#### Jawatankuasa Etika Penyelidikan Haiwan UPSI

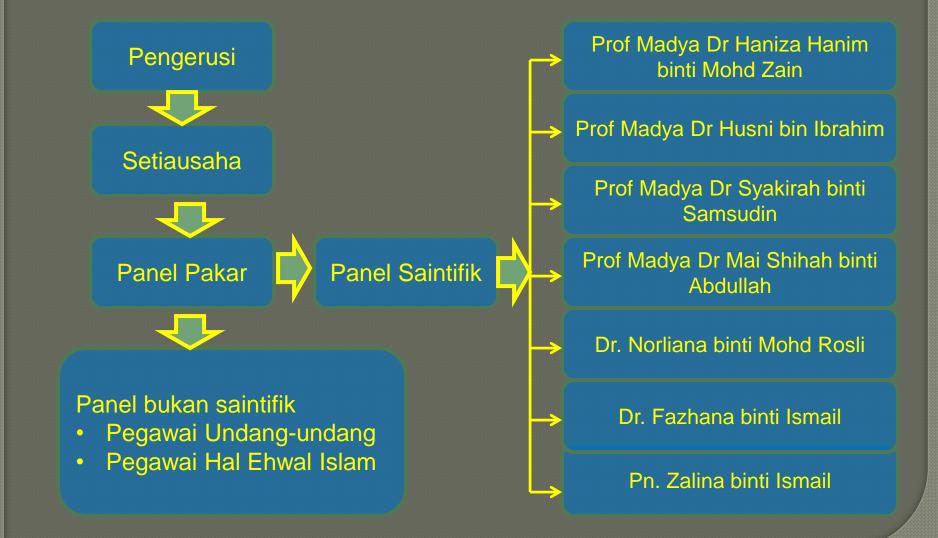


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#### Ahli JK Etika Penyelidikan Haiwan UPSI



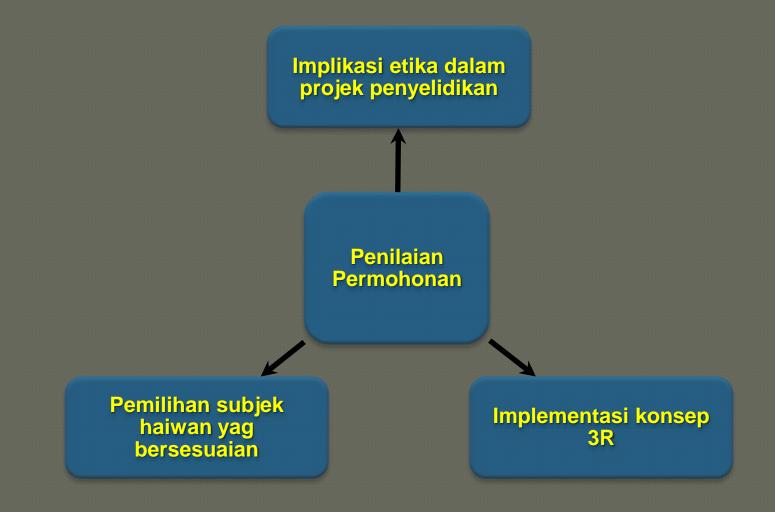


# Objektif

- Memastikan semua penyelidikan yang melibatkan haiwan mematuhi garis panduan Akta Kebajikan Haiwan 2015 yang telah berkuatkuasa pada 1 Julai 2017 (Animal Act Welfare 2015).
- Memastikan penggunaan haiwan sebagai subjek dalam penyelidikan akan dapat memberi merit ilmu yang menyumbang manfaat pada manusia sejagat, haiwan dan juga alam sekitar.



