

Faculty/ Department or Institute/Centre	Cumming School of Medicine, Department of Pediatrics, Neurocritical Care Program, ACH BioCORE	Date Created:	September 20 2018
Location	<i>ACH B0-103</i>	Created By:	Matthew Rosin
Supervisor	Dr. Michael Esser & Dr. David Sinasac	Revision #:	1.1
		Revision Date:	September 28 2018
		Revised By:	Matthew Rosin

## Purpose

This document provides instructions for entry of patient data, sample data, and aliquot data into the FreezerWorks sample management software.

## Applicability

This document applies to all personnel of ACH BioCORE.

## Authorization

Personnel must have completed FreezerWorks Orientation training and understand all steps in this SOP before using this SOP.

## Hazards associated with process

Not applicable.

## Environment where task is to be undertaken

ACH lab in room B0-103 on BioCORE computer with AHS barcode #M258375.

## Emergency Procedures

Not applicable.

## PPE

This SOP does not require any PPE. PPE should NOT be worn as this procedure involves a computer.

## Overview

Software	Computer	Activities
FreezerWorks Summit 2018 V10.0.03	<ul style="list-style-type: none"> <li>BioCORE PC</li> <li>AHS Barcode #M258375</li> </ul>	<ul style="list-style-type: none"> <li>New Patient entry</li> <li>New Sample &amp; Aliquot entry</li> <li>Modification of existing entries</li> </ul>

## Procedures

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### General Information

- All new study samples should include a copy of documentation about the sample and the patient.

Situation	Procedures to follow
New Study Patient	<ul style="list-style-type: none"> <li>First complete Procedure A</li> <li>Then complete Procedure B</li> </ul>
New Sample for Existing Patient	<ul style="list-style-type: none"> <li>Only complete Procedure B</li> </ul>
Modifying patient or sample entries	<ul style="list-style-type: none"> <li>Follow Procedure C where applicable</li> </ul>

### Procedure A: New Patient Entry

- Open FreezerWorks (FW) software on the BioCORE PC #M258375.
  - FreezerWorks has automated backups that are set for 8am daily if left open, or will start the backup upon first opening the program after 8am each day
- On the top menu bar, click Search> View All to open a view of all current data in FW in a new window.
- Click the Patients block at the top of the new window.
- Click Add New button from the left side bar.
- Click Change Form bottom at the bottom centre of window > Select BioCORE Patient Entry form.
- This form will similar to *Figure 1*. Field names may change as the form is optimized.
- Record the Freezerworks Patient ID number (automatically determined by the software in ascending numerical order of patient entry) on the new patient/sample documentation.
- Enter 'required' information in the Study Specific Information (green) section and the Sample Collection Information (red) from the patient/sample paper records provided with a new sample.
  - Some pull-down menus are single-choice while others are multiple choice
  - Some fields will have pre-set options restricted by prior field selections
- Optional: Depending on the Study, some Patient Health Information (PHI) may be included with new patient documentation. If so, complete the orange section.
- Optional: If a new patient is an infant, fill out the relevant sections of the Newborn Infant Information (blue) depending on what is included with new patient documentation.
- Optional: If there any notes or concerns written on new patient/sample documentation, and if any issues arise during sample processing (in the BioCORE or elsewhere), these notes should be transcribed into Patient Additional Notes (yellow).
- Click Save & Close button at the bottom right side of window.
- Write the date, time, and the name of the BioCORE personnel entering the data on the sample documentation record and sign off on completion of this task.

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Figure 1. BioCORE Patient Entry Form overview (screenshot on 180920).

