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Howard University
Proposal for Laboratory Vertebrate Use in Research, Teaching or Testing

Form IACUC A: Use this A Form for new proposals, renewals, revisions, 3 year de novo continuations, and addenda or continuations with significant changes. Effective 2011 the IACUC recommends and prefers use of the IACUC A Forms for all submissions. See Instructions for completing the IACUC Forms at www.huiacuc.howard.edu . Sections of this form will expand to accommodate text as needed.

Note: Incomplete, hand-written or unsigned forms will be returned. For assistance in completing this form call the IACUC Office at 202 865 8353 or email Marline BrownWalthall at marline.brownwalthall@howard.edu. The IACUC Office Address is IACUC, Howard University Office of Research and Regulatory Compliance, Howard University Research Building (HURB-1), 1840 7th Street, NW, Room 215, Washington, DC 20001.

NOTE: You may have to click "View and then "Edit" and/or "Enable Content" to Input Information.

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For Committee Use Only (Rev 11/2017)
Date Submitted: 6/18/18   **Date Received:**

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For Committee Use Only (Rev 11/2017)		
Date Submitted: 6/18/18		**Date Received:**
IACUC No.:		
Document Type:	New ☐ Continuation ☐ Addendum ☐ De novo ☐ Renewal ☐ Revision ☐ Continuation w/ significant changes ☐	
FCR ☐	Date Reviewed	
FCR Approval Date		
Assigned to Scientific Merit Rev ☐	Date	
Assigned to DMR ☐	Date	
DMR Approval Date		
RSC NA ☐ Pending ☐	Approval Date	
IBC NA ☐ Pending ☐	Approval Date	
Final Approval Date		
Expiration Date		
No. Animals Approved This Period		
USDA Category: C ☐ D ☐ E ☐		
Notes:		

Principal Investigator (PI) and Proposal Information

First Name	Middle Initial	Last Name	Department	Building	Room No.

PI Phone No.	PI Email	PI's Technician In Charge	Technician Phone No.

Proposal Title	
Project Period: From	To:

	Yes ☐ No ☐
Will proposal be peer-reviewed for scientific merit by the funding organization? For proposals that will not be peer-reviewed or student research proposals, prepare a research plan following the outline in item IX. of *Instructions for Submission of Proposal for Laboratory Vertebrate Use in Research, Teaching or Testing* and submit it with this proposal.	

Funding Source   Project Start Date:

NIH ☐   NSF ☐   Dept ☐   Other ☐ (Specify):

Proposal Type: New ☐   Renewal ☐   Revision ☐   3 yr De novo ☐   Addenda ☐ or Continuation ☐ w\ Significant Changes

Is proposal identical to a proposal sent to other sponsor(s)?   Yes ☐   No ☐   If 'yes' enter IACUC No.:

1.A. Animal Use Numbers: Use 1.A.1 to account for animals in a breeding program: [Breeders, All Offspring (Expected Research Subjects (List these Animals Research Subjects again under 1.A.2.) and Anticipated Culls) and Total] Use 1.A.2 for Animals to be used as research subjects.

1.A.1. Animal Breeding Colony: SKIP THIS SECTION IF YOUR PROJECT DOES NOT INVOLVE USE OF A BREEDING PROGRAM. In this section account for ALL animals: Include (1) Number of Breeders, (2) Litter Size, (3) Number of Offspring to be used as Research Subjects (Also list these under 1.A.2.) and (4) Number of Offspring to be culled or removed as not suitable for use as research subjects under this proposal. BREEDING PROGRAM DETAILS: Provide Breeding program details under the Breeding Program Standard Operating Procedures Form (attach form).

Age of Breeding Onset/Retirement		Breeding Scheme (select one)	Identify Culling Method for Unneeded Pups (if applicable):**
Female	Male	☐ Pairs(1M+1F) ☐ Trios (1M+2F)	☐ Removal by Killing: Method:
0 **mo./** 0 **mo.**	0 **mo./** 0 **mo.**	☐ Harems (1M+3F)	☐ Donation * to Protocol No.: PI:

If donating unneeded animals to another protocol complete the Animal Transfer Form **

The "Total" will automatically calculate. If there is a delay in calculation double click any number to the left of "Total":

No. Breeders:	Male	Female	Estimated No. Pups to be Born	Estimated No. Pups to be Culled	Estimated No. of Pups to be Used for Research	TOTAL (Breeders and Research Offspring)
	0	0	0	0	0	0

Provide information regarding any genotype related morbidity or mortality or strain characteristics for breeding animals or their offspring that will necessitate special animal care or management.

