## Procedures

In this section of the protocol you will provide details about all the procedures that will be performed on the animals you are using. You have two options for adding procedures, either <u>Pre-filled</u> <u>Procedures</u> or <u>Custom Procedure</u>. We also describe how to <u>Clone a Custom Procedure</u> and provide <u>General Notes about all Procedures</u> in this Guide. For some types of Custom Procedures, there may be ACUC-approved procedure descriptions available on the web site, <u>https://olac.berkeley.edu/pre-approved-procedures</u>.

1) **Pre-filled Procedure** are auto-populated with ACUC-approved procedure descriptions and procedural steps. There are several types of Pre-filled Procedures, listed below.

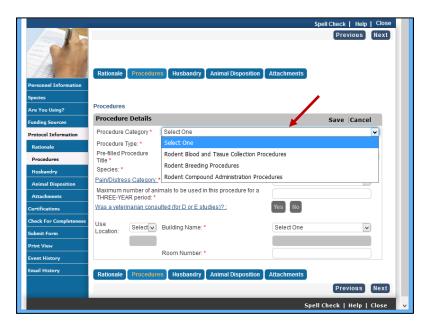
Procedure Category	Procedure Type	Procedure Title
Rodent Breeding	Identification under Anesthesia	Identification of Anesthetized Mice
Procedures	Identification under Anesthesia	Identification of Anesthetized Rats
	Identification	Identification of Conscious Mice
	Identification	Identification of Conscious Rats
Rodent Blood & Tissue Collection Procedures	Blood Collection under Anesthesia	Blood Collection in Anesthetized Mice
	Blood Collection under Anesthesia	Blood Collection in Anesthetized Rats
	Blood Collection	Blood Collection in Conscious Mice
	Blood Collection	Blood Collection in Conscious Rats
	Perfusion	Vascular Perfusion with Fixation and Tissue Collection in Mice
	Perfusion	Vascular Perfusion with Fixation and Tissue Collection in Rats
	Collection of Tissue	Collection of Donor Cells/Tissue in Mice
Rodent Compound Administration	Compound Administration under Anesthesia	Compound Administration in Anesthetized Mice (ID, RO, HGD)
Procedures	Compound Administration under Anesthesia	Compound Administration in Anesthetized Rats (ID, IM, & IV)
	Compound Administration without Anesthesia	Compound Administration in Conscious Mice (PO, SC, IP, IM, IV)
		Compound Administration in Conscious Rats (PO, SC, IP, IM, IV)
	Compound Administration	BrdU, EdU, and/or Tamoxifen Treatment in Mice
	Osmotic Pump	Osmotic Pump Implantation in Mice
	Osmotic Pump	Osmotic Pump Implantation in Rats
Rodent Disease & Immunology Models	Immunization	Immunizations for Antibody Production in Mice
	Hematopoietic Chimerism	Production of Hematopoietic Chimeric Mice
	Skin Grafts	Performing Skin Grafts in Mice
	Tumor Cell Injections	Tumor Cell Injection in Conscious Mice (SC, IP, IV)
	Tumor Cell Injections	Tumor Cell Injection in Conscious Rats (SC, IP, IV)
	Tumor Cell Injections	Tumor Cell Injection in Anesthetized Mice (SC, IP, IV, RO)
	Tumor Cell Injections	Tumor Cell Injection in Anesthetized Rats (SC, IP, IV)

Rodent Surgical Procedures	Stereotaxic compound administration	Stereotaxic Compound Administration in Mice
	Stereotaxic compound administration	Stereotaxic Compound Administration in Rats
Rodent Diagnostic Procedures	Imaging	Imaging Mice (IVIS, Ultrasound, MRI, EchoMRI, & Fluorescence)
	Imaging	Imaging Rats (IVIS, Ultrasound, MRI, & Fluorescence)

a. To add a **Pre-filled Procedure** to your protocol, go to the **Protocol Information**, **Procedures** section of the protocol, select the **Pre-filled** radial button and click **Add**.

