

Since its creation in 2005, we have continually made improvements to mLIMS. We release a new version every month. Therefore, this manual may not reflect the latest features of mLIMS. Please visit <http://mlims.com/help> for the latest version.

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USER MANUAL

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Section I: Introduction to mLIMS



What is mLIMS?

mLIMS is a web-based mouse/rat colony information and data management system. **mLIMS** provides a ready-to-use and long-term solution for tracking animal-related information without being affected by personnel changes or laboratory relocation.

mLIMS comes with real-time summaries, daily reminders, and powerful data plotting tools. It helps individual researchers and entire laboratories record and share information accurately, save costs, and improve efficiency.



Key Features

- Web-Based System: No setup, no maintenance or synchronization needed, access anywhere 24/7 from any Internet-enabled device. **mLIMS** is tablet compatible (ie: iPad).
- Mobile Access: You can check your animal information using your Smart Phone.
- Permanent and Secure Storage: Data is permanently stored online in centralized locations with daily backups. The system requires user authentication, and accounts are controlled by a group manager. A full audit trail of user actions is available.
- Dynamic Summaries on the Home Page: See your total number of cages and animals, number of pups, average number of animals per cage, unused cages, overcrowded cages, and more.
- Daily Reminders: Breeding, weaning and tagging reminders, overcrowded cages, recent animal events, and more.
- Keep Track of All Animal Operations: Easily and logically record daily operations such as transferring animals, setting up matings, weanings, and other treatments.
- Integrated Research Data Tools: Record routine measurements, such as weight or blood glucose levels. Automatically generate data plots.
- Generate Cage Cards With Bar Codes: Unique identification facilitates automation and prevents handling errors. **mLIMS** supports both 1D and 2D bar codes.
- Pedigree Information: Animal family trees are automatically recorded and can be displayed in real time.
- Easily Import and Export Data: Existing data in Excel and other popular programs can be easily uploaded to the system. All data in the system can also be exported to Excel.

Section II: Getting Started With mLIMS



Log In to mLIMS

Log in to your **mLIMS** account here:

<http://bioinforx.com/signin>

A login form titled "Log in with your BioInfoRx Account". It includes a "Login ID:" label with a note "If you don't have a login ID, try using your email." and a text input field. Below is a "Password:" label and another text input field. A "Jump To:" dropdown menu is highlighted with a red circle, showing "mLIMS" as the selected option. A green "Log In" button is at the bottom, with a blue link "I forgot my password" underneath.A form titled "Forget your password?". It prompts the user to "Enter your email address below and we'll send you password reset instructions." with an "Email Address:" label and a text input field. A green button labeled "Retrieve my password" is below the input field. At the bottom, it says "Please [contact us](#) if you need further assistance."

Enter your registered email and password, and choose **mLIMS** from the "Jump To" pull down menu. If you forgot your password, you can select the "I forgot my password" link. Enter your email address at the prompt, and **mLIMS** will send you a verification email.



The mLIMS Home Screen

The mLIMS Home Screen

When you log in to **mLIMS**, you are taken to the home screen. There are two areas of navigation; the left menu, and the Manage your Colonies section. You will also see any system warnings and reminders at the bottom of the screen.

The screenshot shows the mLIMS home screen. On the left is a vertical menu with categories: Animal Tools, Cages, Experiments, Events, Measurements, Matings & Litters, System Tools, Gene and Genotypes, IACUC Protocols, and Help. A callout box points to the 'System Tools' category with the text: 'Click any arrow in the left menu for more options'. The main area is titled 'mLIMS ONLINE MOUSE INFO SYSTEM' and includes a 'Manage Your Colonies' section with buttons for New, Review, Search, Tasks, and Settings. A callout box points to the 'Settings' button with the text: 'Manage your colonies from the main screen, and view your system warnings and reminders.' Below this is a 'Warnings and Reminders' section with a list of items, and a 'Summary of Animals and Cages' table.

Summary of Animals and Cages	
Cages	Animals
Total 75-Use Cages: 280	Total Live Animals: 100
Cages with Animals: 58	Animals: 58
Cage Puckets: Breeding Cages: 61	Animals: 37
Cage Puckets: Breeding Cages: 17	Mice (C22, 80x4): 0
Cage Puckets: Breeding Cages: 5	27 Mice - 12 (C22) 15

mLIMS Categories

mLIMS is divided into 9 areas and a help section.

From the left menu, click any arrow for more tools in each category.

▶ Animal Tools
▶ Cages
▶ Experiments
▶ Events
▶ Measurements
▶ Matings & Litters
▶ System Tools
▶ Gene and Genotypes
▶ IACUC Protocols
▶ Help

Both the left menu and the main screen will navigate through **mLIMS**. Manage animals, cages, system tools, reviews, and searches from your main screen.

Section III: Setting up Your mLIMS system



Manage Group Members

If you are the group manager and wish to implement a multi-user lab, you can add more users with the group tool. **Only the group manager has access to these tools.**



Edit your group name by clicking “edit” in the General Group Settings. By default, the name of the group is the system manager’s name. You can change this here.

Edit existing members email, login name, or password under Current Members, and click “update.” By default, the user login name is the email address. The login name can be changed in this area.

Add new members by entering First name, Last name, and email. Click “invite member.” When the user clicks the verification email link, he/she will be added to the group.

General Group Settings

Group Name: **User Demo** [Edit](#)

New Group Name: [Save](#)

Note: Please enter a meaningful name for your group, e.g. Smith Lab

Current Members

First Name	Last Name	E-mail	Login	Password	Status	Actions
User	Demo	mimslab@gmail.com	mimslab@gmail.com		Active	(Manager) - Update

Pending members: johnsmith@yahoo.com

Add New Members

Note: An invitation e-mail will be sent to this person for group-joining acceptance.

First Name	Last Name	E-mail
John	Smith	johnsmith@yahoo.com

[Invite Member](#) [Add Member Directly](#)

An invitation e-mail has been sent to John Smith for joining the group. Please wait for his/her acceptance.

Annotations:

- Change Group Name (points to 'Edit' link)
- Edit Current Members (points to 'Update' link)
- Add New Members (points to 'Invite Member' link)



Manage User Permissions

The User Permissions tool is only accessible by the Group Manager. From the left menu, click the arrow next to System Tools. If you have users in your group, you will be able to access the “Set Up User Permissions” tool. This tool is not visible in accounts with only one user.

Use the checkboxes to allow permissions to group members and save your settings. For most groups, each member needs to be able to create records and add new values to the pull down menu. *The ability to update others’ records, access system tools, or access the group management tool can be turned off for all non-Group Managers.*



The screenshot shows the mLIMS interface. On the left, the 'System Tools' menu item is circled in red. The main content area displays the 'User Permissions' table, which is also circled in red. The table has columns for 'Members', 'Record Level', and 'System Level'. The 'Record Level' column includes 'Create Record', 'Introduce New Values to Pull Down Menu', and 'Update Group Members' Records. The 'System Level' column includes 'Access System Tools' and 'Access Group Management Tool'. The 'User Demo (Group Manager)' row has checkboxes for 'Create Record', 'Introduce New Values to Pull Down Menu', 'Update Group Members' Records', 'Access System Tools', and 'Access Group Management Tool'. The 'User Demo2' row has checkboxes for 'Create Record', 'Introduce New Values to Pull Down Menu', 'Update Group Members' Records', 'Access System Tools', and 'Access Group Management Tool'. Below the table, there are 'Save' and 'Reset' buttons, both circled in red.

