**TMT location:**

1. Log in to TMT (<http://vtest11.wustl.edu:8080/catissuetmt/Home.do>).
2. Select Test cases tab.
3. Expand caTissue product from the tree view.
4. Expand Mater List-v2.0 version
5. Expand Ordering and Distribution Component
6. Expand Request Review & Distribution test area
7. Select Test case ID 9581 with short title Distribution\_Success\_Specimens\_Derivatives\_SpecimenArray

**Purpose: To ensure super administrator can distribute an order of specimens, derivatives of existing specimens and specimen array successfully.**

**Prerequisite:**

Import latest dump located at

Oracle: https://ncisvn.nci.nih.gov/svn/catissue\_persistent/caTissue Database Dump/v2.0/Oracle

MySQL: https://ncisvn.nci.nih.gov/svn/catissue\_persistent/caTissue Database Dump/v2.0/MySQL and deploy application.

Modify the PrintServiceImplementor.properties file located at caTISSUE\_HOME/catissuecore-properties for following.

PrintWebServiceEndPoint= http ://< ipaddress: portNo>/caTissuePrintWebService/Print? Wsdl>

(This is the URL of Print Web Service, where IP address and port is of the server where print web service is deployed.)

Specimen=edu.wustl.catissuecore.printservicemodule.WashuSpecimenLabelPrinterImpl

Specimencollectiongroup=edu.wustl.catissuecore.printservicemodule.WashuSpecimenCollectionGroupLabelPrinterImpl.

Note: Refer the page at <https://cabig-kc.nci.nih.gov/Biospecimen/KC/index.php/Label_Printing> for web-service deployment.

Place print\_rules.xls inside JBOSS-HOME (Print server)/print/print rules .Please use the print.xlsx located at

