

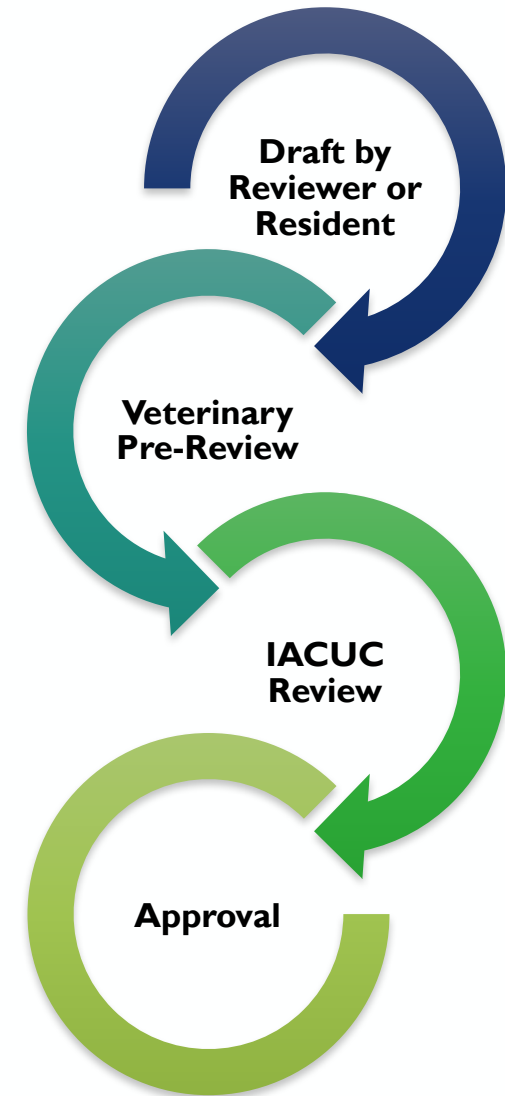
ON THE CUSP:

**A New Option for Addressing
Administrative Burden**

**Aubrey Schoenleben & Sally Thompson-Iritani, University of Washington
69th AALAS National Meeting, 10.29.18**

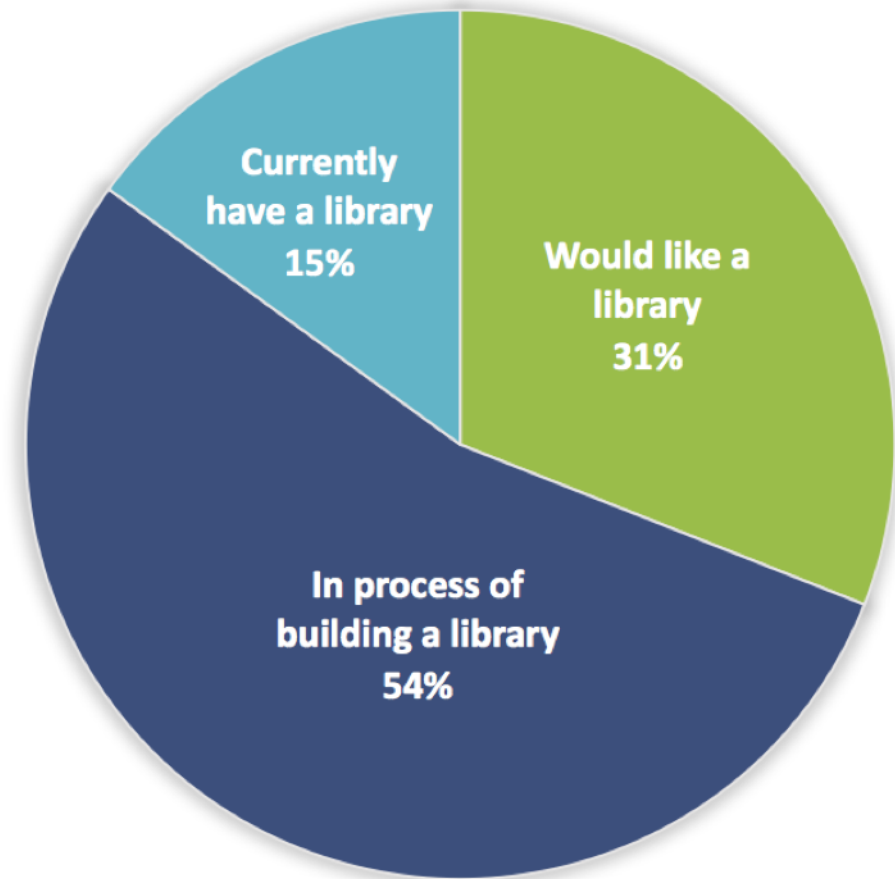
BACKGROUND:

- Protocol preparation and review extremely time and effort intensive – creation of standard procedures topped UW researcher wish list.
- Transition to electronic protocol management system motivated development of standard procedures.
- Collaborative process for development and approval of standard procedures.
- Current library includes 897 standard substances and **654 standard procedures**



IT'S NOT JUST US...

- Animal research regulations identified as a top source of administrative burden.
- 33% of investigators describe protocol review process as “unnecessarily complex and time consuming.”
- Identifying a mechanism to reduce the time and effort needed to create and review protocols would reduce this burden for researchers and IACUCs.