	Record Level			System Level	
Members	Create Record <input type="checkbox"/>	Introduce New Values to Pull Down Menu <input type="checkbox"/>	Update Group Members' Records <input type="checkbox"/>	Access System Tools <input type="checkbox"/>	Access Group Management Tool <input type="checkbox"/>
User Demo (Group Manager)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User Demo2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



Set Up mLIMS System

Before entering data into **mLIMS**, it is important to set up your system. From the left menu under system tools, or from the main screen, select Setup mLIMS system. You will navigate to the system setup screen.



The screenshot shows the mLIMS main screen. On the left, the 'System Tools' menu item is circled in red. The main content area displays the 'mLIMS ONLINE MOUSE INFO SYSTEM' logo and a list of system setup options. The 'Setup' button in the top navigation bar is circled in red.

Part 1: General Setup allows you to update the general system. Fill in all relevant information. The cage capacity is set to 5 by default, but it may be changed. Choose your time zone and your preferred age format for your animals.

By default, **mLIMS** displays 50 records per page, but it can be changed to view up to 1000 records per page. We recommend Animal-Oriented for the left side menu.

The screenshot shows the 'General' tab of the mLIMS setup interface. It is divided into two main sections: 'About Your Lab' and 'Other Options'. The 'About Your Lab' section contains fields for Lab/PI Name, Lab/PI Email, Lab Phone, Account/Billing #, Animal Protocol, and Time Zone. The 'Other Options' section contains settings for Records per page, Open Links in, and Left Side Menu. Annotations include red boxes with instructions for required fields, time zone selection, and a reminder to save settings, as well as a red oval highlighting the 'Other Options' section and a red circle around the 'Save' button.

General | Animals | Cages | Cage Cards

About Your Lab

* Indicates required field

* Lab/PI Name: Characters left: 16

The following information will be used in cage card:

Lab/PI Email:

Lab Phone:

Account/Billing #:

Animal Protocol:

Time Zone: ▼

Other Options

The following options control how do you like to browse the records.

Records per page: ▼

Open Links in: ☒ Same Window ☐ New Tab/Window

Left Side Menu: ☒ Animal-Oriented ☐ Cage-Oriented

[Reset](#)

Annotations:

- Enter all information that is needed. Items with a * are required.
- Set time zone using the pull down menu.
- Always remember to save your settings

Part 2: Animal Information: On the second tab, tell mLIMS about your animals. Choose an age format, adult definition, and your animal ID method. You can also add up to 25 custom fields.

Remember to save your settings at the bottom of the page.

General

Animals

Cages

Cage Cards

About Your Animals

* indicates required field

Age Format: Week: 64w4d

Adult Definition: 21 days (What is the minimum days to be considered as an adult?)

Animal Identifications

No.	Animal Identifications	Initial Value
1.	Ear Tagging	
2.		
3.		
4.		
5.		
6.		

mLIMS supports up to 6 animal indentifications per animals. Simply choose the value from the drop down menu, or enter your own.

If your identifications always start with #ABC-, then you can put #ABC-, in the initial value.

Custom Fields

No.	Name (e.g., Place of Purchase)	Initial Value (e.g., Charles River)
1.		
2.		
3.		

If you would like to record animal data that is not listed in the default recordable fields for mLIMS, you can type your own custom fields and its initial value here.

mLIMS supports up to 25 custom fields.

Part 3: Cage Setup Set up your cage ID, capacity, and location information.

General Animals **Cages** Cage Cards

Cage Information

* Indicates required field

* Cage Capacity: animals (What is the maximum number of animals that can fit in a cage?)

The default cage capacity is 5, but you can change it here.

Cage Identifications

No.	Location IDs	Initial Value
1.	Building	Biochemistry
2.	Building	1A
3.	Rack	
4.	Row	

Please define how you would like to record the location for each cage. You can use the default location types or type in your own.

Fill in cage location. Rack and Row for Cage Map optional.

Cage Rack Map

Type	Location IDs	Initial Value
Horizontal	Position	
Vertical	Shelf	

Part 4: Cage Cards; Select the cage card that works best for you. If you can't find one that works, please contact us and we'll assist you.

General Animals Cages **Cage Cards**

mJMS provides different styles of cage cards. If you could not find a style that matches your need, please contact us.

Cage_1

Biochemistry / 523 / 2

Prof. Smith

Derrick Cheng

2012-04-02

2345323

Alpha

♂: 2 ♀: 3

Animal	ID	Sex	DOB	Genotype
KUY6S_236	236	M	2011-12-07	A1; A2
KUY6S_237	237	F	2012-02-14	A1; A2
KUY6S_238	238	M	2010-09-13	A1; A2
KUY6S_239	239	F	2010-09-15	A1; A2
KUY6S_240	240	F	2010-09-15	A1; A2

C123775-1

<http://mjms.com/c/2>

Height: N/A

Width: N/A

Gene Alpha

Researcher

Date

ID

DOB

Genotype

♂: 1 ♀: 2

Prof. Smith

Cage Name

A+

A+

+/-

Height: 2" (5cm)

Width: 4 3/4" (12cm)

General

Cage_1

Height: 5" (12.7cm)



Set Up Genes and Genotypes

mLIMS supports unlimited genes and genotypes per animal. Set up your genes and genotypes in the system tools area using the left navigation menu (**System Tools—Set up Gene and Genotypes**).

Add New Genes and Genotypes

To add a new gene and genotype, enter the Gene in the Gene box, and the possible genotypes on separate lines in the genotype box, and **SAVE**.

Note: If you use the animal import tool, mLIMS will automatically add your genotypes to the system.

The screenshot shows the 'Setup Animal Genotypes' interface. On the left is a navigation menu with 'System Tools' expanded, and 'Set Up Gene and Genotypes' highlighted. The main area is titled 'Add A New Gene'. It has a 'Gene' input field with 'TR3F' entered. Below it is a 'Genotype' input area with a placeholder text 'Enter each value in a new line, or separate them with tab, e.g., +/+ +/-'. At the bottom, there are two buttons: 'Save Genotypes' and 'Reset', both circled in red.

Edit Genes and Genotypes

You can edit existing genotypes or add more by returning to the genotypes screen. If you edit a gene that is already assigned to an animal, mLIMS will change the gene name across the board.

The screenshot shows the 'Review Existing Genes' section of the 'Setup Animal Genotypes' interface. A red oval highlights the 'Gene' dropdown menu (set to 'TR3F') and the 'Gene Name' input field (containing 'TR4F'). Below this is a section for 'Current Genotypes' with a checkbox 'Check to remove the genotype from this gene.' and three rows, each with a genotype input field and a 'Remove' button. The 'Add More Genotypes' section has a text area for entering new genotypes. A callout box on the right states: 'You can edit your gene, remove current genotypes, and add new ones here.' with arrows pointing to the 'Gene' dropdown and the 'Add More Genotypes' text area.



Import Data From Excel

If you have a large amount of data in Excel format, you can use our import tool to upload all of your animal and cage data. From the left menu, choose System tools/Import Animal and Cage Data.

