

Freezer Web Access Working with samples



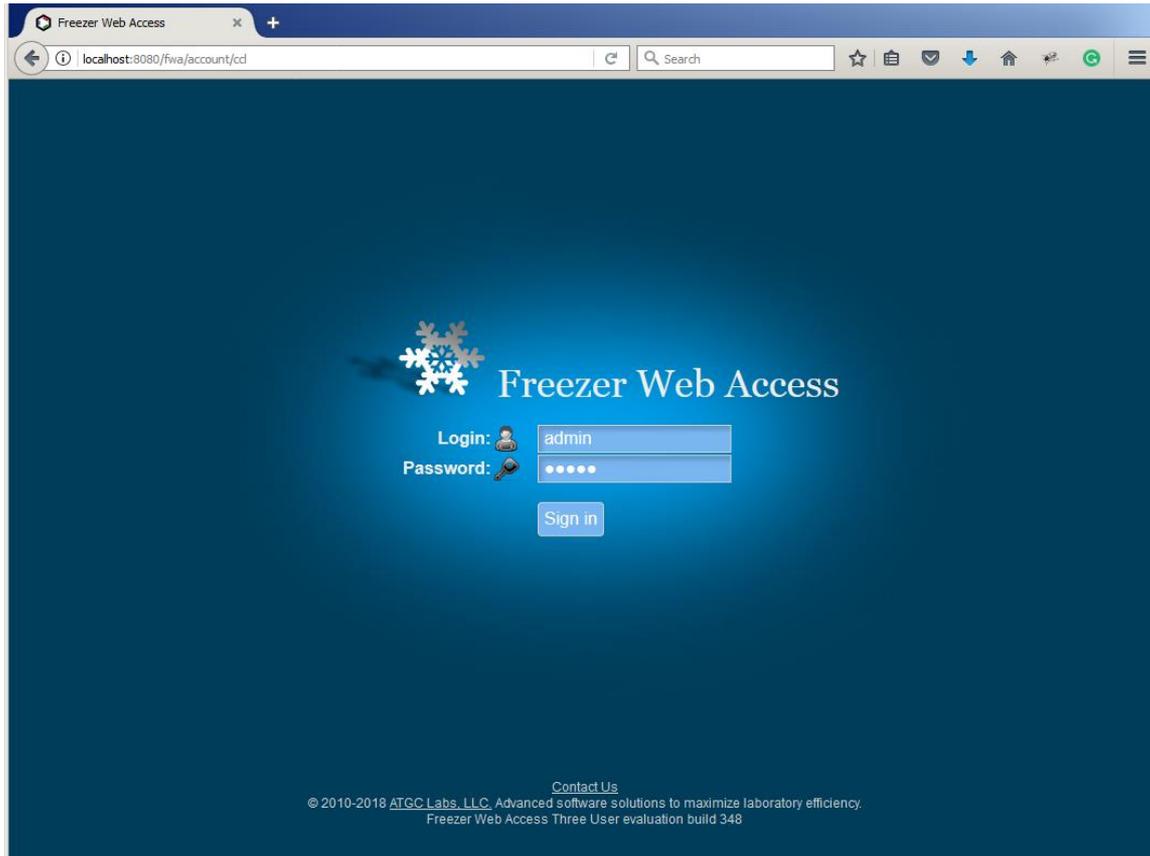
Scenario #1: Adding new samples

A technician in the lab freezes twelve aliquots from cell line A, puts them in the first row of a box (e.g.8x12), and scans the box. She then names the box "Box1".

She annotates these new samples with all the metadata into a form-like environment of Freezer Web Access.

She also tells the system where she is putting this box (freezer and rack).

The Freezer Web Access system automatically adds this information to the samples as well, and updates the "Freezer" section (where one can visually look for samples, to find a new box in the designated freezer and rack named "Box1").



When logging in for the first time, login name and password for the default administrator login are both **admin**.

Freezer Web Access

localhost:8080/fwa/batches?type=3&menuPage=0

Freezer Web Access Demo Site Dashboard Requests & QC Cell Culture Configuration Help Sign Out

Calendar Add Batch Add Samples **Batches** Freezers Kits Search Removal Logs More Barcode or Terms

Track cell line lineage [Show/Hide columns](#)

Select Batch

	Project	Catalog Numb	Batch	Parent Batch	QC Requir	Sample Type	Technician	Date	Documen	Total Vial	Remainin	Shipped
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	All	All	All	<input type="text"/>				
1	Kir2.1-CHO	CT4127	1177		No	Customer Cell	Admin	2013-03-10 18	0	64	63	1
2	Bombesin 2 (G	A694	1506	869	No	Customer Cell	Admin	2013-03-10 18	0	120	108	12
3	Bombesin 2 (G	A694	869		No	Customer Cell	Admin	2013-03-10 17	0	40	40	0
4	Nicotinic a3/b4	CT4021	1150		No	Customer Cell	Admin	2013-03-10 17	0	100	0	100

View + Add Edit Reset Vials Transfer Alerts Notifications Documents Tree Validation Export Barcodes View 1 - 4 of 4

[Conditions of Use](#) [Privacy Policy](#) [Contact Us](#)
 © 2010-2018 ATGC Labs, LLC. Advanced software solutions to maximize laboratory efficiency.
 Freezer Web Access Three User evaluation build 348

You are redirected to the Batches tab after logging in.

Freezer Web Access Demo Site Dashboard Requests & QC Cell Culture Configuration Help Sign Out

Calendar **Add Batch** Add Samples Batches Freezers Kits Search Removal Logs More Barcode, Terms or Box

Fill out Batch Information

Project * Start typing, the program will autocomplete the field

Catalog Number *

Batch * An incremented value for the last numeric Batch

Parent Batch

QC Required

Attach File

Sample Type *

Private

Volume **Unit of measurement**

Threshold **Expiration date**

Fields marked with (*) are required

Import unique sample ID

Upload Excel spreadsheet or text file from 2D barcode scanner

and select a box in Select Container section

File format:
 Rack: comment in the first line
 A01,01234567
 B01,01234568
 C01,No Tube

Samples may be added in a sample by sample manner or in batches (in cases where there are numerous identical samples). Perform the steps below to submit a new sample batch. Open the Add Batch tab.