ſ				Spel	II Check   Help   Close
		Rationale	Procedures Husbandry Anima	Disposition Attachments	Previous Next
	Personnel Information				/
	Species Are You Using?	Procedures	Pre-filled	Ocustom	
_	Funding Sources	Procedures		Add   I	Delete   Clone
	Protocol Information		Please click on	Add to add Procedures	
	Rationale				
	Procedures				
	Husbandry				
	Animal Disposition				
	Attachments				1
	Certifications		Select Pre-filled the	en <b>Add</b> to create a	
	Check For Completeness		new pre-filled proce	dure.	
	Submit Form				]
	Print View				
	Event History				
	Email History				*

b. Using the drop-down menu, select the **Procedure Category**, referring to the <u>table above</u> for guidance:



c. Using the drop-down menu, select the **Procedure Type**, referring to the <u>table above</u> for guidance:

Personnel Information Species	Rationale Procedure	s Husbandry Animal Dispositio		Spell Check   Help   Cla Previous Ne:	
Are You Using?	Procedure Details			Save Cancel	- 11
Funding Sources	Procedure Category *	Rodent Blood and Tissue Collection	Procedures	Save Cancel	- 11
Protocol Information Rationale	Procedure Type: *	Select One	Triocedules		
Procedures	Pre-filled Procedure Title * Species: *	Select One Blood Collection in Anesthetized Mid	ce (Pre-filled)	1	
Husbandry Animal Disposition	Pain/Distress Category: *				
Attachments	Maximum number of anin THREE-YEAR period: *	Blood Collection in Conscious Rats (			- 11
Certifications	Was a veterinarian consu	ntea (for D or E studies)?.	Tes		
Check For Completeness Submit Form	Use Location: Select v	Building Name: *	Select One	<b>v</b>	
Print View		Room Number: *			
Event History Email History	Rationale Procedure	s Husbandry Animal Dispositio	on Attachments		
				Previous	ĸt
			Spe	ll Check   Help   Clos	e v

d. Using the drop-down menu, select the **Pre-filled Procedure Title**. <u>Be sure to select a</u> <u>procedure with "2021 UPDATE" in the title.</u> Versions without those words are obsolete.

Procedures		
Procedure	Details	Save  Cancel
Procedure Category *	Rodent Blood and Tissue Collection Procedures	~
Procedure Type: *	Blood Collection in Anesthetized Mice (Pre-filled)	~
Pre-filled Pro	Select One	~
Species: *	Select One 2021 UPDATE: Blood Collection in Anesthetized N	Aice
Pain/Distress		
Was a veterin	narian consulted (for D or E studies)? : Yes	Νο
Use Location:	Selec V Building(s)/Room(s): *	
Use		

e. The **Species** and <u>Pain/Distress Category</u> will auto-populate based on the procedure. You can edit or change the **Pain/Distress Category** for the procedure, but the **Species** is fixed, depending on the **Procedure Type** you selected.

## Revised 3/2023

Procedures			
Procedure	Details		Save  Cancel
Procedure Category *	Rodent Blood and Tissue Collection Procedures		~
Procedure Type: *	Blood Collection in Anesthetized Mice (Pre-filled)		~
Pre-filled Pro	cedure Title 2021 UPDATE: Blood Collection in Anest	hetized Mice	~
Species: *	Mouse, Laboratory		~
Pain/Distress	Category: *	D	~
<u>Was a veterin</u> Use Location:	arian consulted (for D or E studies)? :         Selec         Building(s)/Room(s): *	Yes No	

- f. Complete all the other information on the **Procedure Details**, including the use location and Building(s)/Rooms(s) where procedures will take place. For procedures involving category D or E pain and distress levels, check "Yes", a veterinarian was consulted (a veterinarian will review the protocol).
- g. Click Save. The Procedure Details tabs will appear and will need to be completed.
  - i. At this time, you can edit the **Pre-filled Procedure Title**. You should do this if you intend to add more than one of the same Pre-filled Procedure Titles.
- h. <u>Carefully read all the instructions</u> under **Procedure Description**. You can edit this information if needed, but keep in mind that existing content has been approved by the ACUC. All changes made will be tracked for reviewers.