Download our template and follow the directions carefully. Once all of your data is complete, copy and paste it into the import box, and follow the steps.

	Animal Information													Cage Information					
	Required				Optional									Required		Optional			
No.	Animal Name	Life Status	Sex	Dam	Sire	Date of Birth	Body Color	Ear Tagging	Protocol	Alpha 5	Alpha 5	Beta	Gamma	Cage Name	Cage Status	Building	Room	Rack	Shelf (X)
1	NCG-06010101	Live	Male			2011-01-01	Black	201	1	KO	+	-	+	C1	Active	Biochemistry	200	1	1
2	NCG-06010102	Live	Female			2011-01-31	White	202	1	-	+	+	-	C1	Active	Biochemistry	200	1	1
3	NCG-06010103	Live	Male	NCG-06010102	NCG-06010101	2011-06-01	Black	203	2	+	WT	+	KO	C2	Active	Biochemistry	200	1	2
4	NCG-06010104	Live	Male	NCG-06010102	NCG-06010101	2011-06-01	Gray	204	2	-	+	KO	WT	C2	Active	Biochemistry	200	1	2
5	NCG-06010105	Live	Female	NCG-06010102	NCG-06010101	2011-06-01	Black	205	2	+	-	WT	+	C2	Active	Biochemistry	200	1	2

Import Animal and Cage Information into mLIMS - [Help](#)

1. If this is the first time you use this tool, please click [here](#) for details.

2. Please copy your data within the **red region** from the Excel template and paste it below (Don't forget to include the header):

3. How do you like to import your data? ☒ Copy and Paste ☐ From a text file

COPY ALL OF THE REQUIRED DATA HERE

4. Please [contact us](#) if you need any help.

Submit

[Reset](#)

Section IV: Animal Tools



Adding New Animals

From the **mLIMS** main screen or the left menu, select Add New Animals. In the left menu, click the arrow next to **Animals** to see more options.



To add animals, fill in all of the required fields, and any optional fields desired. You can select from or add items to any pull-down menu (ie: Type in the strain). Select your gene and genotype, and add more genotypes if you wish. You can select a cage from the cage pull down menu, auto create a cage, or create a new cage. If you do not select a cage or create one, **mLIMS** will auto-create a cage.

If you are adding multiple animals with identical information and their ear tagging or other ID is incremented by 1, enter the initial ear tagging value in the Blue Animal Identifications box. Using the pull down menu at the bottom of the page, you can select the number of additional animals you are adding, and their ID will increment by 1.

Leave automatic box checked and fill in the initial ear tag value for bulk animal additions

Automatically pass the value based on ear tagging value

Animal Identifications
Ear Tagging: 1234
Automatically increment the value when adding multiple animals

You can add new values to any pull down menu, and mLIMS will remember it next time!

Select the number of animals you are adding, and save

Auto Create a cage, or use the popup menu to create a new cage or select an existing cage.

*** If you do NOT want to add bulk animals, uncheck the box under Animal name and the Check box in the Animal Identification field. Then enter your desired name for this animal.

The screenshot shows the 'Animal Information' form. The 'Main Information' tab is selected. The 'Name' field is highlighted with a red circle and contains the value 'S234'. Below it, there is a checkbox labeled 'Automatically name the animal based on ear tagging value.' which is checked. To the right, the 'Animal Identifications' section is highlighted with a red circle. It contains a field 'Ear Tagging: S234' and a checkbox labeled 'Automatically increment the value when adding multiple animals.' which is checked. Other fields include 'Dam (Mother): H73JW_41', 'Sire (Father): KUY05_236', 'Date of Birth: 2011-09-28', 'Sex: Male', 'Species: Mouse', 'Strain: RJ42', 'Background Strain: TR', 'Life Status: Live', 'Status Date: 2011-09-28', 'Body Color: Brown', 'Generation: F1', 'Purpose: Holding', and 'Owner: User Demo'.

You can also enter Optional Information by selecting the Optional Information Tab.

The screenshot shows the 'Optional Information' tab selected. The 'Optional Information' section contains several fields: 'Protocol ID:', 'Source:', 'Sample Vial ID:', 'Cause of Death:', 'Cause of Death Notes:', and 'Comment:'. On the right side, there are fields for 'Origin:', 'Diet:', 'Sample Vial Tag:', and 'Date of Death:'. At the bottom, there is a 'Save Animal Info' button, a 'Reset' button, and a dropdown menu showing 'Add 3' animals with the same information.



Review and Search Animals

You can easily review and search animals using the home screen or the left menu. When you select animals, you will have additional options to review animals by life status, sex, or birth date. You can also review animals by strains, owner, or genotypes..

Animal Tools

- Add New Animals
- Review Animals (66)
- Review Animals By Strains
- Review Animals By Owners
- Review Animals By Genotypes
- 🔍 Search Animals
- 📁 Transfer Animals
- Add Litter and Pups

Cages

Experiments

Events

Measurements

Matings & Litters

System Tools

Gene and Genotypes

IACUC Protocols

mLIMS ONLINE MOUSE INFO SYSTEM

» Remove Demo Data » New Features (May 1, 2012) » Refresh

Manage Your Colonies

New **Review** **Search**

Animals Cages Events Experiments Measurements

Animals Cages Events Experiments Measurements

Animals Cages Events Experiments Measurements

Summary - Refresh - Help

Cages:

1. Empty Cages: 16

Review Animals

The Review Animals Main Screen displays a search tool, browse tool, set default columns, and print search result.

Animals: Live - Dead - Male - Female - Pups (<21d) - Adult (21d-1y) - Old (1-2y) - Older (>2y) - All Animals

Search Browse Settings Print

The Search Tool

To search animals, click the search option, and use the pull down menus to select your search terms. Enter your value, and search. You may also add more search terms to narrow your results even further by using the “add more” option.

Animals: [Live](#) - [Dead](#) - [Male](#) - [Female](#) - [Pups \(<21d\)](#) - [Adult \(21d-1y\)](#) - [Old \(1-2y\)](#) - [Older \(>2y\)](#) - [All Animals](#)

Search: [Add More](#)

[Search](#) [New Search](#) [Browse](#) [Settings](#) [Hide](#) [Print](#)

List of Animals (Displaying 1 - 50 of 66 records. Page 1 of 2.)

★ Add to Selection ✨ New ✎ Update 🗑 Delete 🗑 Show Deleted Records 📄 Export 📄 Transfer ✕ Sacrifice 🌈 Animal Statist

<input type="checkbox"/>	No.	Animal	Sex	Sire	Status	Strain	Cage
<input type="checkbox"/>	1	1		5137	Live	Group A	My Cage 3
<input type="checkbox"/>	2	22		41465 228	Live	B1VEC	Broodina

Set Default Columns

You can choose what columns to display in your animal review by selecting “[Settings](#).” Use the arrows to move to and from the Available Fields and Selected fields. Apply your changes, and your default columns will appear as desired.

Animals: [Live](#) - [Dead](#) - [Male](#) - [Female](#) - [Pups \(<21d\)](#) - [Adult \(21d-1y\)](#) - [Old \(1-2y\)](#) - [Older \(>2y\)](#) -

[Search](#) [Browse](#) [Settings](#) [Print](#)

Select Fields to Display:

Available Fields:

- Background Strain
- Barcode
- Body Color
- Cage Location
- Cause of Death
- Cause of Death Notes
- Custom Field 1
- Custom Field 2

Selected Fields:

- Animal
- Sex
- Sire
- Status
- Strain
- Cage
- Dam
- Gene

⌕ >> All >> << All <<

⌕ You can hold the Ctrl key to select multiple fields.