Freezer Web Access

localhost:8080/fwa/samplesbatch?type=1&menuPage=0

Freezer Web Access Demo Site Dashboard Requests & QC Cell Culture Configuration Help Sign Out

Calendar Add Batch Add Samples Batches Freezers Kits Search Removal Logs More Barcode, Terms or Box

Fill out Batch Information

Project * Kir2.1-CHO Start typing, the program will autocomplete the field

Catalog Number * CT4127

Batch * 1178 An incremented value for the last numeric Batch

Parent Batch

QC Required No

Attach File

Sample Type * Customer Cell Lines

Freeze date 2018-12-15

Final Passage number

Target Family CNG Target Family

Detachment Solution

Freezing Media

IC Validation Barracuda FLIPR Manual None PatchX QPatch Quattro

GPCR Validation Binding Calcium cAMP CNG None

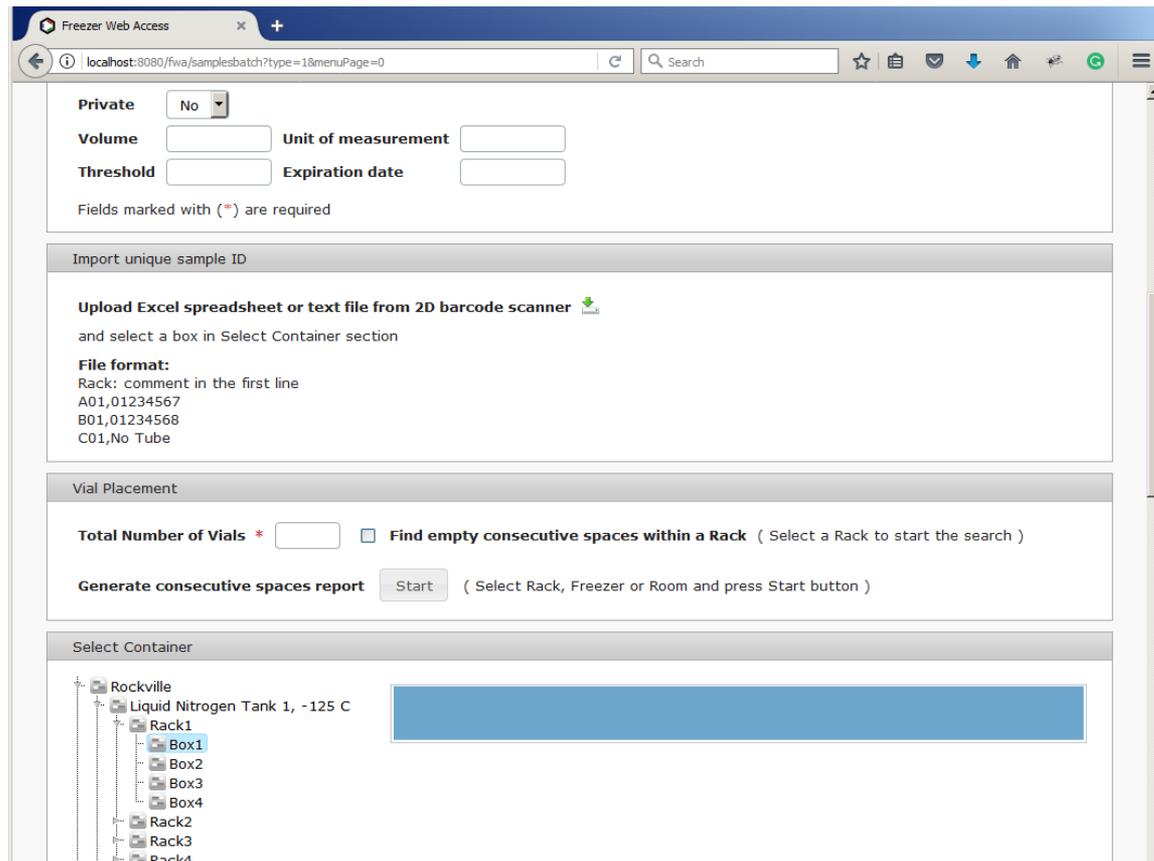
Parental Cell Line 1321N1 CHO CHO-T(Rex) HEK HEK-T(Rex) RH7777

Vector

Private No

Volume Unit of measurement

In Fill out Batch Information section, type in Cell Line/Project, Catalog Number, Batch, Parent Batch, if present, and select a Sample Type. Fill out custom fields.

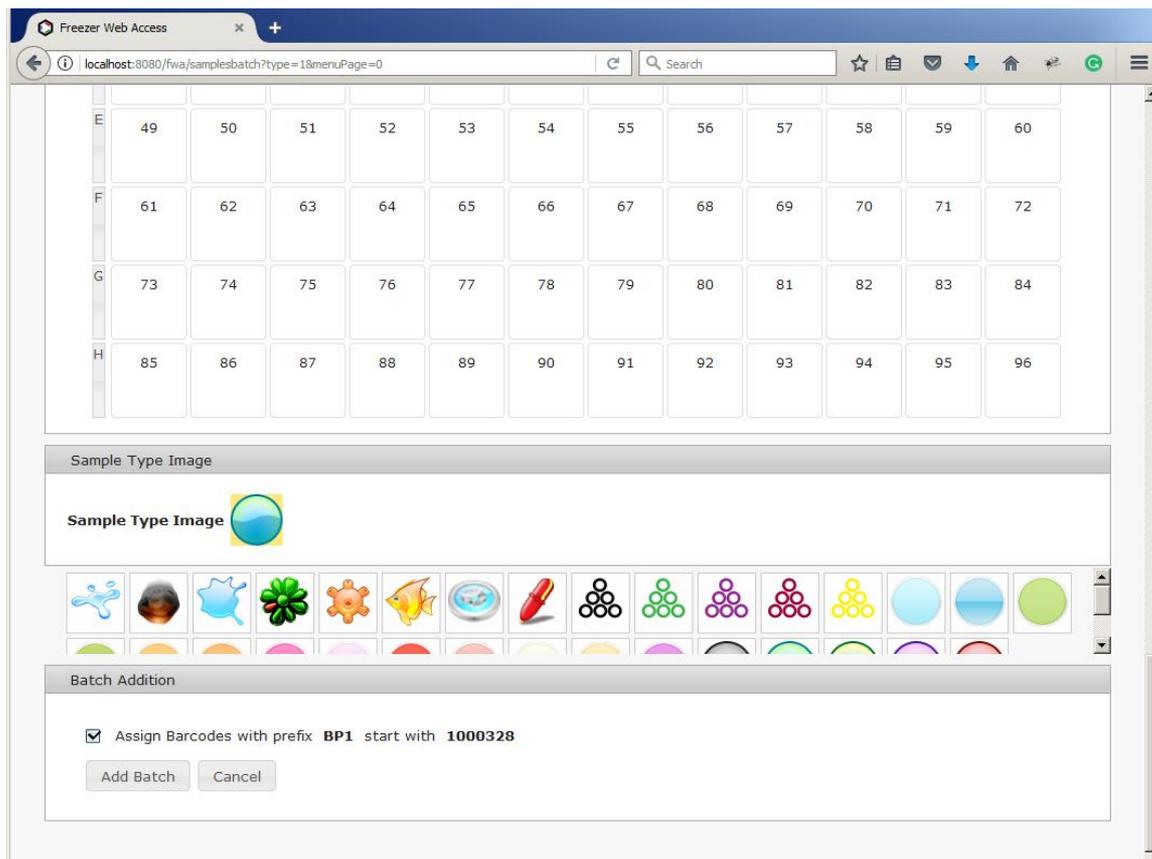


Upload a text file from 2D barcode scanner in Import 2D barcode section. In the Select Container section navigate a freezer, open a rack and select a box or a plate.