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### Procedure B: New Sample Entry

1. Open FreezerWorks (FW) software on the BioCORE PC #M258375.
  - FreezerWorks has automated backups that are set for 8am daily if left open, or will start the backup upon first opening the program after 8am each day
2. On the top menu bar, click Search> View All to open a view of all current data in FW in a new window.
3. Click the Samples block at the top of the new window (this window defaults to the Samples block).
4. Click Add New button from the left side bar.
5. Click Change Form bottom at the bottom centre of window > Select BioCORE Sample Entry form.
6. This form will similar to *Figure 2*. Field names may change as the form is optimized.
7. Enter the Freezerworks Patient ID number that was created during Patient Entry. This number should be recorded on the original patient/sample paper record, but you can also search for the correct Patient ID using the hourglass icon. This selection will automatically fill in the Study Subject ID field.
8. Confirm that the Study Subject ID field entry is correct for this patient.
9. Record the Globally Unique Sample ID (automatically determined by the software in ascending numerical order) on the new patient/sample documentation.
10. Enter Study Information (purple box), including any additional notes, from the sample documentation.
  - Some fields are required to be filled out in order to save the sample entry form.
  - Some fields will have pre-set options restricted by prior field selections
11. Enter Sample Collection Information (yellow box) according to the sample documentation.
  - Some fields are required to be filled out in order to save the sample entry form.
  - Some fields will have pre-set options restricted by prior field selections
12. Click Save before proceeding.
13. On the bottom section dealing with aliquots click the Add Aliquots button on the left side bar.
14. Enter the number of Aliquots you will create for this sample in the pop-up box.
15. A new Add Aliquots window will open that looks like *Figure 3*.
16. Complete the yellow section only for new sample aliquots.
  - The blue and red sections relate to aliquot modifications only.
17. In the Select Freezer field click UC/BCore Freezer 1. In the Select Freezer Section click the correct shelf where the samples will be stored.
18. These selections will reveal freezer Assignment information including Rack, Stack, Box, Row, and Column, as well as Box Location information showing the layout for the box actively selected.
  - Ensure that aliquots are being stored in the correct Rack, Stack, and Box currently being used for the Study-specific sample.

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- If you change the default values for Rack, Stack, Box, Row, and Column you must click the Update Display button at the top right of the window to reveal the box layout corresponding to the new selections.
  - The check box for Find Adjacent Positions is checked by default and will auto-fill the aliquot freezer positions in the box actively selected.
19. After all data is entered and freezer location is confirmed, click Save & New. After this window is saved a new blank Add Aliquots window will pop up automatically. This can be closed without saving.
  20. The Sample Entry form for the current sample will now be populated with Aliquot information in the lower section.
  21. Click Save before proceeding.
  22. Select aliquots by holding Shift and clicking each aliquot to select (selections will turn blue). Right click on the selections and choose Print Labels. A new Print Labels window will open that looks like *Figure 4*.
  23. Check that the Label format Name = Wheaton Tube and the Printer = CAB EOS1/300 (defaults). Check that the check-box for Range is checked and the field entry is '1' (default).
  24. Enter '2' (two) in the Select number of labels per Aliquot (the top field of the second rectangular block). Click Print.
    - Duplicate labels are to be affixed to i) the sample documentation, and ii) the aliquot vial.
    - By affixing a duplicate label to the sample documentation, you have a physical record of the Unique Aliquot ID.
    - Two labels per aliquot, in sequence, should automatically print from the CAB EOS1/300 printer. If they do not, unplug the USB cable and plug it back in. Labels should automatically print after the printer re-establishes the connection.
  25. Affix the FreezerWorks barcode labels and 2D (QR code) barcodes to i) the aliquot vial, and ii) the sample documentation. On the vial, the larger portion of the label with details should be applied along vertical edge of the vial and the QR code sticker should be applied to the bottom of the vial.
    - If using 0.5 mL Wheaton vials, insert 2D coded bottom caps into vials before affixing QR sticker.
    - See *Figure 5* for a visual example of applying FW barcodes to vials and paperwork.
  26. Click Save on sample entry form, then Close.
  27. Write the date, time, and the name of the BioCORE personnel entering the data on the sample documentation record and sign off on completion of this task.