1

1. A.2. Complete this section for animals to be used as research subjects. List each strain separately.

Under 'Year' check year of project for which you are asking approval. Complete the following for each breed or strain:

I. Row # 1: Enter total number of animals requested (New) or approved for your project each year 1-5. The year number can be changed from 1 to 5 or 6 to 10, etc. In the last column of Row # 1 the total for all years will compute automatically.

I. Row # 2. If this is **not** a New proposal enter additional animals requested under the appropriate year 1-5; if New enter zero. In last column of Row # 2 the total additional animals added for all years will compute automatically.

I. Row # 3. Enter the sum of Row #1 and Row # 2 will compute automatically in Row #3.

1. Row # 4: If this is not a New proposal enter number of animals used to date under the appropriate year to date. If New enter zero. In last column of Row # 4 the total number of animals used for all years will compute automatically.

I. Row # 5: For each year 1-5 **the** number of animals left or remaining for use will compute automatically (**s**ubtracting Row # 4 from Row # 3). In last column of Row # 5 **the** total for all years will compute automatically.

II. 6. and 7: Enter the average number of animals (to be) housed simultaneously. **III. 8. and 9:** Enter average # of animal housing days.

The updated table should account for all animals (new, originally approved, used, added, carried over from previous years, etc.).
Each strain or breed must be listed separately.
Add a Supplemental Animal Numbers Form if needed.

I. Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents) Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. Average No. Housed Simultaneously		III. Average Housing Days Per Animal	
Species 1		**Breed or Strain(s)**					**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)
Indicate the year or 12-month approval period for which approval to add or use animals applies→	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5. Numbers are automatically calculated in Rows 3 and 5. If there is a delay in calculation after numbers are entered, double click any number in Rows 1, 2 or 4 to the left of the last number entered.			
3. New Total (Add 1 + 2)	0	0	0	0	0	0				
4. No. Used To Date	0	0	0	0	0	0				
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0				

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

For This Approval Period Only Enter Animal Numbers →	Year 1 request or number of animals already approved for this 12 month approval period	New animals requested/ to be added this year	Carryover: You may add or choose not to add carryover animals not used in previous years to this 12 month approval period.	Total:
	0	0	0	0

Comments:

I. Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents) Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. Average No. Housed Simultaneously		III. Average Housing Days Per Animal	
Species 2		**Breed or Strain(s)**					**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)

Indicate the year or 12-month approval period for which approval to add or use animals applies➜	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered, double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0				

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

For This Approval Period Only Enter Animal Numbers ⟶	Year 1 request or number of animals already approved for this 12 month approval period	New animals requested/ to be added this year	Carryover: You may add or choose not to add carryover animals not used in previous years to this 12 month approval period.	Total:
	0	0	0	0

Comments:

I. **Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents)** Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. **Average No. Housed Simultaneously**		III. **Average Housing Days Per Animal**	
Species 3			**Breed or Strain(s)**				**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)
Indicate the year or 12-month approval period for which approval to add or use animals applies➜	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered, double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0				

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

For This Approval Period Only Enter Animal Numbers ⟶	Year 1 request or number of animals already approved for this 12 month approval period	New animals requested/ to be added this year	Carryover: You may add or choose not to add carryover animals not used in previous years to this 12 month approval period.	Total:
	0	0	0	0

Comments:

I. **Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents)** Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. **Average No. Housed Simultaneously**		III. **Average Housing Days Per Animal**	
Species 4			**Breed or Strain(s)**				**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)

Indicate the year or 12-month approval period for which approval to add or use animals applies➔	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered, double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0				

