## Purpose

This document serves as a guide for researchers and staff in CUHK to create new animal experimental ethics applications and amendment requests to approved projects. If you encounter any difficulties or have questions about this guide, please contact the support email: aeec@cuhk.edu.hk.

Table of Contents

1 Introduction

Tick@lab is an online platform for the management of animal experimental researches. It is a centralised software that monitors compliance and operational processes. It facilitates the information flow between relevant parties including researchers, institutional staff, administration and management. In addition to monitoring the operational processes of animal experimentation, it supports breeding and colony management, controls animal stocks and orders, governs operations and handles finance[1]. Lastly, institutions may track animal usage for scientific research and ensure researchers' qualifications and competency comply with regulations in animal experiments.
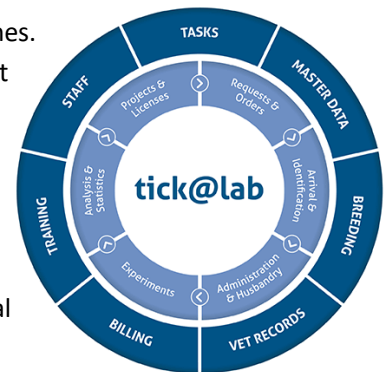
2 Signing In

By default, staff members of the Chinese University of Hong Kong (CUHK) may sign in to access Tick@lab with their CUHK credentials. For new user registration, please use the Tick@lab user form. Please email to aeec-tickatlab@cuhk.edu.hk if you encounter any problems. For principal investigators, a PI research personnel group can be created upon request.

- English Full Name
- CUHK Email Address
- Affiliated Department
- Name of Principal Investigator

After your Tick@lab account is created, you will receive a confirmation email from AEEC and you may access the online platform to submit ethics applications.

The following steps guide you to sign in to Tick@lab: -

1. Click on the following link to access Tick@lab (VPN required if not in CUHK network).
   Please enable pop-ups from your browser to ensure smooth functionality.
   https://eorder.lasec.cuhk.edu.hk/tickatlab/default.aspx

2. To access Tick@lab, a pop-up log-in window is displayed where you will need to enter the username and password, i.e. your CUHK email address and OnePass passcode.

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[1] Functions on Tick@lab will be released by phrases from August 2022. During the initial phrase of implementation, electronic orders and billing services are not available.

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CUHK LOGIN

Login ID

OnePass Password

Sign in

3 The Tick@lab User Interface

When you first login to Tick@lab, the following user interface shall display. You can access different modules via the launch pad, or the navigation menu on the left-hand side of the page. These modules allow you to generate new AEEC applications, request trainings, order animals and more.
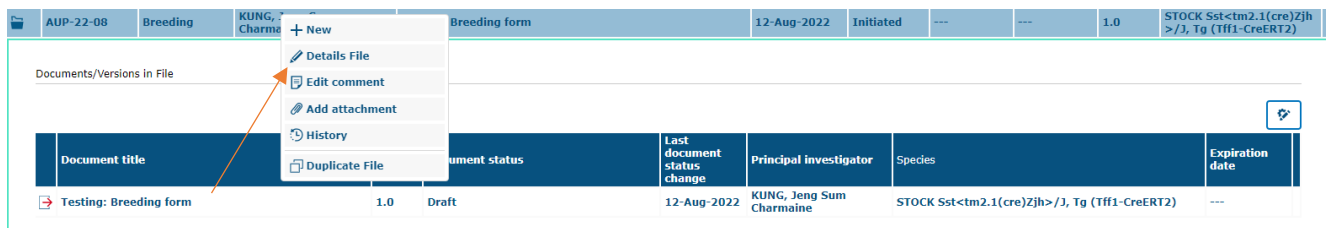
To access animal ethics applications, select 'AUP' under the protocol's module. This will display all animal ethics applications that you are assigned to and you may opt to create new applications.
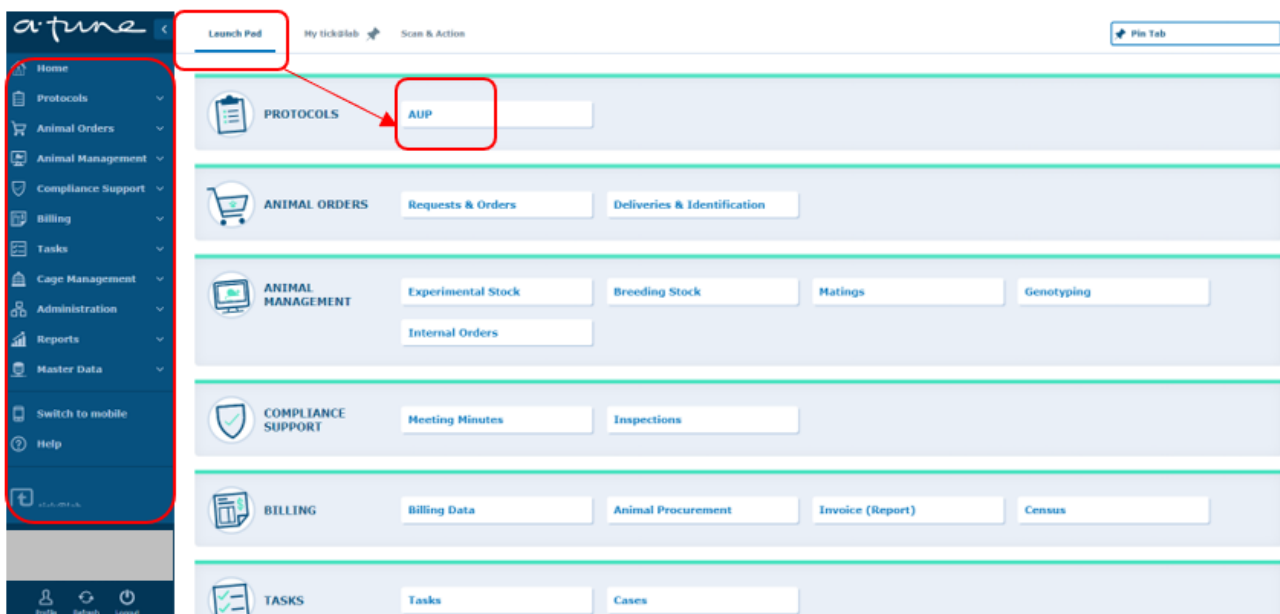
The AUP home page is shown as below. You can apply filter to find applications from pre-configured filter sets, file-general properties, file history properties and document data. Custom filter sets can be saved.
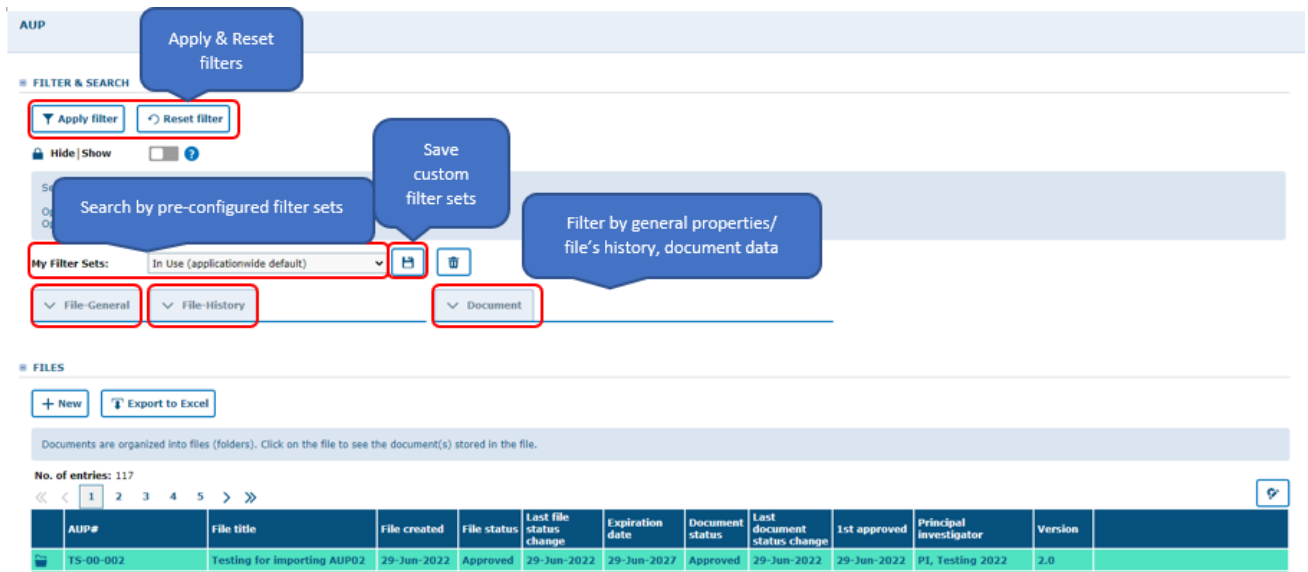
Right click on any application <u>folder</u> (refer to the screenshot below), you will find a drop-down menu as shown below. You may find access to different actions or workflow options for the AUP applications as listed in the table below.