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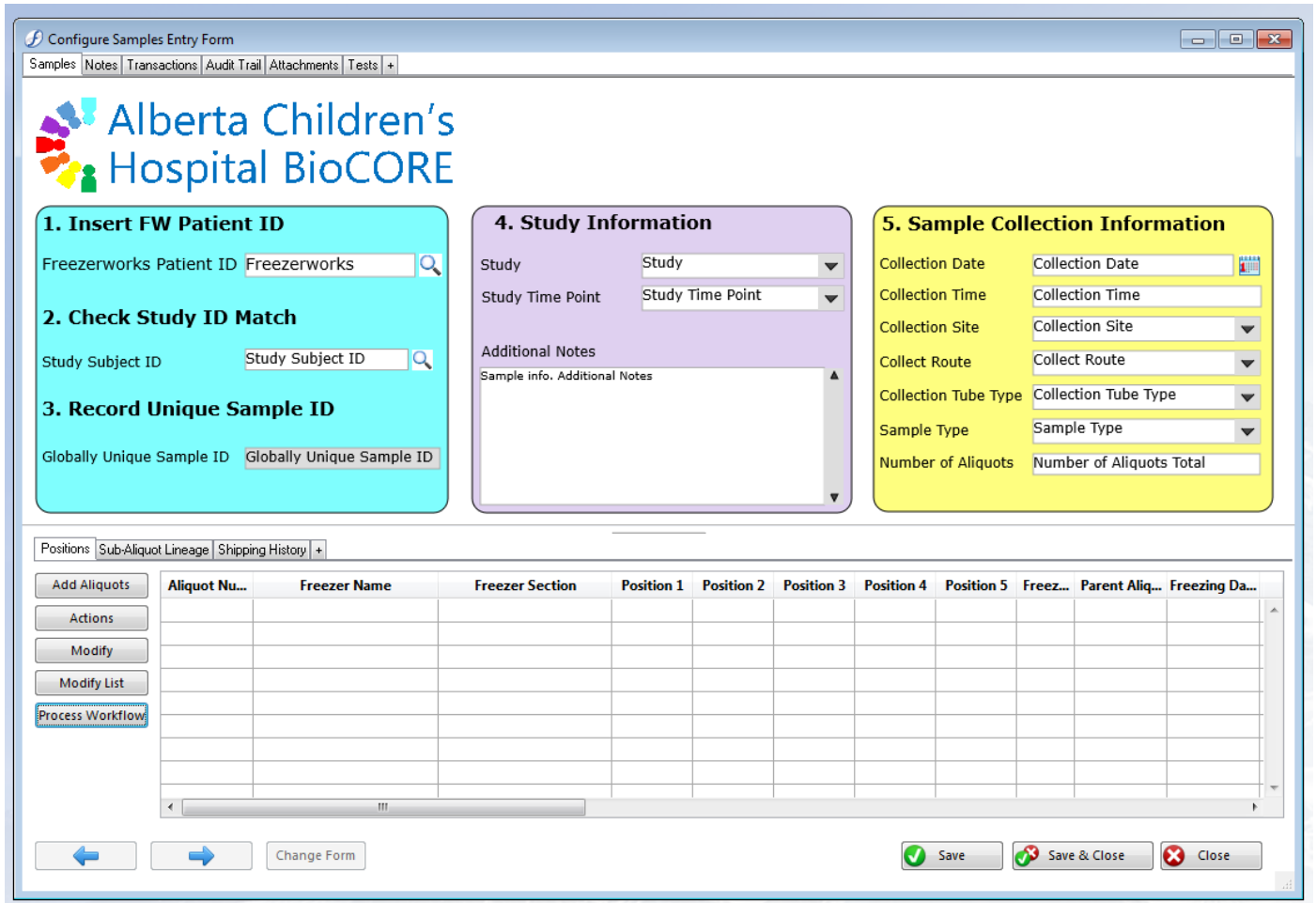


