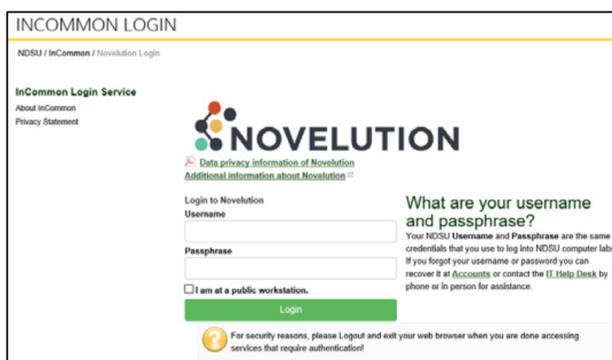
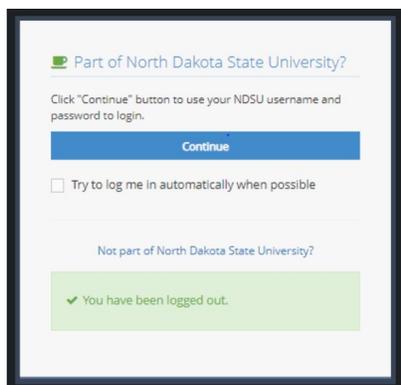


IACUC Protocol Submission - Novolution Help Guide

Signing into Novolution

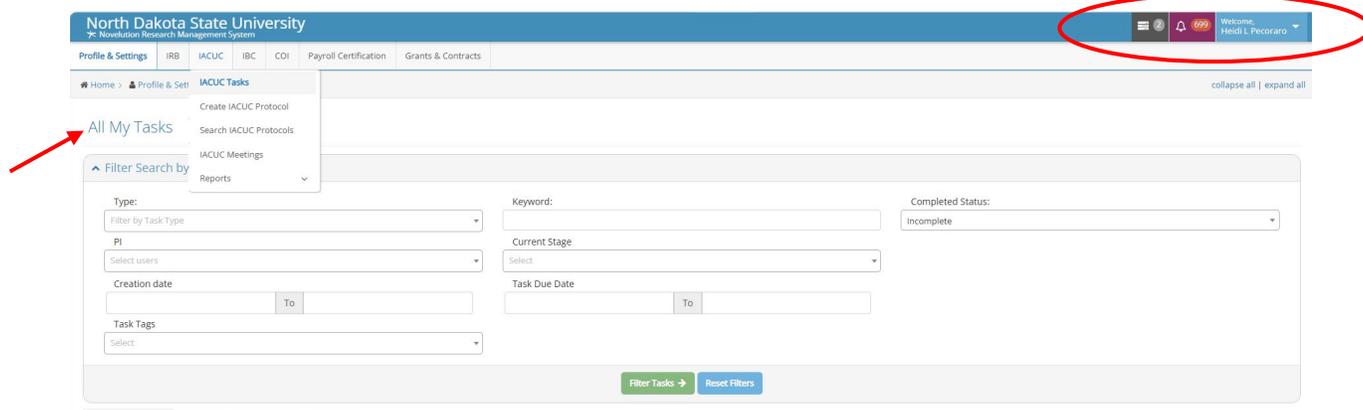
- Web address: <http://erac.ndsu.edu>
- Click blue “Continue” button
- Enter NDSU Username and Passphrase
- Complete Duo Authentication



Landing page

- Find your Tasks and Notifications in the top right blue header bar
 - Tasks are listed in the gray box and are items to be completed
 - Notifications are listed in purple box and are for informational purposes only
- IACUC tab is in the top left header bar; the IACUC Tasks page is automatically populated
- Choose create protocol, search protocols, or reports from the pull-down menu (note – the IACUC meetings option is only for members of the IACUC and will not be present on most accounts)

Tasks and Notifications



Search for Protocols

- Choose “Search IACUC Protocols” from drop-down menu
- Enter first or last name of PI and choose from the pull-down options
- Click “Search”

North Dakota State University
7.7.10 Revolution Research Management System

Profile & Settings | IRB | IACUC | IBC | COI | Payroll Certification | Grants & Contracts

Home > IACUC > Search IACUC Protocols

collapse all | expand all

Jump to Record

- Search IACUC Protocols
- IACUC Meetings
- Reports

Protocol # or Title

Filter Search

PI/Co-PI
pec
Pecoraro, Heidi L.

Sponsor

Pain Category

Is this USDA protocol?
 Include inactive
 Include deleted protocols
 Has Amendment Withdrawal version?