New	Create and edit a new application.
Details File	Catch a glimpse of the file's general information, including number of animals, requirements or conditions of approval, animal users and requesters management, and user application access.
Edit comment	Add comment to the application.
Add attachment	Upload and attach documents to the application.
History	Past changes and activities of the application will be displayed.
Duplicate File	Duplicate the selected application to enable revisions to it instead of starting editing an application afresh.

Click on the folder to assess previous file versions under the same application.

Right click on the application <u>files</u> will grant you access to these functional features:

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|					
Check-in/ Check-out document	Similar as a library system, check-in to return the document to system to stop modifying it, check-out the document to allow modification. When a document is checked-out, others personnel under the same project cannot modify the document.
AEEC Secretariat	Pass the file to AEEC Secretariat for checking and notifying signers to sign off the application.
Closed/Withdrawn	Research team can opt for closing or withdrawing their application in progress.

For approved AUPs, additional workflow options including Annual Review and amendment are enabled. You may submit an amendment request by adding a comment in the text box for AEEC Secretariat's processing (details to be found in Section 5).
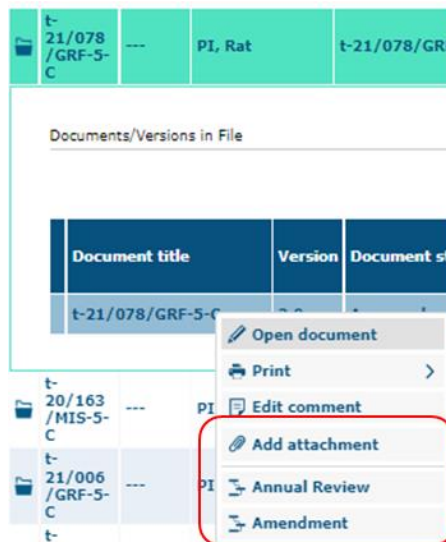
4   Creating New Animal Experimental Ethics Applications

Before making a new application, please check if the following items are ready or being sought:

Animal strains
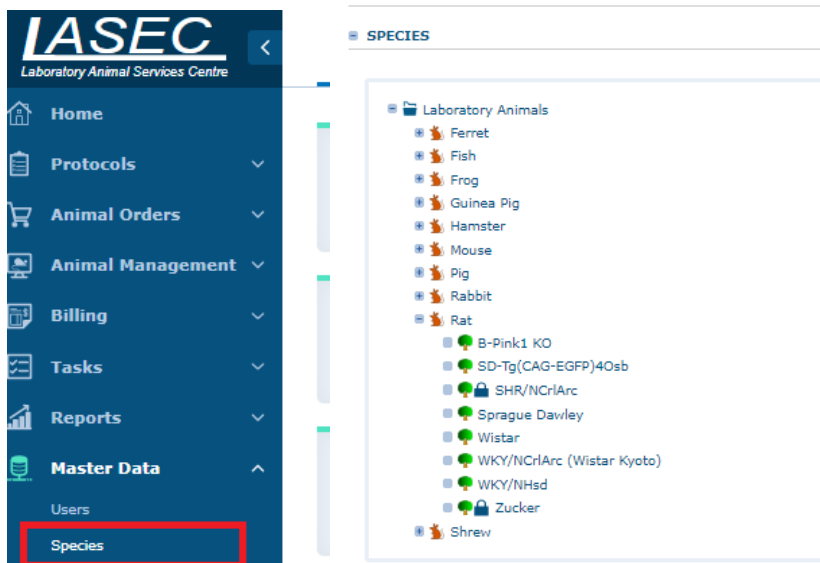
Please check if the animal strains are available on the Tick@lab database. Please contact tick.help@cuhk.edu.hk if your animal strain is not shown.

The animal strain will be used in your application.

Animal License

Please make an application to Department of Health for animal license. Acknowledgement letter from DoH can be submitted. AEEC Approval will only be granted after verification of valid animal license.
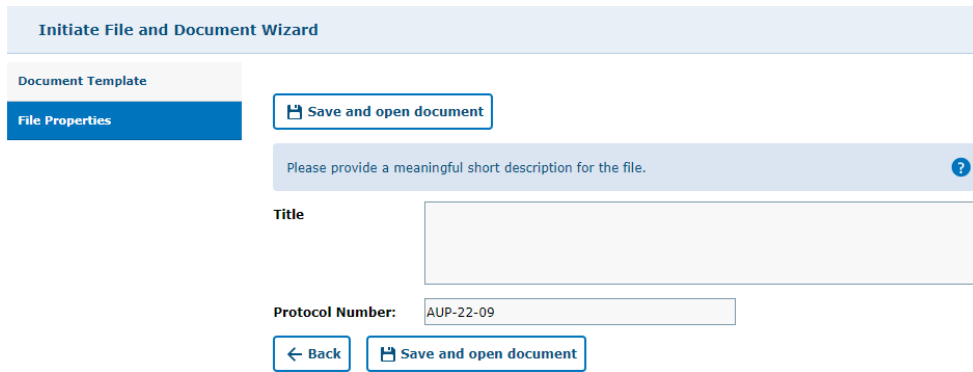
Safety Approval

Safety application should be made to University Safety Office. AEEC approval will only be granted after safety approval.

Facility Inspection

New laboratories will be inspected prior to animal experimentation. Please contact aeec@cuhk.edu.hk if your room has not been inspected or not listed on Tick@lab.

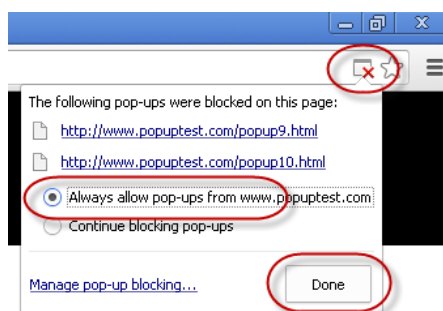## 4.1   Step 1: Select New AUP from the Main Menu

Open Protocols > AUP from the main menu. Select [+ New] . This will create a pop-up* which will allow you to enter the title of your project application. An automated AUP ethics application number will be generated for you.