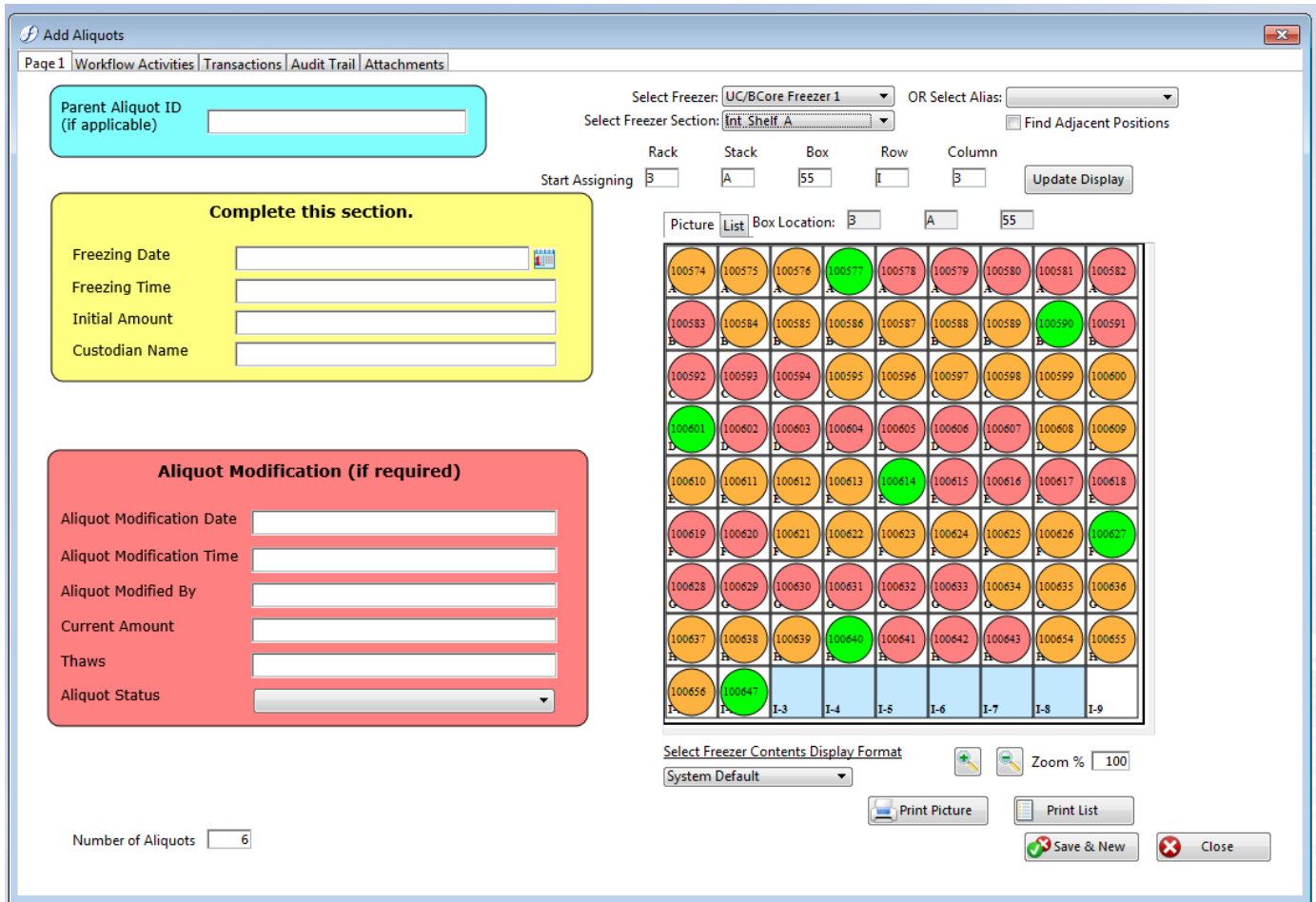
Figure 2. BioCORE Sample Entry Form overview (screenshot 180920).