Procedure Title:	2021 UPDATE: Blood Collection in Anesthetized Mice		
Species: *	Mouse, Laboratory	~	
Pain/Distress Ca	tegory: *	D 🗸	)
<u>Was a veterinaria</u> Use Location:	an consulted (for D or E studies)?* UC Berkeley campus  Building(s)/Room(s): *	Ves No	)
Procedure Description	Anesthetic Other Agents Regimen Utilized Pro	refully read the instru cedure Description eded. All changes m reviewers.	n. Edit if
	cription re Description nal Text (do not edit or delete);	Next Save Procedur	
Please m section: " General b (0.072 ml circulating drawn mo not excee	ake sure that your purpose for performing this procedure is full How does this procedure fit into or address your overall research blood withdrawal guidelines: Mice have an average circulating ( $g \times 25$ g mouse = 1.8 ml circulating blood volume for a 25 g at blood volume can be safely removed with a recovery period o re frequently, it may be divided into several draws, but the tota of 7.5% of the circulating blood volume per week. If collecting a s of circulating blood volume if you allow a 2-week recovery period	ch goals?" blood volume of 72 ml/kg dult mouse). 7.5% of the of 7 days. If blood must be al amount withdrawn should a single sample, you can take	

i. Under **Procedural Steps**, select the box for those steps or methods you will <u>NOT</u> be using and click **Delete**. There can be several methods described, so <u>carefully read all</u> <u>the content</u>.

Procedural Steps			Add   Delete
Step Name		Step Descripti	on
		1. Restrain mo	use in rodent restraint apparatus.
method	he box for those steps s you will <u>NOT</u> be usin		filate vessels (heat lamp, warm compress).
click De	lete.		uncture site with alcohol.
Lateral tail vein or ta	il artery	insert the need	27g needle on a 0.5 -1cc syringe, lle, bevel facing up into vessel. Gently e plunger to avoid collapsing the
		needle and allo microcentrifuge	puncture the blood vessel with the ow the blood to drip into a e tube or be collected by capillary ood collection tube.
			edle if utilized and apply pressure to vith a gauze pad until bleeding stops.
			rse Events: Excessive bleeding, nation, tissue trauma, or infection.
			e by grasping loose skin over the veen thumb and index finger of hand.
			ial vein, located slightly behind the n front of the ear canal near the bald
	To edit the <b>Step Des</b> the link to the <b>Step N</b>		ick on 19-25g needle; blood
	made are tracked for		tte via capillary action or
Eacial vein (subman	dibular)	allow blood to o collection tube.	drip into a microcentrifuge or blood
		4. Apply pressu stops.	ire with a gauze pad until bleeding
		must be contro the ear canal, e	rse Events: Depth of the puncture illed or excessive bleeding, entry into entry into the oral cavity, hematoma ma to the underlying muscles or ccur.
		Note: Hemosta methods of blo	isis may take longer than other ood collection.

j. To edit the **Step Description**, click on the link to the **Step Name**. **Save** your changes. Keep in mind that the existing content has been approved by the ACUC. Any changes you make will be tracked for reviewers. All changes you make the **Procedure Steps** will be visible once you **Save the Procedure**.

Note: * denotes mandatory field.
Step Name Facial vein (submandibular)
$\begin{bmatrix} \mathbf{B} & \mathbf{I} & \underline{\mathbf{U}} & \mathbf{S} & \mathbf{x}_{e} & \mathbf{x}^{e} & \mathbf{I}_{\mathbf{x}} \end{bmatrix} \boldsymbol{\Omega}$
1. Scruff mouse by grasping loose skin over the shoulders between thumb and index finger of non-dominant
hand. YOU CAN EDIT THE PROCEDUREAL STEP DESCRIPTION, AND THESE CHANGES WILL BE TRACKED FOR REVIEWERS.
DE TRACKED FOR REVIEWERS.
2. Puncture facial vein, located slightly behind the mandible, but in front of the ear canal near the bald spot
or "dimple", in a swift, lancing motion with a 4.0-5.5mm lancet or tip of a 19-25g needle; blood will flow
immediately if in the correct location.
2. Callest completions a givente air consillant estim on allow blood to dair inter a microscophificae estimat
<ol> <li>Collect sample into a pipette via capillary action or allow blood to drip into a microcentrifuge or blood collection tube.</li> </ol>
4. Apply pressure with a gauze pad until bleeding stops.
<b>Potential Adverse Events:</b> Depth of the puncture must be controlled or excessive bleeding, entry into the ear canal, entry into the oral cavity, hematoma formation, trauma to the underlying muscles or infection can
ear canal, entry into the oral cavity, nematoma formation, trauma to the underlying muscles or infection can
v.cu.
Note: Hemostasis may take longer than other methods of blood collection.
<