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Initiate File and Document Wizard

Document Template

File Properties

💾 Save and open document

Please provide a meaningful short description for the file. ❓

Title

Protocol Number: AUP-22-09

← Back   💾 Save and open document

Alternatively, if your team has previously created an application, you can duplicate your current application, then make the changes for the new application. Right click on the application folder and select 'Duplicate'. You can also select 'New' here.

+ New
✎ Details File
🗑 Delete file
📄 Edit comment
📎 Add attachment
🕒 History
🗐 Duplicate File
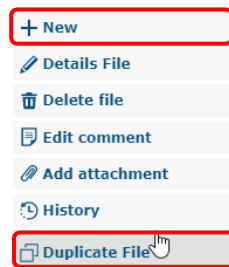
*If a pop-up does not appear on the screen, you may have pop-up's blocked in your browser. Switch this off for the Tick@lab URL by selecting the page icon on the right hand side of the URL address bar and selecting 'always allow pop-ups from https://eorder.lasec.cuhk.edu.hk/tickatlab/default.aspx'.

The following pop-ups were blocked on this page:
📄 http://www.popuptest.com/popup9.html
📄 http://www.popuptest.com/popup10.html
⦿ Always allow pop-ups from www.popuptest.com
○ Continue blocking pop-ups

Manage pop-up blocking…   Done

Your document will already be "Checked-out". This means that no one else can begin editing the document until you check-in the document. You can check documents in and out from the action menu.

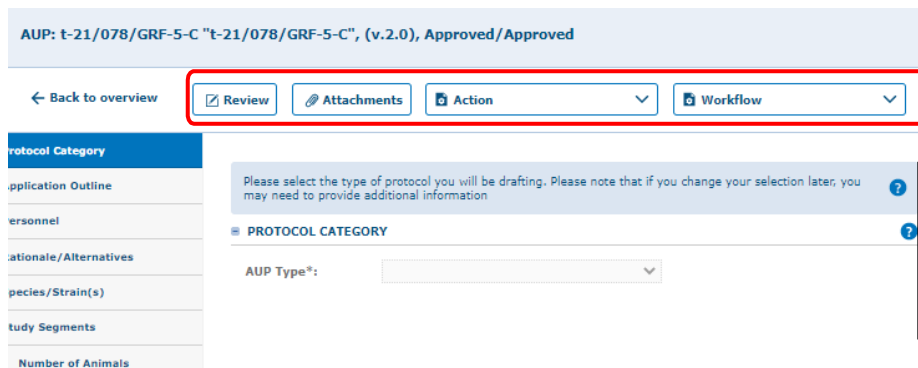📄 Action ▾
→ Check-out
💾 Save

## 4.2   Step 2: Select the Appropriate Application Type

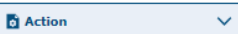When starting a new application, please select the appropriate application type.
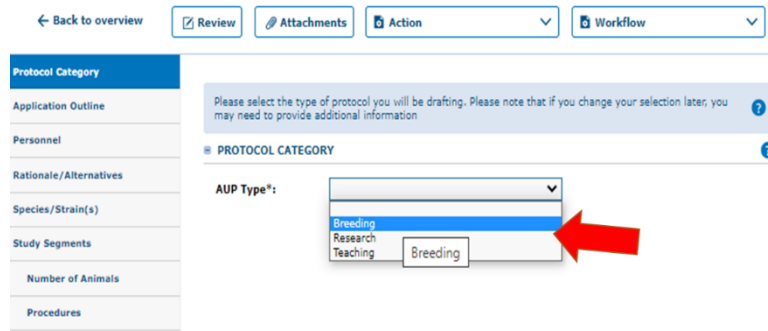
Breeding	A separate breeding application should be submitted for mouse strains that are exclusively bred by the PI's team. Only one breeding application is required for each mouse strain. The breeding form can be used for multiple projects.
Research	A separate application should be submitted for each research project.
Teaching	For the use of live animals for teaching purposes, e.g. skills training workshops and teaching demonstrations.

4.3 Step 3: Navigating the Application Actions and Workflow Features

The actions bar is found on the top of the application page. The [Review] review button can be utilised to see review comments left by a committee member who has pre-screened the application or the comments made by the committee for clarification after a meeting. Refer to Section 6 about the review process.

To attach documents to the application, select [Attachments] 'Attachments' along the top. This will attach documents to the tab you are currently at. If you have supporting documents relating to a section in the application, you can attach using this method. If you wish to attach documents to the entire application, you can do this in the UI as mentioned above.

The '[Action] Action' option displays a list of actions you can perform on a document; 'Save & Check in' or 'Check out'. To edit the document, click 'check-out' from the action tab. This will prevent other users from editing the document while you are working on it. To allow another user to work on the document, select [Save & Check-in] 'Save & check in' which will save the application and allow the other user to edit the document. Note, only users named in the project as 'Co-investigator' will be able to edit the application.

When completing an application, with the intention to return to it later, select 'Action' > 'Save'. This will save the application in its current state and allow you to return to it at any time. You can also save your work as a new version

which will be useful when comparing documents. This could be used so your changes can be tracked and compared (See Section 7.1 of this guide). When you are completing a document, before you send the application for review, you can select 'Validate & Save'. This will check if all required fields have been filled in. A warning message will appear for any sections that have not been answered or filled.

The 'Print' option will allow you to print the current form. Section 7.1 of this guide explains the 'compare version' option.
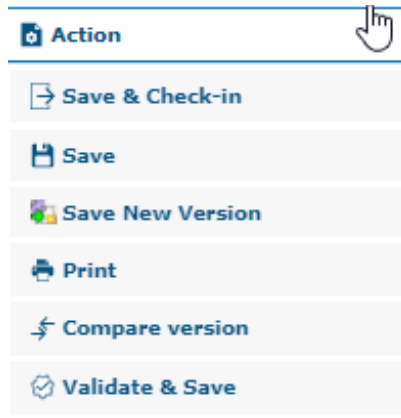
The 'Workflow' option displays the list of available status changes that can be made to the document. When an application or amendment is complete, select 'Workflow' > 'AEEC Secretariat'. The submission will be sent to AEEC secretariats for checking. When the application is ready for submission, the selected signers (as indicated in the Personnel tab of the application) will be notified to sign the document.
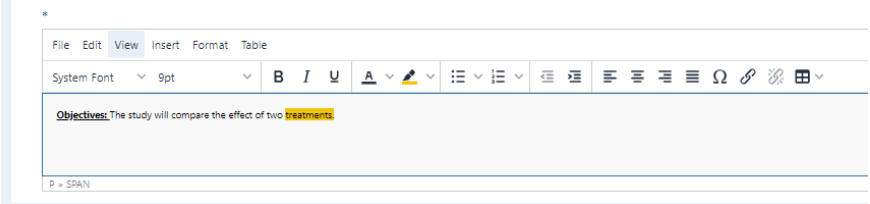

4.4   Step 4: Enter the Application Details

Using the application navigation menu on the left, work through the AEEC form and answer all questions. Note, all questions are mandatory and are required to be completed before submission to AEEC secretariat.

Please refer to the below for type of questions:

Check box	Multiple answers can be selected.
Free text box with formatting	You may format the text to improve readability. This question type is found in 'project lay summary' and 'procedures'
Selection with pop-up	This question type only allows entries with existing data in the system. Please click 'Edit selection' and select your answers on the pop-up window. Click ⊘ Apply to confirm your selection. This question type will be found under personnel, species/strains.

| Generate rows based on previous answers	
	This question type creates new rows based on your previous selected answers. Click 'Generate Rows' and fill in any required information.

