



Icahn School
of Medicine at
**Mount
Sinai**

Mount Sinai Genetic Testing Laboratory-Connecticut
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DOCUMENT NUMBER:	MSGTL-CT-ACC-SOP-0002
DOCUMENT TITLE:	Sample Accessioning
DOCUMENT NOTES:	<p>This document outlines the process for sample accessioning. It includes sections for sample collection, documentation, and storage.</p> <p>1. Sample Collection: Samples are collected from various sources, such as patients or environmental samples. The type of sample (e.g., blood, tissue, fluid) and its source are documented.</p> <p>2. Documentation: A detailed record is kept for each sample, including:</p> <ul style="list-style-type: none">Sample ID: A unique identifier assigned to each sample.Collection Date: The date when the sample was taken.Collection Time: The time when the sample was taken.Collector: The name of the person who collected the sample.Specimen Type: The type of sample (e.g., blood, tissue, fluid).Source: The source of the sample (e.g., patient, environmental).Storage Conditions: Instructions for storing the sample, including temperature requirements and preservation methods. <p>3. Storage: Samples are stored in appropriate containers and refrigerators or freezers. Some samples may be sent to external laboratories for further testing.</p> <p>4. Disposal: Once testing is complete, samples are disposed of according to established protocols.</p>

Document Information

Revision: 05 Vault: MSGTL-CT-Accessioning-rel
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All dates and times are in Eastern Time Zone



1. MOST RECENT REVISION SUMMARY:

Revision Number	Section & Paragraph Affected	Summary of Changes as Compared to the Previous Version of the Document
05	<ul style="list-style-type: none"> • Images in Document <ul style="list-style-type: none"> • Section 6.8 	<ul style="list-style-type: none"> ○ Updated images for CORE build 0517 ○ Added section 6.8, Accessioning matrix vial. ○ Incorporated Illumina workflow into document

2. PURPOSE:

Proper collection, packaging, and transport of specimens are a crucial step in the completion of accurate and timely laboratory test results. All incoming samples entering the Mount Sinai Genetics Testing Laboratory - Connecticut (MSGTL-CT) must be checked for accuracy in specimen labeling and correct transport. All samples received by the laboratory for analysis must follow proper procedure from collection to reporting. This includes the receipt of specimens and the accessioning of specimens into the Laboratory Information Management System (LIMS).

3. SCOPE:

This procedure describes the accessioning of samples into the laboratory for testing by MSGTL-CT.

4. RESPONSIBILITIES:

MSGTL-CT accessioning and client service staff

5. DEFINITIONS:

CAS – Cassette Number, unique internal LIMS number

QNS- Quantity Not Sufficient for testing

SRT- Source Research Tube, unique internal LIMS number

SLD- Slide Number, unique internal LIMS number

SRP- Source Research Plate, unique internal LIMS number for 96 well plates

RPJ- Research Project, unique project name

RAR - Research Accession Record, main specimen demographics pages

RSM - Research Specimen Material, physical contents of a specimen

AIW – Accession Illumina Workflow sample/specimen

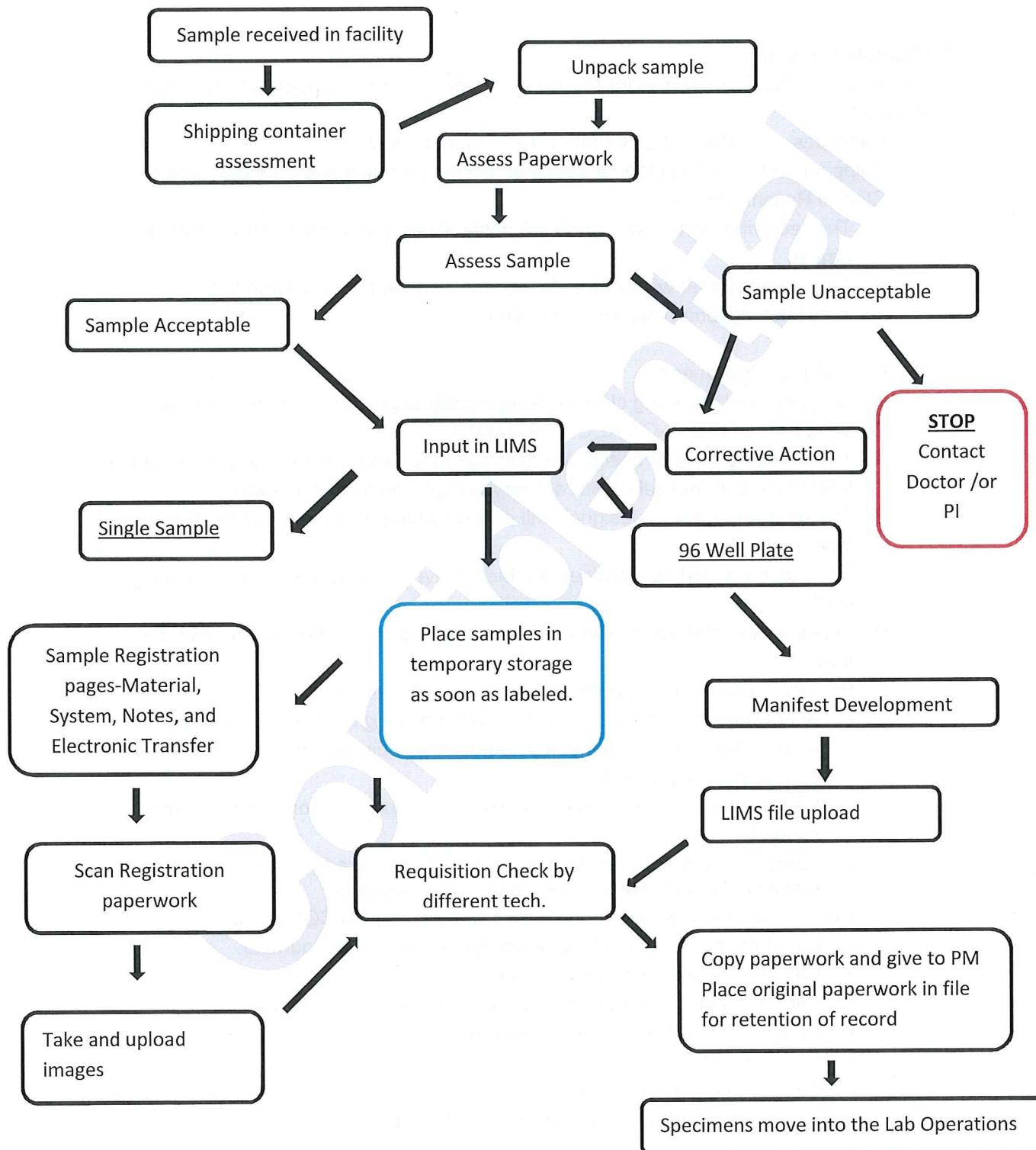
6. POLICY/PROCEDURE:

6.1 Work Flow



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6.2 Sample Receipt

Packages containing samples for testing are received from commercial transportation carriers.