Field Sorting Options:

Sort By:

[Add More](#)

[Apply Changes](#) [Reset](#)

You may also adjust column widths by simply dragging them to the desired size.

Animals: Live - Dead - Male - Female - Pups (<21d) - Adult (21d-1y)

Search Browse Settings Print

List of Animals (Displaying 1 - 50 of 66 records. Page 1 of 2.)

★ Add to Selection ✚ New ✎ Update 🗑 Delete 🗑 Show Deleted Records

<input type="checkbox"/>	No.	Animal	Sex	Sire
<input type="checkbox"/>	1	1		5137
<input type="checkbox"/>	2	22	Place your mouse between columns and you can reset the width.	KUY6S_23
<input type="checkbox"/>	3	44		KUY6S_23
<input type="checkbox"/>	4	699	Male	
<input type="checkbox"/>	5	700	Male	
<input type="checkbox"/>	6	701	Male	
<input type="checkbox"/>	7	702	Male	
<input type="checkbox"/>	8	703	Male	



Updating Animal Information

Any individual animal can be updated and edited by clicking directly on the animal name and choosing “edit animal,” or by checking the box next to an animal and clicking the “update button. If you would like to edit several animals with the same information, select the animals you would like to update, and click the update button.

Animals: Live - Dead - Male - Female - Pups (<21d) - Adult (21d-1y) - Old (1-2y) - Older (>2y) - All Animals

Search Browse All Records Set Default Columns Print Search Results

List of Animals (Displaying 1 - 10 of 10 records. Page 1 of 1.)

★ Add to Selection ✚ New ✎ Update 🗑 Delete 📄 Export 🔄 Transfer ✖ Sacrifice 📊 Animal Statistics 📅 Experiment 📅 Event 📏 Measurement 🔄 Mating

<input type="checkbox"/>	No.	Animal	Cage	Cage Location	Sex	DOB	Dam
<input type="checkbox"/>	1	H73IM_39	Cage_2	Biochemistry / 523 / 2	Male	2010-05-13 (1y4m19d)	
<input type="checkbox"/>	2	H73IM_40	Cage_2	Biochemistry / 523 / 2	Male	2010-05-12 (1y4m20d)	
<input checked="" type="checkbox"/>	3	H73IM_41	Cage_2	Biochemistry / 523 / 2	Female	2010-05-14 (1y4m18d)	
<input checked="" type="checkbox"/>	4	H73IM_42	Cage_2	Biochemistry / 523 / 2		2010-05-10 (1y4m22d)	
<input checked="" type="checkbox"/>	5	H73IM_43	Cage_2	Biochemistry / 523 / 2	Female	2010-05-10 (1y4m22d)	
<input type="checkbox"/>	6	KUY6S_236	Cage_1	Biochemistry / 523 / 2	Male	2010-09-14 (1y15d)	
<input type="checkbox"/>	7	KUY6S_237	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y14d)	
<input type="checkbox"/>	8	KUY6S_238	Cage_1	Biochemistry / 523 / 2	Male	2010-09-13 (1y16d)	
<input type="checkbox"/>	9	KUY6S_239	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y14d)	
<input type="checkbox"/>	10	KUY6S_240	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y14d)	

Select an action [v] Displaying 1 - 10 of 10 records. Page 1 of 1.

Select all animals to be bulk updated

To bulk update your animals, check the box next to each item that you want to update for all selected animals and save your information.

Selected Animals: H73JW_41, H73JW_42, H73JW_43

Please check the box next to the data field that you are editing the values.

Main Information

☐ Dam (Mother):

☐ Sire (Father):

☐ Date of Birth:

☐ Sex:

☐ Life Status:

☐ Status Date:

☐ Generations:

☐ Purpose:

☐ Owner:

☐ Body Color:

☐ Species:

☐ Strain:

☐ Background Strain:

Genotypes

☐ Check to Edit Animal Genotypes - [Help](#)

☐ Remove all existing genotypes before saving any new data.

☐ Replace existing genotypes.

[Add More](#)

[Save Animal Info](#) [Cancel](#)



Export Animal Data

You can easily export your animal records to Excel by selecting the animals you wish to export, and clicking the "Export" button. You can export any search as well.

Animals: Live - Dead - Male - Female - Pairs (218) - Sub (218-2y) - Old (218-2y) - Old (218-2y) - All Animals

[Search](#) [Browse All Records](#) [Set Default Columns](#) [Print Search Results](#)

List of Animals (Displaying 1 - 10 of 10 records, Page 1 of 1)

Record per page

	Mr. Animal	Cage	Cage Category	Sex	DOB	Date	Sex	Status	Strain
<input type="checkbox"/>	H73JW_41	Cage_3	Biotechnology / 323 / 2	Male	2018-09-12 (1440000)			Live	H73JW
<input type="checkbox"/>	H73JW_42	Cage_3	Biotechnology / 323 / 2	Male	2018-09-12 (1440000)			Live	H73JW
<input type="checkbox"/>	H73JW_43	Cage_3	Biotechnology / 323 / 2	Female	2018-09-14 (1440300)			Live	H73JW
<input type="checkbox"/>	H73JW_44	Cage_3	Biotechnology / 323 / 2	Female	2018-09-18 (1440200)			Live	H73JW
<input type="checkbox"/>	H73JW_45	Cage_3	Biotechnology / 323 / 2	Female	2018-09-18 (1440200)			Live	H73JW
<input type="checkbox"/>	K1905_230	Cage_1	Biotechnology / 323 / 2	Male	2018-09-14 (1440100)			Live	K1905
<input type="checkbox"/>	K1905_231	Cage_1	Biotechnology / 323 / 2	Female	2018-09-14 (1440100)			Live	K1905
<input type="checkbox"/>	K1905_232	Cage_1	Biotechnology / 323 / 2	Male	2018-09-13 (1440100)			Live	K1905
<input type="checkbox"/>	K1905_233	Cage_1	Biotechnology / 323 / 2	Female	2018-09-13 (1440100)			Live	K1905
<input type="checkbox"/>	K1905_234	Cage_1	Biotechnology / 323 / 2	Female	2018-09-13 (1440100)			Live	K1905

Select an action Displaying 1 - 10 of 10 records, Page 1 of 1.



Search:

The screenshot shows the AWS IAM console interface. The top navigation bar includes 'All IAM entities', 'Groups', 'Users', 'Roles', 'Policies', 'Groups', 'Users', 'Roles', 'Policies', 'Groups', 'Users', 'Roles', 'Policies'. The main content area displays a table of IAM groups. The left-hand navigation menu is visible, with 'Users' highlighted by a red circle. The table contains the following data:

No.	Group Name	Group Type	Group Size	Group Status	Group Creation Date	Group Last Modified Date
1	group-1	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
2	group-2	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
3	group-3	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
4	group-4	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
5	group-5	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
6	group-6	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
7	group-7	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
8	group-8	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00
9	group-9	Group	1	Active	2019-01-01 10:00:00	2019-01-01 10:00:00

[Animals: Live](#) - [Dead](#) - [Male](#) - [Female](#) - [Pups \(<21d\)](#) - [Adult \(21d-1y\)](#) - [Old \(1-2y\)](#) - [Older \(>2y\)](#) - [All Animals](#)

[Search](#) [Browse All Records](#) [Set Default Columns](#) [Print Search Result](#)

List of Deleted Animals (Displaying 1 - 1 of 1 records, Page 1 of 1.)