#### Kriteria Penilaian Permohonan





# Konsep 3R



- Reduction of animal use
- Methods that minimize the number of animal required for the propose research



- Replacement of animal use
- Methods that avoid or replace use of animal



•Refinement of animal use •Methods that minimize pain and suffering and improve animal welfare

# Jenis-jenis haiwan yang memerlukan kelulusan etika penyelidikan haiwan

Haiwan Vertebrata







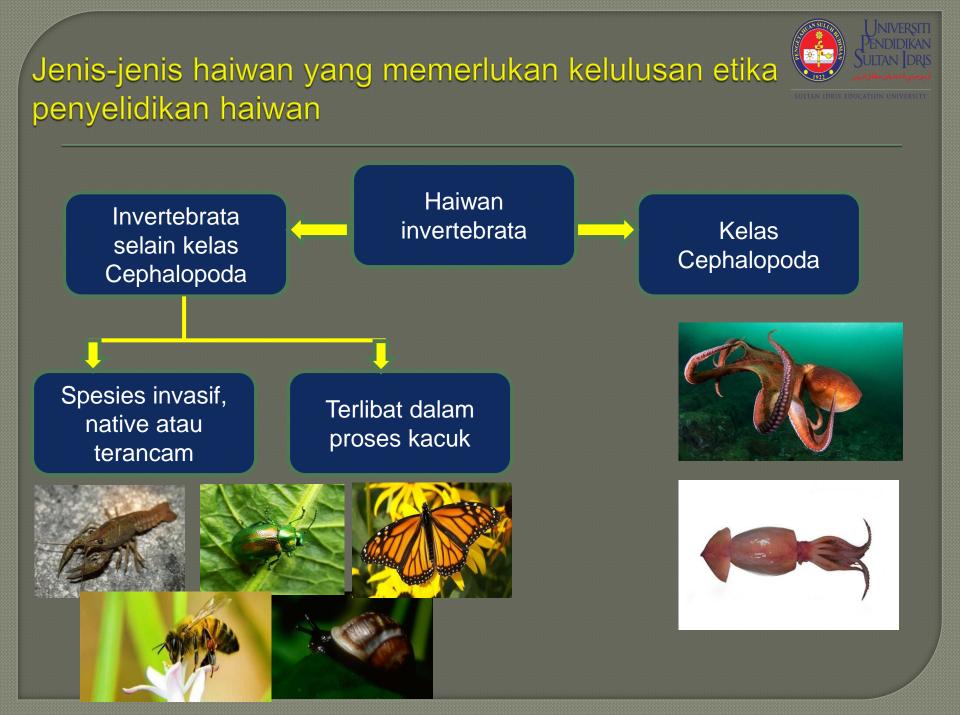








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Keperluan Borang

- APPLICATION TO USE ANIMAL SUBJECTS FORM (UPSI/PPPI/UPP/BE02)
- APPLICATION FOR ANIMAL PRACTICE WORKSHOP FORM (UPSI/PPPI/UPP/BE06)
- NOTICE OF SUBSTANTIAL AMENDMENT FORM (UPSI/PPPI/UPP/BE04) (umum digunapakai oleh semua JK etika penyelidikan manusia/haiwan/biokeselamatan)
- ADVERSE EVENT REPORTING FORM (UPSI/PPPI/UPP/BE05) (umum digunapakai oleh JK etika penyelidikan manusia/haiwan/biokeselamatan)

#### APPLICATION TO USE ANIMAL SUBJECTS FORM (UPSI/PPPI/UPP/BE02)



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#### • 16 sections need to be completed

Section 1. Application Detail								
Title of Research	:							
Research Code (if applicable)	:							
Funding Institution (if applicable)	:							
Please indicate if this is an INITIAL APPLICATION or TRIENNIAL RENEWAL Application can only be approved for a maximum period of 3 years, at the conclusion of 3 years a Triennial Renewal application will be required.								
Commercial in confidence:		Yes No						