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

For This Approval Period Only Enter Animal Numbers ➡	Year 1 request or number of animals already approved for this 12 month approval period	New animals requested/ to be added this year	Carryover: You may add or choose not to add carryover animals not used in previous years to this 12 month approval period.	Total:
	0	0	0	0

Comments:

I. Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents) Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. Average No. Housed Simultaneously		III. Average Housing Days Per Animal	
Species 5		**Breed or Strain(s)**					**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)
Indicate the year or 12-month approval period for which approval to add or use animals applies➔	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered, double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0				

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

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	0	0	0	0

Comments:

I. Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents) Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. Average No. Housed Simultaneously		III. Average Housing Days Per Animal	
Species 6		**Breed or Strain(s)**					**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)

Indicate the year or 12-month approval period for which approval to add or use animals applies→	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered,**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0	**double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			

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	0	0	0	0

Comments:

I. Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents) Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. Average No. Housed Simultaneously		III. Average Housing Days Per Animal	
Species 7			**Breed or Strain(s)**				**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)
Indicate the year or 12-month approval period for which approval to add or use animals applies→	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered,**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0	**double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

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	0	0	0	0

Comments:

I. Total Animals Per Year and Total Animals for All Years Per Breed or Strain (Rodents) Under Breed/Strain list each strain separately and enter entire strain genotype; add an abbreviation if desired.							II. Average No. Housed Simultaneously		III. Average Housing Days Per Animal	
Species 8			**Breed or Strain(s)**				**HOW MANY AT A TIME?**		**AVERAGE TO BE HOUSED DAILY?**	
Total Animals Per Year for each species of animal [See instructions above (*).]	Year 1	Year2	Year 3	Year 4	Year 5	Total for Years 1-5	6. Current Approved (if Not New) or Requested (New)	7. Change Request (Enter 0 if New)	8. Current Approved (if Not New) or Requested (New)	9. Change Request (Enter 0 if New)

Indicate the year or 12-month approval period for which approval to add or use animals applies→	☐	☐	☐	☐	☐					
1. No. Approved\Requested	0	0	0	0	0	0	0	0	0	0
2. Additional No. Requested	0	0	0	0	0	0	**Numbers may be entered in Rows 1, 2 and 4 for Years 1 thru 5.**			
3. New Total (Add 1 + 2)	0	0	0	0	0	0	**Numbers are automatically calculated in Rows 3 and 5.**			
4. No. Used To Date	0	0	0	0	0	0	**If there is a delay in calculation after numbers are entered, double click any number in Rows 1, 2 or 4 to the left of the last number entered.**			
5. No. Remaining for Use (Subtract 4 minus 3)	0	0	0	0	0	0				

INDICATE NUMBER OF ANIMALS YOU PLAN TO USE DURING OR WITHIN THIS 12-MONTH APPROVAL PERIOD (BE SURE TO ADD REMAINING ANIMALS PREVIOUSLY APPROVED IF YOU STILL PLAN TO USE THEM FOR THIS APPROVAL PERIOD) My request for or within this 12 month approval period is: **The total will automatically calculate. If there is a delay in calculation double click any number to the left of "Total"**

For This Approval Period Only Enter Animal Numbers ⟶	Year 1 request or number of animals already approved for this 12 month approval period	New animals requested/ to be added this year	Carryover: You may add or choose not to add carryover animals not used in previous years to this 12 month approval period.	Total:
	0	0	0	0

Comments:

Genetically Modified or Mutant Animals: Describe any phenotypic or behavioral or other life quality or life span altering consequences of the natural or induced mutation or genetic manipulations of the animals (include a profile of the life span, morbidity and mortality, etc.). Describe in detail any special care or monitoring animals will require. If genotyping is required describe in detail genotyping procedures.

Justification of Animal Use: Justify the use of animals vs. non-animal methods below.

Justification of Species and Strains (or Breeds). Justify the choice of species and strains (or breeds) below.