4.4.1   Adding Personnel

When selecting personnel on the personnel tab, you can click the ⊕ button next to the 'teams' drop down, this will allow you to find your workplace team and add the whole team to the application. Personnel could also be selected individually and not by team. To select a person individually, select the *word* Teams to show users. Users will be listed in alphabetical order. Alternatively, you can filter by typing the first or both names into the search bar and selecting ▼ Apply filter .

When you have finished selecting all participants, they will be listed at the bottom of the tab and you can apply the personnel to the application by selecting . ⊘ Apply current selection
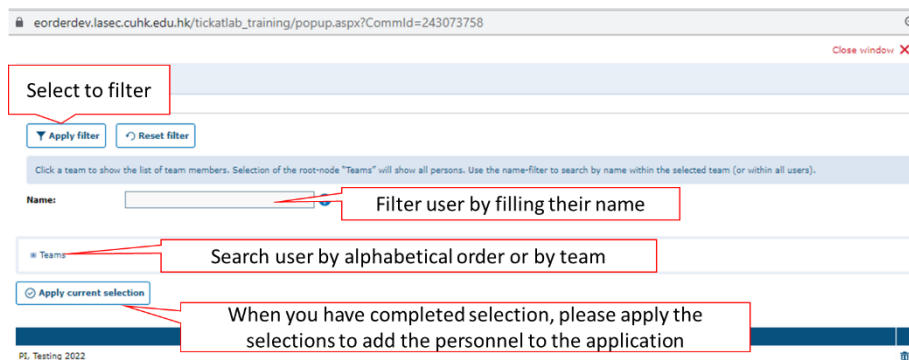
On the Personnel tab, there are 4 sections that relate to personnel on the applications.

⊞ **PRINCIPAL INVESTIGATOR**   ❓
⊞ **CO-INVESTIGATORS**   ❓
⊞ **RESEARCH PERSONNEL**   ❓
⊞ **SIGNERS**   ❓

The *Principal Investigator* is the person who has ultimate responsibility for the project as described by the Hong Kong Code of Practice for Care and Use of Animals for Experimental Purposes (the Code). The person who creates the document, will automatically be assigned as the PI. This can be changed in the Personnel Tab, be sure to select yourself as a CO-INVESTIGATOR if you are changing the PI on the application.

Co-Investigators are the personnel who will edit and manage the application. The co-investigator can be a lab manager who assist overseeing of the project. If the co-investigator is not listed under research personnel, no animal license is required.
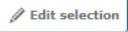
Research personnel is person who will perform procedures on animals. This include students, lab technicians or the PI. Please ensure all personnel are included in the application. Facility staff who will help to perform experiment procedures should also be included. Animal license is required for all research personnel.

Signers are required to be selected to sign the document. This needs to be completed after each new application is generated or an amendment is submitted. Select all persons listed in the PI, Co- Investigator and Research Personnel sections.

Please use the Attachments function to attach the relevant valid Animal Licences for research personnel. A paperclip icon shall appear next to "Personnel" if attachments are successfully uploaded.
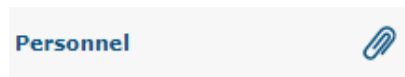

4.4.2 Species/Strains

Under the Species/strain tab, select all animals strains that will be used in the study. Click [Edit selection] to open the pop-up window. The species menu will list all species currently available at LASEC, select ✷ to see the breeding lines and choose from this list. To add this selection to the application, select [⊘ Apply current selection] .
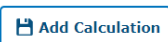
If your animal strain is not found on the list, please contact aeec@cuhk.edu.hk for help.

4.4.3 Study Segments

The study segments tab should be used to organize animal experiments. These can be used to describe experimental subgroups, aims of a project or portions of study design. Animals listed under the same study segment should receive same procedures, or experiments that contribute to the same aim.
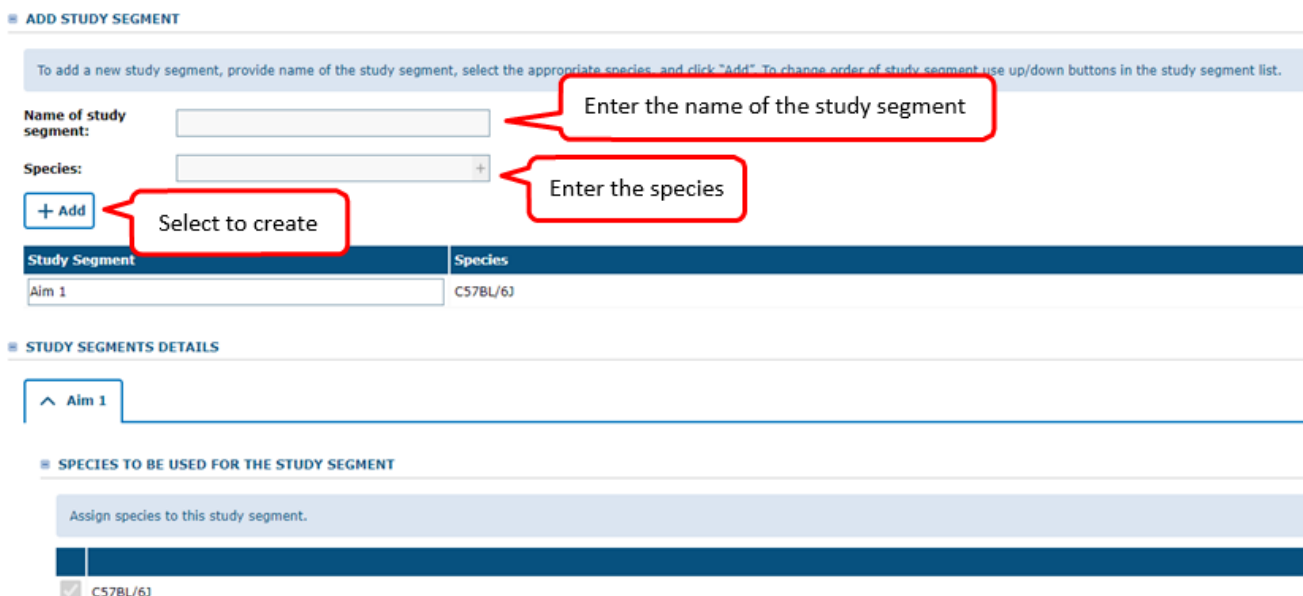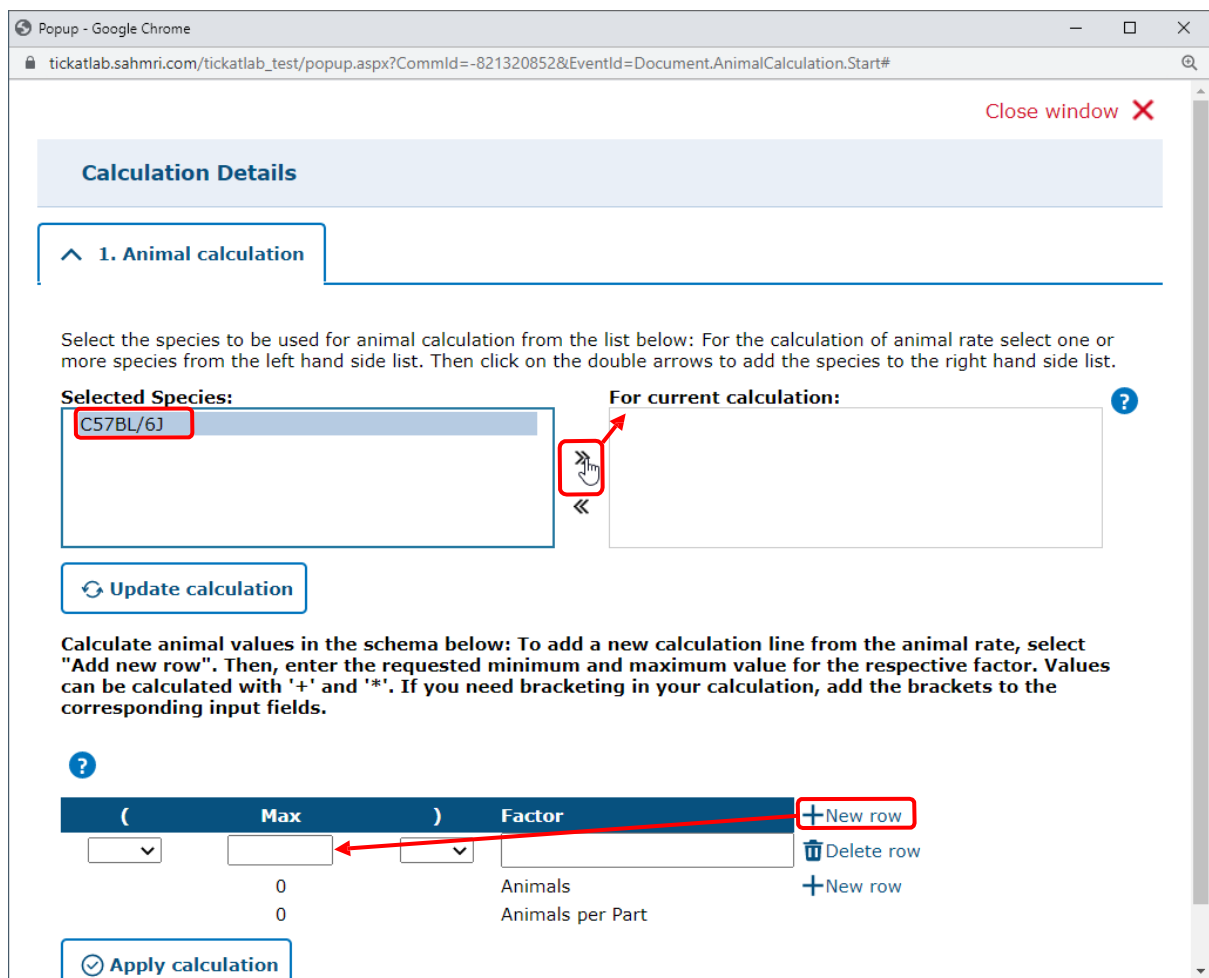