[New](#) [Show Active Records](#) [Undelete](#) [Export](#)

No.	Animal	Cage	Cage Location	Sex	DOB
<input checked="" type="checkbox"/>	1 KUV65_240_Deleted_1317309922	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y14d)

Select an action

Displaying 1 - 1 of 1 records, Page 1 of 1.



The Animal “Shopping Cart”

The Animal “Shopping Cart” allows you to select certain animals that you would like to group together for an event, such as a future mating, experiment, or measurement. To place animals in the shopping cart, select the animals you would like to work with, and click Add to Selection. Your selected animals will remain in your “shopping cart” until you remove them.

Animals: Live - Dead - Male - Female - Pups (<21d) - Adult (21d-1y) - Old (1-2y) - Older (>2y) - All Animals

Search Browse All Records Set Default Columns Print Search Result

List of Animals (Displaying 1 - 9 of 9 records, Page 1 of 1)

Add to Selection Remove from Selection Keep in Selection New Update Delete Export Transfer Sacrifice Animal Statistics Export

No.	Animal *	Cage	Cage Location	Sex	DOB
1	H73M_39	Cage_2	Biochemistry / 523 / 2	Male	2010-05-13 (1y4m15d)
2	H73M_40	Cage_2	Biochemistry / 523 / 2	Male	2010-05-12 (1y4m20d)
3	H73M_41	Cage_2	Biochemistry / 523 / 2	Female	2010-05-14 (1y4m18d)
4	H73M_42	Cage_2	Biochemistry / 523 / 2	Female	2010-05-10 (1y4m22d)
5	H73M_43	Cage_2	Biochemistry / 523 / 2	Female	2010-05-10 (1y4m22d)
6	KUY65_230	Cage_1	Biochemistry / 523 / 2	Male	2010-09-14 (1y13d)
7	KUY65_231	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y13d)
8	KUY65_239	Cage_1	Biochemistry / 523 / 2	Male	2010-09-13 (1y13d)
9	KUY65_238	Cage_1	Biochemistry / 523 / 2	Female	2010-09-13 (1y13d)

Select an action Displaying 1 - 9 of 9 records, Page 1 of 1

To use your shopping cart, click on your highlighted Selected Animals. You can also select animals to remove, or animals that you want to keep in the selection.

Animal Tools

- Add New Animals
- Review Animals (9)
 - Live (9)
 - Dead
 - Males
 - Females
 - < 21 days
 - 21 days - 12 months
 - 1 - 2 Years
 - Over 2 Years
 - All Animals
 - Selected Animals (3)**
 - Review Animals By Shifts
 - H73M
 - KUY65
 - Review Animals By Owners

Animals: Live - Dead - Male - Female - Pups (<21d) - Adult (21d-1y) - Old (1-2y) - Older (>2y) - All Animals

Search Browse All Records Set Default Columns Print Search Result

List of Animals (Displaying 1 - 3 of 3 records, Page 1 of 1)

Remove from Selection Keep in Selection New Update Delete Export Transfer Sacrifice Animal Statistics Export

No.	Animal *	Cage	Cage Location	Sex	DOB
1	H73M_39	Cage_2	Biochemistry / 523 / 2	Male	2010-05-13 (1y4m15d)
2	H73M_40	Cage_2	Biochemistry / 523 / 2	Male	2010-05-12 (1y4m20d)
3	H73M_42	Cage_2	Biochemistry / 523 / 2	Female	2010-05-10 (1y4m22d)

Select an action Displaying 1 - 3 of 3 records, Page 1 of 1



Animal Statistics

To view your animal statistics, select the animals you would like to see the statistics for and click the Statistics button. **mLIMS** will display the statistics for the animals you selected.

List of Animals (displaying 1 - 10 of 20 records, Page 1 of 2)

No.	Animal	Cage	Cage Location	Sex	DOB	Time	Item
1	4589	Cage_1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	0000_000	00000
2	4590	Cage_1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	KUY65_239	KUY65
3	4591	Cage_1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	KUY65_239	KUY65
4	4592	Cage_1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	KUY65_239	KUY65
5	3547	Breeding 1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	HT3M_41	HT3M
6	3548	Breeding 1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	HT3M_41	HT3M
7	3549	Breeding 1	Biochemistry / 523 / 2 / 1 / 8	Male	2011-09-30 (04)	HT3M_41	HT3M

Animal Statistics

Selected Animals (4): 4589, 4590, 4591, 4592

Total Selected Animals: 4

Sex:

- Male: 4 (100%)

Strain:

- HT3M: 4 (100%)

Body Color:

- Black: 4 (100%)

Purpose:

- Black: 4 (100%)

TR3F:

- 1:1 (25%)
- 2:1 (25%)



Animal Pedigree and History

To view the pedigree/family tree for any animal, open the information for that animal and click on the pedigree tab. You can also view the history of the animal and the litter(s) of that animal by clicking the appropriate tab.

Animals: ◀ Previous Animal - Next Animal ▶ - 🔍 Browse All Animals - ✎ Edit Animal Info - ✨ Add New Animals

Animal Information | **Current Cage** | **Animals In This Cage (6)** | **Litter** | **Animal Pedigree** | **History**

Parents

Open All - Close All

- ♂ 4589/Male/+/Od/Live
 - ♂ KUY65_236/Male/1y16d/Live
 - ♀ KUY65_239/Female/1y15d/Live

Offspring

This animal has no offspring.

Animals: ◀ Previous Animal - Next Animal ▶ - 🔍 Browse All Animals - ✎ Edit Animal Info - ✨ Add New Animals

Animal Information | **Current Cage** | **Animals In This Cage (6)** | **Litter** | **Animal Pedigree** | **History**

History

Date	Action	Cage	Performed By	Reason
2011-09-30 11:22:26	Move In	Cage_1	User Demo	Add new animal

Section V: Cage Tools



Review and Search Cages

You can easily review and search cages using the home screen or the left menu. When you select cages, you will have additional options to review them by active cages, discarded cages, or by owner.



Review Cages

The Review Cages Main Screen displays a search tool, browse tool, set default columns, and print search result.



The Search Tool

To search cages, click the search option, and use the pull down menus to select your search terms. Enter your value, and search. You may also add more search terms to narrow your results even further by using the “add more” option.



Set Default Columns

You can choose what columns to display in your cage review by selecting Settings. Use the arrows to move to and from the Available Fields and Selected Fields. Apply your changes, and your default columns will appear as desired.

Select Fields to Display:

Available Fields: # of Animals, Barcode, Building, DOB, Gene, Genotypes

Selected Fields: Cage, Room, Rack, Purpose, Status, Setup Date

Field Sorting Options:

Sort By: Barcode, Ascending

Apply Changes, Reset



Updating Cage Information

Any individual cage can be updated and edited by clicking directly on the cage name and choosing Edit Cage, or by checking the box next to a cage and clicking the Update button. If you would like to edit several cages with the same information, select the cages you would like to update, and click the Update button at the top of the screen.