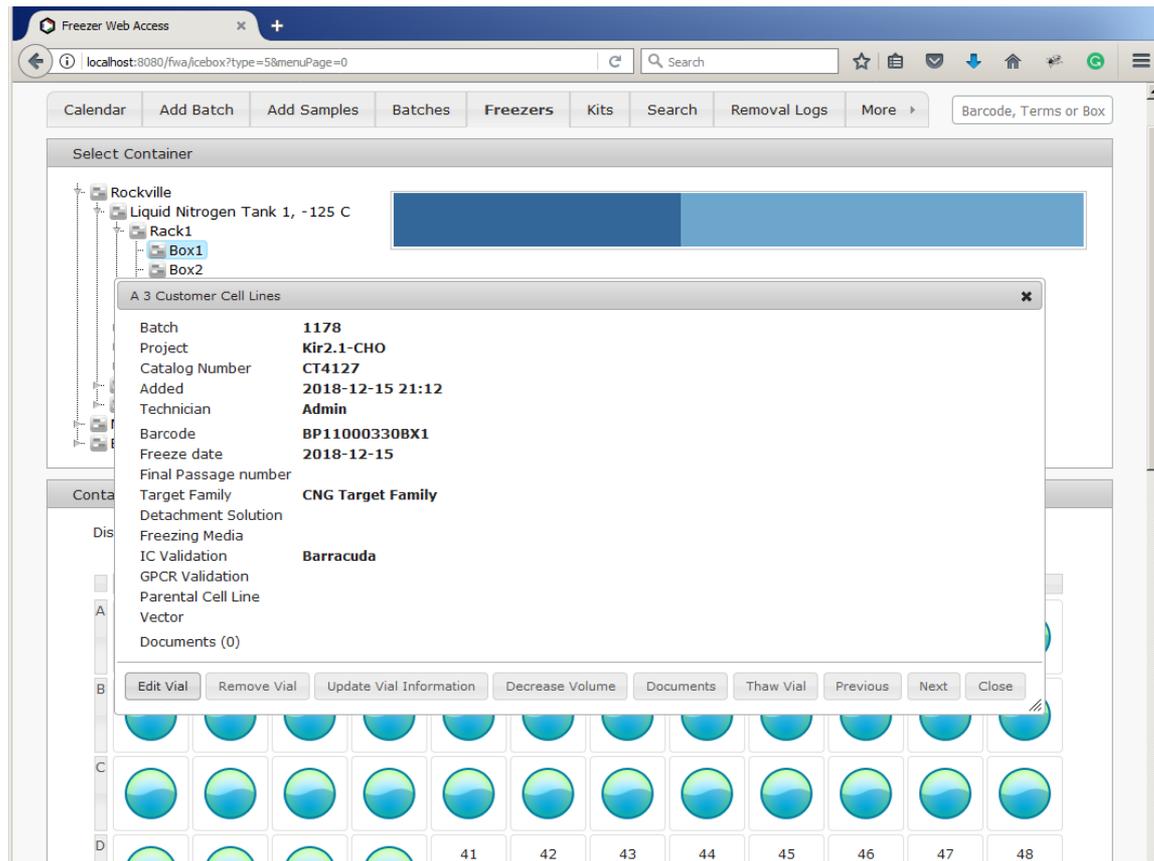
The screenshot displays the 'Freezer Web Access' interface in a browser window. The address bar shows 'localhost:8080/fwa/samplesbatch?type=1&menuPage=0'. The main content area is divided into three sections:

- Vial Placement:** Contains a form with 'Total Number of Vials *' set to 40 and a checkbox for 'Find empty consecutive spaces within a Rack'. Below this is a 'Generate consecutive spaces report' section with a 'Start' button and a list of generated reports: 'Box1->Rack1->Liquid Nitrogen Tank 1, -125 C->Rockville', 'Box2->Rack1->Liquid Nitrogen Tank 1, -125 C->Rockville', 'Box3->Rack1->Liquid Nitrogen Tank 1, -125 C->Rockville', and 'Box4->Rack1->Liquid Nitrogen Tank 1, -125 C->Rockville'.
- Select Container:** Features a tree view on the left with 'Rockville' selected, and a corresponding bar chart on the right showing the status of various racks and tanks.
- Select Location in the Box:** An empty input field.
- Sample Type Image:** A section with a 'Sample Type Image' label and a small globe icon.

The system can generate consecutive spaces report. In Select Container section, select a rack or a freezer. In Vial Placement section press the Start button. The system finds empty boxes or plates.



Scroll down the page. In the Sample Type Image section use predefined Sample Type image or select another image. In Batch Addition section, press Add Batch button.

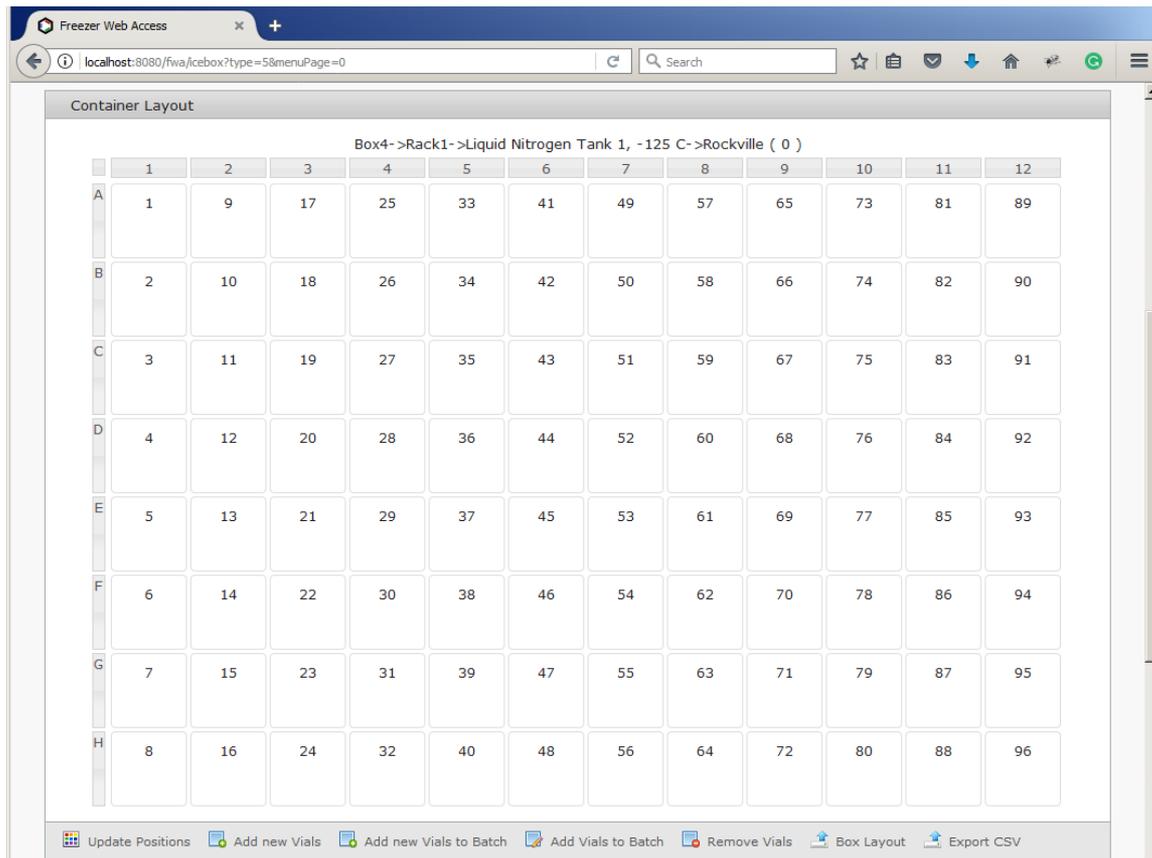


Open the Freezers tab. The system added samples. Select a vial with the mouse click. Move or resize Sample Information window to let you view different vials as you select vials with the mouse.