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The screenshot shows the 'Add Aliquots' application window. At the top, there are navigation tabs: 'Page 1', 'Workflow Activities', 'Transactions', 'Audit Trail', and 'Attachments'. The main interface is divided into several sections:

- Parent Aliquot ID (if applicable):** A text input field.
- Select Freezer:** A dropdown menu set to 'UC/BCore Freezer 1'. An 'OR Select Alias:' dropdown is also present.
- Select Freezer Section:** A dropdown menu set to 'Int\_Shelf\_A'. A 'Find Adjacent Positions' checkbox is checked.
- Start Assigning:** A section with dropdowns for 'Rack' (set to 'B'), 'Stack' (set to 'A'), 'Box' (set to '55'), 'Row' (set to 'I'), and 'Column' (set to 'B'). An 'Update Display' button is located to the right.
- Complete this section. (Yellow box):** Contains input fields for 'Freezing Date', 'Freezing Time', 'Initial Amount', and 'Custodian Name'.
- Aliquot Modification (if required) (Red box):** Contains input fields for 'Aliquot Modification Date', 'Aliquot Modification Time', 'Aliquot Modified By', 'Current Amount', 'Thaws', and an 'Aliquot Status' dropdown.
- Grid:** A 10x10 grid of sample locations. Each cell contains a sample ID (e.g., 100574, 100575, etc.) and a color-coded circle. The grid is labeled with 'Picture List' and 'Box Location: B A 55'. The columns are labeled 'I-3' through 'I-9' at the bottom.
- Bottom Controls:** Includes a 'Select Freezer Contents Display Format' dropdown (set to 'System Default'), a 'Zoom %' control (set to 100), and buttons for 'Print Picture', 'Print List', 'Save & New', and 'Close'.
- Number of Aliquots:** A text input field containing the number '6'.

Figure 3. Add Aliquots form entry overview (part of BioCORE Sample Entry Form) [screenshot 180920].

