'Getting Started' (and other sub-headings below) is more indented than the text below it.

Some of the pages have extra spaces between bullet points and others do not.

Point #3 under General information for western blot experimental technique pages lacks sub-bullets. Same with the flow cytometry experimental technique page.

Can you remove the blue outline that appears around the up and down arrows in the search menu when you click on them?

The cursor should change to a hand when hovering over the up and down arrows (when searching through the results of a search)

If you navigate back to the home page, can it remember where you looking at in the table of contents instead of taking you back to the top? I'm not sure I see the issue. It seems to work for me... It still takes me back to the top of the table of contents Done **I don't see this change. It still takes me back to the top. This is very low priority...**

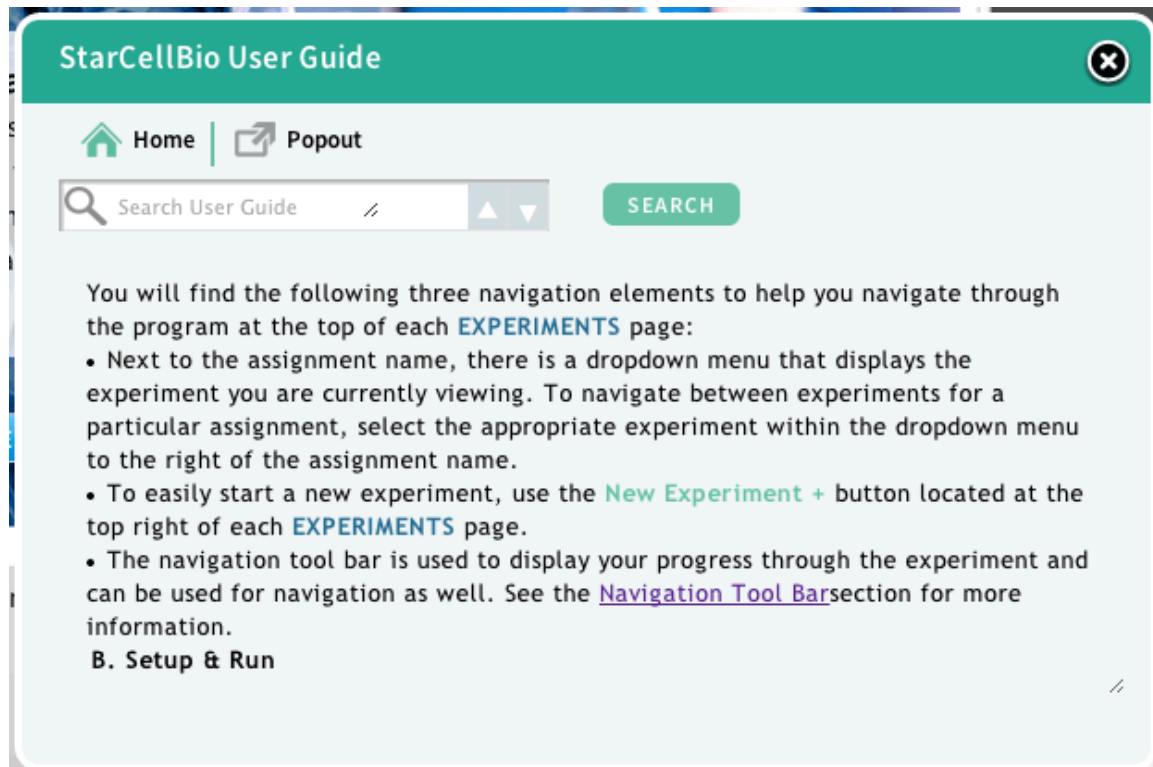
The cursor should change to the diagonal double-headed arrows when hovering over the bottom right corner to re-size the window. It changes to this special cursor in other places (along the borders of the window) but then isn't functional. Done It still changes to this special cursor near the bottom right corner but doesn't work unless you are exactly in the bottom right corner. Done. **Ok - I do want to show you something about this though.**

Remove the underlines on the sub-headings once you click on a heading in the table of contents. The underlines don't appear when you click on a sub-heading directly.

The hand cursor appears when hovering over some of the text and images in the small user guide window. I still get the hand cursor once I click on a main heading and am

reading the text in the small window. Done

I am getting some strange navigation when clicking on some sub-headings. I did the following: Click on Experiments, then click on Setup & Run. It took me to this (where there was no other text in the window) - see image below. The same happened when clicking on Navigation Tool Bar in this same section.