Personnel

Sub-Department

Current Stage

Protocol Type

Roll-up

Latest Status

Create Protocol

- Choose “Create IACUC Protocol” from drop-down menu
- Enter information into all required fields
- Click box at bottom if protocol is a renewal
- Click “Continue”

North Dakota State University
7.7.10 Revolution Research Management System

Profile & Settings | IRB | IACUC | IBC | COI | Payroll Certification | Grants & Contracts

Home > IACUC > Create IACUC Protocol

Get Started

Only NDSU faculty and staff are permitted to serve as the Principal Investigator of a protocol. Students may serve as co-investigators, if needed.

Principal Investigator* Pecoraro, Heidi L.

Project Department* President's Office > VP for Research

Study Title*

200 remaining

Lay Summary

900 remaining

Is this a 3-Year renewals to another protocol?

IACUC Protocol Panels

- Enter requested information into appropriate panels
- The blue circle with a question mark symbol (?) provides additional information about the question

North Dakota State University
Novelation Research Management System

Profile & Settings | IRB | IACUC | IBC | COI | Payroll Certification | Grants & Contracts

Panel shortcuts

Primary Info
Research Team
Protocol Details
Species
Special Concerns
Connected Projects
Principal Investigator Agreement
Additional documents
Requirements

Home > IACUC > Edit IACUC Protocol

IACUC20260027 : Heidi L Pecoraro - DEMO

Stage	Status	Expiration Date
Initial Protocol Application	Draft Submission Pending	N/A

Initiate Closure
Submit a request to close this Protocol [Terminate](#)

- Primary Info
- Research Team
- Protocol Details
- Species
- Special Concerns for Animal Use
- Connected Projects
- Principal Investigator Agreement
- Additional documents
- Requirements

SAVE SUBMIT FOR APPROVAL Check Validators

Primary Info

- “Study Title” and “Lay Summary” are populated from the “Create Proposal” page
 - These can be revised until the protocol is submitted
- Describe the potential scientific benefits of the proposed protocol with regard to human or animal health, the advancement of knowledge, or the good of society
- Type of research: Breeding, Research, Teaching lab exercise, Teaching demonstration, or Other
- Click additional boxes where appropriate

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Novelation Research Management System

Profile & Settings | IRB | IACUC | IBC | COI | Payroll Certification | Grants & Contracts

Panel shortcuts

Home > IACUC > Edit IACUC Protocol

IACUC20260027 : Heidi L Pecoraro - DEMO

Stage	Status	Expiration Date
Initial Protocol Application	Draft Submission Pending	N/A

Primary Info

Protocol Number: IACUC20260027

Study Title* DEMO
196 remaining

Lay Summary* Exercise to demonstrate how to prepare and submit an IACUC protocol
433 remaining

Benefit*
500 remaining

Type of Project* Select one

Is this protocol USDA regulated?

Is this a DoD funded protocol?

Is this a 3-Year renewals to another protocol?

Research Team

- Add personnel from the research team working on the protocol by clicking “Add Researcher”
- A new panel will open with a list of questions to answer about the team member
 - Be sure to upload the training log that matches the responsibilities and species listed
 - If a team member is listed on another protocol, previous training logs will populate the drop-down box; you can choose from the drop-down or upload a new training log
- Edit information for team members by clicking the pencil icon under the “Action” column

North Dakota State University
Novelation Research Management System

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IACUC Tasks

Create IACUC Protocol

Heidi L Pecoraro - DEMO

Search IACUC Protocols

IACUC Meetings

Reports

Status

Draft Submission Pending

Expiration Date

N/A

Research Team

Only NDSU faculty and staff are permitted to serve as the Principal Investigator of a protocol. Students may serve as co-investigators, if needed. The following table lists all personnel that are directly involved in this protocol.

Add Researcher

Role	Name	Lead Unit/Department	Business Title	Contact details	Edit Permission	CC	Responsibilities	Emergency Contact	Action
Principal Investigator	Heidi L Pecoraro	VP for Research	Dir - Animal Res & Attend Vet		YES	Yes			

Training Log:

CITI Training: Completed

Training documents: N/A

Do you have any special instructions to the veterinary staff concerning animal care practices or prohibitions in emergency situations involving animals under this protocol? Yes No

North Dakota State University
Research Management System

IRB | Add Researcher

Researcher* Pecoraro, Heidi L

Project Role* Principal Investigator

President's Office > VP for Research

Edit permission

CC

Emergency Contact* Yes No

Responsibilities (select all that apply)

Species individual will work with under this protocol (select all that apply)

Highest Earned Degree

Field of Study

Species Training Log **Select**

- Pecoraro Veterinary License for North Dakota
- Pecoraro veterinary license 2025-2026
- Create new
- Manage Training Logs

