**Soft Molecular Rerun Procedure**

1. **PRINCIPLE:**
   1. During the testing process, testing for some samples must be repeated for a variety of technical or analytical reasons. The specimen can be sent back to one of multiple prior steps in the workflow.
   2. In Soft Molecular, repeating a sample to a prior action can be accomplished from a variety of steps in the test workflow and places in the system. This Procedure describes the specific steps to perform when requesting rerun testing in Soft Molecular.
2. **RERUN TO EXTRACTION**
   1. **NOTE:** Samples should only be rerun based on validated rerun scenarios. All samples can be rerun to extraction.
   2. Select rerun option for the order.
      1. The option will be located in different places, depending on the area of the system.
         1. In Worksheets and Tasklists, select the **To Rerun** checkbox for the appropriate sample to rerun.
         2. In Order Entry, Test Review Entry, and Sign-out Entry: on the “Tests” Tab, select the test of interest and then press the **Rerun** button on the right side of the window.
      2. A pop-up window will appear (the window may look different, depending on the area of the system, but the options should be similar).
      3. Select **Main Run Type**.
      4. Change **Next Action** or **Rerun from action** to the first action for the test.
      5. Add an internal note.
         1. Once the Internal Note window opens, Click the **Add** button.
         2. Add directions for the technologist, such as the aliquots desired, as well as any modifications (e.g., BSA, dilution, etc.).
         3. Under “Type”, use the drop-down. Then, press **Select All**. Manually uncheck **Employee Specific**. Press **OK**. Check the “Request” Checkbox and make sure the correct “Test” is selected.
      6. Click **OK**. Save.
      7. Exit current window.
   3. Open Order Entry and find the order. There is an area with multiple tabs of information.
      1. Go to the “Tests” Tab:
         1. Make sure that all relevant tests have **Next Action** set to the first action for that test.
         2. If there is a QC Ladder on the order, change **Next Action** to QCLADPCR.
         3. Save.
      2. Go to the “Specimens” Tab:
         1. Click '+' to Expand the child level.
         2. Select the main parent-level tube (original specimen: Tissue, Blood, Bone Marrow Aspirate, etc.).
            1. Attach all desired tests to the main tube.
            2. Change the **Protocol** to ATST and select **No** if a pop-up question appears.
            3. Then, change **Protocol** to the appropriate protocol for that specimen type—e.g., ALQ or CUTBLOCK. Click **Yes** for the pop-up to set **Next Action** to the correct action for this protocol—e.g., CUTBLOCK.

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| --- | --- |
| **Protocol** | **Action** |
| CUTBLK | CUTBLK |
| SLDSCRAPE | SCRAPESLD |
| ALQ | !ALQ |

* + - 1. For all existing child-level tubes
         1. Clear the **Protocol** field.
         2. Unselect all **Attached Tests**.
         3. Delete **Next Action**.
      2. Select the main child-level tube again.
         1. Click on the **Spec/Tube Info** Button on the right side of the screen.
         2. This opens a new window.
         3. At the bottom of the window, press the **Plan Aliquot** button.
         4. The Planned Aliquots are seen on the bottom of the window.
         5. Attach the appropriate test(s) to the planned aliquot.
         6. For the appropriate extraction on this aliquot, select the appropriate Protocol—e.g., MAXEXTR. Click **Yes** for the pop-up to set **Next Action** to the correct action for this protocol—e.g., MAXREAGENTS. If there is no pop-up, manually set the **Next Action**.
         7. Changing the protocol is necessary to have the sample visible in Specimen Preparation. We do these steps to default the **Next Action**. Otherwise, it is blank, and the specimen cannot be found in Specimen Preparation.
    1. **Save**. Exit Order Entry.
  1. Go to Specimen Preparation.
     1. Find the Order of interest.
     2. Press the + button to expand the child level for any planned aliquots.
     3. **Change the Volume from the default value of 200 to 4800 uL. This is critical or the sample may not be able to proceed through testing.**

Graphical user interface, application, table

Description automatically generated

* + 1. **Save**. Exit Specimen Preparation.
  1. The Technologists will continue with Specimen Preparation, followed by the testing protocol(s).
     1. Review Internal Notes, especially instructions for the aliquots desired, as well as any modifications (e.g., BSA, dilution, etc.).
     2. Go to Specimen Preparation and find the order.
     3. Choose the appropriate extraction protocol.
     4. At the parent level, check **Next Action** and, if necessary, change it to the appropriate first action of the protocol. For example, Slide Scrape or Cut Block.
     5. For any planned aliquot, press the + button to show the child-level aliquots.
        1. Check **Next Action** and, if necessary, change it to the appropriate first action of the protocol.
     6. If additional aliquots are needed (either in Aliquot action or Test Aliquot, depending on the Test workflow):
        1. Click **Planned Aliquot** Button.
        2. Go to the new child entry and Select the Attached Test.
        3. Change the Protocol to match the other children.
        4. Click **Save**. This will generate a Sample ID.
     7. Complete the extraction and then proceed to the assay protocol.