1.A.3. Field Studies (Section under revision)

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1. B.1. Location of Animal Housing and Use (Check or Enter Information below)

Location of Animal Housing:

Veterinary Services ☐	Just Hall ☐	Other On Campus IACUC Approved Site ☐ (Specify Bldg, Room # Below)
Room #	Room #	

1. B. 2. Location of Animal Use:

Veterinary Services ☐	Just Hall ☐	Other On Campus IACUC Approved Site ☐ (Specify Bldg, Room # Below)
Room #	Room #	

1. B. 3. Describe transportation from site of animal housing to site of animal use if not in Veterinary Services or Just Hall.

1. B. 4. Is authorization requested to hold animals outside of IACUC approved housing more than 12 hours? If 'yes', justify below.   Yes ☐   No ☐

1. B. 5. Will animals be housed outside of HU? If answer is 'yes' provide outside housing information below.   Yes ☐   No ☐

Outside Housing of Animals: Complete this part if animals will be housed outside of HU:

Institution Name:

Institution Address:

Institution Assurance No.

Name of IACUC Chairperson of other institution	Phone No.

Has your proposal been approved by IACUC at the other institution?		Pending ☐	Yes ☐	No ☐
Is the other institution AAALAC accredited?			Yes ☐	No ☐

1.C. 2.Special Housing /Care Requirements (Indicate any special housing, diet, light cycle, carcass disposal requirements)

1. **C.2.Enrichment and Social Housing Management:** OLAW and AAALAC have placed a high priority on animal enrichment which may be defined as the system of animal environmental and social management that promotes species specific behaviors. Laboratory animal facilities implement enrichment through animal species group housing, positive interaction with animals during husbandry and care and the provision of caging accessories or toys, nesting material and nutritionally compatible food treats that promote chewing, taste enhancement, foraging, nest building and burrowing. And while enrichment items such as nesting material for mice appears to have a benign impact on mice and definitely promotes species-specific behavior, other more complex enrichment paradigms may change trained or untrained animal behaviors or background biochemical and physiological parameters. This may unfavorably impact on-going studies. Yet, it is important that enrichment be actively pursued for the benefit of the animal. With this as a background, Veterinary Services will provide all rodents with environmental enrichment (rodents - group housing, mice – nesting material, rats – PCV pipe or tunnels) and all other species with manipulata (cage toys for cats, ferrets and swine) food treats and group housing of compatible animals. Rodents may be provided nonnutritive chew toys or treats. Researchers must decide whether to opt in or out of enrichment or specify restrictions for animal on their proposals. In addition, VS will also implement social housing of social animals unless prohibited or limited by you, the Principal Investigator, based on written scientifically based rationale that pair or group housing will interfere with research objectives or results. **Please complete the following for each species and provide justification for any restriction or limitation of enrichment or social housing. Also indicate additional enrichment desired.**

Species 1	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 2	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 3	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 4	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 5	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 6	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 7	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Species 8	☐ I place no restrictions on enrichment for animals on my study as summarized
	☐ I place restrictions on my study as follows: ☐ Single housing (other than pregnant dams) ☐ No cage habitat enrichment items (nesting material or tunnels or huts) ☐ No toys ☐ No non-nutritive food treats ☐No nutritive food treats ☐Other (specify):
Provide Justification for any restriction in enrichment for each species listed OR request additional enrichment desired for your animals.:	

1. D. In vivo Use of Hazardous Agents/Materials in Animals: Are agents/materials to be used in animals classified as hazardous?	Yes ☐ No ☐

If '**No'** go **to 1.E.**   If '**Yes'** check all that apply below:

Recomb. DNA ☐	Radioisotope ☐	Carcinogen ☐	Infectious Agent ☐	Select Agent ☐	Toxic Drug/Chemical ☐	Other ☐
For biological agents select the Animal Biosafety Level (ABSL) for this protocol:		**ABSL1** ☐	**ABSL2** ☐	**ABSL3** ☐		

Provide the identification for each agent (s) for each category checked above and complete the IACUC Form for Use of Hazardous Materials/Agents in Animals.

Note: A "Yes" response to 1D requires submission of an application or receipt of an exemption from the appropriate Safety Committee(s) [Institutional Biosafety Committee (IBC) or Radiation Safety Committee (RSC)]. It is the responsibility of the Principal Investigator to assure that applications are submitted to the appropriate safety committee for work to be carried out under this proposal It is also the responsibility of the Principal Investigator to assure that copies of the IBC and RSC Committee Letter of Approval are submitted to the IACUC.