Packages are delivered to the MSGTL-CT loading dock.

Shipping and receiving clerk or designee will sign for package from the carrier.

1. Clinical Patient Samples

- A. The receiving clerk or designee will notify accessioning staff of the specimen arrival.
- B. Accessioning staff will locate, pick-up and transport the package to the accessioning laboratory for processing.

2. Clinical Trial Specimens

The shipping and receiving clerk or designee will begin filling out form, Sample Tracking Form, MSGTL-CT-ACC-FORM-0013.

- A. The receiving clerk or designee will request the written name, signature, date and time of the commercial carrier delivery person and record on form.
- B. The receiving clerk or designee will provide written name, signature, date and time on the form.
- C. The receiving clerk or designee will then deliver the package to accessioning staff.
- D. Accessioning staff will provide written name, signature, date and time on the form.
- E. Packing Inspection – all findings are documented on the form
 - Accessioning staff will inspect the outer shipping container for damage.
 - Inspect the interior of the shipping package, observed the container for cracks, properly sealed lid.
 - Remove the temperate tracking device and download onto accessioning computer.
 - Assess the cold pack or dry ice. There should be adequate supply to maintain the shipping/transportation of the samples.
- F. The form will be scanned and attached to the project in CORE LIMS.
 - Using the quick search box, query the system project number.
 - Click the 'pencil' icon to edit the project.
 - Click the 'paperclip' icon, select 'File' from the dropdown menu.
 - Browse and select the correct document.
 - Select 'Load'.
 - The file will attach to the project.
- F. The hard copy of the form will be secured in the designated retention area.



3. Unpacking of samples
 - A. Using appropriate tools carefully open and remove the sample(s) and paperwork from the shipping material.
 - B. Stamp date and time of receipt on the sample requisition or sample manifest paperwork.
 - C. Frozen samples should be assessed immediately and placed in freezer.
 - D. Unpacking of samples
 - One at time, keeping all paperwork in order, for single sample kits received at room temperature (ambient temperature).
 - Sample packing that contains more than ten samples is processed in patches of ten at a time. Samples should be temporarily stored in the proper temperature storage conditions.
 - Specimens received on dry-ice should be removed from dry ice and sorted in a rack embedded in dry ice or removed in small batches of no more than 10 samples.
 - E. Inspect and assess the sample integrity.
 - Inspection of integrity includes, transport temperature is appropriate and specimen is received in the appropriate condition.
 - Vial, tube, slides or plates are not cracked, damaged, leaking, inappropriate color, properly labeled, and/or quantity is sufficient for testing. Refer to, Sample Receipt Criteria, MSGTL-CT-ACC-FORM-0007 for guidance.

6.3 Sample Processing

1. All samples received are entered into the LIMS computer system.
2. The laboratory integrates all proficiency testing samples within the routine accessioning workflow.

6.4 Sample assessment

1. Manually check each sample by assessing each individual character on the labeling and compare to the test requisition. The following are criteria used for initial sample assessment and the possible rejection of sample:
 - A. Sample improperly labeled as to the patient identity (unlabeled, unclear or mislabeled)
 - B. Improper collection container, improper preservative, improper anticoagulant, or incorrect specimen type or sample source, broken, cracked or damage slide, paraffin block, collection devices or plates.
 - C. Sample received without sample requisition/manifest or test order form is incomplete.
 - D. Illegible order or sample labeling.
 - E. Sample requisition not signed by authorized physician or genetic counselor.
 - F. Clinical trial samples should be de-identified prior to arrival in the laboratory. If a sample is received improperly, the sample is to be placed in the Hold location until the sample identity is resolved.
 - Hold log is used to track samples that need additional clarification before the sample is moved into the laboratory workflow,



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- The log is updated with status changes to the sample until the issue is resolved and documented on the log; refer to MSGTL-CT-ACCC-FORM-0012. The location of the sample is recorded in LIMS.
2. Sample receiving assessment and rejection criteria:
 - A. Sample volume inadequate (QNS) for analysis
 - B. Sample container has been damaged or broken in transit or an excessive delay in transport or improperly transported (i.e., not on ice when required).
 - C. Sample contaminated with biological material
 - D. Grossly hemolyzed
 - E. Sample age is outside of specimen requirement.
 - F. Plate not properly sealed.
 - G. Cracked or broken plate, slide or block.
 - H. Improperly filled plate.
 - I. Refer to Sample Receipt Guidelines procedure for additional items and procedural instructions.

If a sample is determined to be unacceptable, physician or primary investigator will be contacted and informed that a new sample is required, and noted in the LIMS system. If replacement sample cannot be recollected (irreplaceable sample), the requested analyses may be performed only with written approval of the ordering physician and a Laboratory Clinical Director. If the sample is not deemed irreplaceable, a patient report will be generated and distributed.

6.5 Electronic Orders

Metadata on clinical samples accessioned in Medgis are transferred to CORE LIMS via an interface.

1. Click 'Sample Accession' icon.
2. Page will display a list of samples that have been submitted through the electronic submission from Medgis. The Medgis to LIMS interface will create a SRT# and RAR#.
3. Locate the Medgis number of the patient sample received in the queue.
4. Click the RAR number to open the RAR record.
5. Update the RAR record by entering the appropriate project number, tracking number, panel request, select the appropriate consent button, and enter the ICD10 or diagnosis in the Clinical Indications fields on the Specimen tab of the accessioning form
6. Click the "Electronic Transfer" tab. Once the data that has been verified on each tab of the accession record, change the 'Reviewed Transfer' field from false to true.
7. Click 'Update'
8. Sample will be submitted to the laboratory workflow.
9. Perform requisition check paperwork as described in 6.6-11 of this procedure.