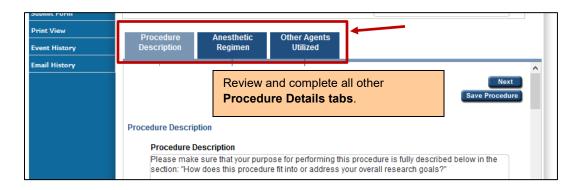
k. Review the auto-populated content in the remaining questions on the **Procedure Description** tab, and be sure to answer the question, "**How does this procedure fit into or address your overall research goals?**"

<ul> <li>Review all the auto-populated content in the remaining questions and edit as needed. All changes made will be tracked for reviewers.</li> </ul>
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 To save the procedure and keep it <u>open</u> for editing, click the blue Save Procedure button within the Procedure Description. To save the procedure and <u>close</u> the procedure, click the Save link in the grey border

Species		
Are You Using?	Procedures	
Funding Sources	Procedure Details	Save Cancel
Protocol Information	Procedure Category * Rodent Blood and Tissue Collection P	rocedures 🗸
Rationale	Proced Click Save to save and <u>close</u> the	
Procedures	Proced Title: * procedure.	
Husbandry	Specie <mark>s</mark>	Mouse, Laboratory (OLAC Vivariur 🗸
Animal Disposition	Pain/Distress Category: *	C
Attachments	Maximum number of animals to be used in this procedure for a THREE-YEAR period: *	100
Certifications	Was a veterinarian consulted (for D or E studies)? :	Yes No
Check For Completeness	Use USP Puilding Normal	
Submit Form	Location: UC Bev Building Name:*	LSA
Print View		070
Event History	Room Number: *	678
Email History	Procedure Other Agents Description Utilized	
	Click <b>Save Procedure</b> to save and keep the procedure <u>open</u> . Procedure <u>Description</u> Please make sure that your purpose for performing this pro-	Next Save Procedure

m. **Review all the other procedure details tabs**. There will be auto-populated content in other tabs, depending on the procedure type.



n. If you are using Anesthesia there are several **Anesthetic Agent** options auto-populated. Delete any you will not be using by **clicking on the box** next to the agent and clicking the **Delete** link.

	sthetic Other Age gimen Utilized			
Anesthetic Regimen				
Parameters that will be more Respiratory Rate	nitored during anesthesi	· .		
Heart Rate			refully review <b>Para</b> monitored. Make e	
Body Temperature     Blood Pressure		De	monitored. Make e	
Corneal/Palpebral Refl	ex			
Pedal Reflex				
Capillary Refill  PO2				
ETCO2				
Other (Describe)				
Skin color or mucous n	nembrane color			
		Desc	ibe Anesthetic Red	cordkeeping Methods.
	methods during anestheines for Surgical Proceed			
during anesthesia and re	ack of pedal reflex, and ski corded initially, as well as etic records will be kept in	every fifteen minutes		
Anesthetic Agents			Add	Delete
Agent Name	Dosage (in mg and volume	g/kg if possible)	Route	
New State	Induce up to 59	4: Maintain 1 204		
-VN		70, Maintain 1-370		read <b>Anesthetic</b> Edit, Delete or
Ketamine hydrochloride	80-100 mg/kg	70, Maintan 1-370	Carcially	Edit, Delete or
Ketamine hydrochloride	80-100 mg/kg 10-20 mg/kg	70, Maintain 1-376	Doses.	Edit, Delete or
	10-20 mg/kg		Intraperitoneal (IP)	Edit, Delete or eeded.
For guidance, please refer to	10-20 mg/kg		Intraperitoneal (IP)	Edit, Delete or eeded.
For guidance, please refer to Anesthetized Animals.	10-20 mg/kg	for the Use of Neu	Intraperito Intraperitoneal (IP) romuscular Blocking	Edit, Delete or eeded.
For guidance, please refer to Anesthetized Animals.	10-20 mg/kg o the ACUC <u>Guidelines</u> Please click on 'Add' t	for the Use of Neu to add 'Paralytic Aş	Intraperito Intraperitoneal (IP) romuscular Blocking	Edit, Delete or eeded. Drugs in Delete ents or Other
For guidance, please refer to Anesthetized Animals. Paralytic Agents	10-20 mg/kg o the ACUC <u>Guidelines</u> Please click on 'Add' i scribed on the Peri-proc	for the Use of Neu to add 'Paralytic Aş	Intraperito Intraperitoneal (IP) romuscular Blocking Add I ents'	Edit, Delete or eeded. Drugs in Delete ents or Other if used.
For guidance, please refer to Anesthetized Animals. Paralytic Agents Note: Analgesics will be des	10-20 mg/kg o the ACUC <u>Guidelines</u> Please click on 'Add' i scribed on the Peri-proc	for the Use of Neu to add 'Paralytic Aş	Intraperito Intraperitoneal (IP) Intraperitoneal (IP) Comuscular Blocking Add I ents' Add Paralytic Age Pre-medications	Edit, Delete or eeded. Drugs in Delete ents or Other if used. Delete ng, duration of

