

Ai.Study[™] User Documentation System Administrator Configuration Guide

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1 Getting started

Welcome to your Ai.Study[™] Configuration and Administration User Guide. This document has been written to support those of you who have been designated System Administrators for Ai.Study in your organisation.

As a System Administrator, your role is to ensure the reference data in your system is up to date, accurate and relevant to your researchers needs.

The System Administrator role is to provide a service to your organisation to maintain the integrity and quality of your reference data so that your experiments and data analysis are based on correct and reliable source reference data.

You will also have the responsibility for maintaining which of your staff can access Ai.Study and what role this should be assigned. This document will explain the roles in detail, but the main purpose of assigning roles to staff is to control access rights to information, records and data in your system.

1.1 What you need to start

1.1.1 What browser do you need?

You will need to use the latest Google Chrome Web browser to get the best experience when using Ai.Study. Please also make sure that your staff and colleagues have the latest Google Chrome Browser installed when they come to login and use Ai.Study.

1.1.2 What login do you need?

Somark will have confirmed your System Administrator login and password credentials and your organisation's Ai.Study web address / URL by email to you to enable you to login and start to configure and set up your Ai.Study system.

1.2 What information do you need?

As a System Administrator you will need to create and maintain the following sources of reference information used in Ai.Study:

- A. Organization Structure
 - What is your corporate structure?
 - Which sites and facilities do you have and what are their addresses?
 - What rooms do the facilities have?
 - What racks do you have in each room?
- B. User Management Access Rights & Permissions
 - Which staff need access to Ai.Study?
 - What are their titles, email addresses and contact details?
 - What roles do they need to ensure they have the right access to the right records and data?
- C. Settings for NC3Rs compliance in Studies
 - Does your organisation wish for studies to have been designed according to the NCR3Rs Experimental Design Assistant best practice standards, and do you require researchers to evidence this for approval of their studies?
- D. Test methods used in Studies
 - What observations, treatments, procedures, measurements and interventions does your organisation approve and use in experiments?
 - o What are the standards for measures?
 - What are the SOPs for given procedures?



- What catalogue references for compounds, assays, reagents etc. should be documented?
- E. Configuration of field values for Animal Attributes and Identification Methods
 - What mouse and rat strains does your organisation use?
 - What genotypes does your organisation use?
 - What phenotypes does your organisation use?
 - What methods of identification does your organisation use, both for visual identification and digital identification?
 - What are the standards for these methods of identification? For example, where on the animal? Any particular vendor or colour?
 - What are the primary methods required?

Having this information prepared will help you set up your Ai.Study and ensure your colleagues can effectively use the system.

1.3 About your System Administrator Guide

Please note, this guide can be downloaded from our Customer Support Center at <u>https://support.mysensalab.com</u> where you will also be able to search on key words and content to find the topics and help you are interested in.

Symbols

Attention Symbols for Notes, Caution and Reference have been marked out where valuable. This guide uses the following symbols and conventions:

d Important

The Important symbol indicates prerequisite checks and important information.

🗘 Note

The Note symbol indicates supplementary explanations and useful tips.

Caution

The **Caution** symbol indicates critical notices and restrictions.



2 Configuration & Administration

Your Ai.Study application is configurable to mirror your organization structure, animal facility set up and your approved policies, experimental design and planning best practise, test methods, animal identification methods and animal attributes. You can also configure user access to manage the privacy and control over data viewing and collection via Ai.Study and Ai.Connect.

2.1 Administration Areas

The Ai.Study Administrator is responsible for the configuration and maintenance of Ai.Study. As an Administrator you may configure the following:

- A. Organization Structure
- B. User Management Access Rights & Permissions
- C. Settings for NC3Rs compliance in Studies
- D. Test methods used in Studies
- E. Configuration of field values for Animal Attributes and Identification Methods

2.2 Configuring the Organization Structure

The Organization Structure maps the location of animals in your facility.

Configuration may be used to replicate the physical facility from the highest level of your organization and facilities to the lowest level numbers and placement of racks in a room.

Your animal facility staff can use the system to create and assign cages to racks, but as System Administrator, you will need to maintain an accurate view of the racks in each room overtime, including their unique IDs and other pertinent information, such as type, model and density.

The structure is designed to be fluid and can be updated to match the changes in a facility over time.

This information is used in the Workbench function of Ai.Study, where staff are able to manage cages and animal allocations to cages.

2.2.1 Create your Organization Structure

Navigate to the **Organization Structure** using the menu item from the navigation menu, as highlighted below. When you first access the Organisation Structure, the default top level will say "Please edit your organisation name".