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Sample Registration Home Page

Accession New Sample	Batch Sample Registration	Accession Illumina Library	Batch Illumina Library Registration
Create New Source Plate	Create New Source Tube	Create New Slide	Create New Cassette
Electronic Submission Queue			

Printable View Export ▾						
Barcode	Specimen/Lab ID	Container	Test Codes	Receipt Date	Electronic Source	Medgis Number
RAR55059	1700175HO	SLD33	HOTSPOT1	03/09/2017 08:38:00	Medgis	C0000226
RAR55120	1700176BR	SRT6999	BRCA	04/03/2017 09:00:00	Medgis	C0000135
RAR55121	1700177BR	SRT7000	BRCA	04/05/2017 09:56:00	Medgis	C0000181
RAR55635	1700179BR	SRT8191	BRCA	10/10/2016 10:47:00	Medgis	C0000197
RAR55636	1700180BR	SRT8192	BRCA	10/10/2016 10:47:00	Medgis	C0000198
RAR55637	1700181BR	SLD287	BRCA	10/10/2016 10:47:00	Medgis	C0000199

Select

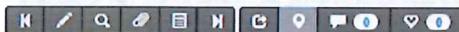


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Edit RESEARCH ACCESSION RECORD: [RAR55120](#)



Name:

RAR55120

Active:

Projects:*

General

[Subject](#) [Material](#) [System](#) [Notes](#) [Electronic Transfer](#) [Legacy](#)

Medgis #

C0000135

Shipment Tracking #

Specimen/Lab ID #*

1700176BR

Patient Gender*

Female

Ethnicity

Vietnamese, Other/ Mixed Caucasian

Subject DOB (MM/DD/YYYY)

[Cal](#) 04/20/1975

Patient Last Name

Chatella

Patient First Name

Ann

Clinical Indication

Consents to Research Use?

Yes No

Please note, this entity type supports versioning.

Associations

Mt Sinai Project: *

Select



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Name:

Active:

Projects: *

Subject Material System Notes

Electronic Source

Reviewed Transfer

Please note, this entity type supports versioning.

Associations

Mt Sinai Project: * --Select--

Panel: *

(Barcodechildonly)

Update

6.6 Manual Data Entry of Samples

1. Log-in to CORE LIMS
 - A. Launch 'Sample Registration'



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Sample Registration Home Page

The screenshot shows the 'Sample Registration Home Page' with a grid of buttons and a table below.

- Top Row:**
 - Accession New Sample
 - Batch Sample Registration
 - Accession Illumina Library
 - Batch Illumina Library Registration
- Second Row:**
 - Create New Source Plate
 - Create New Source Tube
 - Create New Slide
 - Create New Cassette
 - Create New Illumina Library Tube
 - Create New Matrix Plate
- Third Row:** Electronic Submission Queue (orange background)
- Table:**

Printable View	Export	Barcode	Specimen/Lab ID	Container	Test Codes	Receipt Date	Electronic Source	Medgs Number
		RAR55059	1700175HO	SLD33	HOTSPOT1	03/09/2017 08:38:00	Medgs	C0000226
		RAR55120	1700176BR	SRT6999	BRCA	04/03/2017 09:00:00	Medgs	C0000135

- B. Select 'Create New Source Tube' icon, if sample is not a histology sample
- C. If the sample type is histology, select 'Containers' from the sub-menu task bar, select the appropriate specimen container needed from drop-down menu, slide or cassette. Select 'Create' from the drop-down menu.
- D. Enter number of labels needed
- E. In the Print label box, select 'Yes'
- F. Select temporary storage location from the drop-down.
 - If Saliva, select incubator
 - If genomic DNA, select freezer
 - If other source, select appropriate location based on the sample condition when received.
- G. Click 'Create New', computer system will create a unique Source Research Tube (SRT) number, Slide number (SLD) or Cassette number (CAS).



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Create New SOURCE TUBE

How Many?:*

Print Labels?:*

 Yes

Projects?:*

 General

Location:

* indicates this is a mandatory attribute
** one at a time

Locations

- Mount Sinai (-36125)
 - Building 1
 - Rm 114; LC and Fragr
 - Rm 115; Post Library I
 - Rm 116; Pre Library P
 - Rm 117/117A; QC
 - Rm 118; Proton
 - Rm 119; Chef
 - Rm 120 & 121; Acces
 - Rm 123; Accessioning**
 - Frigidaire Fridge B
 - Incubator INC1
 - Whirlpool Freezer
 - Rm 124; Freezer Room
 - No Location (-36125)

2. Affix one of the labels to the sample requisition or manifest, and one to the sample(s).
3. Click the 'CORE' icon on the task bar
4. Click 'Sample Registration'
 - A. Select 'Accession New Sample' from main screen
 - B. Enter Medgis number, if available
 - C. Enter 'Shipment Tracking Number'
 - D. In the 'Specimen/Lab ID' field, type the specimen's Lab ID number or project number and local sample ID number.
 - E. Enter 'Gender', if none not given, select "None Provided"
 - F. Enter 'Ethnicity', if provided, if none leave blank
 - G. Enter Date of Birth, if provided, if none leave blank.
 - H. Enter patient last and first name
 - I. Enter reason for the Clinical indication or reason of testing, diagnosis or ICD number.
 - J. Click the appropriate button for content to research.
 - K. Enter 'Project' using the search button, click the search button on the query screen then select the project from the pop-up display.
 - L. Enter the 'Panel' using the search button, click the search button on the query screen then select the project from the pop-up display.