In the flow cytometry section, when I click on some sub-headings (after originally clicking on the main heading), for example '1. Sample Preparation', it takes you to a page with only '1. Sample Preparation' as the only text. The cursor didn't change to a hand when hovering over the text but it works as a link anyway. The sub-heading links don't work for me anymore when I click on a main heading and then a sub-heading link within the big section of text. Done

I sometimes get the cursor that indicates that I can move the User Guide window even when not hovering over the green 'StarCellBio User Guide' bar at the top. This happens when hovering around the Search Bar for me.

When you do a search, for example "western", and then click on a section that contains western (for example '7. Develop'), it just takes me to a page with only '7. Develop' on it. Now the link for '7. Develop' doesn't work. Done

Bug: I clicked on "Creating an Account" in the table of contents. I think the image/screenshot is covering up information about Creating an Instructor account. Did not see this problem - Looks ok for me now.

StarCellBio User Guide

[Back](#) | [Home](#) | [Popout](#)

SEARCH

E-MAIL

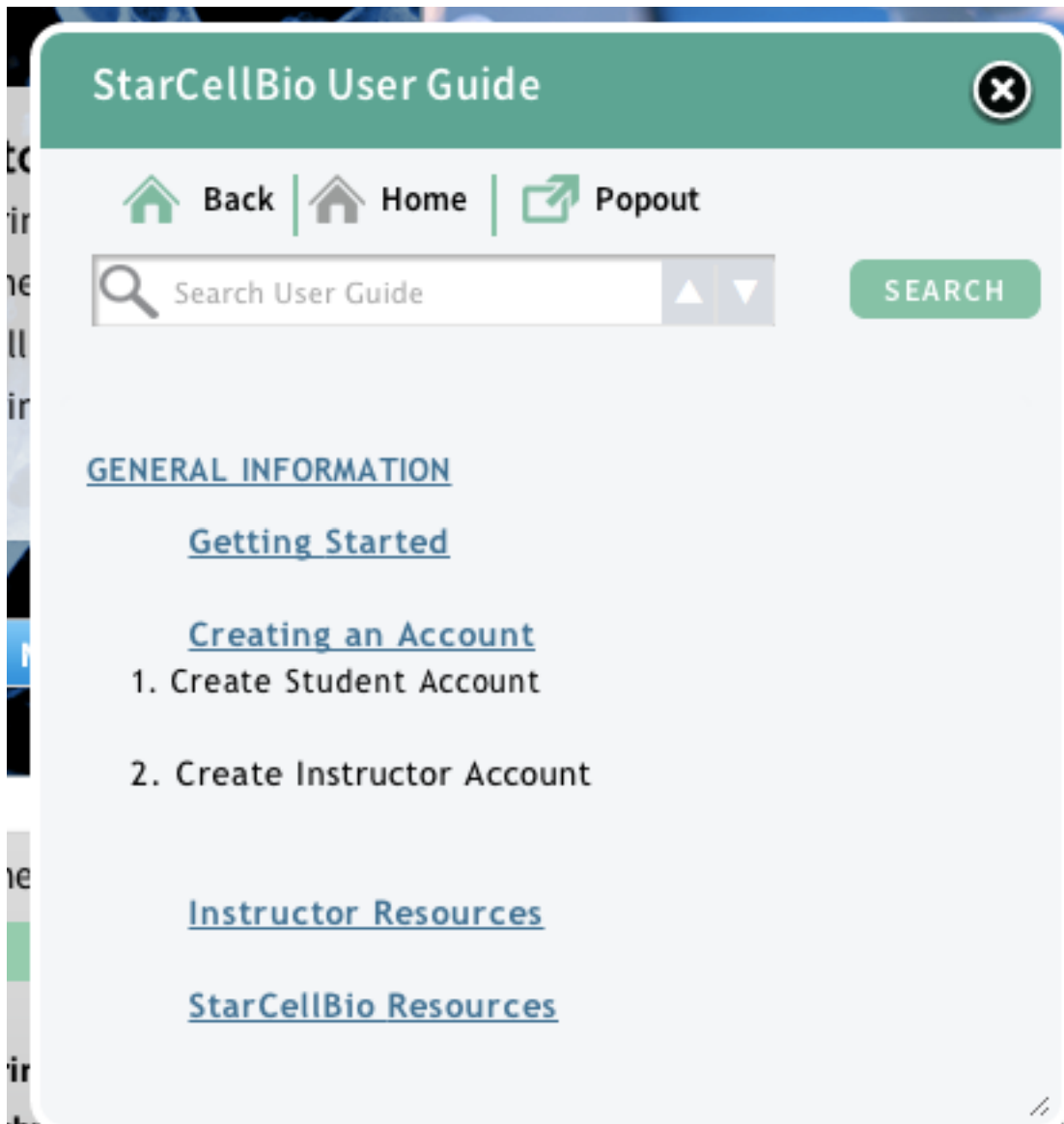
PASSWORD*

PASSWORD (AGAIN)

COURSE CODE

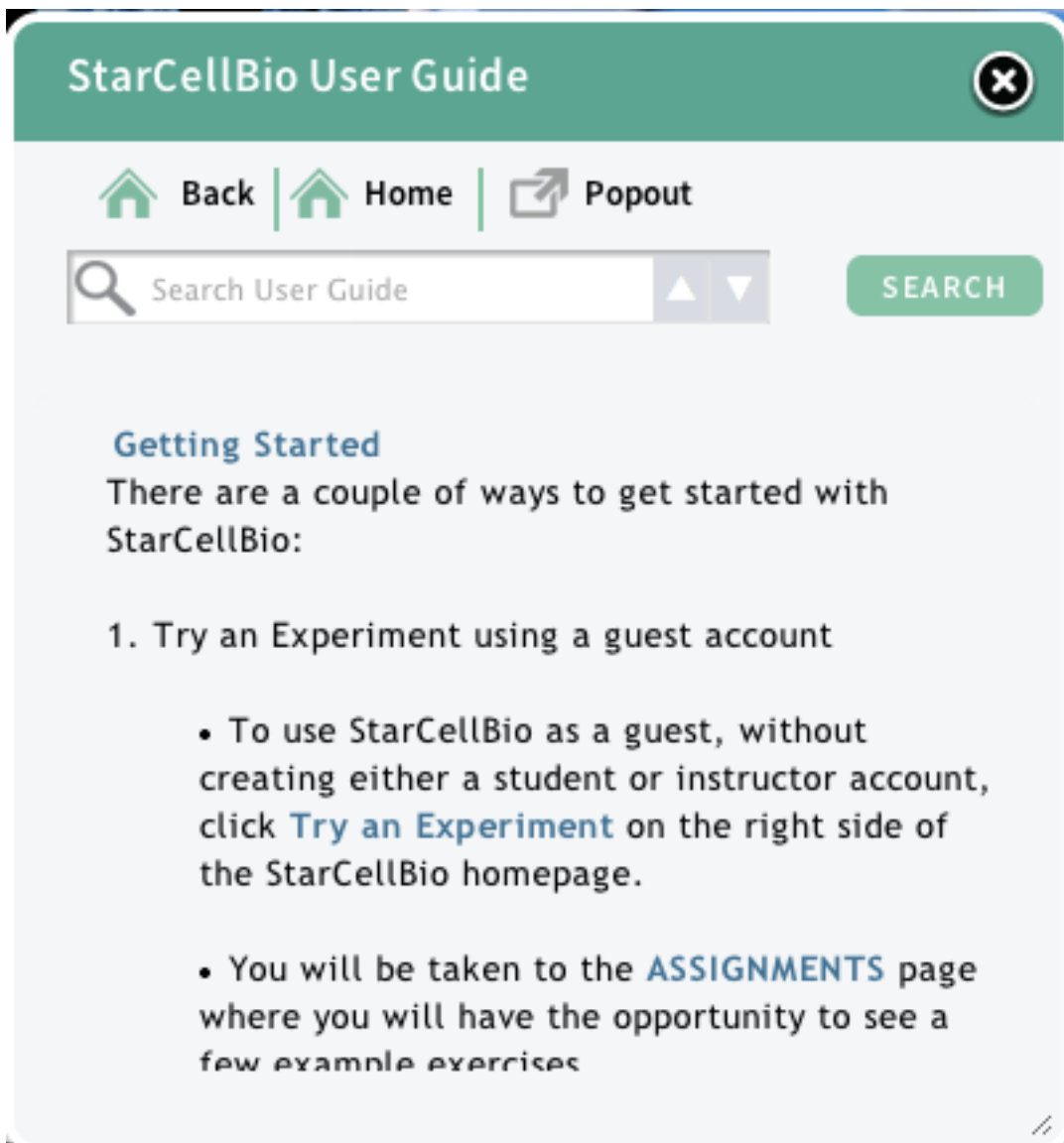
- This option is currently unavailable in StarCellBio.

