



SRA INTERNATIONAL
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The CUSP Sharing Site: A Collaborative Community Database

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10.18.23

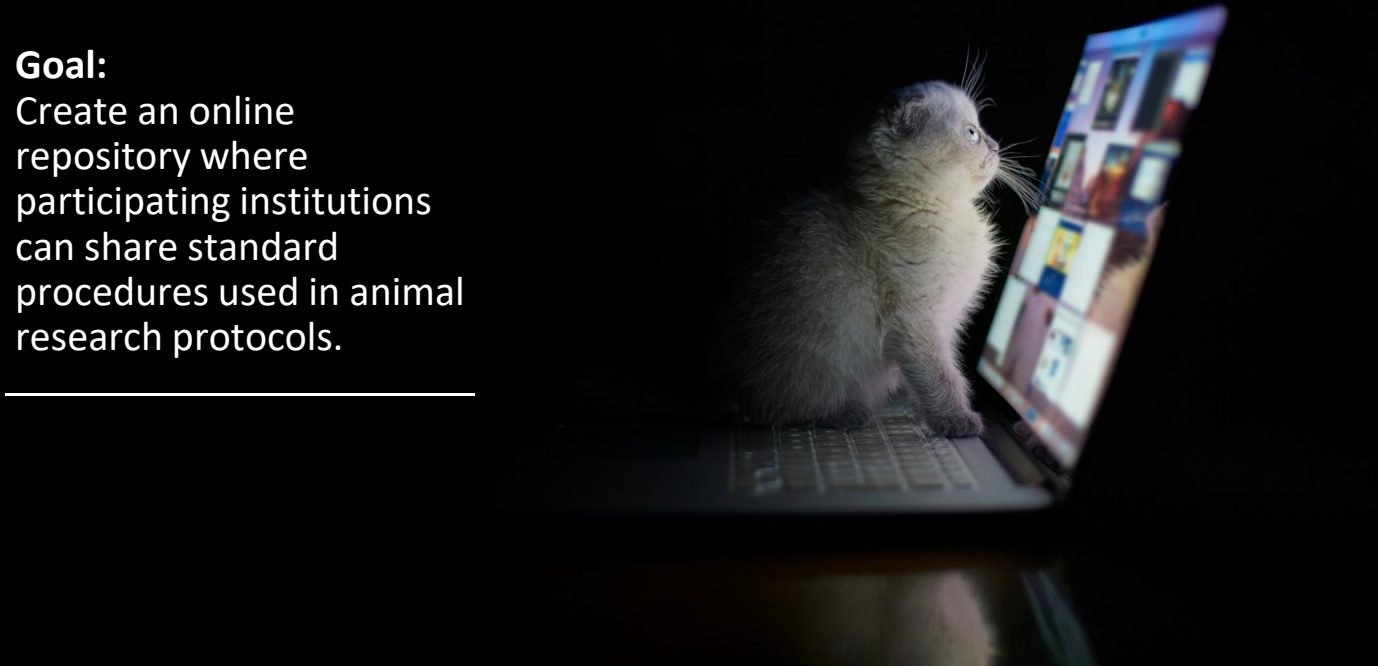
Plan for Today

- What is CUSP & How Can You Use It?
- The Institutional Representative
- Site Demo
- Current Status

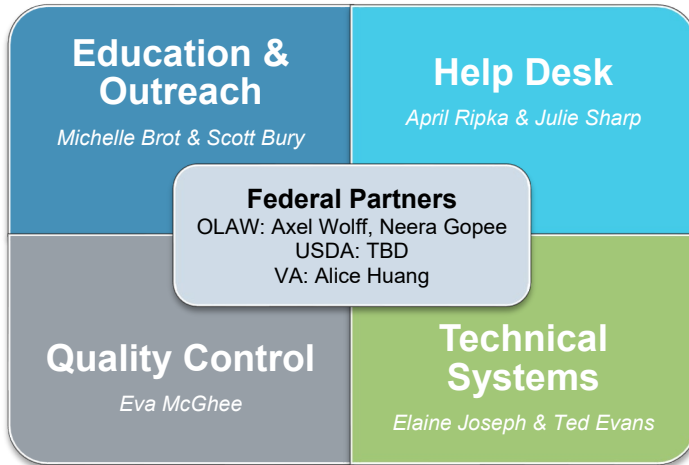


Goal:

Create an online repository where participating institutions can share standard procedures used in animal research protocols.

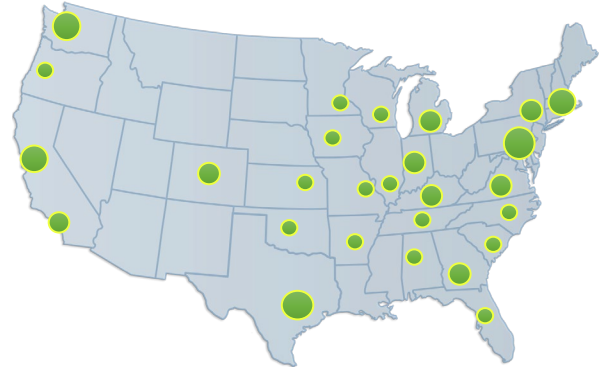


A Community Effort



Overall Project Direction & Oversight:
Aubrey Schoenleben & Sally Thompson-Iritani

Developer: *Josh Hogue*



- 62 participating institutions
- >100 individuals who have contributed to the project



Benefits

- Reduce administrative burden for researchers, IACUCs, and IACUC support staff
- Support the development of high-quality animal care protocols
- Support knowledge sharing both within the animal welfare compliance community, and with the public
- Provide consistency within and across institutions

- Participating institutions have the opportunity and expectation to contribute.
- Each institution is expected to maintain their contributions as updates occur.
- Each procedure must be reviewed and approved by the individual institution's IACUC prior to use.
- The specific content of procedures will not be reviewed, approved, or endorsed by the FDP or regulatory agencies.