2	Ai.Study	: Opdonchoe@somarkinnovations.com >
	< Animals	Organization Display inactive
111	Workbench	
Ŋ	Tasks	THE STREET
0	Protocols	Somerk Innovations
-	Studies	
6?	Test Methods	
4	Organization	
ŵ	Users	
00	Settings	

Figure 1: Organization - Menu item and Default Setting

The top level of the Organization Structure is intended to be your organisation or corporate name.



2.2.1.1 Edit your Organization Structure

Please edit your Organization name to change it to your name, by accessing the sub-menu on the Organization tile (click on the 3 dots).



Figure 2: Organization – Edit options

Click on the Edit option to change the Organisation name and details, as shown below.

Organization name t	
Digital Research Inc.	
Description *	
Head office	
Address 1 *	
1 The Avenue	
Address 2	
City *	
Cambridge	
State / Province / Region *	
Massachusetts	
Zip code *	
02139	
Country	
United States	
0411051	LIDDATE
CANCEL	UPDATE



d Important

• The organisation structure is used in the Work Bench feature and to set the location of animals in the system. Changes in the Organization Structure affect the location of animals.



2.2.1.2 Add to your Organization Structure

If your organisation has subsidiaries, you can add those as part of your organisation below the main "group" organisation. Click on the 3 dots and choose Add Organisation from the options, as shown below:



Figure 4: Organization – Edit options

The same Edit Organisation screen will display enabling you to add another organisation name. When you save this, it will position this new organisation below the first one, as shown.



Figure 5: Organization – Adding a subsidiary organisation

You can then add the name and address of Facilities that belong to your organisation. A facility is a location where animals are housed and experiments are conducted. You can define the buildings at the facility in which animals and / or experiments will be conducted.



Figure 6: Organization – Edit a building form

Within buildings, you can define the rooms in which the animals are housed and experiments are conducted. You can also define levels, if your rooms are on multiple levels or floors, and then define rooms within levels.

Within rooms, you can add "zones" and you can add racks. Zones are useful if, for example, you have macro-isolators, sometimes referred to as "bubbles" within a room.

When adding racks to rooms, you can capture data about the time of rack, its model and manufacturer and its density, as shown below.

SensaLab Powered by Digital Mouse	SOMARK	DIGITAL

Barcode	
001	
Rack name *	
Rack1	
Rack description *	
NexGen	
Manufacturer	
Allentown	
Rack type *	
IVC	•
Shelves per side *	
10	
Cages per shelf *	
8	
Planned capacity	
80	\$

Figure 7: Organization – Edit a rack form

2.2.1.3 Disable a node in your Organization Structure

If a particular rack, room, building, facility or organisation is no longer operational within your organisation, you can disable it to remove it from view.



Figure 8: Organization – Disable a node

To do this, navigate to the relevant node, click on the 3 button icon and display the edit options, as shown above. Select the Disable option to set that part of the organisation and all its subsidiary nodes to disabled.

You cannot disable a rack that has cages on it with live animals. First, you must move the mice to an active rack in the Workbench function.

🗘 Note

• When you disable a node in your organisation, whether that is a facility, building or room, etc. the node is not deleted, it is simply turned off from viewing. To view disabled nodes, select the Disabled organisation button on the main screen.



2.3 User Management – Access Management for Ai.Study and Ai.Connect

User access to Ai.Study and Ai.Connect features are driven from the User Management in Ai.Study.

2.3.1 Users

2.3.1.1 User list and searching records

To access the User list, select Users from the left menu options. The following screen will display.

Users				٩	ADD USER
User 📻	Job title 🚍	Roles =	Contact 📻	Phone =	
	Choose v	Choose ~			
Mr. Bhanu Taneja	IT	Administrator	btaneja@somarkinnovatio		1
Mr. Eric Arlund	Senior Veterinarian	Ethics Animal Husbandry Administrator	earlund@somarkinnovatio	m. 0400 000 000w. 0400 000 000	1
Mr. Greg Golden	Facility Manager	Ethics Animal Husbandry Administrator	ggolden@somarkinnovatio	w. 0400 000 000	1
Dr. Hafidh Jamaluddin	Senior Research Director	Ethics Animal Husbandry Administrator	hjamaluddin@somarkinno	m. 0400 000 000w. 0444 000 000	1
Dr. Jay Campbell	IACUC Chair / CSO	Ethics Animal Husbandry Administrator	jcampbell@somarkinnovat		1
Dr. Lou Ristic	Senior Researcher	Ethics Animal Husbandry Administrator	Iristic@somarkinnovations.		1
Mr. Paul Donohoe	Head of IO Lab	Ethics Animal Husbandry Administrator	pdonohoe@somarkinnova	m. 0400 000 000w. 0400 000 000	1

Figure 9: Users – User list

To view and edit a user record, click on the 🖍 icon.