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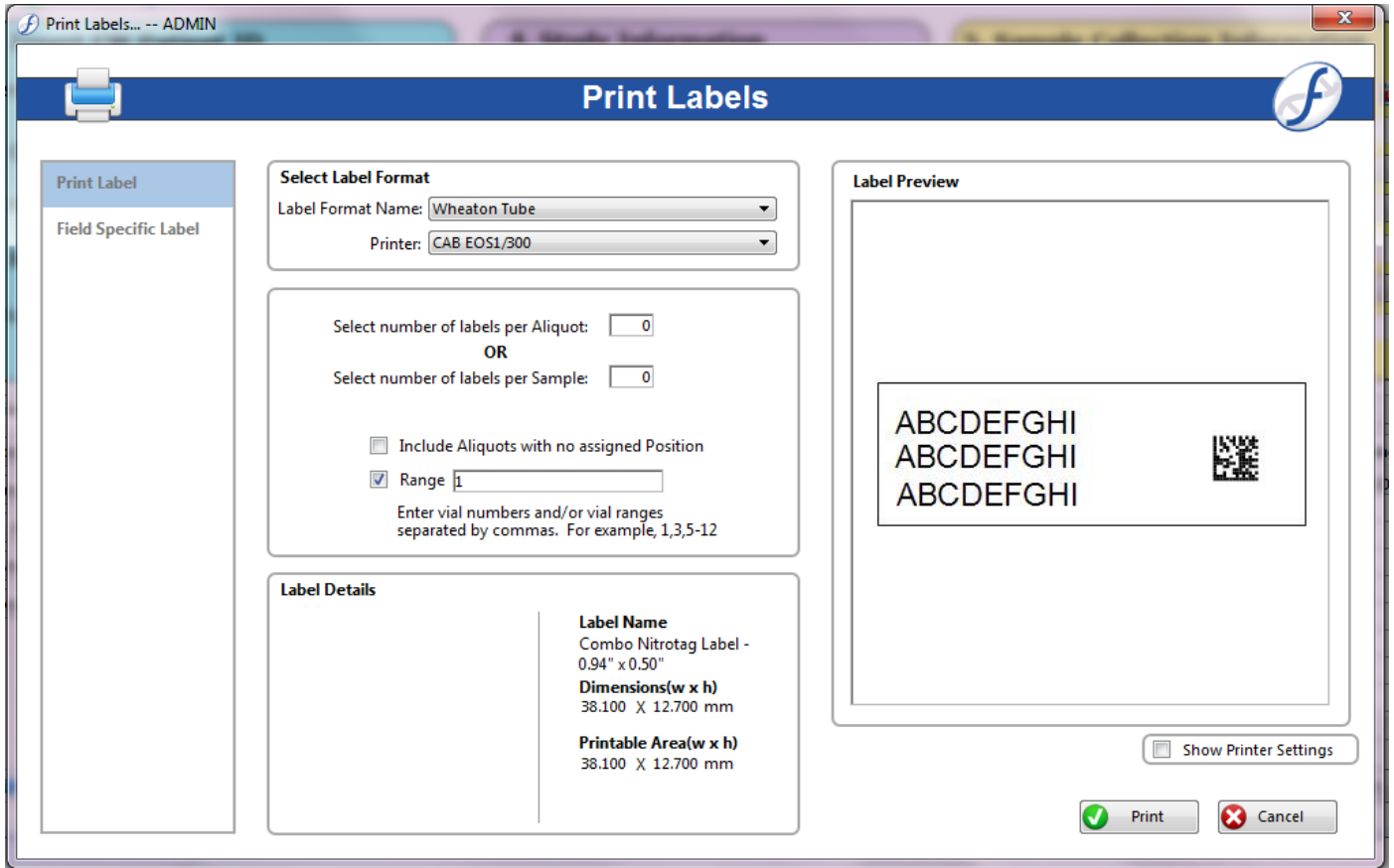


Figure 4. Print Labels window showing default entries (screenshot 180920).

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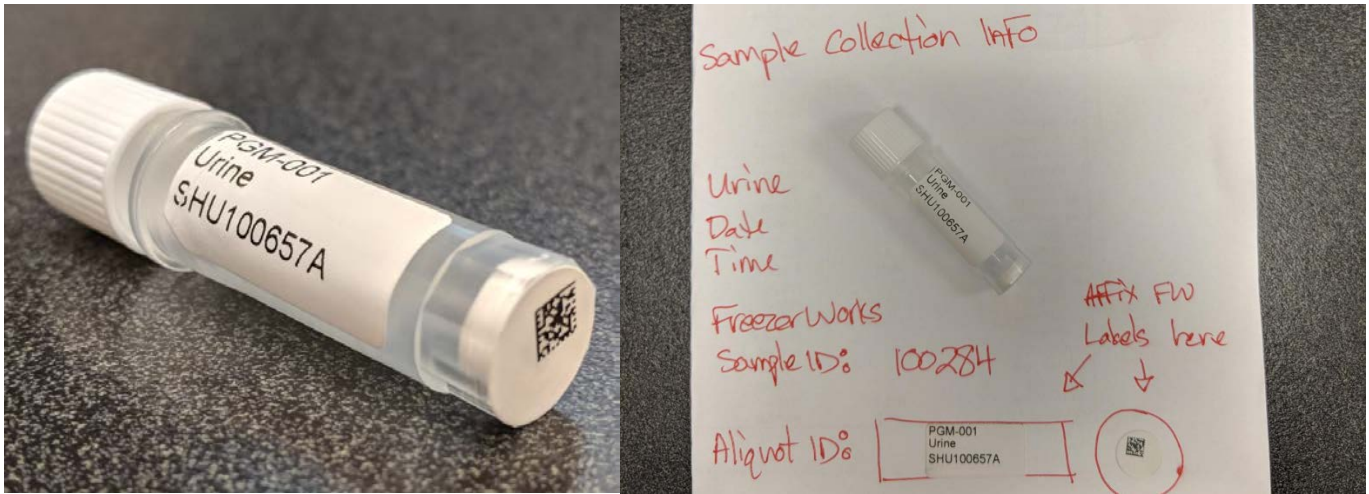