4.4.4 Justifying Number of Animals Required

Select [💾 Add Calculation] to open the pop-up window for entering animal numbers. To add a calculation to a breeding line, double click or select the breeding line and right arrow as pictured to move the species into the 'For current

calculation' box. If you simply need to record the total number of animals, select '+New row' to add a calculation in the 'Max' column. Alternatively, you can build calculations using the following operators:

1. Parentheses ( )

2. Multiplication *

3. Addition +

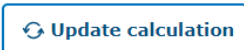Add the calculation to the application by selecting ⊘ Apply calculation .

Please refer to the below examples for how to fill in the calculation table:

Working with treatment groups: For an application proposing 4 treatments with 20 experimental animals and 5 control animals for each group the layout is below:

Planning drug administration: For an application that has 3 dosage groups with 8 animals in the group, and 1 control group with 5 animals with each animal being administered 10 substances the layout is below:

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(	Max	)	Factor	
⌄	3	⌄	Dosage groups	🗑 Delete row
* ⌄	⌄	8	⌄	Animals per dosage group	🗑 Delete row
+ ⌄	⌄	5	⌄	Animals per control group	🗑 Delete row
* ⌄	⌄	1	⌄	Control group	🗑 Delete row
	29		Animals	➕ New row
* ⌄	⌄	10	⌄	Substances	🗑 Delete row
	290		Animals per Part	

You may also list out your groups as follow, for two treatments and three doses, with n=5.
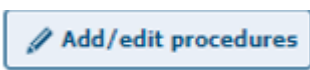
(	Min	Max	)	Factor	
	0	0		Animals	➕ New row
+ ⌄	⌄	5	5	⌄	Vehicle	🗑 Delete row
+ ⌄	⌄	5	5	⌄	Treatment A, 0.05mg	🗑 Delete row
+ ⌄	⌄	5	5	⌄	Treatment A, 0.1mg	🗑 Delete row
+ ⌄	⌄	5	5	⌄	Treatment B, 0.3mg	🗑 Delete row
	20	20		Animals per Part	

Please use the Attachments function to attach relevant power calculation and/or publication to justify the proposed animal numbers. A paperclip icon shall appear next to "Number of Animals" if attachments are successfully uploaded.

Study Segments

Number of Animals 📎

Procedures

Procedures Training Verification

4.4.5 Adding Procedures

In the procedure section, add procedures to the application by selecting [🖉 Add/edit procedures] .

You will find the below pop-up window to select procedures.

Upon selection of procedures, an example textbox will appear in "Description of Procedures". You may refer to the examples when writing your own procedures.

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4.4.6   Adding Locations

Under the tab "Animal Husbandry/Housing", select all rooms where animals will be housed and procedures will be performed.


You may select "Room to be assigned" if you do not know the room number.

Please select the room type as appropriate. You should include all locations including imaging rooms and your group's laboratory. If you cannot find your laboratory, please submit a request at Application for New Location.

4.4.8   Declare Potential Safety & Hazards

Please use the Attachments function to attach the Safety Approval under the tab "Safety & Hazards". A copy of Safety Approval must be in place before issuance of AEEC Approval Letter for the project. A paperclip icon shall appear next to "Safety & Hazards" if Safety Approval is successfully uploaded.
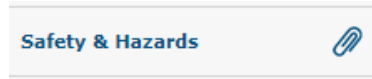
4.5   Step 5: Validate & Save the Application

Once the application is completed, click "Validate & Save" from the action menu to save your changes and verify if the mandatory questions have been answered.

Remember to save the application by clicking "Save" from the actions menu to save your process.

4.6   Step 6: Submit Application to AEEC Secretary

Once the application is completed, the application can be submitted to the AEEC secretary for pre-screening. This can be done at the top of the page in the workflow menu.
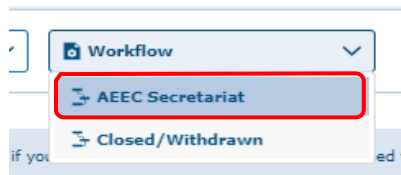
Workflow steps can also be accessed by right clicking on the application file and selecting "AEEC Secretariat".
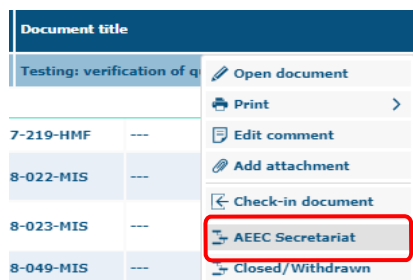
You can enter a short comment to send to the AEEC Secretary. Click the "OK" button to continue.

The application is now submitted and will progress to the Pre-screening phase of the AEEC workflow (Refer to Section 6).