Select all cages to be bulk updated

No.	Cage	Room	Rack	Purpose	Status	Backup Date	Live Animals
1	Cage_1	523	1	General	Active	2011-09-20	HUTG_238_KUMS_237, KUMS_238_KUMS_238
2	Cage_2	523	2	General	Active	2011-09-20	HUTG_238_KUMS_237, KUMS_238_KUMS_238

To bulk update your cages, check the box next to each item that you want to update for all selected cages and save your information.

Edit Cage

Purpose: Euthanasia

Status: Active

Backup Date: 2011-09-20

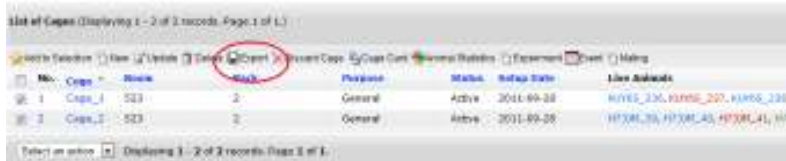
Live Animals: HUTG_238_KUMS_237, KUMS_238_KUMS_238

Comments:



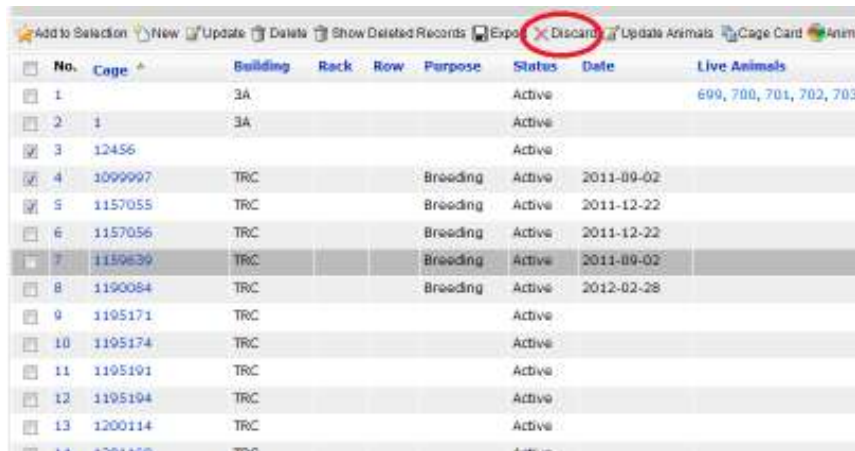
Export Cage Records

You can easily export your cage records to Excel by selecting the cages you wish to export, and clicking the Export button. You can export any search as well.



Discard Cages vs. Delete Cages

From the Review Cages screen, you can bulk “discard” a group of cages. When you use the discard function, the cages selected remain in the database and will be listed as discarded. When you delete cages, they are removed from your active database. To perform either function, select the cages you wish to discard or delete and then click the button (see Animal Tools for recovering deleted items).



When cages are discarded, mLIMS will also ask if you want to sacrifice the animals in the cage.

Selected Cages

Cages to be discarded (3): 12456, 1157055, 1099997

Main Information

☒ Check this box if you want to sacrifice animals in selected cages.

* Date of Death: 2012-08-29 (YYYY-MM-DD)

* Operator: BioInfoRx Demo

Cause of Death:

Comment:

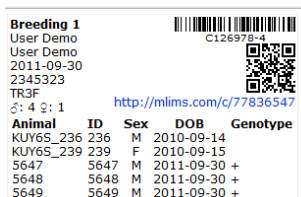
Sacrifice Animals / Discard Cages [Reset](#)



Cage Cards

mLIMS automatically creates cage cards with bar codes for all or your cages. Both 1D and 2D bar codes are included. Please contact us for recommended 1D Bar Code scanners and printers. Use your Smart Phone to scan the 2D Bar codes, and you'll be taken directly to the information of that cage on your phone's browser.

To view and print cage cards, select the cages you would like to print cards for, and click the Cage Card button. Your cage cards are ready to print.

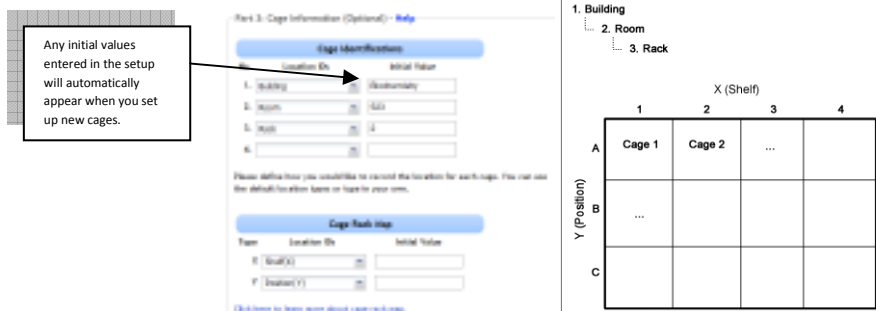


Breeding 1					
User Demo					
2011-09-30					
2345323					
TR3F					
♂: 4 ♀: 1					
http://mlims.com/c/77836547					
Animal	ID	Sex	DOB	Genotype	
KUY65_236	236	M	2010-09-14		
KUY65_239	239	F	2010-09-15		
5647	5647	M	2011-09-30	+	
5648	5648	M	2011-09-30	+	
5649	5649	M	2011-09-30	+	



Creating a Cage Map

If you are using a cage map, your values can be edited in the Set Up mLIMS System (see Section III). You may change the values of the pull down menus to fit your facility needs. Enter initial values that are constant for each cage, and mLIMS will automatically fill these in whenever you create a cage. The diagram on the right pictures how your cage map will propagate as you set up cages.



Each time you add a new cage, you have the option of adding your cage map information. Initial values created in setup will automatically be entered for you.

Maintained By: Setup Date: (YYYY-mm-dd)

Barcode:

Cage Location: ←

Building Room Rack Position(Y) Shelf(X)

Comment:

The first 3 values were automatically entered by mLIMS from the system setup values.

To view your Cage map, select Cage Map from the Cage menu on the left. You will be shown a series of pull down menus to choose your building, room, and rack. After you select all 3, your cage map will display.

Each pull down menu appears one at a time.

Building: Room: Rack:

The cage map displays a grid of four cages. Each cage contains several animal icons (mice) and is labeled with its ID (1A, 1B, 2A, 2B) and a description (Cage_1, Breeding_1, Cage_2, Breeding_2). The map is framed by a grid with letters A, B, 1, 2 on the sides.

Section VI: Matings and Litters



Setting Up a Mating

There are two possible ways to create a mating. Each possibility will direct you to the New Mating window.

Method 1: From the Main Screen, select Set Up Breeding Cages from the left side menu or New Mating/Breeding Cage under the Tasks menu from the main screen. You may also select Add New Matings under the Matings & Litters menu.



Method 2: Select the sire(s) and dam(s) you wish to mate from the Review Animals screen or your shopping cart, and select the Mating button at the top of the screen. **mLIMS** will automatically fill in the parents on your Set Up Mating screen.

List of Animals (Displaying 1 - 9 of 9 records, Page 1 of 1.)