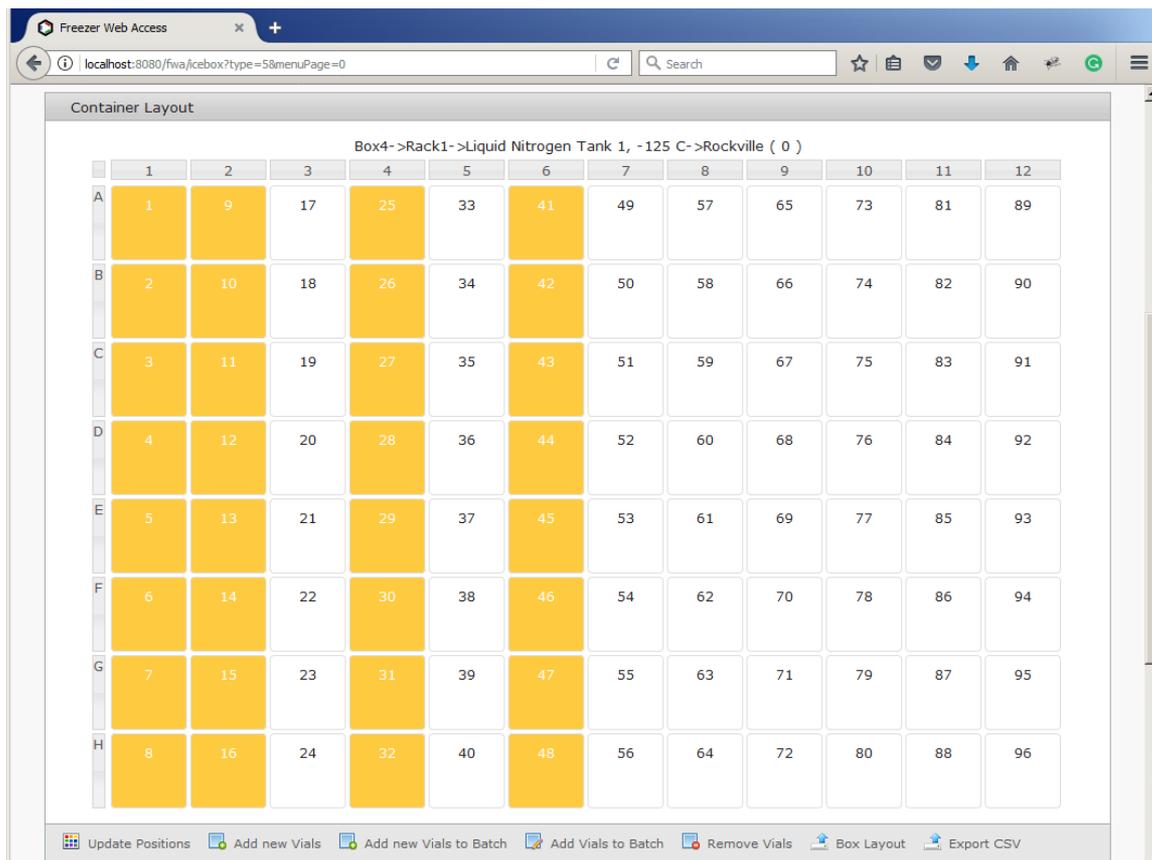
The screenshot shows the 'Freezer Web Access' application interface. The top navigation bar includes 'Demo Site', 'Dashboard', 'Requests & QC', 'Cell Culture', 'Configuration', 'Help', and 'Sign Out'. The main content area is titled 'Settings' and contains three sections:

- Personal Settings:** A form with fields for Login (admin), Screen name (Admin), Email, Phone, and Location. A 'Change Password' link is also present.
- Automatically allocate samples in the batch:** A section with two radio button options: 'Vial position top-down' (selected) and 'Vial position left to right'. Below these are two checkboxes: 'Display vial information columns' and 'Display in the grid' (checked).
- Select Site:** A table with columns for Name, Description, and Site Access Group. It lists two sites: 'Demo Site' (Freezer WEB Access Demo, Administrator) and 'Test Site' (Test Site, Administrator).
- Select Bookmark:** A table with columns for Location, Box, Comment, and Added.

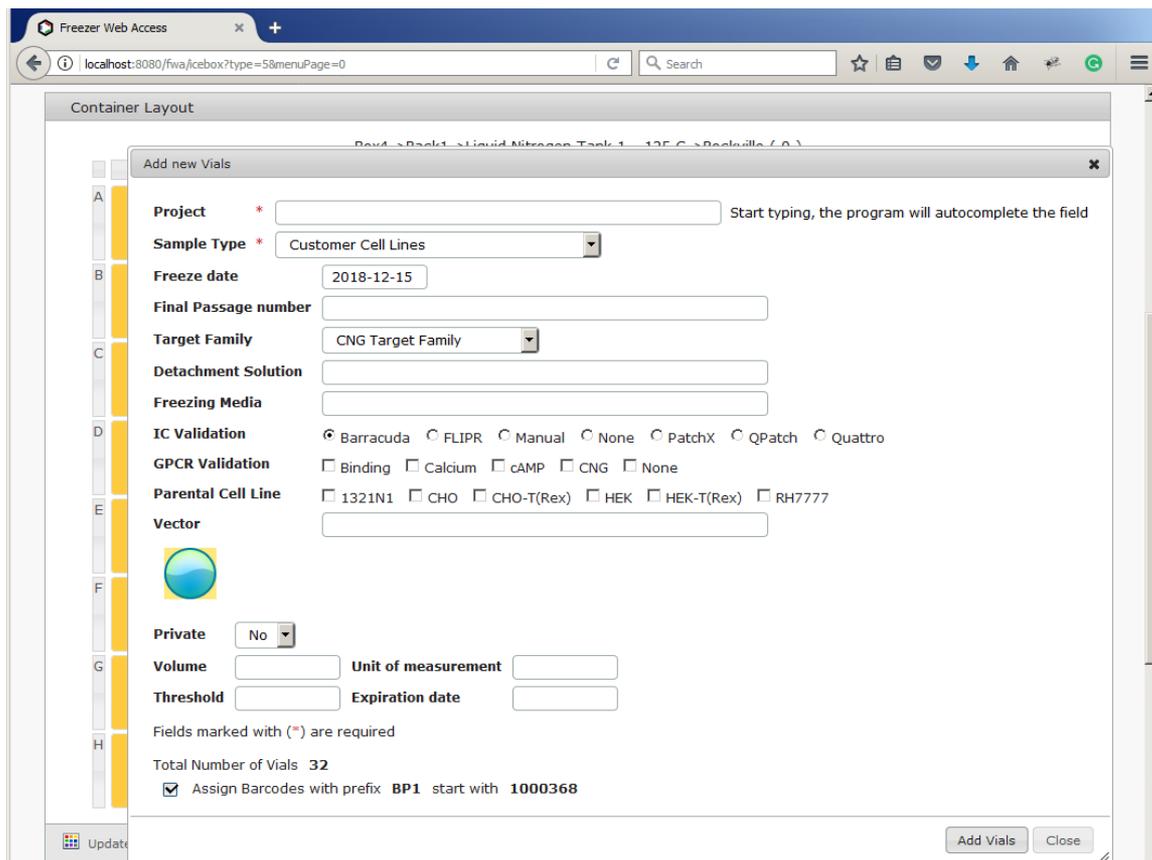
A user can set successive vial numbers to go top-down or left to right in the Container Layout section. Select the Settings tab, you may need to press More tab button to open more tabs. Select Vial position top-down or Vial position left to right option. The system saves changes.