#### Section 2 & Section 3



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	Section 2. Previous Approval (if applicable)														
Protocol title		:													
AEC Approval N	lo.		:												
Unexpected deaths or adverse events															
Please attach lis	Please attach list of publications arising														
	Section 3. Responsible Research Principal Investigator (PI)														
Title, first name,	, last r	name,	:									Staff number (UPSI staff only)			
Qualifications			:												
Email :							Pho	one	:			N	lobile	:	
Office Address			:								-				
Faculty (if applic	cable)				:		De	eparti	ment	:					



Section 4. Investigator(s)									
	more i	nvestigators	s exist	than lines provid			separ	ate list.	
Title, first name, last						number			
name,					(UPS	staff only)			
	:						:		
	-								
Qualifications	:								
Work mailing address									
	:								
Email .	-	Phon				Mobile			
•		е	•				•		
What is your role in this									
project?	:								
Animal Competency and Ex	cperier	nce							
Havu or any of co-resear	cher (s	) completed	l any A	Animal Practice V	Vorksh	op (APW)?			
Yes (if <b>Yes</b> please prov	vide sup	oporting do	cumen	it(s)).					
Date:									
No (if <b>No</b> , Please dow	nload th	he APW for	m avai	ilable from our RI	MIC we	ebsite and atta	ach to	o this application).	
What is your experience wi								· · · · · · · · · · · · · · · · · · ·	

what is your experience with the procedures/techniques to be used in this project?



### Section 5 & Section 6

	Section 5. EMERGENCY CONTACT PERSONNEL During Study														
Name		:													
Email	:				P	hone					Mobile	Э	:		
After hours/eme number	rger	ncy o	contact	:							•		ł		
			During	Anae			i <b>on 6.</b> /				<b>ITOR</b> Post-Pro	cedu	ral Pe	riod	
Name of the Per	son	In C	harge			:									
Details of their r	elev	ant	experien	се		:									
Email	Email :						Pho	one	:			Мо	bile	:	
After hours/eme number	rgei	ncy	contact		:										



	Section 7. PERSONNEL RESPONSIBLE FOR EUTHANASIA									
Name of the	son In Charge	:								
Details of their relevant experience										
Email				Phone	:			Mobile	:	
	After hours/emergency contact number									



	Section 8. ANIMAL SUMMARY										
Does the project involve native, imported or protected species? Yes No											
If <b>Yes</b> , have the relevant lic	If <b>Yes</b> , have the relevant license been obtained from Wildlife Department or other authorities?										
Yes Permit issued by: Permit Number:											
Species scientific	Strain	Dietary Res			<u>Total</u>		Source				
& Common name		Yes/	No		<b>number requir</b> the life of the p						
						nojeci)					
Does the protocol involve	anv of the follow	vina:			Yes	No					
If Yes, please complete th	-	5									
			Specie	s	Strain		Total number Required				
Creation of hybridoma							-				
In vivo studies											
Genetically modified anima											
Other genetically modified	animals										
Transplantation											
autograph											
allograph											
xenograph     - cells											
- tissue											
<ul> <li>organs</li> <li>material</li> </ul>											
Others: Please specify											



	9. HOUSING AND LOCATION OF ANIMALS									
UPSI:			OTHER (please specify:							
Facility room number/ zone	<b>Species</b> (and/or strain if applicable)	Gender	Age or initial weight	Reproductive status						
What is the maximum length	of holding in weeks?									
What are the special cares w	vill be provided for anir	mals, which w	vill be held longer th	nan 3 months?						
Please detail the method of	transport and any anim	nal welfare im	plications:							



#### Section 10 & Section 11

	1	0. SAFETY AI	ND HEALTH RISKS					
Does this project involve the use of:	Y/N	Approval <b>Y/N</b>	If <b>YES</b> , explain risks involved	Precautions to protect staff and/or animals				
Teratogens or carcinogens	Ν							
Drugs (morphine, etc)	Ν							
Radioisotopes or x-rays	Ν							
Other potentially infectious or hazardous (chemical/physical / biological) agents which may pose a health risk to staff or animals       N								
Identify potential risks to staff and how they will be managed and minimised.								
	11. GEN	IE TECHNOLO	GY / BIOLOGICAL SAFET	Y				
A. Are you dealing with Genetically	Modified	d Organisms?	Y	Yes No				
If <b>Yes,</b> please provide details of phenotypic expression.								
Approval Number:       Approval Status:       Pending       Yes       No         (if approved)       (if approved)       (if approved)       (if approved)       (if approved)								