The search field $\frac{\alpha_1}{\alpha_1}$ will search any values displayed in the list. You can search on:

- Title
- First name
- Second name
- Title
- Role
- Email address
- Phone number

To search for a record, type some or all the characters you wish to find a match on. For example "Dr." will list all records with the title of Dr.

2.3.1.2 Adding new users

To add a new user, select the Add user button from the list screen, as shown above. This will open the following pop up screen.

User	Roles
First name *	Surname *
Title *	Job title *
Work telephone	Mobile
Email *	
Active	





The first tab shown requires input of the persons Name, Surname, Title (their Salutation, such as Dr., Prof. Mr. Mrs. Ms. etc.), Job Title and email address.

Their email address will be their login ID to the system.

The users phone contact details are optional.

By default, the Active option is checked, meaning they have access to the Ai.Study system.

After completing the user details, click on the Roles tab and select one or more Roles from the options.

User	Roles	
Administrator		
Animal Husbandry		
Ethics		

Figure 11: Users – Add user role(s)

The role of Administrator should only be given to an approved System Administrator. This role profile gives access to Users, Settings, Test Methods and Organisation. At least two users should be set up with this role.

The Animal Husbandry role should be given to staff who need to access the animal records and Workbench (cage management) options.

The Ethics role should be given to staff who need to view and edit Protocol records.

When both the User and Roles tabs have been completed the Add button will no longer be grey and when selected will add the User record to the system.

2.3.1.3 Editing user profiles

To edit a user profile, access the User list screen from the Users menu option and click on the icon for the user record you wish to edit.

The users record will display as shown.

	SensaLa Proved by Digital Mod	b somark
/iew user		
User	Roles	
First name	Surname	
Eric	Arlund	
Title	Job title	
Mr.	Senior Veterinarian	
Work telephone	Mobile	
0400 000 000	0400 000 000	
^{Email} earlund@somarkinno	vations.com	
Active		
	CANCEL EDIT USER	

Figure 12: Users – Edit user

To make changes to the user record, click on the Edit user button. This will make the fields editable and the button will change to Update.

You can make changes to the users personal details and role(s). You can also select the Active check box and untick it to disable the users access to Ai.Study. This option should be used to manage people that leave your organisation.

To remove a role, uncheck the tick against the role.

To apply changes to the users record, please select the Update button. To discard any changes or close the pop up, select the Cancel button.

🗘 Note

• You cannot edit / change a users email address, as this is their login ID. Please contact Somark if you need to make a change to the login email address.

2.3.2 User Access Rights

2.3.2.1 Accessing features in Ai.Connect

All Active Users in Ai.Study will be able to login on the Ai.Connect, however their access to different modules is limited by the combination of the User Role and Study Role they have in Ai.Study.

The security model below indicates what each user may access or be limited to based on their User Role and Study Role.

AI.CONNECT™ USER ACCESS & PERMISSIONS			Ś	
	USER	VIEWER	RESULTS CREATOR	ANIMAL TECHNICIAN
	Users who have been added to Ai.Study but are not included in a study	Users who need access to animal records in a specific study but are not authorized to edit records	Users who are responsible to capture observations of animals and update animal records for a specific study.	Users who capture observations and edit animal records for any animal
ASSIGNED ROLE(S)	Assigned in System: User/Administrator	Assigned in Study: Results Viewer Assigned in System: Ethics Committee Member	Assigned in Study: Ethics Owner / Principle Investigator/ Study Creator/ Results Creator	Assigned in System: Animal Husbandry Technician
LOGIN			\checkmark	\checkmark



DIGITAL
MOUSE

AI.CONNECT™ USER ACCESS			6	
& PERMISSIONS	Ă		<u> </u>	
	USER	VIEWER	RESULTS CREATOR	ANIMAL TECHNICIAN
VIEW DEVICES		\checkmark	\checkmark	<
SCAN ANIMAL TO VIEW DETAILS	>	\checkmark	\checkmark	\checkmark
RECORD DEATH	×	×	RESTRICTED Record Death for Animals within the Study for which the User is a Results Creator	All Animals
FIND ANIMAL BY CAGE OR ID	×	RESTRICTED Animals enrolled to the Study for which the User is a Results Viewer	RESTRICTED Animals enrolled to the Study for which the User is a Results Viewer	All Animals, Cages, Ids
CAPTURE OBSERVATIONS	×	×	RESTRICTED Observations for Animals within the Study for which the User is a Results Creator	All Animals
ASSOCIATE TAG	×	×	RESTRICTED Animals enrolled to the Study for which the User is a Results Creator	All Animals
BLACKLIST TAG	RESTRICTED Non-Associated Tags	RESTRICTED Non-Associated Tags	RESTRICTED Non-Associated Tags & Associated Tags to Animals within the Study for which the User is a Results Creator	Non-Associated Tags & Any Tagged Animal



2.3.2.2 Accessing features in Ai.Study

All Active Users in Ai.Study will be able to login on the Ai.Connect, however their access to different modules is limited by the combination of the User Role and Study Role they have in Ai.Study.