1. **START FROM WORKSHEET, TASKLIST, ORDER ENTRY, TEST REVIEW ENTRY, OR SIGN OUT ENTRY 🡪 RERUN TO EARLIER ACTION**
   1. Select rerun option for the order.
      1. The option will be located in different places, depending on the area of the system.
         1. In Worksheets and Tasklists, select the **To Rerun** checkbox for the appropriate sample to rerun.
         2. In Order Entry and Sign-out Entry: on the “Tests” Tab, select the test of interest and then press the **Rerun** button on the right side of the window.
      2. A pop-up window will appear (the window may look different, depending on the area of the system, but the options should be similar).
      3. Select Main Run Type.
      4. Change **Next Action** or **Rerun from action** to the desired prior action for the test.
      5. In the grid of tubes, make sure that appropriate tests are attached and **Attach to Test** is selected/checked.
         1. Uncheck **Attach to Test** and clear the **Protocol** and **Next Action** fields for any tubes that should not be rerun.
      6. Add an internal note.
         1. Once the Internal Note window opens, Click the **Add** button.
         2. Add directions for the technologist, such as the aliquots desired, as well as any modifications (e.g., BSA, dilution, etc.).
         3. Under “Type”, use the drop-down. Then, press **Select All**. Manually uncheck **Employee Specific**. Press **OK**.
      7. Click OK. Save.
      8. Exit current window.
      9. Proceed with Testing.
      10. **Note:** If the test script requires the user to build a tasklist based on worksheet number , the search criteria must be adjusted. Change "Registered from" date to date of order or earlier, uncheck "Only unassigned" flag, and mark "Include reruns" flag.
2. **MGMT – START FROM WORKSHEET, TASKLIST, ORDER ENTRY OR SIGN OUT ENTRY 🡪 RERUN TO EARLIER ACTION**
   1. The MGMT assay has several steps which result in the creation of new aliquots. Therefore, when performing a rerun for this test, specific steps must be followed to ensure proper aliquoting.
   2. See section II.A. for initiating the rerun.
   3. Go to the specimen:
      1. A pop-up window will appear (the window may look different, depending on the area of the system, but the options should be similar).
      2. Select Main Run Type.
      3. Change **Next Action** or **Rerun from action** to the desired action of the test.
      4. Go to the grid of tubes:
         1. If repeating to Bisulfite Conversion, uncheck **Attach to Test** for all but one of the tubes.
         2. If repeating to MGMTPCR, uncheck **Attach to Test** for all but two of the tubes.
   4. Clear the **Protocol** and **Next Action** fields for all but the **attached** tubes.
   5. Add an Internal Note, as described above.
   6. Fill the control results and save.
3. **BRAF, IGH::BCL2 –** **REPEAT TO PCR USING DIFFERENT ALIQUOTS**
   1. Director/Pathologist steps:
      1. In the worksheet/tasklist, mark the **To Rerun** checkbox for the order at the parent level.
         1. In the Rerun window, rerun to the appropriate steps and add an internal note.
         2. Click the **OK** button.
         3. Select Save. Exit to the Dashboard.
      2. Go to Order Entry
         1. Go to the ‘Specimen’ Tab
         2. Go to the Tube table and expand the child levels by clicking on the ‘+’ sign.
         3. Find the DNA tube.
         4. Select the DNA tube.
            1. Click on the **Spec/Tube Info** button.
            2. In the **Spec/Tube Info** window, attach the test(s) to the DNA tube.
            3. Go to the **Protocol** field and select "ADDALQ". This will create conditionally planned aliquots for BRAF ,or BCL2
            4. Set **Next Action** = Test Aliquot (Aliquoting Action)
            5. Close **Spec/Tube Info** window (select **OK**).
         5. Exit Order Entry.
   2. Technologist steps:
      1. Go to Specimen Preparation and find the order.
         1. Go to the Test Aliquot action.
         2. Make the appropriate aliquots.
            1. Enter **Test Aliquot** values for each tube with “uL”, as well as any modifications to the aliquot (e.g., BSA, dilution, etc.). Also enter numeric value (no units) in the **Volume** Field.
            2. If any aliquot is not needed, highlight this tube, and click on the **Delete Aliquot** button on the toolbar.

**NOTE**: The **Reject** button should only be available on the parent level while the **Delete Aliquot** button should only be available if you select one of the planned aliquots under the parent tube. Use the appropriate button, depending on what you are trying to remove.

* + - * 1. If additional tubes/aliquots are needed, click on the **Plan Aliquot/Material** button. At the child level, attach the test(s) and set the Protocol to ATST.
    1. Go to Specimen Testing.

1. **REPEATING TO GEL LOADING ACTIONS:**
   1. Several tests have technologist actions for loading specimens on a gel (e.g., Clonality, QC Ladder, MGMT, *IGH::BCL2*.)
   2. In Soft Molecular, specimens cannot be rerun from this action.
   3. Therefore, if a gel loading step must be re-run, the Director/Pathologist should communicate with the technologists and document the request as an Internal Note in Soft Molecular.
      1. The technologist can repeat the gel using the same worksheet. Finally, the new gel image can be uploaded into Soft Molecular. The file should be named with the suffix “\_Reload”.
2. **REVISIONS:**
   1. 4/14/2020: Clarifications were made in the steps.
   2. 1/16/2023: Updated to reflect rerun scenarios for AMP2 assay.