Figure 5. Example of affixing FreezerWorks Aliquot duplicate printed labels to i) aliquot vial, and ii) sample documentation.

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### Procedure C: Modifying Existing Entries

#### ❖ Modifying Patient Entries

- ❖ To modify field entries or add information to existing patients, follow Procedure A steps 1-3.
- ❖ Find the patient in the list that you wish to modify. Searching by FW Patient ID or Study Subject ID are the fastest ways to find the correct patient. Double-click the desired patient to open the Patient Entry Form.
- ❖ Next, identify which fields you wish to modify or add entries into.
  - Not all fields can be modified.
  - Certain fields will require a Reason for Change when being modified. This allows BioCORE users to understand the rationale behind certain modifications and acts as a level of security against accidental modification.
- ❖ Use the Patient Additional Notes long-form entry field to record notes about the changes, reasons for changes and additions, the date, time, and name of BioCORE personnel making the change.
- ❖ When all fields in the Patient Entry Form have been modified and filled out, click Save & Close.

#### ❖ Modifying Sample & Aliquot Entries

- ❖ To modify field entries or add information to existing samples, follow Procedure B steps 1-3.
- ❖ Find the sample in the list that you wish to modify. Searching by FW Patient ID, then by FW ID (Sample ID), and confirming by Sample Type is the fastest way to find the correct sample. Double-click the desired sample to open the Sample Entry Form.
- ❖ Next, identify which fields you wish to modify or add entries into.
  - Not all fields can be modified.
  - Certain fields will require a Reason for Change when being modified. This allows BioCORE users to understand the rationale behind certain modifications and acts as a level of security against accidental modification.
- ❖ To modify aliquot information, double click on the aliquots in the table in the bottom section of the Sample Entry Form, which will open the Modify Aliquot window.
- ❖ Identify which fields you wish to modify.
  - Aliquot Modifications (red box): record changes to aliquots, such as freeze-thaws, current amount (volume), or aliquot status (many options).
  - Change Freezer Position: you can modify freezer position if required, such as for reorganizing.
- ❖ To add Sub-Aliquots: Select the Parent Aliquot (turns blue) from the aliquots section in the bottom of the Sample Entry record. Then click Other Actions> button located in the left side bar, and select

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Create Sub-Aliquots. This will open a Sub-Aliquot window that looks identical to the Add Aliquots window (*Figure 3* above).

- ❖ At the bottom left of the window, enter the Number of Aliquots to be created from the Parent Aliquot. Click Update Display button in the top right to show new freezer locations for aliquots.
- ❖ Fill out yellow section for sub-aliquots. The blue section for Parent Aliquot ID will be auto-filled after sub-aliquots are saved.
- ❖ Click Update button on the bottom right of window. This will trigger a User Confirmation pop-up to confirm creation of the specified number of sub-aliquots and asking if you want to continue. Click Yes. Then close the blank Sub-Aliquot window that remains to view the Sample Entry Form.
- ❖ Check that the new aliquots have been created, and now show the correct Parent Aliquot ID field.
- ❖ Use the Additional Notes long-form entry field to record notes about the changes, reasons for changes and additions, the date, time, and name of BioCORE personnel making the change.
- ❖ When all fields in the Sample & Aliquot Entry Form have been modified and filled out, click Save & Close.

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