Safety Committee (SC) Approval Status

IBC: ☐ Approved on   ☐ Not Approved   ☐ Pending   **RSC:** ☐ Approved on   ☐ Not Approved   ☐ Pending

1. E. Animal Handling/Animal Surgical Training and Experience: List all persons (including Principal Investigator, students, and research and lab technicians) who will handle the animals and perform experimental techniques.

Online Training, References, Experience and Individual Training Records

References: A copy of the *NRC Guide for the Care and Use of Laboratory Animals (latest version) and the AVMA Guidelines for Euthanasia (latest) version) i*s available in my laboratory. I have also reviewed requirements and policies on the IACUC website at www.huiacuc.howard.edu. If your response is 'No' to any item the IACUC at 202 865 8353 and request copies.	**Yes**☐	**No**☐

Online Training and Experience:

Animal Handlers	Completed CITI Online Training and Certification		Experience With Relevant Species
Last Name, First Name	Yes	No	(yrs)
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Surgical Experience: Experience with surgical procedures to be used in this proposal or experience relevant to this proposal

Animal Surgeon(s)	Experience with Surgical Procedure or Experience Relevant to this Proposal		Experience With Surgical Procedure
Last Name, First Name	Yes	No	(yrs)
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Training of inexperienced individuals and maintenance of formal training records: Indicate what provisions will be made to instruct and train project personnel who have little of no experience in the surgery or procedures to be performed and affirm that training records will be maintained to confirm training (individual trained, trainer, procedure trained to perform, date of training and location of training)

Field Study Only: Briefly describe field study researcher and student safety, safety training and related medical/emergency coverage for accident or illness.

Collaborators: Provide the name(s) and experience of collaborators for this project and provide a letter from each collaborator affirming their role and agreement to collaborate on the project.

1. F Project Purpose, Hypothesis and Benefit: Please use lay person terminology since nonscientists may access this information. Avoid or define first use acronyms. **Provide adequate detail so that the general public would understand what is being studied, why the**

particular animal model was selected and how and why animals will be used. Also indicate what outcomes are expected to be achieved and what the justification is in terms of benefits of the research.

Purpose

Hypothesis (Be sure to include description of animal model and applicability for use in this proposal.

Benefits

Progress Report: If this is **not a new proposal** provide a progress report below or in the supplemental section at the end of this form.

2. A. Description of Animal Use: Check ALL that apply.

Behavior Study (Describe in 2G)	☐	No Surgery	☐	Unalleviated Pain, Stress or Distress (Justify*) ☐
Restraint >15 min/day(See 2B)	☐	Nonsurvival Surgery (acute)	☐	In Vivo rDNA (Biosafey Approval Required) ☐
Food Deprivation (Justify*)	☐	Minor Survival Surgery	☐	Mouse Ascites Model (Justification Needed*) ☐
Water Deprivation (Justify*)	☐	Major Survival Surgery	☐	Infectious Disease – Animal Pathogen ☐
Pain Study(Justify*)	☐	Multiple Survival Surgery(Same animal)*	☐	Infectious Disease- Human and Animal Pathogen ☐
Immunization Study	☐	Sacrifice for Tissue Collection Only	☐	Metabolic Disease ☐
Death as Endpoint (LD50, etc*.)	☐	Environmental Manipulation (light, etc.)	☐	Tumor Study (Define Size Limits, etc.) ☐
Paralytic Agent Use (Justify*)	☐	Drug Efficacy/Toxicity Study	☐	Toe Clip ID of Neonatal Mice (Justify*) ☐
GLP Study	☐	Dogs, Cats or Nonhuman Primates	☐	Endangered Species (Justify*) ☐
Device Evaluation	☐	Rodent Breeding (Describe # needed)	☐	Pregnant Dam Ordered: Request Short Quarantine ☐
Trauma Study (Justify*)	☐	Field Study (attach copies of permits)	☐	Genotyping Required (Fully describe in 2G) ☐
Severe Stress/Distress(*Justify)	☐	Substance of Abuse Study	☐	

*Provide additional information or justification for items checked that require a justification:

2. B. Restraint: This refers to restraint of a conscious animal that exceeds 15 minutes a day (not to unconscious anesthetized animal).