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Edit RESEARCH ACCESSION RECORD: **RAR55120**



Name:

RAR55120

Active:

Projects:*

General

[Subject](#) [Material](#) [System](#) [Notes](#) [Electronic Transfer](#) [Legacy](#)

Medgis #

C0000135

Shipment Tracking #

Specimen/Lab ID #*

1700176BR

Patient Gender*

Female

Ethnicity

Vietnamese, Other/ Mixed Caucasian

Subject DOB (MM/DD/YYYY)

[Cal](#) 04/20/1975

Patient Last Name

Chatella

Patient First Name

Ann

Clinical Indication

Consents to Research Use?

Yes No

Please note, this entity type supports versioning.

Associations

Mt Sinai Project: *

Select

5. Click 'Material' tab

- A. The Time/Date Received box will pre-populate with current time, adjust if needed.
- B. Enter physician's last and first name or primary investigator's last and first name
- C. Enter 'Sample type' from drop-down
- D. Enter Resulting output, DNA/RNA, select appropriate response from drop-down
- E. Enter 'Container Barcode' number, SRT#, SLD#, CAS# (use CAPITAL letters).
Multiple containers use a comma between each container number.



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- F. Enter Date and Time of sample collection. Use MM/DD/YY hh:mm AM/PM formatting.
- G. Enter Requisition/order number, if available
- H. Requisition check on the initial data entry is 'No'
- I. Select appropriate response for 'Visual Inspection'
- J. Select appropriate response for 'Contaminated or Damaged?'
- K. Select appropriate response for 'Specimen Rejection?'
- L. Assign 'Specimen Rejection Reason' from drop-down if applicable
- M. Enter sample source and origin.

The screenshot shows a web-based form for creating a new sample accession record. The form includes the following fields:

- Subject:** (dropdown menu)
- Date/Time Received***: MM/dd/yy hh:mm a [09/11/15 10:16 AM]
- Physician/PI Last Name:** (text input)
- Physician/PI First Name:** (text input)
- Sample Type***: Saliva (dropdown menu)
- Resulting Output***: DNA (dropdown menu)
- Container Barcode:** (text input)
- Date/Time of Collection***: MM/dd/yy hh:mm a []
- Source Tube Barcode:** (text input)
- Requisition Checked?***: Yes No
- Visual Inspection***: Yes No
- Contaminated or Damaged?***: Yes No
- Specimen Rejection Reason**: (dropdown menu) - None selected
- Sample Source/Origin**: (text input)
- Please note, this entity type supports versioning.**
- Mt Sinai Project ***: RESEARCH PROJECT (dropdown menu)
- Panel ***: (dropdown menu) - None selected
- (Barcode/childonly)**: (checkbox) - Selected
- * Indicates this is a mandatory attribute**
- Create New**: (button)

6. System tab does not need to be altered.
7. Click 'Notes' tab
 - A. If the sample is questionable or there is an unusual finding, enter brief comment in the 'Material Notes' field.



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- B. Enter the Test Code requested
- C. Enter the Tumor %, if needed
- D. Enter the Tumor Type, if provided, from the drop-down list.
- E. Enter any specific information related to specimen source.

- 8. Electronic transfer tab is used to tracking electronic transmissions, see section 6.5.
- 9. Legacy tab is not editable and is used to store legacy patient information only.
- 10. Click 'Create New' at the bottom of the page.
 - A. A summary of the accession record will display along with newly created accession record.
 - B. Navigate to the 'Specimen' bar and open the sample's accession number, place mouse arrow over the barcode number and print the barcode.
 - C. Place the barcode on the specimen requisition or manifest and on the sample(s).
 - D. Place the specimen in the appropriate rack for temporary storage and processing.

- 11. Paperwork
 - A. Scan all sample requisitions. Image will be stored as part of the RAR#, refer to section 6.8 of this procedure.
 - B. Capture an image of the specimen to include the source patient name or identification number, see section 6.9.
 - C. Perform requisition check, by a second tech. Requisition check should include the review of every field entered during the accessioning steps described above in 6.6-11. Every key stoke must be reviewed comparing the paper requisition to the data entered into LIMS.
 - D. Update the specimen's RAR using steps described in section 6.9 of this procedure.
 - E. Attach the specimen requisition and image to the RAR file.
 - F. The update of records should include the scan of the requisition and the image of the specimen.
 - G. Once all records are uploaded and the requisition check is performed, change the 'Requisition Check' from 'No' to 'Yes'. Click 'Update' at bottom of page.
 - H. All records are retained according to laboratory policy.

6.7 Data Entry of Specimens – 96-well, plate format

1. Log-in to Core Informatics LIMS
Launch 'Sample Registration'
 - A. Select 'Create New Plate' icon
 - B. Enter 1 in 'How Many'
 - C. In the Print label box, Select 'Yes'
 - D. Assign temporary storage location shelf.
 - E. Click 'Create New', computer system will create a unique Source Research Plate (SRP) number. Place the label on the plate being processed.



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Create New SOURCE PLATE

How Many?*

1

Print Labels?*

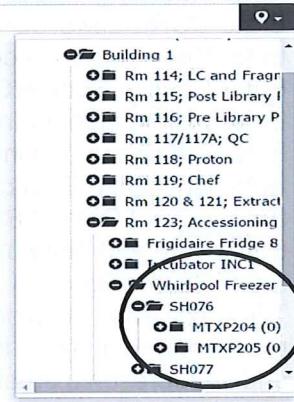
Yes

Projects:*

General

Location:

* Indicates this is a mandatory attribute
 ** one at a time



2. Shipping Manifest

A. Shipping Manifest – Excel

Institute Name	Name of Institute Shipping samples						
Study Name	Name of Project						
A	B	C	D	E	F	G	
Sinai Plate ID	Local ID (as shown in Pedigree File)	Well	Gender	Ethnicity	Comments		
D00010032	1092419608	A01	F	None		=CONCATENATE(A7,"_", C7)	

B. Open the supplied shipping manifest in Excel

- In column G cell 7 enter the formula =CONCATENATE (A7,"_", C7); copy the formula down the column.
- This number will now be the unique patient identifier