Open the Freezers tab and select a box or a plate. The system numbers wells in a box using selected option. This is a user specific setting.



Select multiple wells by dragging a plate with the mouse over the locations. Also, locations can be selected by click or drag while holding the Ctrl key, allowing for multiple (non-contiguous) selections.



Select Add new Vials image to add samples. Fill out sample information and select a Sample Type. Press Add Vials button. The system adds new samples.

Freezer Web Access

localhost:8080/fwa/facebox?type=58menuPage=0

Box4->Rack1->Liquid Nitrogen Tank 1, -125 C->Rockville (32)

	1	2	3	4	5	6	7	8	9	10	11	12
A			17		33		49	57	65	73	81	89
B			18		34		50	58	66	74	82	90
C			19		35		51	59	67	75	83	91
D												
E												
F												
G			23		39		55	63	71	79	87	95
H			24		40		56	64	72	80	88	96

Remove Selected Vials

Shipping:

Comment:

Description:

Shipping Date:

Total Number of Vials: 8

Remove Vials Close

Update Positions Add new Vials Add new Vials to Batch Add Vials to Batch Remove Vials Box Layout Export CSV

Rename Box Change Box Layout Box Bookmarks Box Notifications Transfer Ownership Change Vial Image

Cut Vials Copy Vials

Select vials in the Container Layout section. In the navigation bar press Remove Vials image. Select vial removal: In-House or Shipping. Select a comment and type a description. Select Shipping Date. Press Remove Vials button. Open the Removal Log tab.

The next day the technician freezes another twelve aliquots from cell line A.

Since it is being used for the same batch, she puts them in the second row of Box1, and scans the whole box.

The Freezer Web Access system recognizes that the barcoded tubes in row 1 of the box have already been added to the database. The system uses the metadata for the samples in the first row.

Freezer Web Access

localhost:8080/fwa/samplesbatch?type=1&menuPage=0

Freezer Web Access Demo Site Dashboard Requests & QC Cell Culture Configuration Help Sign Out

Calendar **Add Batch** Add Samples Batches Freezers Kits Search Removal Logs More Barcode, Terms or Box

Fill out Batch Information

Batch * 1178 An incremented value for the last numeric Batch

Project **Kir2.1-CHO**

Catalog Number **CT4127**

Parent Batch

Private No

Volume **Unit of measurement**

Threshold **Expiration date**

Fields marked with (*) are required

Import unique sample ID

Upload Excel spreadsheet or text file from 2D barcode scanner

and select a box in Select Container section

File format:
Rack: comment in the first line
A01,01234567
B01,01234568
C01,No Tube

Vial Placement

Total Number of Vials * 24 **Find empty consecutive spaces within a Rack** (Select a Rack to start the search)

Generate consecutive spaces report (Select Rack, Freezer or Room and press Start button)

Open the Add Batch tab. In Fill out Batch Information section fill out the Batch field and press Find Batch image. The system finds batch information. Upload a text file from 2D barcode scanner and select a box.

Freezer Web Access

localhost:8080/fwa/samplesbatch?type=1&menuPage=0

E	5	13	21	29	37	45	53	61	69	77	85	93
F	6	14	22	30	38	46	54	62	70	78	86	94
G	7	15	23	31	39	47	55	63	71	79	87	95
H	8	16	24	32	40	48	56	64	72	80	88	96

Sample Type Image

Sample Type Image 



Batch Addition

Assign Barcodes with prefix **BP1** start with **1000400**

Add Batch Cancel

Scroll down the page. Press Add Batch Button.

Freezer Web Access

localhost:8080/fwa/facebox?type=58menuPage=0

Box2 -> Rack1 -> Liquid Nitrogen Tank 1, -125 C -> Rockville (24)

	1	2	3	4	5	6	7	8	9	10	11	12
A				25	33	41	49	57	65	73	81	89
B				26	34	42	50	58	66	74	82	90
C						43	51	59	67	75	83	91
D						44	52	60	68	76	84	92
E						45	53	61	69	77	85	93
F				30	38	46	54	62	70	78	86	94
G				31	39	47	55	63	71	79	87	95
H				32	40	48	56	64	72	80	88	96

Batch 1178
 Project Kir2.1-CHO
 Catalog Number CT4127
 Sample Type Customer Cell Lines
 Technician Admin
 Date 2018-12-15 21:26
 Barcode BP11000417BX1

Update Positions Add new Vials Add new Vials to Batch Add Vials to Batch Remove Vials Box Layout Export CSV

Rename Box Change Box Layout Box Bookmarks Box Notifications Transfer Ownership Change Vial Image

Open the Freezers tab. The box "Box1" has 24 samples. Move a mouse over a vial. The system opens a popup window.

Scenario #2: A box is dropped!

After removing a sample from a box, the technician drops the box on the floor and all the tubes scatter.

She quickly gathers them up and places them randomly back into the box.

She scans them and Freezer Web Access updates the new positions of all the tubes within the box.

Freezer Web Access Demo Site Dashboard Requests & QC Cell Culture Configuration Help Sign Out

Calendar **Add Batch** Add Samples Batches Freezers Kits Search Removal Logs More Barcode, Terms or Box

Fill out Batch Information

Batch * An incremented value for the last numeric Batch

Project **Kir2.1-CHO**

Catalog Number **CT4127**

Parent Batch

Private

Volume **Unit of measurement**

Threshold **Expiration date**

Fields marked with (*) are required

Import unique sample ID

Upload Excel spreadsheet or text file from 2D barcode scanner

and select a box in Select Container section

File format:
 Rack: comment in the first line
 A01,01234567
 B01,01234568
 C01,No Tube

Vial Placement

Total Number of Vials * **Find empty consecutive spaces within a Rack** (Select a Rack to start the search)

Generate consecutive spaces report (Select Rack, Freezer or Room and press Start button)

Open the Add Batch tab. In Fill out Batch Information section fill out the Batch field and press Find Batch image. The system finds batch information. Upload a text file from 2D barcode scanner and select a box. Scroll down the page. Press Add Batch Button. The system updates the new positions.