4.7   Step 7: Revise the Application

AEEC Secretary will check the completeness of your application and will advise if any section(s) require clarification. Follow Section 6 on how to revise the application.

4.8   Step 8: Signing the Application

Each document signatories will receive an email that can directly open the application.   To complete the application, all personnel listed in the signatory section of the personnel tab (see Step 4.1) must sign the document.

Each signatory must read and agree to the application submission conditions by clicking the "Sign" button.

- I certify that I will notify the AEEC regarding unexpected study results that impact negatively on animal welfare. Any unanticipated pain or distress, morbidity or mortality, will be reported to the attending veterinarian and the AEEC and I will permit emergency veterinary care for animals showing evidence of pain or illness not addressed specifically in the approved protocol as well as routine veterinary care as prescribed for individual species.

- I certify that the information provided within this application is accurate to the best of my knowledge and that no changes will be made without advance approval from the AEEC in writing. I also understand that, should I use the project described in this application as a basis for a proposal for funding (either intramural or extramural), it is my responsibility to ensure that the description of the animal use in such funding proposal(s) is identical in principle to that contained in this application. I will submit modifications and/or changes to the AEEC, as necessary, to ensure these are approved before revising such proposal(s).

As a member of this project, I certify the below statements are understood and will be followed.

- I have read the above statements on (A) Legal and CUHK Regulation Compliance, (B) Guidelines for Animal Experimentation, (C) Assurances for Accuracy, Necessity and Quality of Animal Experimentation and understand the responsibilities as a member of this project.

- I have read and understand the procedures outlined in this protocol.

- I will notify my supervisor regarding any unexpected adverse events arise from the study.

- I will abide with the Hong Kong Code of Practice for Care and Use of Animals for Experimental Purposes, Cap 340 Animals (Control of Experiments) Ordinance and the International Guiding Principles for Biomedical Research Involving Animals and all policies governing the use of animals in research, teaching, and testing at the Chinese University of Hong Kong.

Sign of:AUP-22-24(3.0)

SIGNATURES

Name	Comment	Signed	
Ho, Loretta Ms.			
KUNG, Jeng Sum Charmaine Dr			
LAW, Cynthia Miss			
PI , AEEC Demo			

Comment	

✓ Sign   ✗ Cancel

4.9 Step 9: Submit the Hardcopy

After all signers have electronically signed the application, print a copy of the application and have it physically signed by the affiliated School Director or Department Chairperson. Deliver the signed application document to the AEEC Secretariat Office.

The application is now submitted to the AEEC and will progress to the Panel Assignment phase of the AEEC workflow (Refer to Section 6). You will receive an email with review comments if required. Refer to Section 6 on how to review the comments made by the AEEC secretariat or AEEC members.

The review and approval process for applications, is outlined in Section 6 of this guide.

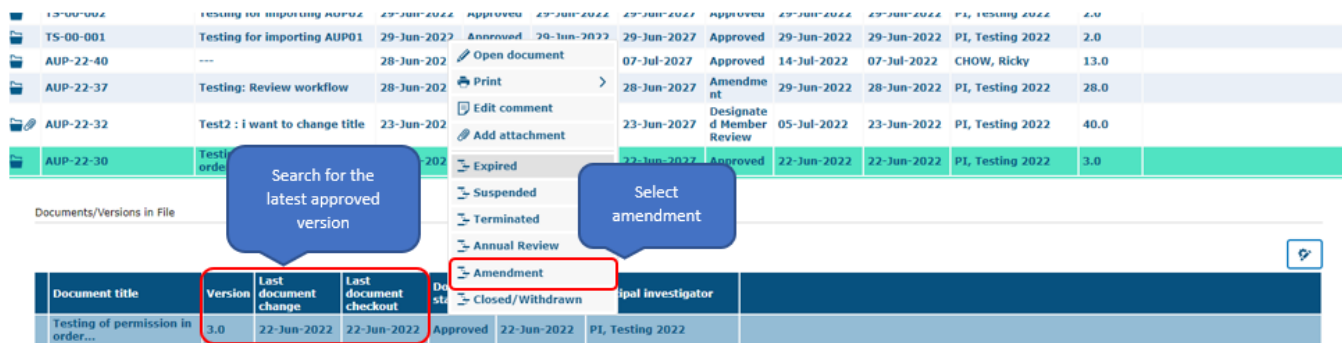# 5 Submit Amendment Request to Approved AUP

The following steps demonstrate how to make an amendment to an existing application:

5.1 Step 1: Select the AUP for Amendment

Open Protocols > AUP from the main menu / launch pad, and locate the application which you wish to make amendments to (following the steps in Section 3 of this guide).

Click on the application, which you can then select the latest approved version from the list of available versions of the applications.

Right-click on the last approved version and select "Amendment" from the pop-up menu.
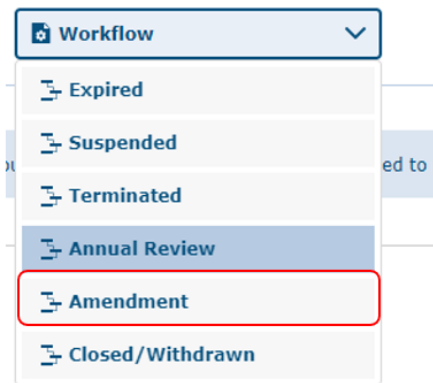
Use the amendment tab to describe your requested amendment e.g. updating research personnel involved in the experiment. Submit the application with the completed amendment tab to "AEEC Secretariat".

A new version of the document has been created, which you may find it listed under "Versions in File" with a document status of "Amendment". Click on the title of your application so you open the amendment.

5.2   Step 2: Amend the Application

Click "Check-out" from the "Action" menu to start making changes to the document.
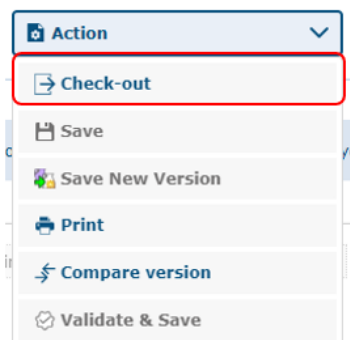
Select the sections of the AUP application that you need to amend from the menu tabs on the left.

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After you have completed your changes, click "Validate & Save" from the "Action" drop-down menu to save your changes and ensure all mandatory questions have been addressed and answered.

In case you wish to complete your amendment at a later stage, you can save your changes by clicking "Save" from the "Action" menu.

Click "Save New Version" from the action menu to confirm the required amendments have been marked to the selected version for editing.
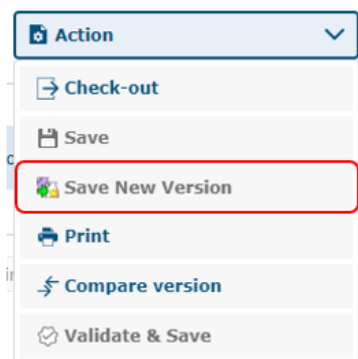
5.3 Step 3: Submit Amendment Request to AEEC Secretary

Once the amendment is completed, the application can be submitted to the AEEC secretary for pre-screening. This can be done at the top of the page in the workflow menu.

Workflow steps can also be accessed by right clicking on the application file and selecting "AEEC Secretariat".

You can enter a short comment to send to the AEEC Secretary. Click the "OK" button to continue.

5.4   Step 4: Signing the Application

Each document signatories will receive an email that can directly open the application.   To complete the application, all personnel listed in the signatory section of the personnel tab (see Step 4.1) must sign the document.