The security model below indicates what each user may access or be limited to based on their User Role and Study Role.

AI.STUDY™				•1•	k	_	6	• • •	
USER ACCES		Š			<u> </u>				
		USER	STUDY & RESULTS VIEWER	PROTOCOL OWNER	RESULTS CREATOR	PRINCIPAL INVESTIGATOR & STUDY CREATOR	ANIMAL TECHNICIAN	ETHICS COMMITTEE MEMBER	ADMINISTRATOR
		Users who have been added to Ai.Study but are not included in a study	Users who need access to animal records in a specific study but are not authorized to edit records	Users who have been assigned ownership of one or more Protocols in Ai.Study	Users who capture animal observations and update animal records for a specific study	Users who own the Ethics for a study or manage a study	Users who can capture observations and updaate records for any animal in the facility.	Users who require access to review and manage Ethics Applications & Approvals	Users who require access to the Settings & Configuration features in Ai.Study
Q	LOGIN	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
_		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		X	X
-		RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED			
	ANIMAL LIST		Animals assigned to the protocol for which the user is the Protocol Owner						
		Animals enrolled in a		Animals enrolled in a	Animals enrolled in	Animals under the	Create and Import		
		user has access		user has access	the user has access	which the User is a Study Creator or Principal Investigator	and View all Animals		
_		\checkmark	\checkmark	\checkmark	\sim	\checkmark	~	×	×
		RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED			
	ANIMAL RECORD	Animals enrolled in a Study in which the	Animals assigned to a Protocol for which the	Animals enrolled in a Study in which the	View, Edit and Record Death for Animals	View, Edit and Record Death for Animals	View and Edit all Animal Records		
		user has access	user is the Owner	user has access	within the Study in	under the Study's			
					which the user has	Protocol to which the			
1	L	1	1	1	access	user has access			



AI.STUDY™				•1•	6	_	6	•••	
					<u> </u>				¥ P
		USER	STUDY & RESULTS VIEWER	PROTOCOL OWNER	RESULTS CREATOR	PRINCIPAL INVESTIGATOR & STUDY CREATOR	ANIMAL TECHNICIAN	ETHICS COMMITTEE MEMBER	ADMINISTRATOR
		Users who have been added to Ai.Study but are not included in a study	Users who need access to animal records in a specific study but are not authorized to edit records	Users who have been assigned ownership of one or more Protocols in Ai.Study	Users who capture animal observations and update animal records for a specific study	Users who own the Ethics for a study or manage a study	Users who can capture observations and updaate records for any animal in the facility.	Users who require access to review and manage Ethics Applications & Approvals	Users who require access to the Settings & Configuration features in Ai.Study
		\sim	\checkmark	\sim	\sim	\sim	\sim	×	X
a a	WORKBENCH	RESTRICTED View Cages associated to a Study in which the user has access	RESTRICTED Animals assigned to a Protocol for which the user is the Owner	RESTRICTED View Cages associated to a Study in which the user has access	RESTRICTED Create and Move Animals within Cages associated to the Study in which the User has access	RESTRICTED Create and Move Animals within Cages associated to a Study's Protocol in which the User has access	Create and Assign Cages and Animals to Protocols and Move Animals between Cages and Protocols		
•		\checkmark	\checkmark	\sim	\checkmark	\checkmark	\checkmark	\sim	×
	PROTOCOLS	RESTRICTED View Protocols for studies in which the user has access	RESTRICTED View Protocols for which the user is a Protocol Owner or for a study in which the user has access	RESTRICTED View Protocols for studies in which the user has access	RESTRICTED View Protocols for studies in which the user has access	RESTRICTED View Protocols for which the user is a Protocol Owner or for a study in which the user has access	RESTRICTED View all Protocols	Add, Update and View all Protocols	
		\sim	\checkmark	\sim	\sim	\sim	\checkmark	X	×
		RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED	RESTRICTED		
	STUDIES	View studies in which the user to which the user access	Add Draft Studies and Activate Studies which are linked to the Protocol for which the user is an Owner	View studies in which the user to which the user access	View studies to which the user access	Edit studies in which the user is the Study Creator or Principal Investigator	View all Studies		