- o. If any of the **Anesthetic Agents** are controlled substances, you must either have clearance to order and handle the controlled substance yourself, or write that only authorized OLAC personnel will administer the controlled substance.
- p. If you will be administering any material or agent to the animals as a part of this procedure (other than Anesthetic or Analgesics already described), open and complete the **Other Agents Utilized** tab. Any agents that are Hazardous or non-pharmaceutical grade must also be added to the 'Are You Using?' section of the protocol.

Procedure Description	Anesthetic Regimen	Other Agents Utilized						
Add all materials or agents administered as a part of this procedure.								
Note: Pharmaceu available or are o non-pharmaceuti	Other Agents Utilized Note: Pharmaceutical grade compounds must be used in animals unless those compounds are not available or are otherwise inappropriate for the aims of the proposed animal use. If proposing to use non-pharmaceutical grade compounds, please complete the appropriate questions on the "Are You Using" section of the protocol. For guidance, please refer to the ACUC policy on <u>Use of</u>							
Other Agents Util			Add   Delete					
	Please click on 'Add' to add 'Other Agents Utilized'							
			Previous					

q. Once you **save and close** a pre-filled procedure, it will appear on the Procedures list page, and will be identified as a pre-filled procedure:

					Spell Check	(   Help	Close
	Rationale Proc	edures Husbandr	y Animal Disposition	Attachments	Pre	evious	Next
Personnel Information							
Species		_					
Are You Using?	Procedures	OPre-filled		Ocustom			
Funding Sources	Procedures			Add	Delete	Clone	
Protocol Information Rationale	Procedure T Blood Collect Mice (Pre-fille	ion in Conscious	Procedure Title Blood Collection in Cons Mice		istress Categ	огу	
Kationale							

r. <u>PLEASE NOTE</u>: The Clone function is not available for Pre-filled Procedures, only for Custom Procedures.

2) Custom Procedures do not include any auto-populated content. There are several types of custom procedures that you can add, and selecting the correct type of procedure is important since this dictates the questions the Investigator must respond to when describing the procedure. For some types of Custom Procedures, there may be ACUC-approved procedure descriptions available on the web site, <u>https://olac.berkeley.edu/pre-approved-procedures</u>. The Custom Procedure Types are listed below:

Animal Identification Antibody Production Behavior Study Assay Blood Collection Breeding & Genotyping Compound/Drug Administration Experimental Neoplasia/Tumor Passage Field Studies Imaging Infectious Disease Study Irradiation/Reconstitution Neurobiological Recording Nutritional Study Surgery at Vendor Surgical Procedure Treadmill/Locomotion Tissue Collection Other (describe)

a. To add a custom procedure to your protocol, go the **Protocol Information**, **Procedures** section of the protocol, select the **Custom** radial button and click on the **Add** link.