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- C. Open the master 'Bulk Sample' Excel file.
 - Enter Shipment tracking number in column B
 - Enter Date and Time of receipt in column C
 - Enter Mt Sinai Project name in column D
 - Enter Physician or PI last name in column E
 - Enter Physician or PI first name in column F
 - Enter Sample Type in column G
 - Enter test Panel in column H
 - Enter Resulting output in column I
 - Enter CORE LIMS Container number in column J
 - Enter Well number in column K
 - Enter Sample Source/Origin in column L
 - Enter patient Gender in column M
 - Enter Ethnicity in column N
 - Enter Specimen ID in column O
 - Enter patient Date of Birth in column P
 - Enter Date and Time of collection in column Q
 - Enter Source Barcode, if available, in column R
 - The next series of columns (S-Y) contain numbers that correlated to predefined responses in the LIMS system. '0' represents an answer of NO and '1' represents an answer of 'YES'. Answer all of the columns for each sample.
 - These columns are for Visual Inspection, Requisition Check, sample Contaminated or Damage, Specimen Reject status, consent to research, and which workflow the sample will be tested, Illumina or Ion Torrent.
 - Column Z is for comments.
 - Save the spreadsheet into the appropriate file using the following the naming convention of: plateID_date of receipt.txt
Example: D00009782_Feb0215.txt
 - Most of the data can be copied from one spreadsheet to the other.
 - All data must match with the formatting in LIMS.
3. Save the spreadsheet as a .txt (Tab delimited) file.
4. From the 'Sample Registration' page, select 'Batch Sample Registration'

RESEARCH ACCESSION RECORD Entity Loader

The entity file data loader will accept either a tab delimited text file (.txt) or Microsoft Excel file.
See help documentation or contact Core Customer Service for questions.

[Choose File](#) [Choose File](#)

Please note, this entity type supports versioning.

[Preview](#) [Upload](#)

- A. Click 'Choose file'. Select the newly created .txt file
- B. Click 'Upload'
- C. The computer system generates accession records, sample identifiers for all of the samples and plate mapping.
- D. Print the barcodes and attach to sample manifest.



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5. Paperwork

- A. Print sample submission form, and manifest excel spreadsheets (96-well plates), and scan. Image will be stored as SRP#
 - B. Capture an image of the plate to include the source name or identification number in the document.
 - C. Update the specimen's SRP#, by attaching the scanned sample submission form, manifest, and the plate image. Use the steps described in section 6.8 or this procedure.
 - D. All records are retained according to laboratory policy.

6.8 Sample Accessioning – Laboratory Supplied Matrix vial

1. The laboratory will supply CORE LIMS registered matrix vials to clients for the submission for library-pooled samples.
 2. A shipping manifest form will be supplied by MSGTL-NY and returned with each submission. The shipping manifest includes basic project, vial and batch number. In addition to the shipping manifest, MSGTL-NY will supply a sample run sheet that index barcode tags which provides details on the individual samples included in the batch. This information will be supplied on a separate spreadsheet.

- A. Example of shipping manifest. The shipping manifest is used for basic shipment details.

Project Name: CLIN_11644_NA Project LIMSID: EDE1773				Account:	Mount Sinai Genetic	Contact:	Lisa Edelmann	Man
Columns to be filled out. Red columns are required and blue columns are option but please fill in as much information as you have per sample.								
0	COLUMN HEADER	Plate Barcode	Tube Barcode	Well Position	NYGC Sample ID	Client Sample ID	Participant ID	Batch
1	Column descriptions	Matrix Tube Rack barcode	2D tube barcode	Tube position in Matrix Rack. Please do not rearrange tubes	New York Genome Center unique identifier	Your sample name (must be unique)	Your participant Name, does not need to be unique (ie. tumor/normal samples should have same ID)	Shipping Batch Number
2	MTR-03263	0215985762	A:1	DRKW339	B2862			B01
3	MTR-03263	0215981034	B:1	DLQM899	B2863			B01
4	MTR-03263	0209462061	C:1	DPLD056	B2864			B01
5	MTR-03263	0215982186	D:1	DLPV800	B2865			B01
6	MTR-03263	0215982548	E:1	DOVJ383	B2866			B01
7	MTR-03263	0215982558	F:1	DMGL408	B2867			B01
8	MTR-03263	0215984602	G:1	DPMB105	B2868			B01
9	MTR-03263	0215984118	H:1	DPIF669	B2869			B01
10	MTR-03263	0215984142	A:2	DRDQ201				B01
11	MTR-03263	0215984958	B:2	DTBT519				B01

- B. Example of Sample Run sheet. Each run consists of 29 samples and 1 negative control.



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[Header]														
EMFileVersion	4													
Date	3/21/2017													
Workflow	GenerateFASTQ													
Application	HiSeq FASTQ Only													
Assay	TruSeq HT													
Description	B2862													
Chemistry	Default													
[Reads]														
	101													
	101													
[Settings]														
ReverseComplement	0													
[Data]														
Lane	Sample_ID	Sample_Name	Sample_Plate	Sample_Well	I7_Index_ID	Index	I5_Index_ID	Index2	Sample_Project	Description	SampleRef	FCID	Operator	LoadingCond
1	1 17014353_10	MTR-03263	0215985762	A:1	TAAGGCGA		TAGATCGC		CUN_11644_B2862_NAN_Lane	2laner	Human_DNA			
1	2 17014066_10	MTR-03263	0215985762	A:1	TAAGGCGA		CTCTCTAT		CUN_11644_B2862_NAN_Lane	2laner	Human_DNA			
1	3 17014273_10	MTR-03263	0215985762	A:1	TAAGGCGA		TATCCCT		CUN_11644_B2862_NAN_Lane	2laner	Human_DNA			
1	4 17014259_10	MTR-03263	0215985762	A:1	TAAGGCGA		AGAGTAGA		CUN_11644_B2862_NAN_Lane	2laner	Human_DNA			
1	5 17014308_10	MTR-03263	0215985762	A:1	TAAGGCGA		GTAAGGAG		CUN_11644_B2862_NAN_Lane	2laner	Human DNA			