The screenshot displays the 'Freezer Web Access' application interface. At the top, there is a navigation bar with options like 'Dashboard', 'Requests & QC', 'Cell Culture', 'Configuration', and 'Help'. Below this is a secondary menu with 'Calendar', 'Add Batch', 'Add Samples', 'Batches', 'Freezers', 'Kits', 'Search', 'Removal Logs', and 'More'. A search bar is also present.

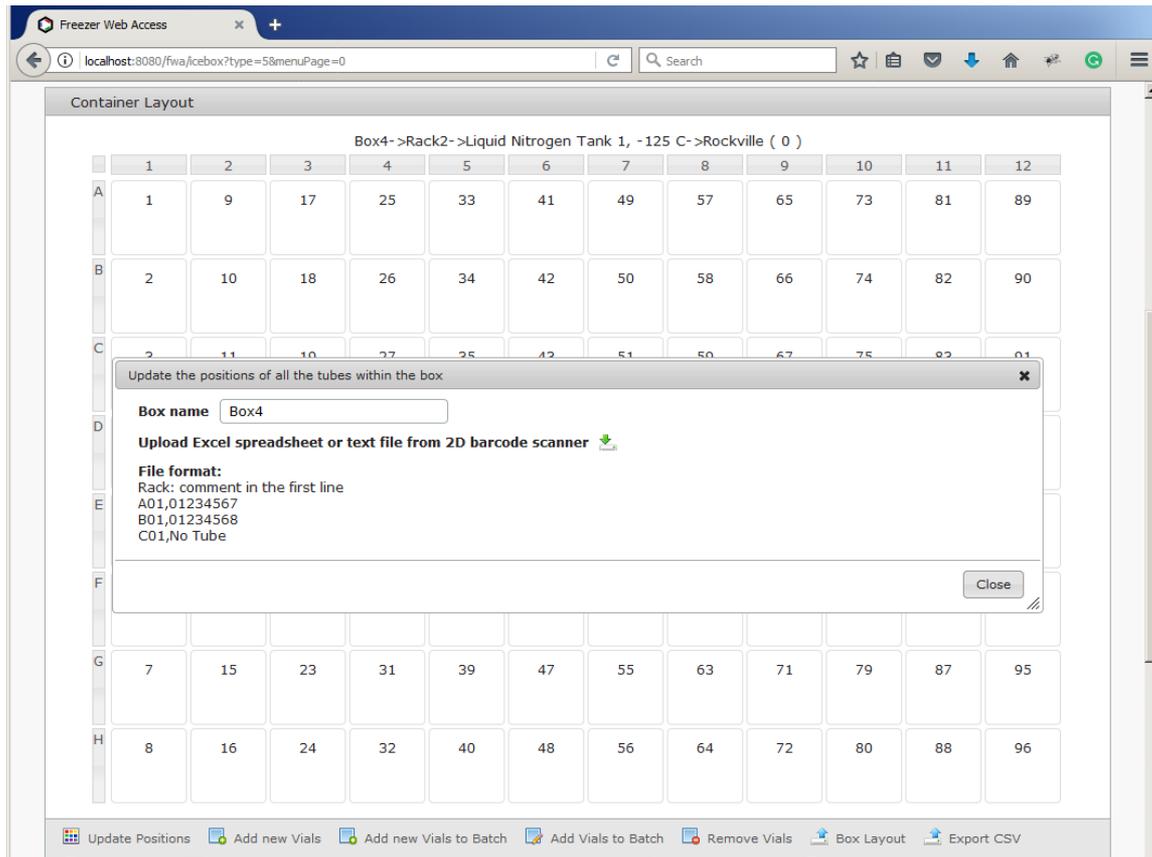
The main content area is titled 'Select Container' and features a tree view on the left showing a hierarchy of containers: Rockville, Liquid Nitrogen Tank 1, -125 C (with sub-items Rack1, Rack2, Rack3, Rack4), Liquid Nitrogen Tank 2, -125 C, Liquid Nitrogen Tank 3, -125 C, Munich, and Bern. The 'Liquid Nitrogen Tank 1' is currently selected.

To the right of the tree view is a 'Close diagram.' button and a visual representation of the container layout. This diagram shows a grid of boxes, with some boxes filled with dark blue (representing occupied tubes) and others left empty (representing available space). The layout is organized into three rows and several columns.

Below the diagram is a 'Container Layout' section containing a toolbar with various actions: Update Positions, Add new Vials, Add new Vials to Batch, Add Vials to Batch, Remove Vials, Box Layout, Export CSV, Rename Box, Change Box Layout, Box Bookmarks, Box Notifications, Transfer Ownership, and Change Vial Image. A help message below the toolbar reads: 'Press Control key (Ctrl) and click a locations with the mouse. Select multiple vials by dragging a plate with the mouse over the locations.'

At the bottom of the interface is a 'List View' section.

The user can update the new positions of all the tubes within the box. Open Freezers tab. In Select Container section navigate freezers using container layout. Filled spaces have dark blue color and empty spaces have light blue color, select empty space with a mouse click.



In Container Layout section press Update Positions image. The system opens Update the positions of all the tubes within the box window. Press Upload Excel spreadsheet or text file from 2D barcode scanner image and select a file. The system updates the new positions of all the tubes within the box.

Scenario #3: Searching for samples

A technician needs to extract RNA from multiple samples that are located in multiple different boxes. She logs onto the Freezer Web Access system and searches for the necessary samples. She has multiple search options.

First, she can type some terms into a free form box that will search all the fields of all the entries and return the results.

Second, she can specify specific parameters for as many fields as she thinks will be necessary to return only the needed samples.

She can then easily export these results to a file (e.g. csv) and print them out for when she goes to the freezer.

Furthermore, if she often makes similar searches, she can save the search under a specific name and easily reload these search parameters at a later time.

Freezer Web Access

localhost:8080/fwa/reports?type=9&menuPage=0

Fill out search parameters

Location Batch Date range

Project Catalog Number Number of samples

Any Field Technician Barcode range

Shipping Comment Shipping Date range

Sample Type

Freeze date

Final Passage number

Target Family

Detachment Solution

Freezing Media

IC Validation Barracuda FLIPR Manual None PatchX QPatch Quattro

GPCR Validation Binding Calcium cAMP CNG None

Parental Cell Line 1321N1 CHO CHO-T(Rex) HEK HEK-T(Rex) RH7777

Vector

Saved Search Queries

Show expired vials or vials that have volume less than threshold value.

Validation Platforms

Show/Hide columns

Open the Search tab. Freezer Web Access tracks the locations of all samples so that anyone in the lab can easily find a needed sample, even if the person that created the sample left the lab years ago.