Bug: the table of contents is showing extra information after doing a search (for western blotting for example) or after reading a section (Creating an Account).Done



Bug: the back button isn't working appropriately. I read about accounts, went back to the home page, did a search for western, clicked on "7. Develop" and then clicked on back, and it took me to the section on accounts (with my search for western still in the search bar), instead of back to the table of contents with my search for western. Then the back button didn't work anymore to get back to the table of contents from that page. Done

Formatting: after clicking on a sub-heading (i.e.: Getting Started), the heading on the next page appears to have an extra space and is indented from the text. Done



Bug: when on a sub-page (Contact) and performed a search for "Contact" it took me back to the table of contents rather than performing the search on the page that I was on. Done all of the green text in the user guide needs to be updated to the new green color. That needs to be done in the wiki. I'm using the colors from the wiki for those words. **Ok I can work on this. Is there any way to make this easier or does it need to be done manually for each green word/phrase?**

Done, temporarily I changed it

Bug: the back button does not take me back to the index if that's the last page. I'll need to see example, this works for me. **As far as I can tell, the back button now works to get the user back to the index. Is that correct? It doesn't take me to previously viewed pages that I may have looked at prior to the index, which is fine - I just want to check that this is the desired functionality. Done, explained and demo-ed earlier**

Bug: the hyperlinks within the Western blot experimental steps section are not working. I'm not sure if any of them are working actually. 'Navigation' within step 1 of western blot exper. steps isn't working either. **Done**

If I use the back button and navigate back to the index, then the "index" icon

should appear in gray (just as the back icon does). Done

Low priority - Left align the 3 icons at the top of the window so that the left side of the first icon is aligned with the left side of the search text box.

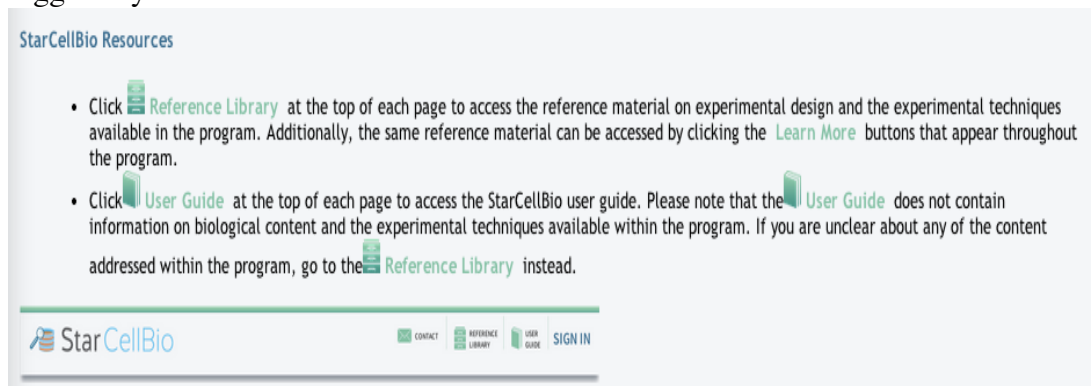
Popout page:

- Can you format the table of contents here in the same manner as in the small user guide window? The dark blue font with all caps for the headings and Title Case for subheadings? Done
- Format the underlines on the main headings (those in all caps) to be the same blue as the text
- Make the headings and sub-headings in the same blue font within the text of the user guide as well Done
- If there is text within a section that is not contained within a bullet, then it should be regular font, not bold Done
- Reduce the amount of indentation of the bullet points Done
- Change the cursor so it only looks like a hand when hovering over in-text links. The cursor appears as a hand when I hover over any part of the main user guide. Done
- Reduce the size of the font for the 'Back to Top' links. Done
- Change the color of the 'Back to Top' hyperlinks to be like this blue. Done
- What font are you using in the pop out window? None at the moment, but I can change that if you want. I've used a different font for this version. Is it better? - Yes, thank you!
- Do you know why spaces seem to disappear before/after some of the hyperlinks? I'm not sure I understand the question, what is disappearing? I don't see space disappearing from the page... I still have some cases where the space has "disappeared" between bold font and regular font. See these images: (not a priority for usability testing) As I mentioned in the email, these spacing issues occur because they are in the wiki (please see screenshots below). If they are changed in the wiki, then they will be changed in the text. Actually, spaces appear in the Wiki - although in these cases, the space appears really "small" in the Wiki, but there is a space there. I also realized that in some cases, the user guide is making 'SELECT ALL' and 'Sample Prep' in blue, when it should be in black - as in the Wiki. work. Done
- Reduce the font size of the sub-bullet points.
- Add a thin horizontal line to separate the table of contents from the beginning of the user guide
- The font for '2. Sign In' in the General information section is much bigger than the other sub-headings. It's also bigger in the last bullet point in 'StarCellBio Resources' section
- Reduce the size of the indentation on the sub-bullet points
- The subheadings in the Experiments section are indented when they should be left-aligned. Once they are left-aligned, then the bullet points should be solid bullet points instead of open circles.
- In the Experiments section, format the numbers in the text at the very beginning to be black.
 - Can you reduce the font size of the numbers to match that of the text? They appear 1-2 sizes too big right now. Done

- The Back to Top link for the assignments section is appearing below Experiments instead of above Experiments
- Format the bullet points in the Assignments section to be black, not green
- There is an extra 'back to top' hyperlink appearing above the assignments heading (and below the gray dividing line)
- It seems as if the underline on the hyperlinks of the headings changes to red when they have already been selected, but the underline on the sub-headings stays as is. Let's make this consistent, and stick with the blue, if possible
- Add a heading to the top of the User Guide that says: User Guide. Format the font for "User Guide" and "Table of Contents" just as in the Reference Library Done

Images:

- I had re-sized the Contact, Reference library and user guide icons in the wiki. I believe down to 60 pixels in width. Can you do the same here so that they are not taller than a typical line of text? Looks like the reference library and user guide icons got re-sized, but not the contact icon. The trash can icon was re-sized, but the copy icon still looks big. Done
- Now the reference library and user guide icons appear bigger. Do they look bigger to you? Done



- You can re-size the images appropriately so they fit in the user guide window. I made the maximum width of the images to be 500 px in the Wiki but we can make them smaller so they fit in the small window. And then keep them at the width of 500 px in the pop out window. How big do you want them?

NAVIGATION BAR

The dividing lines between Assignments, Experiments, and Lab Notebook appear darker than on the design mock-ups

Move the Assignments text down a little bit (it seems higher than experiments and lab notebook)

When switching between assignment and experiment buttons, it should take you back to the last viewed page within experiments - not the Select Technique page if I was viewing a western blotting experiment. This also seems to work for me, when I switch between windows and am in the middle of an experiment. It worked for me the first time, but stopped working as I continued to play around and switch between Experiments and Assignments. I can try to recreate it for you. - This still isn't working for me. It opens a new experimental technique large tabbed window when I navigate between Assignments

and Experiments.

ASSIGNMENT PAGE

Match the font for the Assignment name that appears in the right hand window with "Select Your Assignment:" in the left panel.

The tool tip for the page names in the Assignment panel for "Goal & Int..." and "Reference..." aren't appearing

The down arrow underneath each page in the Assignment panel that is being viewed is bigger (stretched) than it should be. If I am using the image provided, for all the tabs, then it will be stretched to cover tabs that change size based on the number. The image is too small to use for all these arrows. There are two options: either I have lots of differently sized arrows, or I create the images myself. It won't look exactly like the image provided but I can get close.

Ok, then let's try to have you create your own image and see what it looks like.

The down arrow should always be the same size regardless of the number of "pages" in the assignment panel See previous comment. See my comment above.

Once you click the right arrow to navigate to the second page (Question 1) in the Assignment panel, then the left arrow should become darker to indicate that I can click back to "Goal & Int...". The opposite should be true for the page on the right hand side. The text within the assignment panel should be left aligned, not justified.

The headings in the assignment panel should be in blue color 316f94 Which headings are these? I'm not clear. These are the headings within the assignment text - for Goals, Reference Material" etc.

The numbers for the question numbers should be in white on a gray circle, color 6f7171 Increase the margins (padding?) around all of the text in the assignment panel. This is especially true for pages without a heading (and just start with text) to ensure that the down arrow does not overlap the text

I think the text portion of the assignment window needs to be made just a touch shorter so the bottom panel that contains the green navigation button is clearly visible at the bottom of the page.