USER STUDY & RESULTS VIEWER PROTOCOL OWNER RESULTS CREATOR PRINCIPAL INVESTIGATOR & STUDY CREATOR &	AI.STUDY™ USER ACCESS	& PERMISSIONS	•		•	Å	÷			\$
Users who have been added to ALSMUM but are not included in a study Users who name added to ALSMUM access to review adminal records in a specific study but are not autorized to dit records Users who name animal observations and update records in a specific study Users who require manage a study or manage a study results for a shore task and Edit stak arcess or studies in which the user has access access Users who came and update records and update rec			USER	STUDY & RESULTS VIEWER	PROTOCOL OWNER	RESULTS CREATOR	PRINCIPAL INVESTIGATOR & STUDY CREATOR	ANIMAL TECHNICIAN	ETHICS COMMITTEE MEMBER	ADMINISTRATOR
Image: State Study TASKS & DBSERVATIONS) Image: StructED Capture Observations for Animals assigned to the Protocol to the Protoc			Users who have been added to Ai.Study but are not included in a study	Users who need access to animal records in a specific study but are not authorized to edit records	Users who have been assigned ownership of one or more Protocols in Ai.Study	Users who capture animal observations and update animal records for a specific study	Users who own the Ethics for a study or manage a study	Users who can capture observations and updaate records for any animal in the facility.	Users who require access to review and manage Ethics Applications & Approvals	Users who require access to the Settings & Configuration features in Ai.Study
User RESTRICTED RESTRICTED RESTRICTED RESTRICTED RESTRICTED RESTRICTED RESTRICTED Restricted View Completed View Completed tasks for studies to which the user has access View Completed tasks in the user has access View completed tasks for studies to which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View, completed tasks and Edit task results for tasks of studies in which the user has access View, completed tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit alt task results for tasks of studies in which the user has access View and Complete tasks and Edit alt task results for tasks of studies in which the user has access View Task for task of task of		TASKS (STUDY TASKS &	\checkmark	\checkmark	\sim	\checkmark	\checkmark	\checkmark	×	×
View Completed tasks for studies to which the user has access View Completed tasks for studies to which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View and Complete tasks and Edit task results for tasks of studies in which the user has access View Test Methods View Structure View Structure View Test Methods View Test Metho		OBSERVATIONS)	RESTRICTED	RESTRICTED Capture Observations for Animals assigned to the Protocol	RESTRICTED	RESTRICTED	RESTRICTED			
STTEST METHODSRESTRICTEDRES			View Completed tasks for studies to which the user has access		View Completed tasks for studies to which the user has access	View and Complete tasks and Edit task results for tasks of studies in which the user has access	View and Complete tasks and Edit task results for tasks of studies in which the user has access	View, Complete all tasks and Edit all task records		
RESTRICTED View Test MethodsRESTRICTED View StructureRESTRICTED View	5?	TEST METHODS							X	<
Image: DescriptionImage: DescriptionImage	*		RESTRICTED View Test Methods	RESTRICTED View Test Methods	RESTRICTED View Test Methods	RESTRICTED View Test Methods	RESTRICTED View Test Methods	RESTRICTED View Test Methods		Add/Update /Disable Test Methods
RESTRICTED View StructureRESTRICTED View StructureRESTRICTED V		ORGANISATION	\checkmark	 	\sim	\sim	~	\checkmark	\sim	\sim
Image: Settings - Field valuesXXXXXXXAdd/Upda Users a PermiImage: Settings - Field valuesXXXXXXXX			RESTRICTED View Structure	RESTRICTED View Structure	RESTRICTED View Structure	RESTRICTED View Structure	RESTRICTED View Structure	RESTRICTED View Structure	RESTRICTED View Structure	View and Edit Structure
OptimizedSETTINGSXXXXXXVOptimizedSETTINGS-FIELDXXXXXXXXX	ÿ	USERS (USER MANAGEMENT)	×	×	×	×	×	×	×	Add/Update/Disable Users and User Permissions
VALUES X X X X X X	D o	SETTINGS	×	×	×	×	×	×	×	\checkmark
Add/Upda	Ö ₀	SETTINGS – FIELD VALUES	×	×	×	×	×	×	×	Add/Update/Disable



2.4 Configure Test Methods for Studies

Test methods are used in studies to define the types of observation, treatment, intervention or measurement that is to be conducted. These include examples such as dosing, tissue collections, body condition scores, gait analysis or necropsy.

We provide a sample list for you to start with and adapt to your needs. Test methods are organised in 2 categories:

- Animal
- Other

🗇 Note

• When naming a Test Method, you can use general but unique titles. When a researcher selects a Test Method, they are able to give the Test Method an additional title that enables them to provide more study specific information. For example, if you create a Test Method called Inject cell line, the researcher can specify the exact cell line, from the vendor catalogue, that will be injected for their study.

2.4.1.1 When to use Animal Test Methods

When creating a Test Method in the Animal category, you can specify the body part to which the observation, treatment or procedure pertains and the species. Therefore, it is recommended that test methods that pertain to specific body parts and / or species should be created under the Animal category.