**Procedure:**

1. Login as a scientist user Sci1 ([sci1@sci.com](mailto:sci1@sci.com)) Log123.
2. Navigate to Search-🡪Saved Queries.
3. Select Query title ***Specimens\_ collected\_CAKUT*** ***\_protocol*** to execute.
4. Click on Execute on Configure Query parameters.
5. On View results page, check the “Check-All on this page” check-box. Verify the specimen list on results page. Refer the expected output.
6. Click on Add to My list. Refer the expected Output.
7. Navigate to Search-🡪My list view.
8. Select the Check All button in my list view.
9. Select the radio-button for Order Biospecimens and Click on Submit.
10. In the Biospecimen Order page, enter Order Title: ***Ellis\_Lab\_Request***, Select Distribution Protocol from the drop-down list as ***ACOSOG\_Z1031.***
11. Click on Next.
12. On the order details page, Specimen list should be populated. Verify the specimen list. Refer the expected output.
13. Select the check-box next to Specimen labels. Select the specimens 158\_1,158\_2,158\_3,158\_4,159\_1,159\_2,159\_3,165,166 and 159\_4from the list. Select option as “***Export*** “on My list View page. Refer the expected Output.
14. Click on Add to Order list. Refer the expected Output.
15. Select radio-button next to Derivative Specimen. Refer the expected output.
16. Select Specimen Class as Molecular, Specimen Type as DNA. Enter required quantity as 10.Refer the expected output.
17. Click on Apply to All.
18. Select specimens with following specimen labels, and 158\_1,158\_2 and 158\_3 by checking the check-box next to each specimen.
19. Click on Add to Order list. Refer the expected Output.
20. Click on Define Array link. Enter Array name as ***YWBrC\_706126.*** Select Array type as ***Ley - Gold C 8x12.*** Click on Create.
21. On order details page, verify the list of Array names shown in the drop-down. Refer the expected Output.
22. Select the created array ***YWBrC\_706126*** from the drop-down. Select specimens with specimen label s, 162,163,164,165 and 166 by checking the check-box next to each specimen .Click on Add to Order list. Refer the expected Output.
23. Click on Order.
24. Login as a super administrator [admin@admin.com(Test123)](mailto:admin@admin.com(Test123))
25. Navigate to Biospecimen Data -🡪Order View.
26. Select order name ***“Ellis\_Lab\_Request”.*** Verify the order details such as Order Name, Distribution Protocol, Requestor Name, and Requestor Date and specimen details. Refer the expected Output.
27. For the ordered specimens, in the requested specimen details section, verify the specimen list shown in the ***Request For*** drop-down. Refer the expected Output.
28. For the ordered specimen derivatives, in the requested specimen details section, verify the specimen list shown in the ***Request For*** drop-down. Refer the expected Output.
29. Select the parent specimen with label as 158\_1 from the drop-down. Click on Create Derivative button; verify the specimen details shown on Create Derivative page. Refer the expected output.
30. Enter details on Create Derivative page and Click on Submit. Refer the expected output.
31. Select Specimen class as “Molecular” and Specimen Type as “DNA”. Enter specimen label as 158\_1D. Enter specimen initial quantity as 1. Click on Create.
32. Repeat the above step, select following specimens 158\_2 and 158\_3 from the drop-down. Enter specimen labels as 158\_2D and 158\_3D.
33. Click on Array request tab. Verify the details shown on Array request tab. Refer the expected output.
34. Click on Create Array button. Verify the details on Add Specimen Array page. Refer the expected Output. Select Created by as ***admin, admin***. Click on Upload Specimen Array.
35. Select the Array status to Distributed.
36. Click on Specimen request tab.
37. Click on View Consents tab. Refer the expected output. Check the check-box next to “I have verified that the distribution of the specimen is as per consent of the Participant”. Click on OK on consent form.
38. Update the status for some specimens as :
    1. Pending—Protocol Review
    2. Pending –-Specimen Preparation
    3. Rejected---Inappropriate review
    4. Rejected---Specimen Unavailable
    5. Rejected---Unable to Create
39. Click on Submit. Navigate to Biospecimen Data🡪Order view.
40. Update the status of specimens as “Distributed” and some as “Distributed and Close”. Select a distribution site as “***Kidney for translational research core***” from the drop-down.
41. Click on Submit and Noify. Refer the expected Output.
42. Expand the show details section on Distribution report page. Click on Define View.
43. Select object name as Collection Protocol Registration, select column name as Protocol participant identifier. Click on Add to view. Use up and down buttons to order the columns in report.
44. Click on Submit. Refer the expected output.
45. Check the Select All check box; Click on export button. Refer the expected output.
46. Click on save button on the csv file.
47. Click the print labels button. Refer the expected output.
48. Verify the available quantity of the distributed specimens. Refer the expected output.
49. Navigate to Biospecimen Data-🡪Order View.

**Expected Output:**

5 The specimen list on View results page should display specimens.

6 A message should be displayed as “Records are added in the list”.

12 All pending, virtually located, not available and zero quantity specimens in my list are not displayed on Order details page. The order of specimens in the list displayed in Order details page should be same as the order of specimens in my list view. A column as Storage site should display the storage site of the specimens. All distribution protocols existing in system should be populated in the drop-down.

13 A pop up should be displayed with option as ***Open***, ***Save*** and ***Cancel.*** Select Save option to save the file as CSV.

14 A message should be displayed as “Specimens from multiple sites exist. You can place an order from only one site at a time. The specimens added should be added in the Order list on R.H.S

15 On selecting radio button next to Derivative Specimen, a section with drop-downs for Specimen Class, Specimen Type and Required quantity would appear.

17 The required quantity for all the specimens in the list should be updated to 3.

19 The order list on R.H.S of order page should display the derivative specimens added.

21 Array with name ***YWBrC\_706126*** should be listed in the Array name drop-down list. The order list on R.H.S should display the created array details such as name, type and dimensions.