When text appears next to the question number circles, the text should be right indented (all of the text, not just the first line - like on the Experimental Design page)

On the pages for the questions, we no longer need a horizontal line underneath the text for each of the questions.

The tool tips when hovering over the page titles on an assignment are not working. Done, working for me

Usability Test: The title of the assignment should be 'Usability Test', not Dec_2013_Usability Done

The text on the Introduction page is a smaller font than the other pages of the assignment In the reference material section, can you make sure there is a space in the first sentence after "Reference Material" and before "contains"

Remove the extra space in the reference material section after the numbers and before the section on antibodies.

If you switch between pages on the assignment page by clicking on the page title instead of using the arrows, then the arrow color does not update appropriately.

The numbers in the gray circles should not be in bold

BUG: When I click on "Print Assignment" it is really slow to load the PDF - and didn't load after even 30 seconds. And it froze the program entirely. Done I am still having trouble with this. Done

TOP OF EACH EXPERIMENTS PAGE - INCLUDING THE NAVIGATION/PROGRESS BAR

The dark blue (for the selected part in the navigation bar) appears darker than in the image mock-ups. Is this color 316f94? Yes. Like I said, there were a lot of differences from the mockups to the UX guide. Colors were a big one. All blues were much darker. Ok we need to tell her then that the color she provided to us is much darker. Can you give me the color that you obtained using the digital color meter and I can email her. We can also send her a screenshot of the UI with the color that she provided to show her that it's much darker than her mockups.

The provided image for the drop down menu appears very slightly shorter than the drop down menu height

vertically center the text in the experiment drop down menu

The top of the "New experiment +" button should align with the top of the drop down menu - I don't see this change.

the bottom left corner of the navigation bar should also have rounded corners

DESIGN PAGE

The numbers for the question numbers should be in white on a gray circle, color 6f7171

The left side of the Experiment Name Text box and the numbers for the three questions should align with the left side of the navigation/progress bar

In the three panels for each of the experimental techniques, change the "Learn more" buttons to how they are depicted in the style guide with "Learn more >>" text in green following the short description of the experimental technique.

Resize the three buttons for each of the experimental techniques so they are shorter (but all the same height) but have a nice margin of space between the text and the border.

Can the user rename the experiment within the drop down menu next to the assignment name instead of having a separate text box with the experiment name? I can do this, but would this be too complicated an interaction for a drop down menu? It might confuse the user. Right, I wasn't sure about this and wanted to see what you think. It seems redundant to have the drop down menu to switch between experiments and a separate text box to rename the experiment. I'm ok to keep it as is though.

The learn more links should link the user to the appropriate section in the reference library, not the table of contents - actually western blotting works but flow cytometry and microscopy did not. Done

Capitalize the "L" in "Learn more >>"

The 'Learn more' text should be in the new green

SETUP & RUN PAGE

Add more space between the navigation bar and the radio buttons

A hand cursor should appear when hovering over the radio buttons (it only appear when hovering over the text for me)

I'm wondering if the selected radio buttons need to be blue not green now with the new

design Let's talk about this.

Format the Confirm Set-Up like the Sign in pop-up/dialog window with a white border and a green bar at the top. The "Confirm set-up" can be in white in the green header bar. The text can be in regular black font. Also re-size the window smaller so it is just a little bigger than the text (while maintaining nice margins)

SELECT TECHNIQUE PAGE

Format the Learn more links so they are "Learn more >>" like on the image mock-ups
Re-format the three panels so each panel is less wide (but the same width). The left side of the "Available Western blot" panel should align with the left side of the navigation panel. Same for the right side of the Microscopy panel and the right side of the navigation bar.

Increase the space between the bottom of the navigation bar and the top of the panels.

The learn more links should link the user to the appropriate section in the reference library, not the table of contents - the learn more links work for flow cytometry and microscopy but not western blotting

Capitalize the "L" in "Learn more >>"

The 'Learn more' text should be in the new green

TABS ON EXPERIMENTAL TECHNIQUE PAGES

The l+ in the Add tab appears larger than the lx in the other tabs

Vertically align the experiment name in all of the tabs with each other

The tabs with a western blot (or flow cytometry) have the name left aligned in the tab while the "add" text is centered in the tab. They should all match.