2.4.1.2 When to use Other Test Methods

When creating a Test Method in the Other category, you can provide a freeform text description that describes the observation, treatment or procedure SOP. The freeform text can also be used to describe the composition of compounds and provide hyperlinks to catalogue information online.

2.4.2 Configure Animal Test Methods

To create a new Test Method, where you wish to reference a body part to which the Test Method relates, select the Animal tab and click on the Add Test Method button.

Test Methods			٩	ADD TEST METHOD
ANIMAL OTHER				
Title 🚍	Body part 📻	Species 📻	User Interface 📻	
Choose 🗸	Choose 🗸	Choose v	Choose 🗸	
Measure tumour - length	Tumour - subcutaneous	Mouse	Measure area	/ 1
Measure tumour - width	Tumour - subcutaneous	Mouse	Measure area	/ 1
Measure tumour - volume	Tumour - subcutaneous	Mouse	Measure area	/ 1
Measure weight	Whole body	Mouse	Measure weight	11

Figure 13: Test Methods – Sample List for Animals

The form below will popup.

		SensaLab Powerd by Digital Mouse	о 5 о м а г к	. DI
Add test method				
Title				
Body part		_		
Species				
User Interface		-		
CANCEL	ADD			

Figure 14: Test Methods – Add an Animal Test Method form

The Title should be unique and should describe the observation, measurement, procedure or intervention.

The Body part field is freeform and enables you to specify the relevant part of the animals anatomy to which the Test Method pertains. This information is used to guide researchers and technicians to address the particular body part to take a tissue sample from, inject the cell line or dose etc.

The Species field enables you to create a database of Test Methods per animal species, so you can differentiate those that are specific to mice versus rats, etc.

The User interface options enable you to select whether your method should display weight, area or free text data capture values.

d Important

As System Administrator, it is important to ensure that when creating Test Methods, they are uniquely defined. This is to ensure that when analysing study results, it will be possible to identify any differences that particular Test Methods produce in the outcomes and detect any unexpected data variations.

2.4.3 Configure Other Test Methods

Other Test Methods enable you to create a database of both common and study specific observations, measurements, procedures, treatments and interventions - from Mouse Grimace Scores and Body Condition Scores to Oral or Intravenous injections of compounds or cell lines.

A range of pre-loaded examples are provided for you to modify and remove, as is appropriate for your organisation.





Test Methods		٩	ADD TEST METHOD
ANIMAL OTHER			
Title =-	Description _	User Interface =	
Choose 🗸	Choose 🗸	Choose 🗸	
Check surgical wounds post-surgery		Text	/ 1
Administer drug		Text	/ 1
Procedure: TNBS	Establish mouse model	Text	/ 1
Endpoint procedure: Tissue collection		Text	/ 1
Endpoint procedure: CR/BD		Text	/ 1
Endpoint procedure: visceromotor response (VMR)	(=the actual pain measurement)	Text	/ 1
Endpoint procedure: Patch clamp		Text	/ 1
Endpoint procedure: Ca-imaging		Text	/ 1
Endpoint procedure: Perfusion		Text	/ 1
Endpoint procedure: Electrophysiology		Text	/ 1
Procedure: Bladder infusions		Text	/ 1
Procedure: Electromyogram (EMG) surgery	(=implantation of electrodes into the muscle)	Text	/ 1
Procedure: Laparotomy	Abdominal cavity	Text	/ 1
Administer Injection - Brain	Administer Injection - Brain	Text	/ 1
Von Frey Filament Test	Von Frey Filament Test	Text	/ 1
Administer Injection - IT	Administer Injection - Intrathecal	Text	/ 1

Figure 15: Test Methods – Sample list for Other

To add a new Other Test Method, click on the Other Test Method tab and click on the Add Test Method button. This will display the form below.

ite.	
-Description	
Jser Interface	

Figure 16: Test Methods – Add Other Test Method form

The Title should be unique and should describe the observation, measurement, procedure or intervention.

The Description provides an opportunity to provide a short explanation of the SOP and hyperlinks to relevant online sources and documents that may provide access to a more complete SOP.

The User interface options enable you to select whether your method should display weight, area or free text data capture values.

2.4.4 Deleting Test Methods

You can delete a test method by choosing the Method from the List and clicking on the bin icon \square .



🗘 Note

- When you delete a Test Method, any data collected in studies for that test method remains on the study record and is not effected. It means that this test method cannot be used for future studies.
- You cannot delete a Test Method that is currently in use in a study.

d Important

• When you delete a Test method, it cannot be recovered.