Freezer Web Access

localhost:8080/fwa/reports?type=9&menuPage=0

Fill out search parameters

Location Batch Date range

Project Catalog Number Number of samples

Any Field Technician Barcode range

Shipping Comment Shipping Date range

Sample Type

Freeze date

Final Passage number

Target Family

Detachment Solution

Freezing Media

IC Validation Barracuda FLIPR Manual None PatchX QPatch Quattro

GPCR Validation Binding Calcium cAMP CNG None

Parental Cell Line 1321N1 CHO CHO-T(Rex) HEK HEK-T(Rex) RH7777

Vector

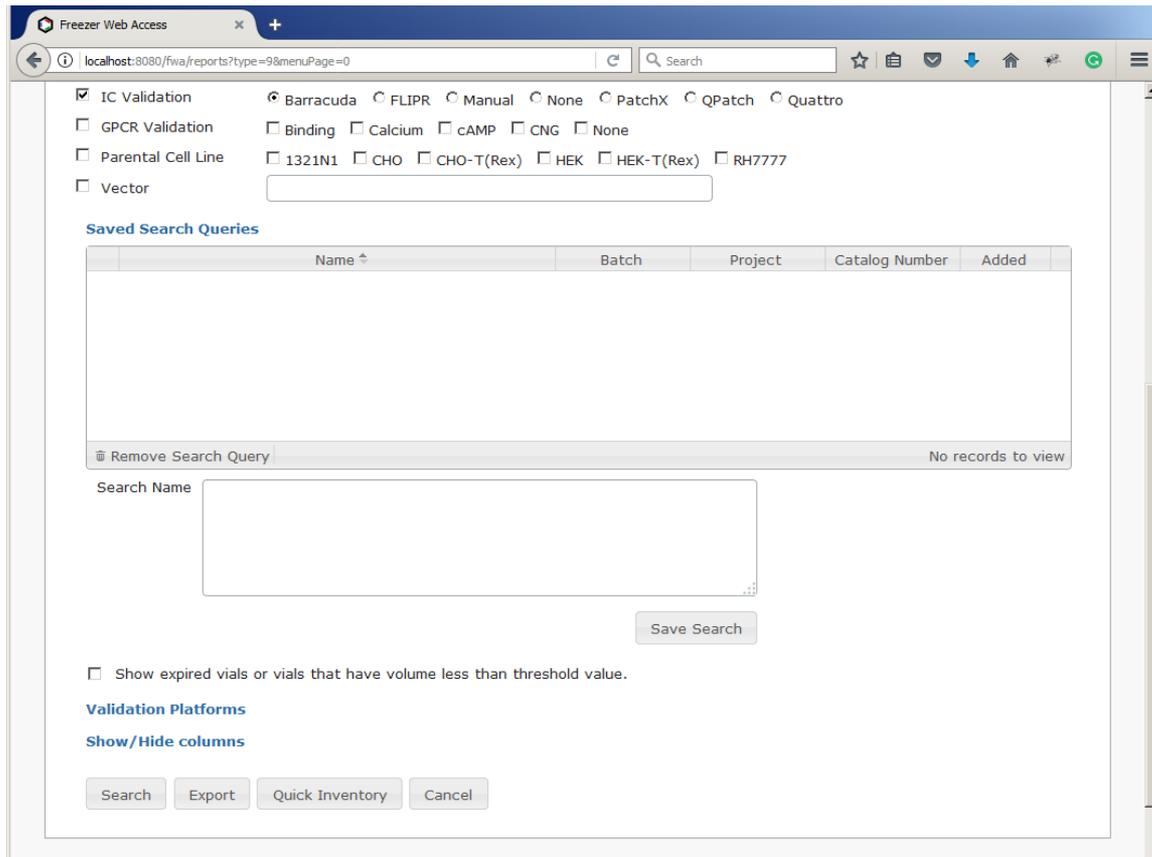
Saved Search Queries

Show expired vials or vials that have volume less than threshold value.

Validation Platforms

Show/Hide columns

The user can narrow down a selection by adding search criteria from the text fields and pop-up menu. Batch, Project and Catalog Number fields provide autocomplete suggestions.



The user can save similar searches under a specific name and easily reload these search parameters at a later time.

Scenario #4: Adding a new field

After a study has been published, the raw files generated from the sequencer were uploaded to the Sequence Read Archive (SRA).

A technician chooses the option to add a new field and names it "SRA".

She opens the batch used in the study. Freezer Web Access displays the samples in the spreadsheet-like format. She then copy pastes the URL into the SRA field for these samples.

In the future, she can add links to the "SRA" field as other projects are published.

Freezer Web Access

localhost:8080/fwa/listTypes?structuregroup_id=12&type=3

FWA Configuration Demo Site Dashboard Components Requests & QC Cell Culture Help Sign Out

Sites Containers Freezers **Sample Types** Procedures Images Settings Barcodes Users Activity Log

Manage Cell Line Groups

▶ Add Sample Type

▼ Customer Cell Lines (5 batches and 424 samples)

Sample Type Name Barcode Prefix Save

Sample Type Image 



Add Column

Column Name *

Column Type

Column View

Required

Display in the well

Submit Cancel

Fields marked with (*) are required

Column View	Required	Display in the well	Active
Text	No	No	Yes
Text	No	No	Yes
Select	No	No	Yes
Text	No	No	Yes
Text	No	No	Yes
Radio	No	No	Yes
checkbox	No	No	Yes
checkbox	No	No	Yes
Text	No	No	Yes

+ Add Column Edit Column View Column

View 1 - 9 of 9

▶ Customer (0 batches and 0 samples)

Conditions of Use Privacy Policy Contact Us

Select the Configuration menu at the top of the screen and open the Sample Types tab. Select Customer Cell Lines and press the Add Column button in the navigation bar. Type SRA name and press Submit button.

Freezer Web Access

localhost:8080/fwa/listTypes?structuregroup_id=12&type=3

FWA Configuration Demo Site Dashboard Components Requests & QC Cell Culture Help Sign Out

Sites Containers Freezers **Sample Types** Procedures Images Settings Barcodes Users Activity Log

Manage Cell Line Groups

► Add Sample Type

▼ Customer Cell Lines (5 batches and 424 samples)

Sample Type Name Barcode Prefix Save

Sample Type Image 



	Column Name	Column Type	Column View	Required	Display in the well	Active
1	Freeze date	Date	Text	No	No	Yes
2	Final Passage number	String	Text	No	No	Yes
3	Target Family	String	Select	No	No	Yes
4	Detachment Solution	String	Text	No	No	Yes
5	Freezing Media	String	Text	No	No	Yes
6	IC Validation	String	Radio	No	No	Yes
7	GPCR Validation	String	Checkbox	No	No	Yes
8	Parental Cell Line	String	Checkbox	No	No	Yes
9	SRA	String	Text	No	No	Yes
10	Vector	String	Text	No	No	Yes

+ Add Column Edit Column View Column View 1 - 10 of 10

► Customer (0 batches and 0 samples)

The system adds a new sample column. Drag and drop a column to change its order. A column may have different types: String, Integer or Date, and views: Text, Select, Checkbox, Radio or AutoIncrement.