When renaming an experimental technique in the tab, it should not let you type another character after 10 characters instead of having an error message come up once you are done typing a long name. - Once you hit 10 characters then the cursor goes to the beginning of the line and you can then type at the beginning of the line. I then deleted the text in the box and hit enter and then I lost the label on the tab and can't re-type a label. When switching between smaller tabbed windows, it should not take you back up to the top of the page - same with switching between larger tabbed windows

I have a comment about positioning the tabs and arrows that we should discuss together. -
- this round, indent and appear at 5

If I delete a western blot experimental tab, then it should stay on the western blot experimental technique pages but just display a different western blot tab (right now it's taking me to the select a technique page) - oh wait, once I did this once, and then navigated back to the western blot experimental technique, then it worked. Can you confirm that it is working for you?

If I have more than 5 large tab windows, and then delete some tabbed windows, then the arrows to navigate between tabs stay but are not on the far right and left side of the window. I can show you if you want.

The outline on the large tabbed windows is not visible across other tabs once you have a lot of tabs and the arrows appear.

PROGRESS BAR ON EXPERIMENTAL TECHNIQUE PAGES

Progress bar: The progress should be marked and go in increments that correspond with

the labels on the progress bar (I know that Jamie's sketches do not do this). The one exception to this is when the experiment is complete and then the entire progress bar should be filled - not just until the last step on the progress bar

The vertical light gray bars that go through the progress bar should be little shorter so they don't go into the border at the top of the progress bar

WESTERN BLOTTING PAGES

Format the "Select at least one lysate to prepare" dialog box -

The vertical and horizontal measuring tool on the western blot does not seem to appear when hovering over the blot if I scroll down on the page (It does appear when I am at the top of the page) - This is off from where my cursor is pointing now

(Not for usability testing) We should format the drop down menus for the primary and secondary antibodies like the other drop down menus in the program. Done - Can you adjust this so that the blue outlines on the drop down menu text don't appear? Done

FLOW CYTOMETRY PAGE

The names of the flow cytometry experiments seem more spaced out than "W.B. 1" etc

The active experiment tab should be in blue font color

The large tabbed windows seem to have more white space at the bottom than the large tabbed windows in the western blotting pages. Can you remove some of this white space so the green buttons will be visible at the bottom of the page?

The Analyze Data button should be at the bottom of the right panel of the smaller tabbed window

If I have the instructions showing and then create another segment, the instructions are automatically hidden. I think they should stay visible.

format the error message for not selecting any flow cytometry samples (not a priority for usability testing). The error message should also just have an "OK" as you can't continue without selecting any samples. Done Can you change the outline to white instead of light gray? I think this will increase its visibility on the page. Done

Not a priority for usability testing: the horizontal line at the bottom of the samples window should disappear once you run your samples. Done

There is quite a bit of extra white space underneath the samples table (when prepping samples). Can this be reduce slightly so you can easily see the green navigation buttons even with a few samples?

If the user has the instructions visible, they re-display for each sample that is selected. I think the screen is refreshing. Discussed this in email, the reason this is done is to address previous issue marked with red stars in this section

On the Sample prep page, "PI" should be in gray until a sample is selected. Done

For the pop up containing the instructions (opens once click on the ? icon), add an "X" to the upper right corner to easily close the pop up. Use the same "X" formatting as in the upper right corner of the Sign in window. Done

Format the instructions pop up with a pale gray background, slightly rounded corners, and a white outline (as in the Sign-Up window but without the green bar at the top). Done

When drawing segments, it takes you to the bottom of the page when you draw a new segment, instead of staying at the same position on the page Done

Swap the question mark icon for the one that Jamie provided. Done

Put the analysis tool icon on a square pale gray button with rounded corners and a slightly



dark gray thin outline. Like these or these:

Once the flow cytometry analysis tool icon is selected, the background needs to change to show that it is selected. The background can change to a slightly darker gray (I'm thinking about using the different shades of gray that Jamie used in the arrows to navigate between pages in an assignment or between tabs)

After usability testing, change the segments on the graph to look like the same thing that is displayed in the analysis tool button.

Update the instructions for the Help icon:

Click and drag within the histogram to draw a segment. The % of cells within the segment will be calculated. Repeat to add another segment.

Then, select **Apply to All** to apply the analysis parameters to all samples. **Done**

THINGS TO THINK ABOUT

How does a user delete an experiment?