2.5 Enable / Disable NC3Rs EDA design requirements for Studies

We recommend you sign up for and use the NC3Rs Experimental Design Assistant to design your studies: <u>https://eda.nc3rs.org.uk/</u>

It is free to use and has all the tutorials and best practice guidance you need to ensure your research and experimental design is rigorous, statistically sound and well designed.

Our Ai.Study solution then ensures you can implement your design correctly, plan it effectively, schedule it efficiently and then execute it (i.e. collect, record and analyse results data) accurately and efficiently, ensuring data transparency, reproducibility and eliminating bias.

2.5.1 Setting EDA file requirements

For Protocol managers, Ethics Committees, IACUCs and any research oversight function who wish to ensure the highest standards of research are conducted by their colleagues, we offer a feature that requires your research teams to at least have considered how best to design their research.

In the Settings function, you can set Ai.Study to require the presence of an EDA file when a researcher creates their study.



Figure 17: Settings – Studies – Require NC3Rs EDA file

If the above button is checked, it means the study cannot be made active without the presence of an EDA and SVG file.



EDA file upload	
EDA diagram file	
+ Choose X Can	
SVG file	
+ Choose X Can	
	CANCEL

Figure 18: Studies – Upload EDA attachments

The EDA and SVG files are uploaded via the Study, from the EDA tab option. The study must be in edit mode and the above pop up appears when you select the Upload EDA files button.

The EDA and SVG files must be created in the <u>https://eda.nc3rs.org.uk/</u> system and then saved locally and uploaded to the Ai.Study using the EDA attachment function in Studies, shown above.

This enables research oversight groups to be able to view the EDA file and the study design (as long as they have an <u>https://eda.nc3rs.org.uk/</u> login) and compare this to how the Ai.Study experiment has been constructed, and how it complies with the EDA design recommendations.

2.6 Configure the Animal Attribute field list values

Ai.Study provides three sets of attributes that can be defined in list values which display and can be used when adding new animal records:

- Strains
- Genotypes
- Phenotypes

Settings								
STUDIES	ID METHODS	ID METHOD OPTIONS	STRAINS	GENOTYPES	PHENOTYPES			
							Show inactive strains	ADD STRAIN
		Name 🚍				Species 🚍		
BALB/c				Mouse				1
C57BL/6J				Mouse				
NOD SCID				Mouse				1
FVB				Mouse				
HP1A_JM-1				Mouse				1
Swiss Webster				Mouse				1
C57BL/6N				Mouse				1
				< < 1 →	\geq			



🗘 Note

- We use the label "strains" but "model" would be an equivalent label.
- If your mice are transgenic, you may use this field value to indicate the "background" strain and record the actual transgene model name in the Line field of the animal record
- The list of strains shown defaults to the current values permitted. To view strains that are no longer available but have been used in the past, check the Show Inactive Strain tick box to display these values.



2.6.1 Adding Animal strains

As shown in Figure 15 – Animal Attributes Strains List, click on the Add Strain button to open the form below.

Add strain		
Name		
BALB/c		
Species *		
Mouse	Active	

Figure 20: Settings – Animal Attributes – Add strain

2.6.2 Adding Animal genotypes

As shown in Figure 15 – Animal Attributes List, select the Genotype tab and then click on the Add genotype button to open the form below.

Name		
+/+		
Species *		
Mouse		-

Figure 21: Settings – Animal Attributes – Add genotype

Click on the ADD button to update the list of genotypes available to use when creating or updating animal records.

🗘 Note

• The Name field does not support superscript values, so, for example n-TRtct5m1^J will be saved as n-TRtct5m1J.

2.6.3 Adding Animal phenotypes

As shown in Figure 15 – Animal Attributes List, select the Phenotype tab and then click on the Add phenotype button to open the form below.

Name		
Nude		
Species *		
Mouse		
Active		

Figure 22: Settings – Animal Attributes – Add phenotype

Click on the ADD button to update the list of phenotypes available to use when creating or updating animal records.



🗘 Note

- If a strain, genotype or phenotype option is no longer to be available to select and use, each of the forms enable you to deselect the Active button. This will retain the value for future use but will prevent that option being used in new animal records.
- The end user will only be able to select 1 phenotype attribute per animal record, in the phenotype field. Further information about the phenotype can be added to the Notes section of the animal record.

2.7 Configure the Approved Animal Identification Methods

2.7.1 Creating Animal Identification options

The list of ID methods is predefined, as are the ID locations on the animal. You can, however, add the ID method providers you use in your organisation.