3. Open the spreadsheets
 - A. Open the electronic supplied shipping manifest, Illumina Spreadsheet.csv and visually compare to the submitted documentation.
 - B. Open the Carrier SS upload master spreadsheet.
 - C. Open the upload spreadsheet, Illumina Upload Spreadsheet located on the J drive.
 - The spreadsheet includes two sheets, Illumina SSP wBC Index and Simplified Upload SS.
 - With both spreadsheets open, copy the desired contents of the Illumina Spreadsheet.csv. Note: Total run is 30 samples, manifest will contain duplicates, only copy the first 30 samples.
 - Open the Illumina Upload Spreadsheet, paste the contents onto the sheet labeled Illumina SSP wBC Index page (sheet 1).
 - Information from sheet 1 is transferred to Simplified Upload SS, sheet 2, and configured to meet the upload requirements for CORE LIMS.
 - Copy the Simplified Upload SS and paste into the Carrier SS upload sheet.
 - Fill the spreadsheet columns with appropriate information.
 - Enter the shipment tracking number in column B
 - Enter the date of shipment in column C
 - Enter the date of receipt in column D
 - Enter the MSGTL-CT project number in column E
 - Enter the test panel name in column F
 - Enter the collection site in column G, if unknown enter unknown
 - Enter date of collection in column H
 - Enter sample type in column I
 - Enter the resulting output in column J, either DNA or RNA
 - Enter the container well position in column K
 - Enter the container barcode in column L
 - Enter the patient identifier in column M
 - Enter the submitted index barcodes using an underscore between the two indexes in column N
 - Enter the sample source or origin in column O
 - Enter the project name in column P



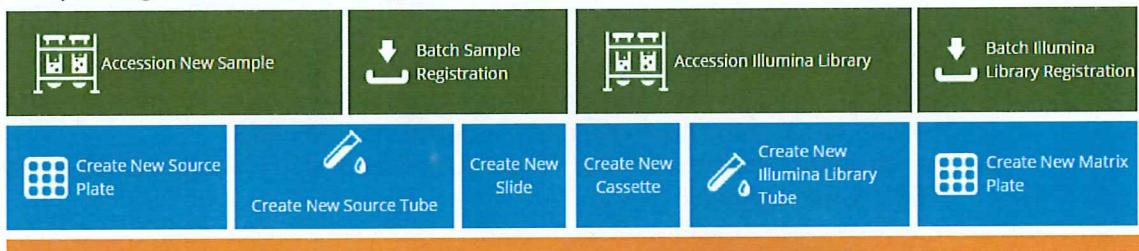
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- The next series of columns (Q-U) contain numbers that correlate to predefined responses in the LIMS system. '0' represents an answer of NO and '1' represents an answer of YES'. Answer all of the columns for each sample.
- These columns are for visual inspection, requisition check, sample contaminated or damaged, specimen reject status, consent to research, and which workflow the sample will be tested, Illumina or Ion Torrent.
- Enter sample comments in column V.
- Save the Carrier SS upload sheet as a .txt (tab delimited) using the date and matrix vial number.

D. Upload the spreadsheet using the bulk upload feature in CORE LIMS

Sample Registration Home Page



- From Sample Registration main page, navigate to the 'Batch Illumina Library Registration' gadget.
- The batch identity page will display, select desired file from the folder and click upload.
- CORE LIMS will assign, RAR, RSM, RSM-#, and AIW.

6.9 Accession Record Updating- Single Sample/Record

1. Each sample's accession record needs to be edited to complete the record.
 - A. Locate the RAR of the patient sample using search criteria or quick search box.



- B. Click on the RAR hyperlink to open the record.
- C. Click on the 'Edit' icon from the task bar.



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Name: RAR9194

Active:

Projects: General

Date/Time Received*: MM/dd/yy hh:mm a 07/08/15 08:00 AM

Physician/PI Last Name*: Dr. Erwin P. Bottlinger

Physician/PI First Name:

Sample Type*

- D. On the 'Materials' tab
- E. Select 'Material Image' upload button. Upload the image of the sample.
- F. Select 'Submission form' upload button. Upload the sample submission form.
- G. Perform requisition check of all data entered into the LIMS.
- H. On the 'Materials' tab, click the 'Requisition Checked?' Change default answer to 'YES'. Click 'Update'.

Requisition Checked? Yes No

Visual Inspection* Yes No

Contaminated or Damaged?* Yes No

Specimen Rejection* Yes No

Material Image [edit](#)

Submission Form [upload](#)

6.10 Accession Record Updating – 96well Batch Upload

- A. Locate the SPR using search criteria or quick search box
- B. Click on the SPR hyperlink to open the record.
- C. Click on the 'File' icon from the task bar.



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SOURCE PLATE Details: SRP180

A screenshot of a software interface for sample accessioning. At the top, there is a toolbar with various icons. One icon, which looks like a file with a plus sign, is circled in red. Below the toolbar is a 12x8 grid representing a 96-well plate. The columns are numbered 1 through 12, and the rows are labeled A through H. Each well contains a small blue circular icon. To the right of the grid, there is some descriptive text about the barcode and location.

Barcode: SRP180 | Location: Mount Sinai, Building 1, Rm 123; Accessioning Lab, Whirlpool Freezer 8

	1	2	3	4	5	6	7	8	9	10	11	12
A	●	●	●	●	●	●	●	●	●	●	●	●
B	●	●	●	●	●	●	●	●	●	●	●	●
C	●	●	●	●	●	●	●	●	●	●	●	●
D	●	●	●	●	●	●	●	●	●	●	●	●
E	●	●	●	●	●	●	●	●	●	●	●	●
F	●	●	●	●	●	●	●	●	●	●	●	●
G	●	●	●	●	●	●	●	●	●	●	●	●
H	●	●	●	●	●	●	●	●	●	●	●	●

SRP180 Files: SRP180

A screenshot of a software interface for sample accessioning. At the top, there is a toolbar with various icons. One icon, which looks like a file with a plus sign, is circled in red. Below the toolbar is a file input field with the placeholder text "FILE". Below the input field is a red "Submit" button.

There are currently no files associated with this Source Plate in the SDMS.

Type:

FILE

Submit

- D. From the drop down select 'File', click 'Submit'
- E. Locate file to be associated with the plate, click 'Upload'
- F. From the dropdown select 'Image', click 'Submit'.
- G. Locate the plate image file, click 'Upload'.