The screenshot shows the 'Freezer Web Access' application interface. A 'Reset Vials Information' dialog box is open, allowing users to configure vial parameters. The fields in the dialog include:

- Freeze date: 2013-03-08
- Final Passage number: P16
- Target Family: CNG Target Family
- Detachment Solution: Trypsin
- Freezing Media: 90% FBS + 10% DMSO
- IC Validation: Barracuda (selected), FLIPR, Manual, None, PatchX, QPatch, Quattro
- GPCR Validation: Binding, Calcium (checked), cAMP, CNG, None
- Parental Cell Line: 1321N1, CHO (checked), CHO-T(Rex), HEK, HEK-T(Rex), RH7777
- SRA: /sra/sra-instant/reads/ByRun/sra/SRR/SRR304/SRR304976/SRR
- Vector: [Empty field]
- Private: No
- Volume: [Empty field]
- Unit of measurement: [Empty field]
- Threshold: [Empty field]
- Expiration date: [Empty field]

Below the dialog, a table displays vial information:

	Locatio	Box	F	C	D	Barcode	Private	Volume	Unit of	Thresh	Expirat	Freeze	Final Pt	Target	Detach	Freezin	IC Vali	GPCR	Parentz	SRA	Vector
	All													All			All				
1	Rockvill	Box2->	C	5	0	BP1100	No					2013-03	P16	CNG Ta	Trypsin	90% FB	Barracu	Calcium	CHO		
2	Rockvill	Box2->	C	6	0	BP1100	No					2013-03	P16	CNG Ta	Trypsin	90% FB	Barracu	Calcium	CHO		
3	Rockvill	Box2->	C	7	0	BP1100	No					2013-03	P16	CNG Ta	Trypsin	90% FB	Barracu	Calcium	CHO		
4	Rockvill	Box2->	C	8	0	BP1100	No					2013-03	P16	CNG Ta	Trypsin	90% FB	Barracu	Calcium	CHO		

Select the Components at the top of the screen. You are redirected to the Batches tab. Select a batch and press Reset Vials button in the navigation bar. Select SRA field and paste the URL into the SRA field. Press Save Changes.

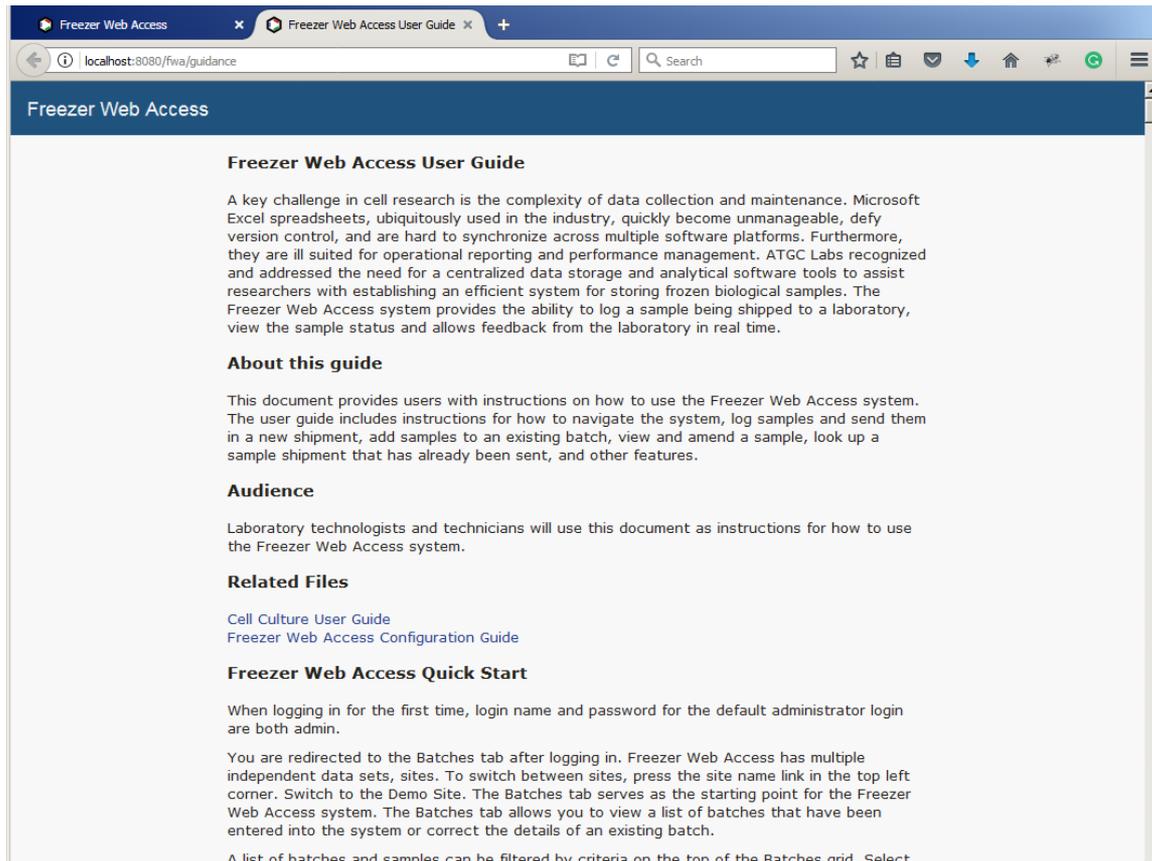
The screenshot displays the 'Freezer Web Access' web application. The main window is titled 'Select Batch' and contains a form for entering batch details. The form fields include:

- Batch:** 1177
- Project:** Kir2.1-CHO
- Catalog Number:** CT4127
- Added:** 2013-03-10 18:04
- Technician:** Admin
- Barcode:** BP11000261BX1
- Freeze date:** 2013-03-08
- Final Passage number:** P16
- Target Family:** CNG Target Family
- Detachment Solution:** Trypsin
- Freezing Media:** 90% FBS + 10% DMSO
- IC Validation:** Barracuda (selected), FLIPR, Manual, None, PatchX, QPatch, Quattro
- GPCR Validation:** Binding, Calcium (checked), cAMP, CNG, None
- Parental Cell Line:** 1321N1, CHO (checked), CHO-T(Rex), HEK, HEK-T(Rex), RH777
- SRA:** /sra/sra-instant/reads/ByRun/sra/SRR/SRR304/SRR304976/SRR
- Vector:** (empty)
- Private:** No

At the bottom of the form, it states: 'Fields marked with (*) are required'. There are 'Save Changes' and 'Close' buttons.

Below the form is a table with columns: Project, Catalog Numb, Batch, Parent Batch, QC Requir, Sample Type, Technician, Date, Documen, Total Vial, Remainin, and Shipped. The table shows a list of samples with their respective values. The SRA field for all samples in the batch is updated to the value entered in the form above.

The system updates the SRA field for all samples in the batch. A technician can update individual fields. Select a sample, in the sample navigation bar press the Edit Sample button.



For more information please read Freezer Web Access User Guide (Help link, upper right corner).