Will animals be restrained for longer than 15 minutes on any day?	☐ No -> If 'No' go to 2C	☐ Yes -> If 'Yes' justify below:

If restraint exceeds 15 minutes a day, identify restraint device, justify use, indicate restraint time per session and whether animals will be acclimated to restraint.

Estimate level of pain, stress and/or distress experienced by animal due to restraint:

☐ (none) 0	☐ 1	☐ 2	☐ 3	☐ 4 (severe)

2. C. Blood Collection: Indicate anatomical site, frequency, and volume withdrawn per collection time. Refer to IACUC Guidelines for collection limits. A sedative or anesthetic agent is required for retro-orbital sinus or intra-cardial collection: Provide agent and dosage information below.

2. D. Surgical Procedures: See VIII of *Instructions* to estimate level of pain, stress and/or distress (P, S, D).

OR Location	Animal				Identify each operative procedure and number of times it will be performed on a single animal.	Actual P,S,D Level Experienced by the Animal: (none) 0,1,2,3,4 (severe)			
	Species \Strain	Sex	No. Animals			Operative		Post-Op	
			Upcoming 12 months	All years		**PSD Level**	Duration	PSD Level	Duration

2. E. Non-Surgical Procedures: See VIII of *Instructions* to estimate level of P,S,D. **Important Note:** Researchers employing disease production models, tumor studies or immunization note that while the injection of a pathogen, neoplastic cells or adjuvant may be almost painless, the postprocedural consequences of disease (pneumonia, neurological disorders, progressive dehydration and debilitation, malignancy, etc.) or inflammation at the site of injection (post Freunds abscessation, ulceration) may be moderate to severe.

Procedure Room Location	Animal				Identify procedure and number of times it will be performed on a single animal	Actual P,S,D Level Experienced by the Animal: (none) 0,1,2,3,4 (severe)			
	Species \Strain	Sex	No. Animals			Procedural		Post-Procedural	
			Upcoming 12 months	All years		**PSD Level**	Duration	**PSD Level**	Duration

		0		0			

2. F. Does the non-surgical procedure result in permanent physical or physiological impairment? If 'yes', describe and justify below.	Yes ☐	No ☐

2G. Detailed Description of Surgical and Non-Surgical Procedure(s) Note**:** Describe in detail exactly what happens to the animal from the start of research use to euthanasia. **An overview of procedures can be presented here in a chronological order and surgical and nonsurgical details can be provided here or in an attached standard operating procedure document (SOP). If SOPs are used to provide procedural details each SOP must be listed here by title. In either case all procedures, drug use (agent, route, dosage, volume, etc.) must be provided.**

Provide a flow chart from beginning to end that that illustrates all of the procedures groups of animal will undergo. Make sure that animal numbers agree with those listed in Table 1A2. Flow charts should reflect the time line of animal use for any group of animals from start to finish. This Flow Chart or Table can also be inserted under Supplemental Information at the end of the form.

2. H. Pain or Distress Alleviating Drugs (analgesics, sedatives, tranquilizers, etc.) Administration (PAD):

Will animals experience pain and/or stress and/or distress in this study: Yes ☐ No ☐	Will PAD be given? Yes ☐ No ☐

If the response is **'Yes'** that animals will experience pain and/or stress and/or distress (PAD) and they will not be given PAD alleviating drugs provide justification for not administering PAD:

Presurgical \ Preprocedural Drugs Used (Ex: Acepromazine <u>prior to</u> obtaining blood from the ear veins of rabbits, pre-emptive analgesia, etc.) Provide drug name, dosage, route od administration, frequency of administration, and experimental phase when drug will be given (e.g. 30 minutes prior to performing surgical or nonsurgical procedure.)

Surgical or Procedural Drugs Used: For each procedure listed (under 2.D and 2. E.) provide names, routes, frequency of administration and dosages of drugs used to relieve pain, stress or distress.