Each signatory must read and agree to the application submission conditions by clicking the "Sign" button.

- I certify that I will notify the AEEC regarding unexpected study results that impact negatively on animal welfare. Any unanticipated pain or distress, morbidity or mortality, will be reported to the attending veterinarian and the AEEC and I will permit emergency veterinary care for animals showing evidence of pain or illness not addressed specifically in the approved protocol as well as routine veterinary care as prescribed for individual species.

- I certify that the information provided within this application is accurate to the best of my knowledge and that no changes will be made without advance approval from the AEEC in writing. I also understand that, should I use the project described in this application as a basis for a proposal for funding (either intramural or extramural), it is my responsibility to ensure that the description of the animal use in such funding proposal(s) is identical in principle to that contained in this application. I will submit modifications and/or changes to the AEEC, as necessary, to ensure these are approved before revising such proposal(s).

As a member of this project, I certify the below statements are understood and will be followed.

- I have read the above statements on (A) Legal and CUHK Regulation Compliance, (B) Guidelines for Animal Experimentation, (C) Assurances for Accuracy, Necessity and Quality of Animal Experimentation and understand the responsibilities as a member of this project.

- I have read and understand the procedures outlined in this protocol.

- I will notify my supervisor regarding any unexpected adverse events arise from the study.

- I will abide with the Hong Kong Code of Practice for Care and Use of Animals for Experimental Purposes, Cap 340 Animals (Control of Experiments) Ordinance and the International Guiding Principles for Biomedical Research Involving Animals and all policies governing the use of animals in research, teaching, and testing at the Chinese University of Hong Kong.

Sign of:AUP-22-24(3.0)

SIGNATURES

Name	Comment		Signed	
Ho, Loretta Ms.				
KUNG, Jeng Sum Charmaine Dr				
LAW, Cynthia Miss				
PI , AEEC Demo				

Comment

✓ Sign   ✗ Cancel

The amendment application is now submitted and it will be reviewed by the AEEC committee. Processing time varies depending on the types of amendments.

5.5   Step 5: Revise the Application (if needed)

AEEC Secretary will check the completeness of your amendment request and will advise the section(s) which would need clarifications and amendment. Follow Section 6 to review the comments made by AEEC Secretariat and amend the application where necessary.

6   Review and Approval Process

The workflow below outlines the Tick@lab workflow process from when the applicant creates an application to the final results of the application.

Note: The labelled arrows represent the different workflow steps under the "Workflow" tab shown at the top of the application interface.
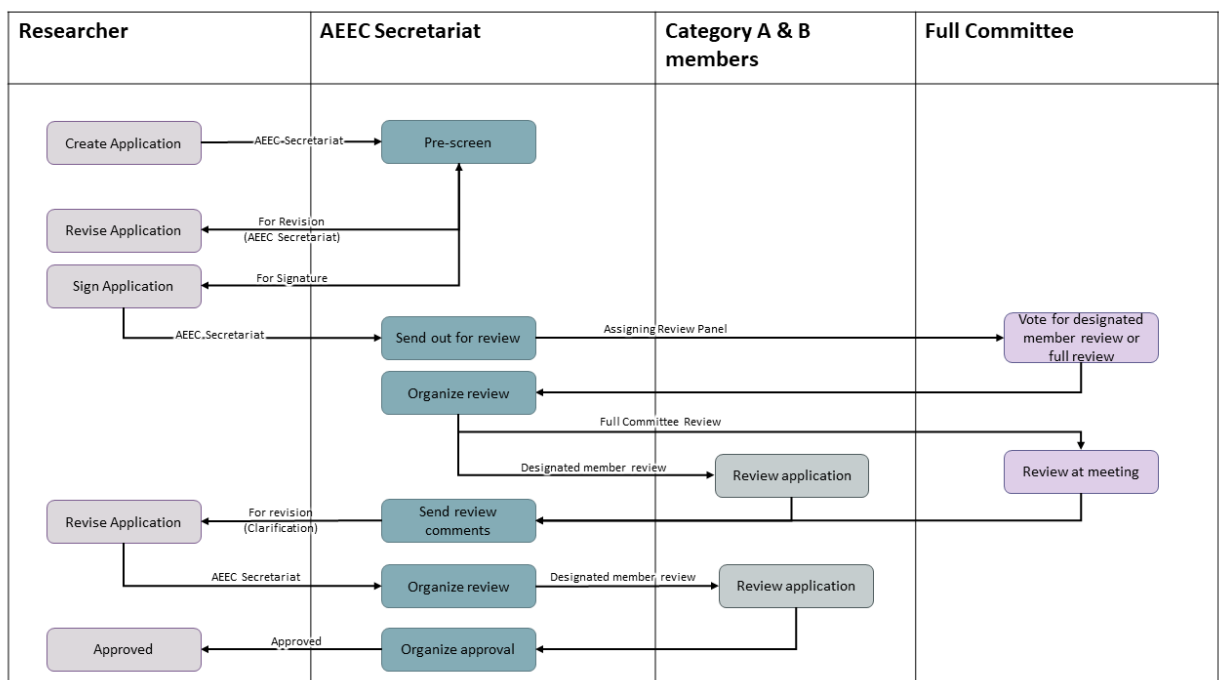

During the pre-screening and AEEC panel member review stages for both new applications and amendment requests, applicants may receive comments that require their responses, clarifications or revisions to the application. Steps below illustrate how applicants may review these comments and take appropriate follow-up actions:

1.   Select "Review" in the top left-hand corner of the page.

2.   A pop-up window will appear with all the comments made to the application presented. Researchers may also review the comments by subjects/ categories as listed in the menu on the left side of the application interface. Select the comment to review the recommendation or question.