#### **12. EXPERIMENTAL PROPOSAL**

Α.	FLOW DIAGRAM OUTLINING THE PROJECT AND THE_PROCEDURES - Can be attached as separate sheet/s. Must include a time line and list of procedures for what happens to each group of animals from acquisition to disposal. (Please include attachment sheet if necessary)
Α.	The "costs" of the research to the animals – potential harms, pain, distress, impositions, etc.
<b>Г</b> П	using genetically modified animals, please attach phenotype reports
A.	Potential "benefits" of the research - to humans, animals, or the environment. Please write.



	13. NON SURGICAL PROCEDURES									
A. Full description of <u>all non surgical</u> procedures as listed BELOW.										
If substances are being administered to animals please include details of route, volumes, frequency, intervals and duration.										
Type of <u>non surgical</u>	Expected impacts of	Expected frequency of	Refinement taken to minimise							
procedure to be carried out	the procedure	adverse impacts	impacts							
e.g. gavage	Minor discomfort rarely substance enters airway or oesophagus is damaged	Some discomfort on each occasion. Substance in airway or oesophageal damage in less than 1 in 1000 administrations.	Good handling to minimise discomfort and observation after dosing with humane killing of any animal showing signs of mis- dosing or damage.							



	14. SURGICAL PROCEDURES									
A. Full descript	A. Full description of all surgical procedures listed BELOW:									
Type of surgical p be carried out	procedure to	Expected impacts of the procedure				ected frequency of erse impacts	Refinement taken to minimise impacts			
e.g. insertion of car	theter	Pain		/	Alwa	ays	Analgesia			
TYPES OF ANAES	STHESIA THAT	WILL BE U	SED							
Species	Agent (s)	Dose	Route	Frequer	ncy		Duration			
e.g. Rat	Ketamine	80 mg/kg	ip	Once on	ily	Single injection is su	Ifficient for the 10 minute procedure			
	and Xylazine	10 mg/kg	ip		-					
		1	1							
TYPES OF ANAES	STHESIA TO BI	E USED								
Species	Agent	Dose	R	loute		Fre	equency & Duration			
e.g. Mouse	buprenorphine	0.05-	Subcu	Itaneous			luction of anaesthesia then continued			
		0.1mg/kg			e	very 8 hours for 3 day	rs post-op			
		!	1							



#### **15. ANIMAL WELL-BEING**

A. <u>Post-procedural pain and distress</u> – How will pain and distress be monitored, scored and treated.

- B. Monitoring schedule provide a "Post-Procedural Monitoring Sheet" and /or "Long Term Monitoring Sheet"
- C. Criteria for Euthanasia How will animals be assessed for euthanasia
- **D.** What % of animals do you expect to die or require intervention euthanasia during this project? Please explain likely reasons for the anticipated loss rate (%)

Potential cause of death or euthanasia	Impact on welfare	Steps taken to minimise impact	Percentage of animals affected
e.g. vessel rupture	irreversible haemorrhage	haemorrhage apparent to surgeon, animal would be euthanased whilst still under general anaesthesia	<1%



16. COMPLETION OF EXPERIMENT – Fate of the animals at the end of the experiment?							
A. Are <u>all</u> the anim	hals Euthanased at the e	nd of the experiment?	Yes No				
If <b>No,</b> What is the fate of non-euthanased animals?							
If Yes, please cor	If <b>Yes</b> , please complete the table below.						
METHOD OF EUTHANASIA - provide details of the <u>generic</u> constituents (not the trade name), the dose rate as mg/kg, and the route of administration.							
Species	Agent	Dose	Route				
e.g. Rat	Pentobarbitone	>160mg/kg	Intraperitoneal injection				
			•				