Settings			
STUDIES ID METHODS ID METHOD OPTIONS	STRAINS GENOTYPES PHENOTYP	PES	
Id Methods	Id method providers	ADD	Id Locations
Shaving	Somark	1	Ear
Skin marking	Charles River	1	Limb
Coat dying	AIMS	1	Footpad
Subcutaneous ink injection	Kent Scientific	1	Toe
Metal tag	Braintree	1	Tail
Plastic tag			Neck
Mini Id tag			Interscapular
Tattoo			Back
Notch			Abdomen
Punch			Flank
Slice			
Toe clip			
Distal phalanx removal			
Luminescent micro tattooing			
Biometric approach			
RFID			
Supplier			

Figure 23: Settings – Animal Identification – List of options

Click on the ADD button to add more ID method vendors, such as Braintree, Kent Scientific, AIMS, and the various other RFID transponder provides, such as Biomedical Data Systems (BMDS) or Trovan.

2.7.2 Defining Approved Animal Identification methods

After creating the Animal Identification options, you can now add the methods of identification your organisation permits.



Settings					
STUDIES	ID METHODS ID N	IETHOD OPTIONS STRAINS GENO	DTYPES PHENOTYPES		
					ADD CONFIGURATION
ld r	method =	Id method provider =-	Id locations	Specialisations	
RFID		Somark	Tail		1
Tattoo		Somark	Tail	UV Green UV Blue Black	i
Supplier					1
Slice		Charles River	Ear		1
Tattoo		AIMS	Ear		1
Plastic tag		Kent Scientific	Ear		1

Figure 24: Settings – Animal Identification – Add your configurations

Click on the Add configuration button to create a new option. Or select the 🖍 Edit icon to change the record shown. The following form will appear.

Configuration	Ication
ld method	
RFID	*
ld method provider	
Somark	~
Id locations	
Tail	*
Specialisations	-
Active	
CANCEL	UPDATE

Figure 25: Settings – Animal Identification – Add / Update a configuration

To disable future use of an ID method, uncheck the Active box.

🗘 Note

• The Specialisations field is only used for Tattooing, to specify a particular ink colour



2.8 Troubleshooting

Symptom	Possible Cause	Actions
User cannot access	Their email address (user id) in Ai.Study is	Contact Somark Support
Ai.Study	misspelt	to correct the users email
		address records in
		Ai.Study
	Their user id is not active	Go to Users, select their
		account using the Edit
		icon and set the account
		to Active and save it
	They have input the incorrect password for	The user must correct or
	their user id	reset their password for
		their email address
User cannot access	Their email address (user id) in Ai.Study is	Contact Somark Support
Ai.Connect	misspelt	to correct the users email
		address records in
		Ai.Study and Ai.Connect
	Their user id is not active	Go to Users, select their
		account using the Edit
		icon and set the account
		to Active and save it
	Their user id is not active	Go to Users, select their
		account using the Edit
		icon and set the account
		to Active and save it
	Their user id has not been added to the	Ask the user to start up
	Ai.Connect	the Ai.Connect. When
		ready, select the Add user
		option from the person
		icon (bottom left of
		screen) and ask them to
		input their Ai.Study email
		address and password
User cannot view	Their user profile in Ai.Study does not have	Review the user profile in
animal records	the role Animal Technician selected and / or	Users and add Animal
	the user has not been added to the Study by	technician to their profile,
	the Study Creator with access rights to that	and / or ask them to
	anımal	contact the Study Creator
		to whom the animal
		belongs and ask them to
		add the user id to their
	Their user profile in Ai Study does not have	Sille :
User cannot view	the role Ethics colorted	Review the user profile in
protocols records		their profile
	Their user profile in the Study Hears costing	
user cannot view	in Ai Study has not been added by the Study	ASK the user to contact
study records	Creater	the study Creator and ask
	Liteator	I them to add the user id to
User cannot view animal records User cannot view protocols records User cannot view study records	Their user id has not been added to the Ai.Connect Their user profile in Ai.Study does not have the role Animal Technician selected and / or the user has not been added to the Study by the Study Creator with access rights to that animal Their user profile in Ai.Study does not have the role Ethics selected Their user profile in the Study Users section in Ai.Study has not been added by the Study	icon and set the account to Active and save it Ask the user to start up the Ai.Connect. When ready, select the Add user option from the person icon (bottom left of screen) and ask them to input their Ai.Study email address and password Review the user profile in Users and add Animal technician to their profile, and / or ask them to contact the Study Creator to whom the animal belongs and ask them to add the user id to their Study Review the user profile in Users and add Ethics to their profile Ask the user to contact the Study Creator and ask them to add the user id to



Symptom	Possible Cause	Actions
User cannot record	Their user profile in the Study Users section	Ask the user to contact
study results	in Ai.Study has been set to Result Viewer not	the Study Creator and ask
	Result Creator by the Study Creator	them to change the user
		id to Result Creator in
		their Study
User cannot access	Their user profile in Ai.Study does not have	Review the user profile in
the Workbench	the role Animal Technician selected	Users and add Animal
		technician to their profile



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