			Spell Check   Help   Close
	Rationale Procedures Alternativ	e Search 🏾 Proc 🖌 Husbandry	Previous Next Animal Disposition Attachments
Personnel Information			
Species			
Are You Using?	Procedures OPre-filled	Cus	stom
Funding Sources	Procedures		Add   Delete   Clone
Protocol Information	Procedure Type	Procedure Title	Pain/Distress Category
Protocol Information	Blood Collection in Conscious	Blood Collection in Conscious	С
Rationale	Mice (Pre-filled) Blood Collection in Anesthetized	Mice Blood Collection in Anesthetized	D
Procedures	Mice (Pre-filled)	Mice	0
Alternative Search			
	Select Custom and	d click Add to create a n	new
Procedure Relationships			

- b. You can also select an existing custom procedure and **Clone** it. Cloning is helpful if you are doing the same procedure on multiple species.
  - i. <u>PLEASE NOTE</u>: The Clone function is not available for Pre-filled Procedures, only for Custom Procedures.
  - ii. To clone an existing custom procedure, **select the box** next to the procedure you wish to clone and click the **Clone** link (see screen shot below).
  - iii. If you **Clone a procedure**, you will need to give the new procedure a **unique Procedure Title**.

	Spell Check   Hel				
Personnel Information	Rationale Procedu	Ires Alternative Search	Proc Husbandry	Animal Disposition	Attachments
Species	Procedures	O Pre-filled	Cus	stom	
Are You Using? Funding Sources	Procedures			Add   Delete   O	Clone
Protocol Information	Procedure Type	in Conscious Blood C	ure Title ollection in Conscious	Pain/Distress Category C	/
Rationale			ollection in Anesthetized	D	
Alternative Search	Mice (Pre-filled) Behavior Study A		I Plus Maze	С	
Drocoduro Rolationshing			ne an existing C it, then click Clo		e,

c. After you click Add or Clone, a **Procedure Details** section will appear:

		Sa	ve   Spell Check   Help   Close	
	Rationale Proc	edures Alternativ Husbandry Animal Dis Attac	Previous Next	
Personnel Information	Procedures			
Species	Procedure Deta	ills	Save   Cancel	
Are You Using?	Procedure Type: *	Surgical Procedure	•	
Funding Sources Protocol Information	Procedure Title: *	stereotaxic surgery on mice		
Rationale	Species: *		Mouse, Laboratory (D	After you click Add or
Procedures	Pain/Distress Cate	egory: *	D 💌	Clone, a Procedure
Alternative Search	Maximum number period: *	of animals to be used in this procedure for a THREE-YEAR	30	Details section will
Husbandry	Was a veterinarian	consulted (for D or E studies)? .*	✓ Yes No	open.
Animal Disposition				open.
Attachments Certifications	Site:	UC Berkeley campus 👻 Building Name: *	LSA	
Check For Completeness		Room Number: *	635	
Submit Form				]

a. Select the **Procedure Type** from the drop-down menu, or select **Other** and describe.

			Sa	ave   Spell Check   He	lp   Close	
	Rationale Proc	edures Alternativ Husband	ry Animal Dis	Select <b>Procedu</b> and type in a dis <b>Procedure Title</b>	stinct	
Personnel Information	Procedures					
Species	Procedure Deta	ils		Save   Can	cel	
Are You Using?	Procedure Type: *	Surgical Procedure			•	
Funding Sources	Procedure Title: *	stereotaxic surgery on mice				
Protocol Information		Stereotaxie Surgery on milee		future to be a first of the sector of the se		
Rationale	Species: *			Mouse, Laboratory (E		
Procedures	Pain/Distress Cate	<u>qory: *</u>		D	•	
Alternative Search	Maximum number of animals to be used in this procedure for a THREE-YEAR 30					
Husbandry	Was a veterinarian	consulted (for D or E studies)? :*		✓ Yes No		
Animal Disposition						
Attachments	Site:	UC Berkeley campus 👻 E	Building Name: *	LSA	•	
Certifications						
Check For Completeness		F	Room Number: *	635		
Submit Form						

