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Heuristic Evaluation for **BioMate**

Positive aspects

1. Good: **user is greeted with name**. However, if a user has multiple accounts (e.g. works in more than one lab), then it may also be useful to show the username in addition to the user's actual name. (Feedback)

2. Good: **Hover over icon shows task in central bubble** (Feedback)

3. Good: **Minimal design on menu page and throughout** (Aesthetics & minimalism)

4. Good: **Provides clear feedback when a script is saved.** (Feedback, error prevention)

5. Good: **Help and documentation throughout.**

   Nearly every page has either designated instructions or help tooltips.

Negative aspects

1. Major: **Not immediately clear what the user should do on home page.** (Help and documentation)

   The user is greeted by four unlabeled icons clustered around a blue ball. There are no visible instructions stating what the user should do. These actions are revealed the user hovers over one of the icons, so they are adequately discoverable, though some extra prompting could help some users.

   Recommendation: Display a "Select an action" message or similar in the blue orb.

   Screenshot here.

2. Minor: **Help button on left rather than right.** (Efficiency)

   Since many users track text with their mouse cursors as they read, it seems to make more sense to press the "More information" button to the right of the feature that it labels, rather than to the left. That way, it is easily at hand after the user has finished reading the feature.

Show screenshot:

3. Minor: **"Power" button doesn't clearly indicate logout.** (External consistency, safety)

   Though the "power" symbol and the placement of the button imply that clicking the button will log the user out, I can imagine that some users might click the button experimentally and be surprised that they are logged out.

   Recommendation: Tooltip or label indicating the function.

   Screenshot goes here.

4. Minor: **Combining Create and Edit actions possibly confusing**. (Error prevention)

   One possible case in which this might be problematic is when a user wants to access a script by a name that is similar, but not identical to, one that is already stored in the system. For example, suppose a scientist wants to use "montecarlo.pl", but "Monte Carlo" is already stored. It is possible that the user will miss the latter and create a duplicate script. Not much efficiency is lost by separating the "create" and "edit" actions, and the interface will be made simpler to understand.

5. Severe: **No undo after "save"** (Error prevention)

   It's possible for a user to unwittingly overwrite previous settings with unfinished work by accidentally pressing the save button..

6. Severe: **Changes are lost if the user tries to navigate away from the page while editing a script**. (Error prevention)

   There is a "Save your work" dialogue, but it only appears when the Cancel button is pressed.

   Recommendation: Notify the user that unsaved work is preset whenever the window is unloaded, e.g. when the page is refreshed or when a different URL is entered into the location bar.

7. Minor: **Possible to add a parameter or flag before adding the "base" of the command**. (Error prevention, efficiency)

   Even though a flag depends logically upon a particular command, but it is possible to add a flag before any commands have been created.

Recommendation: Make logically impossible action impossible by disabling the corresponding button.

8. Minor: **Colors of command fragment buttons in edit script page give impression of precedence though none exists.** (Consistency)

   For example: on the edit script page, very similar hues are used to indicate both the primary action "Save & Share" and "Add a Parameter Flag".