6.11 Perform sample submission requisition check- 96well Bulk upload.

- A. Open up the excel spreadsheet "Comparing" located on the shared drive, Client Services folder.
- B. Open up the sample manifest used during the accession/upload into LIMS.
- C. Copy spreadsheet and paste it into 'Sheet1' of the "Comparing" spreadsheet.
- D. Open up the output file that was downloaded from LIMS. Click 'All' on report.



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RESEARCH ACCESSION RECORD List

Subject	Material	System	Notes	All	#	Name	Barcode	Project	Medgs #	Shipment/Lab ID#	Date/Time Receive	Physician/PJ Last N	Physician/PJ First N	Sample Type	Resulting Output	Container Barcode	Well Position	Patient Gender	Ethnicity	Subj	
					11464	RAR11464	RAR11464	General		1Z 8E4 8Y1 ...	TestingValid1	07/08/15 8:...	Turcotte	Cynthia	Saliva	DNA	SRP180	A01	Male	Hispanic Lat... ...	
					11465	RAR11465	RAR11465	General		1Z 8E4 8Y1 ...	TestingValid2	07/08/15 8:...	Turcotte	Cynthia	Genomic DNA	DNA	SRP180	B01	Female	Hispanic Lat... ...	
					11466	RAR11466	RAR11466	General		1Z 8E4 8Y1 ...	TestingValid3	07/08/15 8:...	Turcotte	Cynthia	FFPB	DNA	SRP180	C01	Female	Hispanic Lat... ...	
					11467	RAR11467	RAR11467	General		1Z 8E4 8Y1 ...	TestingValid4	07/08/15 8:...	Turcotte	Cynthia	Library	DNA	SRP180	D01	Female	African-Ame... ...	
					11468	RAR11468	RAR11468	General		1Z 8E4 8Y1 ...	TestingValid5	07/08/15 8:...	Turcotte	Cynthia	Tissue	RNA	SRP180	E01	Female	African-Ame... ...	
					11469	RAR11469	RAR11469	General		1Z 8E4 8Y1 ...	TestingValid6	07/08/15 8:...	Turcotte	Cynthia	Tissue-Block	RNA	SRP180	F01	Female	Caucasian /	
					11470	RAR11470	RAR11470	General		1Z 8E4 8Y1 ...	TestingValid7	07/08/15 8:...	Turcotte	Cynthia	Whole Blood	DNA	SRP180	G01	Female	Caucasian /	
					11471	RAR11471	RAR11471	General		1Z 8E4 8Y1 ...	TestingValid8	07/08/15 8:...	Turcotte	Cynthia	Saliva	DNA	SRP180	H01	Male	African-Ame... ...	
					11472	RAR11472	RAR11472	General		1Z 8E4 8Y1 ...	TestingValid9	07/08/15 8:...	Turcotte	Cynthia	Genomic DNA	DNA	SRP180	A02	Male	Caucasian /	
					11473	RAR11473	RAR11473	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	FFPB	DNA	SRP180	B02	Female	Caucasian /	
					11474	RAR11474	RAR11474	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Library	DNA	SRP180	C02	Female	Caucasian /	
					11475	RAR11475	RAR11475	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Tissue	DNA	SRP180	D02	Male	East or Sout... ...	
					11476	RAR11476	RAR11476	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Tissue-Block	DNA	SRP180	E02	Female	Hispanic Lat... ...	
					11477	RAR11477	RAR11477	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Whole Blood	DNA	SRP180	F02	Female	Hispanic Lat... ...	
					11478	RAR11478	RAR11478	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Saliva	RNA	SRP180	G02	Male	African-Ame... ...	
					11479	RAR11479	RAR11479	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Genomic DNA	RNA	SRP180	H02	Male	Caucasian /	
					11480	RAR11480	RAR11480	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	FFPB	DNA	SRP180	A03	Female	South Asian... ...	
					11481	RAR11481	RAR11481	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Library	DNA	SRP180	B03	Female	East or Sout... ...	
					11482	RAR11482	RAR11482	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Tissue	DNA	SRP180	C03	Male	East or Sout... ...	
					11483	RAR11483	RAR11483	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Tissue-Block	DNA	SRP180	D03	Male	Hispanic Lat... ...	
					11484	RAR11484	RAR11484	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Whole Blood	DNA	SRP180	E03	Male	African-Ame... ...	
					11485	RAR11485	RAR11485	General		1Z 8E4 8Y1 ...	TestingValid...	07/08/15 8:...	Turcotte	Cynthia	Saliva	DNA	SRP180	F03	Female	Caucasian /	

*LIMS display after 96 well plate upload and all information is requested.

E. Click 'Export' -> 'Export All'

RESEARCH ACCESSION RECORD List

Subject	Material	System	Notes	All	#	Name	Barcode	Project	Medgs #
					11464	RAR11464	RAR11464	General	
					11465	RAR11465	RAR11465	General	
					11466	RAR11466	RAR11466	General	
					11467	RAR11467	RAR11467	General	
					11468	RAR11468	RAR11468	General	
					11469	RAR11469	RAR11469	General	
					11470	RAR11470	RAR11470	General	
					11471	RAR11471	RAR11471	General	
					11472	RAR11472	RAR11472	General	

- F. Reorganize the columns in the spreadsheet. Columns must be in the same order as the uploaded file.
- G. Copy/paste the spreadsheet into 'Sheet2' of the "Comparing" spreadsheet.
- H. If any of the values are displayed as binary coding, such as "1" and/or "0" in the uploaded spreadsheet and "true" and/or "false" in the LIMS export, use the 'Find and Replace' option to adjust the "true's" to "1's" and the "false's" to "0's"
- I. Return to 'Sheet1' of the "Comparing" spreadsheet and click the button "Compare".