Postsurgical or Postprocedural Drugs Used: For each procedure listed (under 2.D and 2. E.) provide names, routes, frequency of administration and dosages of drugs used to relieve pain, stress or distress and experimental phase when drug will be given (e.g. If there is evidence of pain, 48 hrs post-op)

2. I. Assessment, Prevention and Minimization of Adverse Effects(AE):

Adverse Effects (AE): List potential adverse effects of each surgical or nonsurgical procedure.

Detection of AE: Describe how AE will be assessed.

Prevention and Minimization of AE: Describe how AE will be prevented (e.g., analgesics, euthanasia, transfusion, acclimation to restraint)

Provide justification for not preventing/minimizing AE (if applicable)

2. J. Alternatives Search for USDA Covered Species: Stipulate USDA Study Category (C, D or E) potential for any group of animals that may experience pain, stress or distress during this approval year.
*Category C: No pain/distress and no use of pain-relieving drugs (routine procedures, injections and blood sampling)
**Category D: Pain/distress for which appropriate anesthetic, analgesic, or tranquilizing drugs are used
***Category E: Pain/distress for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs are withheld due to adverse effects on procedures, results or interpretations.

☐ I am using, less sentient species including rats, mice, birds or amphibians.   -> Indicate USDA Category: C* ☐ D** ☐ E*** ☐
☐ I am using a USDA covered species (swine, hamsters, canines, gerbils, sheep, etc.) -> Indicate USDA Category: C* ☐ D** ☐ E*** ☐

Alternatives Search for USDA Covered Species   See relevant sections of the IACUC *Guidelines for Investigators Using Animals in Research or Teaching* for information on completing this section. Attach search and retain a copy for your records until project ends. In conducting and adequate literature search one is looking for Reductions and/or Refinements and/or Replacements as defined below: **Three R's (Reduction, Refinement and Replacement):** Incorporation of Procedures for Reduction, Refinement and/or Replacement:
Definitions: Reduction: Minimize the number of animals used. **Refinement:** Employ techniques that reduce pain and distress.
Replacement: Substitute animal with nonanimal or animals that are less sentient or lower on the phylogenetic scale.
Please note that USDA-APHIS considers the statement, "No alternatives found" (or equivocal statement) to indicate that the alternatives search was, in a majority of cases, inadequately carried out. DO NOT SKIP ANY SECTION.

Databases Searched: ☐ Current Research Information Service   ☐ Medline   ☐ BIOSIS Previews   ☐ CAB Extracts
☐ EMBASE   ☐ Agricola   ☐ Pascal   ☐ Toxline   ☐ Altweb ☐ SCOPUS ☐ Other (specify):

Enter years covered in search (such as 2001 to 2011, etc.).

Enter key words used and search strategies

Other Sources Consulted

Conclusions: Indicate **the number of alternatives found** and indicate why they were or were not applicable to your aims. <mark>**Note that "None or No alternatives were found" is not generally viewed as an acceptable response.**</mark> Indicate instances wherein all or some of the 3R's were incorporated into your proposal. Note that the failure to find any alternative (even if they are not applicable to ones aims) may be deemed to constitute an inadequate search effort and a repeat search may be required.

3. Justification of Animal Numbers (All Years)

3.A. Define the groups of animals and number of animals in each group. Include a description of the statistical analysis you plan to conduct to answer each of your hypotheses (chi-square, t-tests, correlations, logistic regression, linear regression, etc.). The total number of animals for all the groups should reflect the number of animals requested at the end of each table under 1.A. (Animal Use Numbers).

3.B. Justify the number of animals. Include the statistical assumptions you made to estimate the sample size needed to answer each of your hypotheses (alpha and beta type errors, one-sided or two-sided tests, power analyses, expected standard deviation of your measure(s), expected differences between groups or expected strength of the association). Include the statistical test your sample size estimates are based on (chi-square [Independent or goodness of fit], t-tests, correlations, ANOVA etc.). If your study objective is to estimate a statistical quantity or change (Δ), describe the desired level of precision to be achieved (e.g., "We wish to estimate the proportion of mice expressing gene XYZ +/- .10, where the trait expression probability is expected to be about .50."). If the study objectives are non-statistical, provide a justification for the number of animals required in order to meet those objectives.