A. Method and Details of Carcass Disposal



#### Section 17. Declaration

I/we, the undersigned:

- (i) acknowledge that the information contained in this form is a true and accurate record;
- (ii) understand any non-compliance with the Code of Practice must be reported immediately to the AEC and may result in the withdrawal of project approval and possible disciplinary action;
- (iii) understand that in keeping with AEC and Animal Facility policy, all animals are to be monitored as detailed in the application. The Animal Welfare Officer (AWO) has the authority to euthanase distressed animals. Every attempt will be made to inform the CI before any action is taken;
- (iv) understand It is the responsibility of the CI to maintain animal records annually to the AEC on animal usage;
- (v) understand that in the event of an animal death we will immediately report the death to the AEC, and arrange for an autopsy to be carried out and the results of the autopsy report to be sent to the AEC;
- (vi) will ensure that the qualifications and/or experience of all listed personnel are appropriate to the procedures to be performed;
- (vii) certify that the resources in the school or department, including housing and personnel, are appropriate for the welfare of the animals and the satisfactory completion of the project.
- (viii) I agree to all of the above

#### CHIEF INVESTIGATOR - It is the responsibility of the CI to obtain all required signature/s on the application form

CHIEF INVESTIGATOR	SIGNATURE	DATE
CO-INVESTIGATOR	SIGNATURE	DATE
CO-INVESTIGATOR	SIGNATURE	DATE
	Department Review	
Comments:		
(	)	Date:
Head of Department		

Faculty/ Center/ Institute Review				
Comments:				
()	Date:			
Deputy Dean Research and Innovation				
Animal Ethics Review Committee Endorsement				
Comments:				
Endorsed (without presentation)         Endorsed, and present         Amend and resubmit				
() Chairman of Animal Review Committee	Date:			
Animal Ethics Committee Approval				
Comments: Approved Approved, with amendment Not approved () Chairman of Animal Ethics Committee	Date:			

#### APPLICATION FOR ANIMAL PRACTICE WORKSHOP FORM (UPSI/PPPI/UPP/BE06)



SULTAN IDRIS EDUCATION UNIVERSITY

1. APPLICANT'S DETAILS				
Name: Title:				
Department/Faculty:	-			
E-mail address:				
Contact phone Number (office): Contact HP N		Imber:		
Current Appointment:	Staff number:			
(UPSI staff on		()		
Degree/Qualifications:				
Supervisor (if student):				
2. ANIMAL EXPERIENCE, TRAINING AND COMPETENCY				
Are you or your co-investigator currently, or have previously, taken part in animal resear	rch work at	Date		
another institution, in Malaysia, or elsewhere?		Completed:		
If Yes, please provide name of institution:				
YES[] No[]				
Please attach any relevant supporting documents to support this application e.g. Workin certificate, or the equivalent from other institutions.	ng with animals			
Please provide details of <b>ALL</b> experience and/or training you have gained working with animals. Describe any procedures (eg injections, monitoring, anaesthesia, gavage), species of animal, approximate number of times you have performed the procedure and for approximately how many years. <i>IF YOU HAVE NO PREVIOUS ANIMAL EXPERIENCE, DO NOT LEAVE BLANK - PLEASE WRITE 'NONE'.</i>				



# APPLICATION FOR ANIMAL PRACTICE WORKSHOP FORM (UPSI/PPPI/UPP/BE06)

3. AEC APPROVED PROJECTS - List UPSI AEC approved protocol you are listed on as a Principal researcher or coinvestigator (*if applicable*)

AEC number	Principal/Co-Investigator	Faculty

A nation and its moral progress can be judged by the way its animals are treated

...Mahatma Gandhi

Thank in the second sec