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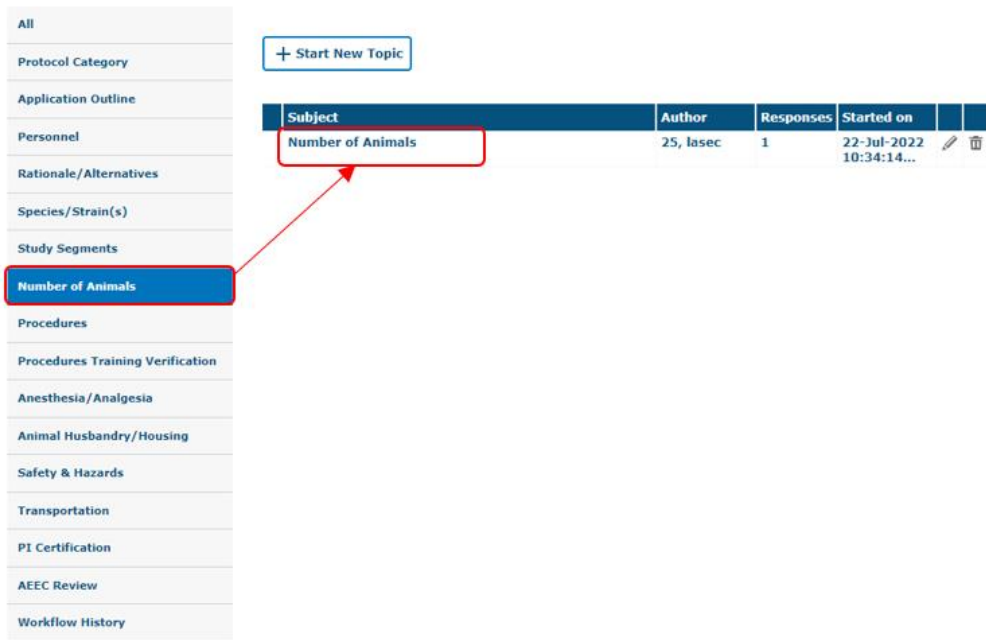
3. After you have clicked into the comment, you can submit a response. Ensure that you save any comments before closing the pop-up window to avoid losing your work.
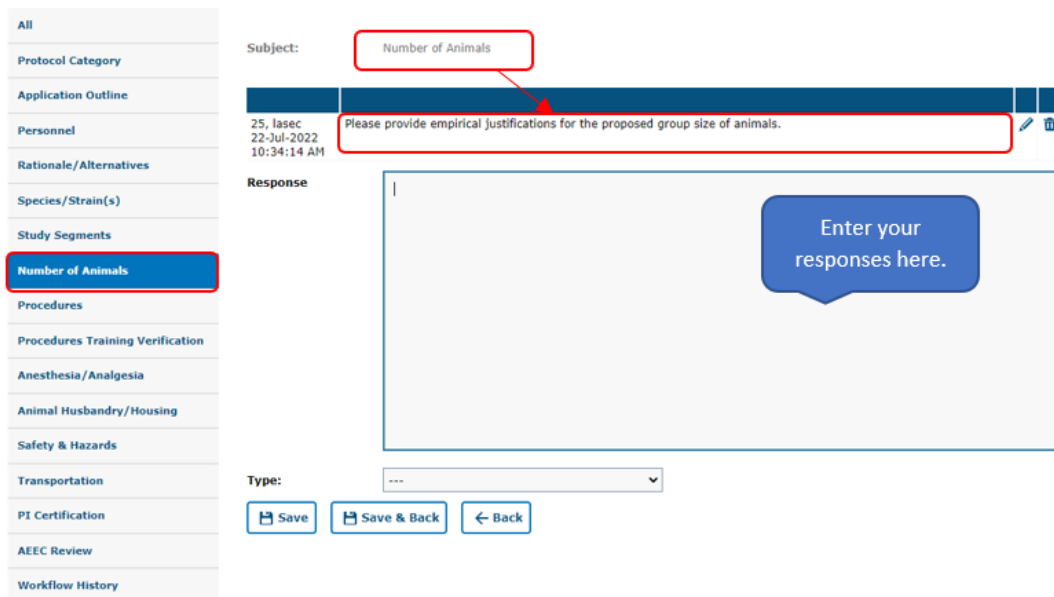
4. When you have finished reviewing the comments, responding and making appropriate revisions to your application, select "AEEC Secretariat" to submit the application for review by the AEEC Committee. Please note a new version of the application will be created if you have made changes to the application content.

Version 1.4_20230817
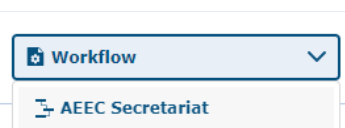
7   Understanding Files and Documents

In Tick@lab, AUP applications are organised into folder, with each folder storing multiple versions of documents to represent the different stages of an application.

Documents versions are arranged in ascending order, with the initial draft application named as Document Version 1. For each status change counting forward, the version number increases by 1. For example:

- Document Version 1 = Draft
- Document Version 2 = AEEC Secretariat
- Document Version 3 = For Signature
- Document Version 4 = Approved
- Document Version 5 = Amendment
- … and so on.

To create a new version, select "Action" and "Save New Version". Researchers may make use of this feature when drafting their applications so different versions of documents can be compared.
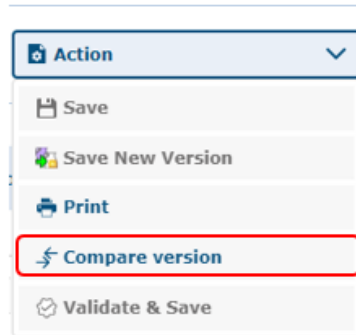
	File Version	Document Version	Status	
	0.1.0	1.0	Draft	
	0.2.0	2.0	AEEC Secretariat	
	0.3.0	3.0	For Signature	
✓	0.3.0	3.0	Signature	
	0.4.0	4.0	AEEC Secretariat	
	1.0.0	5.0	Approved	← First approved version
	1.1.0	6.0	Amendment	
	1.2.0	7.0	AEEC Secretariat	
	2.0.0	8.0	Approved	← Second approved version after amendment
	2.1.0	9.0	Amendment	
	2.2.0	10.0	AEEC Secretariat	
	3.0.0	11.0	Approved	← Third approved version after changes by AEEC Secretariat
	3.1.0	12.0	Annual Review	
	3.2.0	13.0	AEEC Secretariat	
	4.0.0	14.0	Approved	← Fourth approved version after annual review

For file version, each approved application will be saved as a new file version.

7.1   Compare Version

The "Compare Version" function in Tick@lab allows users to see the differences between versions of documents. The following steps guide you to compare a version when preparing applications.

1. To compare a version, select "Compare Version" from the "Action" menu *within* an application.

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2.   Select the version you would like to compare against.

	File version	File status	Document version	Document status	Last modification at	Last modification by
○	1.1.0	Amendment	4.0	Amendment	21-Jul-2022	
○	0.2.0	Initiated	2.0	AEEC Secretariat	22-Jun-2022	
○	0.1.0	Initiated	1.0	Draft	22-Jun-2022	

✓ Ok   ✕ Cancel

3.   A pop-up window will appear showing a list of all differences identified between the two versions.
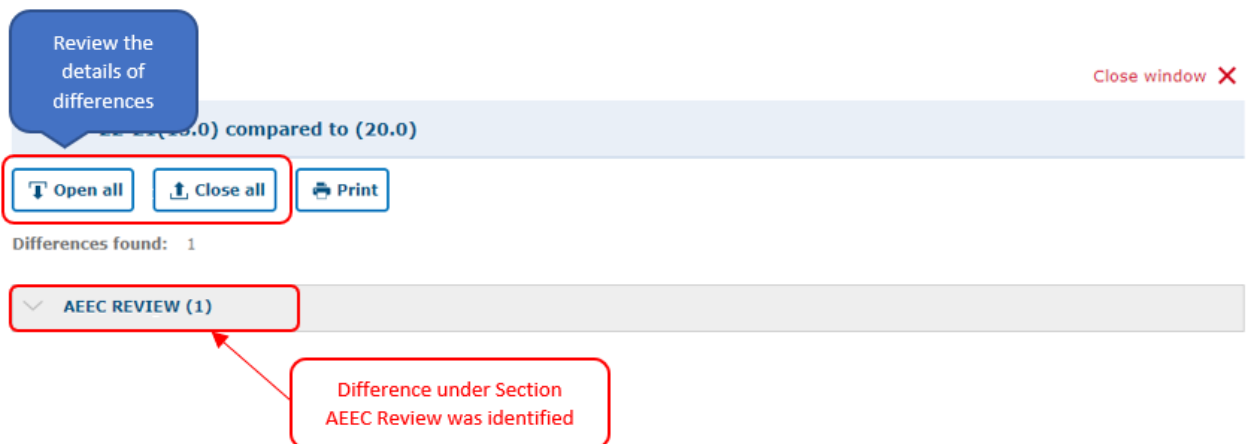
4.   Closing the pop-up window so you can view the differences inline within the application. Differences are highlighted in yellow.

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5.   Click the Stop Comparison button to finish comparing versions.

Tick@lab version 3.0
Config version 006
Last update: 15 Nov 2022

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