3. C.1. Did you use a sample size software program? If yes, name the software program below.	☐ No	☐ Yes

3.C.2. Did a statistician assist you with your sample size estimates? If yes, name the statistician below.	☐ No	☐ Yes

4. Euthanasia Method: If applicable list drug, dose and route: ****In all cases indicate a primary means followed by an attempt to elicit a pain response and, in absence of a pain response, a secondary means to assure death.

Method:
Drug: Dose: Route:

Decapitation or cervical dislocation performed without sedation must be scientifically justified below. It is the responsibility of the PI to ensure that decapitation or cervical dislocation is performed by properly trained personnel. The use of carbon dioxide narcosis for rodent euthanasia requires compliance with current American Veterinary Medical Association Guidelines (with a displacement rate of 30% per minute and euthanasia in the home cage.).

Supplemental Information: Additional information may be entered or pasted below as required. Be sure to identify topic clearly.
Example: the literature search.

I certify that this form is completed truthfully, that I and all persons who handle animals on this project are or will be appropriately trained, that the IACUC will be notified before any changes are made in animal use or care, that this study will be conducted humanely in accordance with University and applicable federal regulations, and that a reasonable good-faith effort was made to assure that the proposal activities do not unnecessarily duplicate previous experiments. Applicable IACUC guidelines will be followed.

Principal Investigator (Print or Type Name)	Principal Investigator Electronic or Standard Signature	Date

FOR IACUC USE ONLY

IACUC Safety Form for In vivo Use of Hazardous Materials/Agents in Animals

Submit this Form ONLY if using hazardous agents or materials. It must also be reviewed and approved by the relevant Safety Committee.

Enter IACUC Protocol Number (if available) and Proposal Title Below:

1. Identify hazardous material of agent (biological, chemical, radioactive, other)

2. For biological agents indicate the Biosafety Level (BSL 1,2 or 3); for rDNA agents indicate the Risk Group (RG 1, 2 or 3):

3. Indicate whether the agent(s) pose(s) a safety hazard to humans, animals, both or the environment. Describe each agent listed under No. 1 separately.

4. Complete the following section in sufficient detail for the committee to render a sound judgment. Failure to provide relevant information may delay approval and may constitute a serious breach of professional behavior. Attach an MSDS if available.

4.a. Source(s) of Exposure: Confine response to issues related to in vivo use. (e.g. Stock or dispensed material, animal breath, dander, fur, excrement or secretions, caging or research equipment, hood surface, aerosolized materials from centrifugation, sonication, stirring, mixing or other manipulation in the vivarium, etc.).

4.b. Assessment of the Risk: Source(s) of Exposure: Confine response to issues related to in vivo use. (e.g. Does inoculation of material pose a risk, transport of agent to or from vivarium? Does handling\contact with the animal or bedding pose a risk and how long, etc.) For biological agents follow BMBL risk assessment procedures, for chemicals base assessment on the MSDS, for recombinant DNA agents follow the NIH Guidelines for use of Recombinant DNA in research, for radioactive compounds follow RSC guidelines.

4.c. Control or Minimization of the Risks Cited under 4.b.: Confine response to issues related to in vivo use. (e.g. Engineering controls, personal protective equipment (PPE), handling and secondary containment of stock material, storage, decontamination methods and disposal): Control must be consistent with federal, local and University regulations, requirements or guidelines.

4.d. If medical screening or testing and health surveillance procedures have been recommended or are required briefly describe procedures below.

4.e. Indicate means of decontamination of agent in case of a spill or accidental release. Method must comply with Safety Committee and federal regulatory requirements.

4.f. Indicate training (including seminars to be given for research and /or VS staffs if required) /advising/supervision of research staff.

4.g. Written Warnings/Information (e.g. MSDS, BSL, RG, etc.): Provide a mock-up of the written warnings/information that must appear on the vivarium room door for protection of humans and or animals.

I affirm by my signature that the above information is true and complete.

Type or Print Name   Principal Investigator Signature   Date