Protocol Details

- This panel contains the experimental details section where you will provide detail on the following:
 - Facilities to be used
 - Information on pain and distress
 - Justification for animal use
 - Animal identification
 - Information on experimental design
 - Role of euthanasia in the proposed study
 - Substances to be used
 - Procedures to be performed
 - Experimental details

North Dakota State University
Novelation Research Management System

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Home > IACUC > Edit IACUC Protocol

IACUC20260027 : Heidi L Pecoraro - DEMO

Protocol Details

Yes No Will any facilities other than NDSU (main campus, farm units, REC's) facilities be used for animal use activities (e.g., housing, experimentation, observation, or procedures)?*

Does the protocol include activities, procedures, or states of welfare that have the potential for producing pain or distress? (See helptext for required details)* Yes No

What are the potentially painful activities or distressful conditions proposed in this animal use application?*

Date literature search was performed*

Years Covered By The Search (From - To)*

Search Strategy / Keywords used in the search*

Databases Searched (at least two)*

Did the literature search reveal less painful/distressful alternatives to the potentially painful/distressful conditions that are proposed?*

Yes No

North Dakota State University
Novelation Research Management System

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IACUC20260027 : Heidi L Pecoraro - DEMO

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Justification for animal use (Check all that apply)

- In vitro* models are not suitable to address complexity of the mechanism(s) that will be studied.
- In silico* models are not available or cannot be developed to simulate the animal model.
- Organ tissues must be harvested for *In vitro* testing.
- Complex anatomical, inter-systemic and/or intercellular relationships need to be demonstrated.
- In vivo* effects of a pre-clinical and/or clinical drug(s) must be tested.
- In vivo* effects of a surgical procedure(s) must be tested.
- In vivo* effects of an infectious agent(s) must be tested.
- Dose-response curve of an experimental reagent(s) must be first determined prior to a larger experiment.
- Populations are being studied in natural or semi-natural environments.
- Animal behavior must be tested.
- This is the best method to accomplish the required teaching objectives.
- Other

Animal Identification is necessary for this protocol? Yes No

Specify method(s) (check all that apply)*

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Novelation Research Management System

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IACUC20260027 : Heidi L Pecoraro - DEMO

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Provide a summary of the overall experimental design and/or teaching plan. (See Helptext for required details)*

Describe the anticipated sequence of experimental/teaching/extension events (timeline) (See Helptext for required details)*

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Novelation Research Management System

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Please indicate the role of euthanasia in the proposed activity*

Euthanasia is not planned, but if necessary (e.g. in an emergency) will be performed to prevent animal distress. Trained personnel will perform an AVMA-approved method of euthanasia.

Euthanasia will not be performed. Federal, international, or local permits governing this work do not allow euthanasia.

Animals will be euthanized as part of the experimental protocol.

Substances

Add as many as needed.

[Add Substance](#)

Procedures

Add as many as needed.

[Add Procedure](#)

Experimental Details

Add as many as needed.

[Add Experimental Details](#)

Species

- Click "Add Species"

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Stage	Status	Expiration Date
Initial Protocol Application	Draft Submission Pending	N/A

Protocol Details

Species

[Add Species](#)

Species Name	Strain/Breed	Pain Category	Source	Total number of animals	Exemptions	Action
Not specified		Edit Delete				

- A new panel opens requesting the following information:
 - Species Information (e.g. strain, gender, age, weight, number required, and pain category)
 - All D & E pain categories require a consult with the Attending Veterinarian
 - Species Selection Justification
 - Housing
 - Herd/Flock Management
 - Transportation
 - Euthanasia and Disposition (screen shots not included in tutorial)

collapse all | expand all

Species Details

Species Info

Name of species*

Strain/Breed*

Males*

Females*

Age From (Enter number)*

Age To (Enter number)*

Age Unit (Choose option)

Weight range*

Number required (By/Total)*

Pain Category*

Source*

Species selection

This is the lowest phylogenetic species appropriate for the proposed project* Yes No

Species selection: Explain why the proposed species was chosen for the project.*

This species provides a particularly good model for the human or other animal disease or process.

This project was derived from previous studies which used this species.

Species-specific anatomy, physiology, behavior are being studied in the proposed project.

Species-specific responses to environmental and/or chemical stimuli are being studied.

Other

Animal number: Check all that apply. Where appropriate, detailed calculation must follow.*

Because this protocol describes a **research experiment(s)**, the number of animals required for each group was determined by power analysis (*provide power analysis*)

Because this protocol is for a **feasibility/pilot study**, fewer animals will be used.

Because this is a **breeding** protocol, the number of breeders required was estimated from their typical litter size and active reproductive period.