22 The specimens added to specimen array ***YWBrC\_706126*** should be displayed in the Order list on R.H.S.

23 A message should be displayed as “Order successfully created for ***Ellis\_Lab\_Request***”.

26 The order details page should display following details.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Order Name** | ***Ellis\_Lab\_Request*** | **Status** |
|  | **Distribution Protocol** | ACOSOG Z1031: Randomized Phase III Trial Comparing 16 to 18 weeks of Neoadjuvant Exemestane, Letrozole, or Anastrozole in Post menopausal Women with clinical Stage II and III Estragen Receptor Postitive Breast Cancer-DP | New |
|  | **Requestor Name** | Admin,admin |  |
|  | **Requestor Date** |  |  |
| **Ordered Specimen Details** | **158\_1** | DNA,3 | Pending for Distribution |
| **Specimen Type ,Available Quantity** | **158\_2** | DNA,3 | Pending for Distribution |
|  | **158\_3** | DNA,3 | Pending for Distribution |
|  | **158\_4** | Fluid, Plasma | Pending for Distribution |
|  | **158\_5** | Fluid, Plasma | Pending for Distribution |
|  | **159\_1** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_2** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_3** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_4** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_5** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
| **Requested Specimen Details** | **158\_1** | NA | Pending for Distribution |
| **Specimen Type, Available Quantity** | **158\_2** | NA | Pending for Distribution |
|  | **158\_3** | NA | Pending for Distribution |
|  | **158\_4** | Fluid, Plasma | Pending for Distribution |
|  | **158\_5** | Fluid, Plasma | Pending for Distribution |
|  | **159\_1** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_2** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_3** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_4** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |
|  | **159\_5** | Frozen Cell Pellet, 1.0E7 cell count | Pending for Distribution |

27 The request for drop-down should list following specimens.

|  |  |
| --- | --- |
| **Ordered Specimen** | **Requested Specimen** |
| **158\_1** | **158\_1** |
| **158\_2** | **158\_2** |
| **158\_3** | **158\_3** |
| **158\_4** | **158\_4** |
| **158\_5** | **158\_5** |
| **159\_1** | **159\_1** |
| **159\_2** | **159\_2** |
| **159\_3** | **159\_3** |
| **159\_4** | **159\_4** |
| **159\_5** | **159\_5** |

28 The request for drop-down should list following specimens

|  |  |
| --- | --- |
| **Ordered Specimen** | **Requested Specimen** |
| 158\_1 | 158\_1D |
| 158\_2 | 158\_2D |
| 158\_3 | 158\_3D |

33 The array request page should display following details.

|  |  |  |
| --- | --- | --- |
| **New Array** | **Array Name** | ***YWBrC\_706126*** |
| **Dimension** | **Dimension** | 10,10 |
| **Class** | **Class** | Molecular |
| **Type** | **Type** | ***Ley - Gold C 8x12*** |
| **Array Status** | **Array Status** | New |
| **Requested Specimen Details** |  | 162,163,164,165,166 |
| **Specimen Type, Available Quantity** | **162** | Molecular,10 |
|  | **163** | Molecular,10 |
|  | **164** | Molecular,10 |
|  | **165** | Molecular,10 |
|  | **166** | Molecular,10 |

34 The Add specimen array page should display following details.

|  |  |
| --- | --- |
| **Array Type** | ***Ley - Gold C 8x12*** |
| **Array Label** | ***YWBrC\_706126*** |
| **Specimen Class** | Molecular |
| **Specimen Type** | All molecular types |
| **Storage Position** | TSF1 Box2 |
| **Specimen Labels** | 162,163,164,165,166 |

37 The consent pops up should display consent statements as follows:

* Consented to their tissue samples being kept and used in research to learn about, prevent, or treat cancer.
* Consented to being contacted in the future to ask if he/she would like to take part in more research.
* Consented to their tissue samples being kept for use in research to learn about, prevent, or treat other health problem (for example: diabetes, Alzheimer's disease or heart disease)

39 Order status should be updated as “***Pending”***.

41 A message should be displayed as “Order successfully updated for ***Ellis\_Lab\_Request***”. A notification mail should be sent to the scientist and administrator.Distribution report and distribution item list should be displayed. Distribution report should display following details.