No.	Animal *	Cage	Cage Location	Sex	DOB	Dam	Sire	Status
1	H733M_39	Cage_2	Biochemistry / 523 / 2	Male	2010-05-13 (1y4m20d)			Live
2	H733M_40	Cage_2	Biochemistry / 523 / 2	Male	2010-05-12 (1y4m21d)			Live
3	H733M_41	Cage_2	Biochemistry / 523 / 2	Female	2010-05-14 (1y4m19d)			Live
4	H733M_42	Cage_2	Biochemistry / 523 / 2		2010-05-10 (1y4m23d)			Live
5	H733M_43	Cage_2	Biochemistry / 523 / 2	Female	2010-05-10 (1y4m23d)			Live
6	KUY05_236	Cage_1	Biochemistry / 523 / 2	Male	2010-09-14 (1y16d)			Live
7	KUY05_237	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y15d)			Live
8	KUY05_238	Cage_1	Biochemistry / 523 / 2	Male	2010-09-13 (1y17d)			Live
9	KUY05_239	Cage_1	Biochemistry / 523 / 2	Female	2010-09-15 (1y15d)			Live

Select an action Displaying 1 - 9 of 9 records, Page 1 of 1.

The Mating Information Screen

Enter your breeding scheme, the dam and sire to be mated, and the mating date. You can enter the sire and dam directly, or use the search tool to select your animals. The Plug date and anticipated delivery date are automatic after you enter the mating date. If you began your mating by selecting the dam and sire from your shopping cart or review animals menu, they will already be filled in for you. **mLIMS** supports up to 5 sires and 5 dams per mating.

You can set **mLIMS** to send you a reminder for an anticipated delivery date.

Set up a new breeding cage, and enter the cage location if desired. Enter optional information that will be applied to any new pups from this mating.

The screenshot shows the 'Mating Information' form with several sections and callouts:

- Basic Information:**
 - * Breeding Scheme (Mating Name): Alpha1XAlpha2
 - * Dam (Mother): Alpha1
 - * Sire (Father): Alpha2
 - Current Status: Active
 - Owner: User Demo
- Dates:**
 - Mating Date: 2011-09-30 (Default: Today's date)
 - Plug Date: 2011-09-30 (Default: Mating Date)
 - Anticipated Delivery Date: 2011-10-21 (Default: 21 days from plug date)
 - Reminder Type: Email
- Breeding Cage - Help:**
 - Cage: <<Set up a new cage>>
 - *Cage Name: BreedingAlpha
 - Current Status: Active
 - Maintained By: User Demo
 - Barcode:
 - Cage Location: Bio 34 1 A 1
 - Comment:
 - ☒ Transfer the selected dams and sires to this breeding cage
 - ☒ Verify that there are no other animals living in this breeding cage
- Optional Information:**
 - Generation: F2
 - Background Strain: Alpha
 - Expected Number of Pups: 0
 - Standard Wean Time:
 - Notes:

Callouts provide additional instructions:

- Enter only the mating date if you wish to use the default plug and anticipated delivery dates.
- Enter animal names directly, or use the search function.
- You can auto-create a cage, set up a new cage, or select an existing cage.
- Enter any optional information and save your mating information. The optional information will be automatically transferred to any new pups from this mating.



Once your mating information is saved, it will appear in the Matings menu on the left.

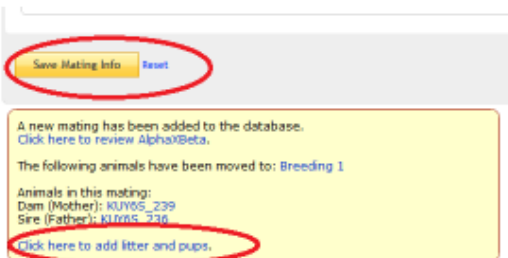


Add Litter and Pups

To add a litter and pups to an active mating, select Add Litter and Pups from the left menu or New Litter and Add Pups from the Tasks menu.

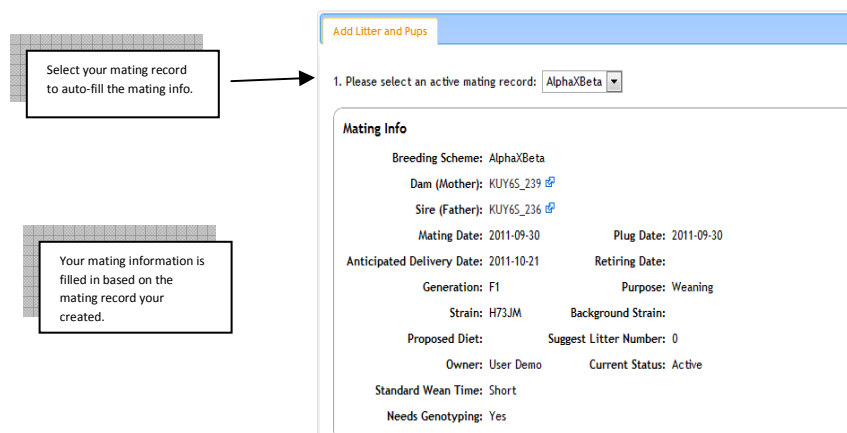


When you add a new mating, you may also set up a litter directly after you save the mating.



Adding Your Litter and Pups

Step 1: From the Add Litter and Pups screen, select the active mating from the pull down menu. All of the mating information will be automatically filled in for you.



Step 2: Fill in your litter information. Assign a unique name to the litter, and enter the date of birth. Tagging and weaning dates will fill in automatically. You can select the email reminder for tagging and weaning times.

If the mating is complete, you may check the box, and **mLIMS** will move the mating to the inactive matings list automatically.

If you are adding new pups and their ear tag will increment by 1, enter the initial ear tag number and **mLIMS** will add your pups with ear tag numbers. Select the number of pups from the pull down menu, and **mLIMS** will add your litter (**Do NOT click the yellow Add Litter and Pups Button at this time. Let mLIMS create the litter list first**).

2. Please enter the Litter Information:

Litter Info - The Common Information of All Pups

* Litter Name: AlphaBeta

Date of Birth: 2011-01-01 (YYYY-MM-DD) Owner: User Name

Generation: F1 Purpose: Weaning

Strain: WTCB Background Strain:

Tagging Date: 2011-01-01 Weaning Date: 2011-01-01

By default, tagging date is 7 days and weaning date is 21 days from date of birth, respectively.

Reorder Type: Email (Reorder an animal's order on tagging date and weaning date.)

Comments: Send yourself an email reminder for tagging and weaning here.

This will be appended to each pup's record.

3. ☐ Set the weaning status to completed. The selected weaning record will be removed from the weaning list.

4. Please enter the initial value of the animal identifications. This action will automatically increment the pup's value.

Ear Tagging: 400

5. Please select the number of new borns: 5 Click it if you want to create a litter record without any pups. You can add more pups after adding this litter record.

You are now ready to enter the Pups info. If you selected an initial Ear Tag Value, **mLIMS** has already created the animal names and ear tags for the new pups. You may also edit/fill in the Animal Name manually. If **mLIMS** finds a duplicate tag or name, it will re-name the duplicate animal.

To edit further information, you can use the pull down menus, or use the Copy function to tell **mLIMS** to give the same information you selected from the first pup to all of the pups. You can select genes and genotypes and new cages at this time, or edit them late. You are now ready to save using the yellow button.