Site Guidelines



Example: Buprenorphine Analgesia

ID: 16
Procedure Name: Analgesia, Buprenorphine or Buprenorphine SR (72 hours)
Procedure Type: Substance Administration
Species: Mouse
Contributing Institution: University of Washington
Date Submitted: Mar 18, 2022
Date Last Modified: Apr 15, 2022
Parent Procedure: None
Version: 0



PROCEDURE DESCRIPTION

Buprenorphine will be diluted with sterile saline or water to the appropriate concentration (0.05 mg/kg) and then injected subcutaneously (SC) at the time of the procedure, and then administered every 8-12 hours for 72 hours.

Alternatively, buprenorphine SR will be injected subcutaneously (SC) at the time of the procedure. The dose of buprenorphine SR administered varies based on brand. When using Ethiqx XR, a dose of 3.25 mg/kg will be administered. When using Zoopharm, a dose of 0.5-1.0 mg/kg will be administered.

Either buprenorphine or buprenorphine SR will be given, not both, unless under veterinary direction.

Total volume will not exceed 10 microliters per gram of body weight.

Special Considerations:

When using ketamine/xylazine anesthesia, the first dose will be administered as the animal is recovering from anesthesia.

When using isoflurane anesthesia, the first dose will be given at least 1-2 hours prior to surgery for most procedures. Consult with Veterinary Services on timing.

KEYWORDS

Buprenex, Ethiqx Xr, Opioid, Zoopharm



How Can I Use CUSP?

Scenario #1:

You are an Attending Veterinarian. A researcher working with mice has extensive experience in behavioral tests and now wants to use osmotic minipumps to continuously administer a drug and evaluate the effects on behavior. This researcher has no experience conducting surgery on rodents and you have no experience with the surgical procedure, or the experimental drug proposed for use.

How would you use CUSP in this situation?



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Image: alzet.com

How would you use CUSP in this situation?

- Written procedure for minipump implantation
- Perioperative and postoperative care

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How would you use CUSP in this situation?

- Written procedure for minipump implantation
- Perioperative and postoperative care
- Experimental drug: dosing, interactions, adverse effects
- Connect with others with experience



Image: animalia.bio

Scenario #2:

You are a Faculty Member. You recently received notice that your grant to develop and characterize an animal model of circadian rhythms in wild-caught ground squirrels will be funded! You are now tasked with putting together an IACUC protocol to cover this work. Though you have expertise in sleep research and other rodent models, you have no experience working with ground squirrels. Your institution also has no experience with housing and caring for this species.

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- Written procedures for behavioral assays
- Written procedures and refinements for capture methods
- Permit(s) needed

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- Written procedures and refinements for capture methods
- Permit(s) needed
- Housing density, macro/micro-environment, enrichment

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Image: creativecommons.com

CUSP Can Support Work with Atypical Species: Cephalopods

Request for Information (RFI) on Proposed Guidance to Assured Institutions on Cephalopod Care and Use

Notice Number:
NOT-OD-23-176

Key Dates

Release Date:

Response Date:



How do you envision your institution using CUSP?





Administrator

Full Access



Institutional Representative

Read & Edit Access



Community Member

Read Only Access

What is the role of the Institutional Representative?



**Acts as a liaison between
the institution and
the CUSP database**

How does the Institutional Representative support their home institution?



Create and maintain procedures

Create and maintain user accounts

Assist their community with accessing the site

Site Demo





What attributes make an ideal Institutional Representative?

Good communicator

Longevity at the institution

Knowledge of animal practices

Bandwidth

Team Player

Comfort learning new technologies

Site Security

- Two-step process for site access: (1) User verifies email address; (2) Institutional representative confirms affiliation
- Multiple user roles
- Option to display/not display institution name on submitted procedures.
- Split server environment (database is hosted behind a firewall)
- Visibility into active browser sessions
- 2-factor authentication (*future enhancement*)
- Single sign-on provider to manage account access/passwords. (*future enhancement*)



Current Status



Project Proposal

Working group formed in March 2017, and developed a project proposal. The proposal was approved by the FDP Executive Committee in October 2017.



Site Design

Completed in June 2019, resulting in the development of a site requirements document outlining desired features and functions of the system.



Development

IN PROGRESS! The site is being transitioned to a more sustainable, modern platform. Multiple rounds of development and technical testing have been completed.



Pilot Phase

Anticipated 2023



Open to Community

Anticipated 2023/2024

Next Steps



Beta Testing

(anticipated completion 2023)



Pilot Phase

(2023/2024)



Open to FDP Institutions

(Q1/Q2 2024)



Open to All Organizations

(2024)



**FEDERAL
DEMONSTRATION
PARTNERSHIP**

Scan me to find out if your
institution is an FDP member!



CUSP Pilot Phase



Anticipated Start: 2023/2024

Duration: 4 weeks

Who: 15-20 FDP Institutions

Want to join?

Email culp@thefdp.org

Goal: Assess qualitative aspects of the CUSP Sharing Site

- Structured, “real-life” interaction with the site
- >2 individuals participating/institution
- Participating institutions will:
 - Search for and view procedures of interest
 - Add procedures to the site
 - Perform various procedure activities
 - Manage user accounts for their institution
- Feedback will be collected through regular surveys and the use of Freshdesk.
- Participation Agreement required to join pilot

What can you do now to prepare for rollout?

1

Get institutional buy in – talk to key stakeholders about how CUSP can benefit your institution.

2

Consider who will serve as your Institutional Representative(s), and how you want to manage access at your institution.

3

Review the Participation Agreement

Questions? Reach out to culp@thefdp.org.



Questions?