- b. Complete the **Procedure Title**, distinguishing each procedure. For example, if you will be doing several types of Surgical Procedures, use the title to distingue one surgical procedure from another. This is helpful to both reviewers and researchers, so they can easily drill-down to the details of the different procedures in the protocol.
- c. Select the species from the drop-down menu, which includes all the species you added previously in the **Species** section of the protocol.
- d. The Pain and Distress Category automatically selects a default setting based on the Procedure Type selected. You can change the default setting; however, the official Pain and Distress Category will be determined by the ACUC during the review process. The Pain and Distress Category is required for regulatory reporting purposes and uses a scale developed by the United States Department of Agriculture (USDA), the agency that administers the Animal Welfare Act Regulations.
  - i. **Category B**: Animals that will be bred or purchased for breeding, but not used for experiments. This includes:
    - Breeders
    - Young that cannot be used because of improper genotype or gender
    - Any other animals that will not have any research procedures performed on them or participate in research studies

Note: If tail snips are necessary for genotyping, this category is *not* appropriate.

- ii. **Category C**: Animals that will undergo procedures that involve no or only very brief pain or distress, with no need for or use of pain relieving drugs. Examples include:
  - Observational studies
  - Most intravenous and parenteral injections of non-irritating agents
  - Most blood collections from peripheral vessels
  - Collection of cells and/or tissues from animals after euthanasia has been performed

- iii. Category D: Animals that will undergo procedures involving potential pain or distress *that is relieved* by appropriate anesthetics, sedatives, or analgesics. Examples include:
  - Major and minor surgery performed under anesthesia (survival or non-survival)
  - Tissue or organ collections prior to euthanasia
  - Painful procedures performed under anesthesia (such as retro-orbital blood collection in rodents)
  - Prolonged restraint accompanied by tranquilizers or sedatives
  - Experiments involving infectious or other hazardous materials in animals that have provisions for immediate euthanasia if they become sick to effectively prevent pain and/or suffering.

Note: If an endpoint is used that involves significant pain or distress, consideration should be given to putting animals into Category E.

- iv. **Category E**: Animals that will undergo procedures in which pain or stress is NOT relieved with the use of anesthetics, analgesics, tranquilizers, or by euthanasia. Examples include:
  - Studies in which animals are allowed to die without intervention (e.g., LD50, mortality as an end-point)
  - Studies that allow endpoints that are painful or stressful
  - Addictive drug withdrawals without treatment
  - Pain research or noxious stimulation
- e. If you have added a Category D or E procedure, you will be asked to certify that you have **consulted with one of the OLAC veterinarians**. Click "Yes" in response to this question.

(It is recommended to consult with veterinarians on procedures prior to submission, however, veterinarians review all protocols submitted to the ACUC).

- f. Complete the **Procedure Site Information**, including the building and room number.
  - i. This information is used to determine if the space is approved by the ACUC for the procedure listed and to assist the ACUC in fulfilling its regulatory obligation to inspect all areas where animals are used.

NOTE: **If you change the location** where you perform a procedure, you must **amend your protocol** so the Procedure Site information is up-to-date.

- ii. If you are conducting field studies, select Use Location: "Field Study", Building:
   "Other", and type "NA" into the Building(s)/Room(s) field. You will provide more detail about where your field studies are conducted later in the procedure description.
- g. When you have completed all the required **Procedure Details** information, click the **Save** button.
- h. Depending on the **Procedure Type** selected, additional questions will appear in blue tab format under the **Procedure Details**.

	53/	Spell Check   Help   Close	
Rationale Pr Procedures	Click <b>Save</b> to save and <u>cl</u> procedure.	DSE the S Next	
ecies Procedure De	tails	Save   Cancel	
period: *	stereotaxic surgery on mice	Mouse, Laboratory (D) D 30 Ves No LSA	each r <b>e Details</b> tab.
k For Completeness sit Form : View Surgery Info t History I History		i procedure Other Drugs VAnalgesics Utilized Procedure	<b>t</b> to save and mov at tab. Click <b>Save</b> re to save and kee dure <u>open</u> .