Because this protocol is for **teaching** in a classroom/laboratory, the number was calculated based on the number of students and the number of classes offered.

Because this protocol involves **capturing animals** in their natural environment, the exact number of animals cannot be predicted. The number of animals desirable to achieve statistical significance for the study was used to compute the total number of animals (*provide power analysis*).

Because this protocol is for an observational study in animals' natural environment, animal numbers cannot be predicted.

Sample sizes have been mandated by the funding government or agency.

Other

Exemptions

Are you requesting an exemption from standards of care for this species? Yes No

Please describe the exemption(s), including how long the exemption(s) will be in affect for a given animal*

Provide an estimate of the number of animals to be covered by the exemption*

Please explain and justify the need for the exemption(s)*

Will the proposed exemption(s) be likely to increase stress in the animals? Yes No

North Dakota State University
Novelation Research Management System

Profile & Settings | IRB | **IAUCUC** | IBC | COI | Payroll Certification | Grants & Contracts

Welcome, Heidi L. Pecoraro

Housing

Housing and Procedure Arrangements

Will animal housing occur at NDSU facilities?* Yes No

Special Husbandry Requirements

Is approval requested for any special husbandry needs?* Yes No

Colony/Herd/Flock Management

Veterinary Care

Breeding and Parturition

Do any of the breeding practices involve surgical procedures?* Yes No

Transportation

Transportation of Animals

Will animals be transported as part of this protocol?* Yes No

Special Concerns for Animal Use

- Departures from Animal Welfare Act, Guide, PHS Policy, and Ag Guide
- Controlled substances to be used
- Physical restraint to be used
- Animal acclimation
- Habituation and training

Connected Projects

- Funding source
- Human subject research involvement
- Recombinant or synthetic nucleic acids, infectious agents, human blood, bodily fluid, or tissues

Principle Investigator Agreement

- Read through and click “I agree”

North Dakota State University
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Welcome, Heidi L. Pecoraro

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collapse all | expand all

IAUCUC20260027: Heidi L. Pecoraro - DEMO

Principal Investigator Agreement

Please review all the statements listed below, and indicate your agreement by checking the box below

I will conduct the project in accordance with the applicable federal, state, and institutional policies and guidelines.

I accept responsibility for all individuals working on this proposal and authorize them to conduct procedures involving animals.

I certify individuals will be properly trained prior to working with animals, in all areas relevant to their assigned work on the proposal.

For animals under this proposal, I understand that in cases of unexpected medical emergencies, NDSU veterinarians are authorized to provide any treatment required to sustain life; or if necessary, provide humane euthanasia to prevent unapproved distress and/or pain.

I recognize that the veterinary staff will contact me as soon as possible using the emergency contact information provided in this application, but I also understand that such contact may not always be possible prior to providing treatment or performing euthanasia.

I will notify the IACUC of unanticipated outcomes of animal use, including protocol and non-protocol disease or injury (Unanticipated outcomes are generally defined as negative impacts to animal welfare or well-being).

I will notify the Attending Veterinarian when unanticipated pain or distress, unexpected morbidity, or unanticipated mortality occurs.

I will obtain approval from the IACUC before initiating any change in the study design or procedures by submitting a request for minor or significant change as appropriate.

I Agree*

Additional Documents

- Add any additional documents such as wildlife permits, approved breeding or procedural SOPs, experiment timelines and graphs, N calculations, etc.

North Dakota State University
Novelation Research Management System

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Additional documents

Additional documentation. Upload all that apply:

Wildlife Permits

Rodent Breeding colonies (including Genetically Engineered Animals)

Aquatics, Amphibians, & Reptiles

Add Additional attachments

Submission

- Proofread document and save throughout process
- Check validations and make corrections
- Click “SUBMIT FOR APPROVAL” when finished
- Check this section to follow the approval chain and review status

North Dakota State University
Novelation Research Management System

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IACUC20260027 : Heidi L Pecoraro - DEMO

Requirements

Stage - Revision #	Created	Current Status	Status Date	Approval Date	Notes
Initial Protocol Application - revision #1.1	03/17/2026 8:31 AM	Draft Submission Pending	03/17/2026 8:31 AM		

Status	Requirement	Completion State	Revision	Completed by	Completed Date
Draft Submission Pending	Submit protocol	Ready			
PI Certification Pending	Certify protocol (PI)	Not ready			
Pre-submission Requirements	Approval by VP: Heidi Grunwald	Not ready			
	Complete training on CIT: Heidi L Pecoraro	Ready			
	Upload OHS Training Data: Heidi L Pecoraro	Not ready			
IACUC Review Pending	IACUC Admin Processing	Not ready			

SAVE SUBMIT FOR APPROVAL Check Validations