Use the Copy function to tell **mLIMS** to assign the same values selected for the first animal to all animals below it.

Pups Info

Animal Name	Ear Tagging	Gender (K:Male)	Status (K:Use)	Color (K:Gry)	Isles and Genotypes (K:Gry)	Cage (K:Gry)	Comments
4001	400	Male	Use		<div> <div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>+</div> <div>+</div> <div>+</div> </div> </div>	Cage_3	
4002	400	Male	Use		<div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>+</div> <div>+</div> <div>+</div> </div>		

 Cage_3 | || 4003 | 400 | Male | Use | | + + + + + + + + + |

 Cage_3 | || 4004 | 400 | Male | Use | | + + + + + + + + + |

Use the Add More link to assign more genotypes. Any comments added will be included in the individual animal notes.

When you add the litter and pups, the new animals will automatically be added to your database.



Review, Search and Update Matings and Litters

To review, search, or update your matings or litters, select from the left menu or the main screen. As in animals and cages, you can search, print, edit individual or multiple matings/litters, export, and delete. The shopping cart function is also available.



Updating an Individual Mating or Litter

To update an individual mating or litter, select the item you would like to update and click the update button. If you change the status of a mating or litter, it will be placed in the appropriate area in the database (completed, tagged, weaned). Some of the things you can do are change the status of the litter or mating, add more pups, or change the life status of pups.



Litter Info - The Common Information of All Pups

* Litter Name:

Current Status: Active Active Tagged Weaned

Date of Birth: (YYYY-mm-dd) Owner:

Generation: Purpose:

Background Strain: Strain:

Tagging Date: (YYYY-mm-dd) Weaning Date: (YYYY-mm-dd)

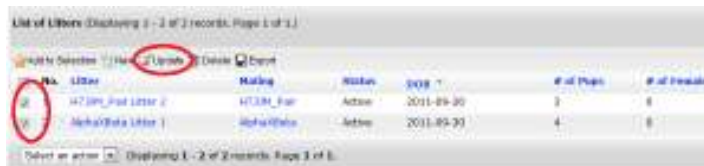
By default, tagging date is 5 days and weaning date is 21 days from date of birth, respectively.

Reminder Type: (Receive an email reminder on tagging date and weaning date.)

Comments:

Bulk Updating Matings or Litters

To bulk update matings or litters, select the items you would like to update and click the update button.



Just like bulk updating animals or cages, check the box of the item you want to update and enter your data, then save.

The screenshot shows a 'Bulk Update Litter' form. At the top, there is a yellow warning box that says 'Please verify the data used to create this litter before updating the name.' Below this, the form is divided into several sections: 'Basic Information' with fields for 'Litter Name' and 'Owner'; 'Dates' with fields for 'Date of Birth', 'Mating Date', 'Whelping Date', and 'Resale Date'; 'Optional Information' with fields for 'Subspecies', 'Sex', 'Background', 'Grade', and 'Comments'; and 'Record Ownership' with a 'Transfer Ownership' button. At the bottom, there is a 'Save & Close Litter' button.

Section VII: Experiments, Events, and Measurements



Experiments

To add a new experiment, select Add New Experiment from the left menu or New Experiment from the main screen. You may also select animals for an experiment from the review animals screen and click the Experiment button.



Add your experiment details on the experiment screen. If you selected animals from the Review Animals Screen, your Animals will automatically be listed. If you used the New Experiment function, add your animals or use the search to add. You may also attach files to your experiment. Review and edit your experiments the same way you would review or edit an animal or cage.

Experiment Information

Browse All Experiments

*Experiment Description: Glucose Monitoring

Characters left: 32

*Selected Animals (3): 4589, 4592, 5648

Experiment Date: 2011-08-30 14:25

(YYYY-MM-DD HH:MM)

Type: Drug Treatment

Researcher: User Demo

Labnote Pages:

Protocol:

Result:

Notes:

Click here to attach files

Save Experiment Info

Reset

You can introduce new values to the "Type" menu by typing it in. mLIMS will remember the value and add it to the pull down menu.



Events

Events are any task that is on a “calendar.” When you add a new mating, it is added to your events automatically. You can also add other events to the database for which you would like to keep track of and receive a reminder.

To add a new event, select Add New Event from the left menu or New Events from the main screen. You may also select animals for an event from the Review Animals Screen and click the Event button. When you select animals for an event, they will automatically be added when you begin the event.



Enter the details for your event. You may add any new value to the pull down menus for **mLIMS** to remember. Enter the date, and if you would like a reminder, select the email reminder. You can edit the time and day of the reminder. Add any notes or comments, and attach a file if relevant. If you selected the email reminder, you will be reminded that it is time for this event one hour before by default, or for whatever time you chose.

Event Information: [Browse All Events](#)

*Event Description: Characters left: 34

*Animals:

Event Date: (YYYY-MM-DD HH:MM) Type:

Researcher: Reminder Type:

Reminder Date/Time: America/Chicago Change your time zone.

Details:

Notes:

[Click here to attach file](#)

You can browse, search, browse, edit, use the shopping cart, and update your events and experiments just like you would with animals and cages.



Measurements

To add a new measurement, select Add New Measurement from the left menu, or New measurement from the main screen. You may also select animals for an event from the Review Animals Screen and click the Measurement button. When you select animals for an event, they will automatically be added when you begin the event.



Enter the data for your measurements, attach files if needed, and save.

To plot your measurements, select the animals you wish to plot from the Review Measurements screen, and click the Plot vs. Date button. Your data will be displayed.



Section VIII: mLIMS Tips

mLIMS is designed for the many varying workflows of researchers. It is programmed according to the needs of our users, and is very intuitive. Here are some general tips for **mLIMS**:

Managing Workflows

- Use the Review Screens to select the animals you are working with, and use the function buttons above.

On any search, browse, or review page, select your animals, then choose the function.

Functions are also available in a pull up menu at the bottom of every search, browse, and review page.

Navigating mLIMS

Updating Groups of Animals and Items

Bulk updating is possible for any group of animals, cages, matings, litters, experiments, or measurements. Select the animals to update from a search, browse or review, and click update.



Searching

Use the search functions to review and work with specific animals, cages, or other data in your mLIMS database. You can add more search functions to narrow your search.

Animals: [Live](#) - [Dead](#) - [Male](#) - [Female](#) - [Pups \(<21d\)](#) - [Adult \(21d-1y\)](#) - [Old \(1-2y\)](#) - [Older \(>2y\)](#) - [All Animals](#)

Search:

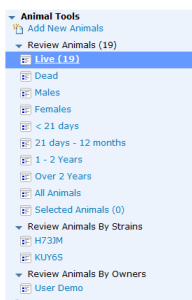
☐ And ☒ Or [Remove](#)

☒ And ☐ Or [Remove](#)

☐ And ☒ Or [Remove](#)

[Add More](#)

Use the default search blocks provided for you in the left menu to begin a search that is already narrowed down. You can search animals by alive, dead, owner, or strain for example.



Visit our You Tube Channel for several video tips and tutorials at:

<http://www.youtube.com/user/BioInfoManagement>

Our support team is always ready to assist you! Call us at 608-467-4936 Monday-Friday, 9 AM – 5 PM Central time, or email us at: info@bioinforx.com

Thank You for Choosing **mLIMS** to manage your animal colonies.