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Sheet 1

A	B	C	D	E	F	G	H	I	J	K	L	M	N
ci_clin_ShipmentTrac	ci_clin_DateOfReceipt	MTSINAI_PROJECT	ci_clin_Collector	ci_clin_Collect	ci_clin_Sample	ci_clin_Results	ci_ngs_container	ci_ngs_containerWell	ci_clin_PatientGender	ci_clin_Ethnicity	ci_clin_PatientIdentif	ci_clin_SubjectDOI	ci_clin_DateOf
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte	Compare	Saliva	DNA	SRP180	A01	Male	Hispanic/Lat	TestingValid1		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Genomic DNA	DNA	SRP180	B01	Female	Hispanic/Lat	TestingValid2		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		FFPB	DNA	SRP180	C01	Female	Hispanic/Lat	TestingValid3		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Cynthia	Library	SRP180	D01	Female	African-Am	TestingValid4		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Cynthia	Tissue	SRP180	E01	Female	African-Am	TestingValid5		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Cynthia	Tissue-Block	SRP180	F01	Female	Caucasian	TestingValid6		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Cynthia	Whole Blood	SRP180	G01	Female	Caucasian	TestingValid7		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Cynthia	Saliva	SRP180	H01	Male	African-Am	TestingValid8		1/1/00 12
Z BE4 BY1 15 2222 Tes	7/8/15 8:00 AM	PJ24 New Project	Turcotte		Cynthia	Genomic DNA	SRP180	A02	Male	Caucasian	TestingValid9		1/1/00 12

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Shipment Tracking #	Date/Time Received	MTSINAI_PROJECT	Physician/PI	Last Name	Physician Sample	Resulting Container	Well Pos	Patient ID	C Ethnicity	Specimen Lab ID #	Subject ID	Date/Time of C Source	Requisition		
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Saliva	DNA	SRP180	A01	Male	Hispanic TestingValid1	01/01/00 12:0	0			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Genomic DNA	DNA	SRP180	B01	Female	Hispanic TestingValid2	01/01/00 12:0	0			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	FFPB	DNA	SRP180	C01	Female	Hispanic TestingValid3	01/01/00 12:0	0			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Library	DNA	SRP180	D01	Female	African-/TestingValid4	01/01/00 12:0	1			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Tissue	RNA	SRP180	E01	Female	African-/TestingValid5	01/01/00 12:0	0			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Tissue-B RNA	RNA	SRP180	F01	Female	Caucasian TestingValid6	01/01/00 12:0	1			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Whole B DNA	DNA	SRP180	G01	Female	Caucasian TestingValid7	01/01/00 12:0	1			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Saliva	DNA	SRP180	H01	Male	African-/TestingValid8	01/01/00 12:0	0			
Z BE4 BY1 15 2222 Test	07/08/15 8:00 am	RPJ24 New Project	Turcotte	Cynthia	Genomic DNA	DNA	SRP180	A02	Male	Caucasian TestingValid9	01/01/00 12:0	0			

Sheet 2

- J. The comparison spreadsheet will display, showing any differences between the two spreadsheets.
- K. If no data is displayed both of the spreadsheets being compared have the same values. If there is a difference between the spreadsheets, the new spreadsheet will show both values alerting you of the difference.
- L. If a particular value is displaying as being different but the values are the same, it most likely differs in capitalization of one or more letters or an extra space. In the latter case, a quick use of the trim function should fix it.
- M. If a particular value is truly different, investigate the problem immediately.
- N. If the values are different, do not allow the plate to move forward for testing. Determine the cause of the problem in LIMS. If issue is a single sample, edit that sample in LIMS. If the issue is the entire plate, the plate MUST be re-accessioned. All of RSM# and RAR# must be inactivated with comments to reason for inactivating. Additionally, a Non-Conformity form must be completed, for any sample that is uploaded incorrectly.

7. EXCEPTIONS:

N/A

8. ATTACHMENTS:

1. MSGTL-CT-ACC-FORM-0006: Sample Submission form
2. MSGTL-CT-ACC-FORM-0007: Sample Acceptance criteria

9. REFERENCES:

1. CAP – GEN.40700, GEN.40725, GEN.40750, GEN.40932, GEN.40491, GEN.40900, COM.0600
2. 10 NYCRR Subpart 58-1.7(a)&(b), 10 NYCRR Subpart 59-1.7(b)(1), 10 NYCRR 58-1.10, 10 NYCRR Subpart 58-1.10(e), 10 NYCRR 58-1.2(c)



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10. DOCUMENT HISTORY:

Revision Number	Section & Paragraph Affected	Summary of Changes as Compared to the Previous Version of the Document
01	• Entire Document	<ul style="list-style-type: none"> ○ First Version of Procedure
02	• Images in Document	<ul style="list-style-type: none"> ○ Updated images and corresponding descriptions
03	<ul style="list-style-type: none"> • Images in Document • Sections 6.2, 6.31, 6.41, 6.45, 6.46 	<ul style="list-style-type: none"> ○ Updated images and descriptions to Sample Accessioning page. Update to batch sample spreadsheet. ○ Add specimen types of Slide and Cassette to sections 6.2, 6.31, 6.41, 6.45, 6.46. Updated container creation image
04	<ul style="list-style-type: none"> • Images in Document • Section 6.4 	<ul style="list-style-type: none"> ○ Updated images for CORE build 01016 ○ Added section 6.4, Electronic orders.

Prepared By: Lisa Kreuser

Date: 17May2017

Signature Manifest

Document Number: MSGTL-CT-ACC-SOP-0002**Revision:** 05**Title:** Sample Accessioning

All dates and times are in Eastern Time Zone.

Sample Accessioning

Change Request

Name/Signature	Title	Date	Meaning/Reason
Justin Schlauder (SCHLAJ01)	Quality Monitor Analyst		
Michael Giordano (GIORDM02)	Laboratory QA Manager	23 May 2017, 02:06:45 PM	Approved

Clinical Lab Director/Designee

Name/Signature	Title	Date	Meaning/Reason
Jun Liao (LIAOJ02)	ASSOCIATE DIRECTOR		
Ruth Kornreich (KORNRR01)	DIVISION HEAD		
Lisa Edelmann (EDELML02)	EXECUTIVE DIRECTOR		
Martin Powers (POWERM01)	Division Head	24 May 2017, 10:43:39 AM	Approved

QA Approval

Name/Signature	Title	Date	Meaning/Reason
Michael Giordano (GIORDM02)	Laboratory QA Manager	24 May 2017, 10:53:35 AM	Approved

Department Head Approval/Set Effective Date

Name/Signature	Title	Date	Meaning/Reason
Cynthia Turcotte (TURCOC02)	DIRECTOR OF PROGRAM MANAGEMENT	24 May 2017, 11:11:56 AM	Approved