1. Distribution Identifier
2. Distribution Protocol
3. User
4. Date
5. Time
6. To Site
7. Comments

Distributed items should display specimen details such as Specimen label, specimen type, tissue side, tissue site and pathological status.

For the specimens marked distributed and closed, the activity status of specimens should be marked closed and storage location assigned should be freed up.

42 Distributed items section should display all the columns configured using Define View. The columns shown should be

Specimen label, specimen type, tissue side, tissue site, pathological status and protocol participant identifier. The order of columns should be same as specified while defining view.

43 DistributionReport.csv should open with following details as, the columns and order of columns should be same as specified during define view.

1. Distribution Protocol
2. User
3. Date
4. Time
5. To Site
6. Comments
7. Specimen label
8. Specimen type
9. Tissue side
10. Tissue site
11. Pathlogical Status

44 Clicking on save button of file download window, distribution report should be saved at selected location.

45 A message should be displayed as “Printed successfully”. Verify the cmd files generated at JBOSS-HOME/bin/print/printer. The .cmd file should show details as per the configured print.xlsx

46 Search for the distributed specimens that are 158\_1,158\_2,158\_3,158\_4,159\_1,159\_2,159\_3,165,166 and 159\_4.The available quantity of the distributed specimens should be Available qty-Distributed Qty. In case the available quantity is zero, specimen should be marked as not available.

47 The order ***Ellis\_Lab\_Request*** should beremoved from Order list.

**Verification Logic:**

1. Navigate to Order View. The created order should be displayed in Order list.
2. In CATISSUE\_AUDIT\_EVENT table new record should be entered with IP address equal to the IP address of the machine from which the action was performed and Event\_Timepstamp equal to the date on which the action was performed. Event Type should contain INSERT for catissue\_order.
3. In CATISSUE\_DATA\_AUDIT\_EVENT\_LOG table Object Name should contain catissue\_order. Object\_ID is the unique ID of the object inserted. Parent\_id will be null for the main object. Containment or reference type objects getting added will have a parent\_id equal to the ID of the main Object being inserted. This table refers to CATISSUE\_AUDIT\_EVENT\_LOG table which relates to the CATISSUE\_AUDIT\_EVENT table.
4. In CATISSUE\_AUDIT\_EVENT\_DETAILS table Element name contains the list of attributes that are in CATISSUE\_ORDER, CATISSUE\_EXISTING\_SP\_ORDER, CATISSUE\_NEW\_SP\_AR\_ORDER\_ITEM and CATISSUE\_DERIVED\_SP\_ORDER\_ITEM.ID of all the reference and containment association classes should also be audited.
5. In CATISSUE\_AUDIT\_EVENT table new record should be entered with IP address equal to the IP address of the machine from which the action was performed and Event\_Timepstamp equal to the date on which the action was performed. Event Type should contain INSERT for catissue\_distribution.
6. In CATISSUE\_DATA\_AUDIT\_EVENT\_LOG table Object Name should contain catissue\_order. Object\_ID is the unique ID of the object inserted. Parent\_id will be null for the main object. Containment or reference type objects getting added will have a parent\_id equal to the ID of the main Object being inserted. This table refers to CATISSUE\_AUDIT\_EVENT\_LOG table which relates to the CATISSUE\_AUDIT\_EVENT table.
7. In CATISSUE\_AUDIT\_EVENT\_DETAILS table Element name contains the list of attributes that are in CATISSUE\_DISTRIBUTION and.ID of all the reference and containment association classes should also be audited.
8. Refer the data model and audit metadata.xml to find out the classes with containment and reference association with the main class. All the classes and attributes should be audited in respective audit tables