- i. Complete all required and applicable questions on each tab for each procedure. All questions marked with a red asterisks (\*) must be completed before moving on.
- ii. Click on the **Next** button under the Procedure Detail tabs to save your work and move to the next tab.
- iii. If a question is not applicable, please type "Not Applicable" or "NA" rather than leaving it blank.
- i. Repeat steps 2-11 to add every procedure to your protocol. eProtocol will build a table in the Procedure Section of the Protocol that lists all of your procedures.
  - i. To edit a procedure, click on the **Procedure Type** link.
  - ii. To delete or clone a procedure, select the box next to the procedure and click **Delete** or **Clone**.

	To edit, click of <b>Procedure Ty</b>			
Pro	ocedures		Add   Delete   Clone 🗲	To delete or clone, select the
	Procedure Type	Procedure Title	Pain/Distress Category	box next to the
	Surgical Procedure	stereotaxic surgery on mice	D	procedure, then
Breeding & Genotyping		Mouse breeding colony	В	click <b>Delete</b> or
	Breeding & Genotyping	Rat Breeding Colony	В	Clone.

## 3) General Notes about all procedures:

- a. NAVIGATION TIPS: At this stage of the protocol, there are multiple navigation tools for saving and proceeding.
  - i. The **Next** and **Save** links *below* the blue Procedure Details Tabs save each tab for *that procedure*.
  - ii. The Save link next to the words, "Procedure Details," will save <u>and close</u> that procedure.
  - iii. The **Next** and **Previous** links at the top right-hand side of the page will save and move you to the next section <u>of the protocol</u> (e.g., Funding Sources or Certifications).
  - iv. The **Save** and **Close** links at the top right-hand side of the page will save and close the protocol itself.

Save   Spell Check   Help   Close Previous Next Rationale Procedures Alternativ Husbandry Animal Dis Attachments	Save and Close <u>the</u> protocol. Move to the Next or Previous section <u>of the protocol</u>
Personnel Information Procedures	Click <b>Save</b> to save and
Species Procedure Details Save Cancel	
Funding Sources	<u>close this procedure</u> .
Procedure Title: * stereotaxic surgery on mice	
Rationale Species: * Mouse, Laboratory (D 🔻	
Procedures Pain/Distress Category.* D	
Alternative Search Maximum number of animals to be used in this procedure for a THREE-YEAR 30	
Husbandry Was a veterinarian consulted (for D or E studies)?.* Ves No	
Attachments Site: UC Berkeley campus V Building Name: * LSA V	Click <b>Next</b> to save this
	Procedure Details tab
Room Number: * 635	and move to the next
Print View Surgery Info Procedure Surgeon Details Anesthetic Peri procedure Other Drugs	
Event History Description Regimen Care/Analgesics Utilized	tab for this procedure.
Email History Next Save Procedure	Click <b>Save Procedure</b> to save this procedure and keep it open.

b. If you add more than one procedure, you must complete the Procedure Relationships section. This section describes your studies (which consist of multiple procedures), the sequence and timing of the procedures, and how many and which procedures a single animal will undergo. See the <u>eProtocol Quick Guide on Procedure</u> <u>Relationships</u>. c. If you add a potentially painful or distressful procedure (see <u>Pain and Distress Category</u>, above), you must complete the **Alternatives Search** section, describing in detail how you performed a literature search for alternatives to the procedure. See the <u>eProtocol</u> <u>Quick Guide on Alternatives Search</u>.

If you add a painful/distressful procedure, Alternative         Protoco         Search appears. If you add more than one procedure,         Procedure Relationships appears.								
Personnel Information Species	Procedure Relationships Rationale Procedures Alternative Search Proc Husbandry Animal Disposition Attachments							
Are You Using?	Pre	ocedures		Add   Delete   Clone				
Funding Sources		Procedure Type	Procedure Title	Pain/Distress Category				
Protocol Information		Surgical Procedure	stereotaxic surgery on mice	D				
Rationale		Breeding & Genotyping	Mouse breeding colony	В				
Procedures		Breeding & Genotyping	Rat Breeding Colony	В				
Alternative Search								

d. If you are performing the same procedure on different species, you will need to add a separate procedure for each species.