1. National Science Board. 2015. Reducing Investigators' Administrative Workload for Federally Funded Research. Retrieved from: <https://www.nsf.gov/pubs/2014/nsb1418/nsb1418.pdf>
2. 21st Century Cures Act. January 2017. Retrieved from: <https://www.congress.gov/114/bills/hr34/BILLS-114hr34enr.pdf>
3. Federal Demonstration Partnership. 2012. Faculty Workload Survey Research Report. Retrieved from: http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pgasite_087667.pdf



CUSP = Compliance Unit Standard Procedure
Partnered with Federal Demonstration Partnership (FDP)

Goal:

Develop an online resource where participating institutions can share standard procedures used in animal care protocols.

Pick List Two

Pick List Three

Pick List Four

ID	Procedure Name	Species	Procedure Type	Contributing Institution	Select
123	Buprenorphine Analgesia (24 hours)			ngton	<input type="checkbox"/>
456	Intracranial Injection			y	<input checked="" type="checkbox"/>
789	Administration of AAV			tified	<input type="checkbox"/>
234	CO2 Euthanasia			ngton	<input checked="" type="checkbox"/>
012	CO2 Euthanasia			ersity	<input checked="" type="checkbox"/>
345	Tricaine Overdose			sity	<input checked="" type="checkbox"/>

NAME: Buprenorphine Analgesia

PROCEDURE TYPE: Substance Administration

SPECIES: Mouse

DATE: 10/10/2017

CONTRIBUTING INSTITUTION: University of Washington

PROCEDURE DESCRIPTION

Buprenorphine (0.05 mg/kg) will be diluted with sterile saline or water to the appropriate concentration and then injected subcutaneously (SC). Total injection volume will not exceed 10 uL/g of body weight. A single dose of buprenorphine will be administered to deliver up to 12 hours of analgesia.

If signs of pain are noted despite buprenorphine administration, or following this period, Veterinary Services will be consulted.

KEYWORDS

Analgesia, opioid, Buprenex

< Page X of Y >

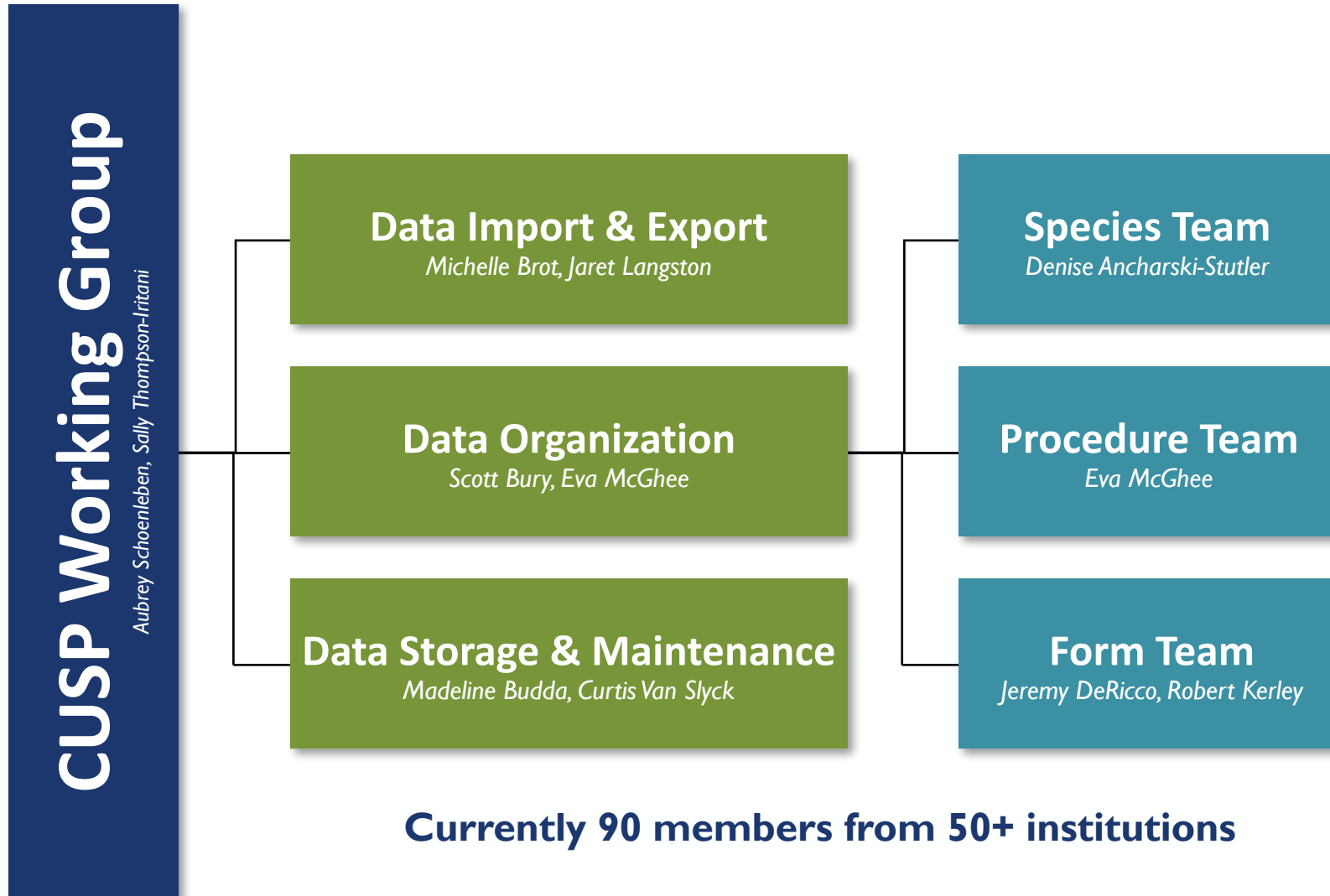
3 /Page

Home

FDP

Help

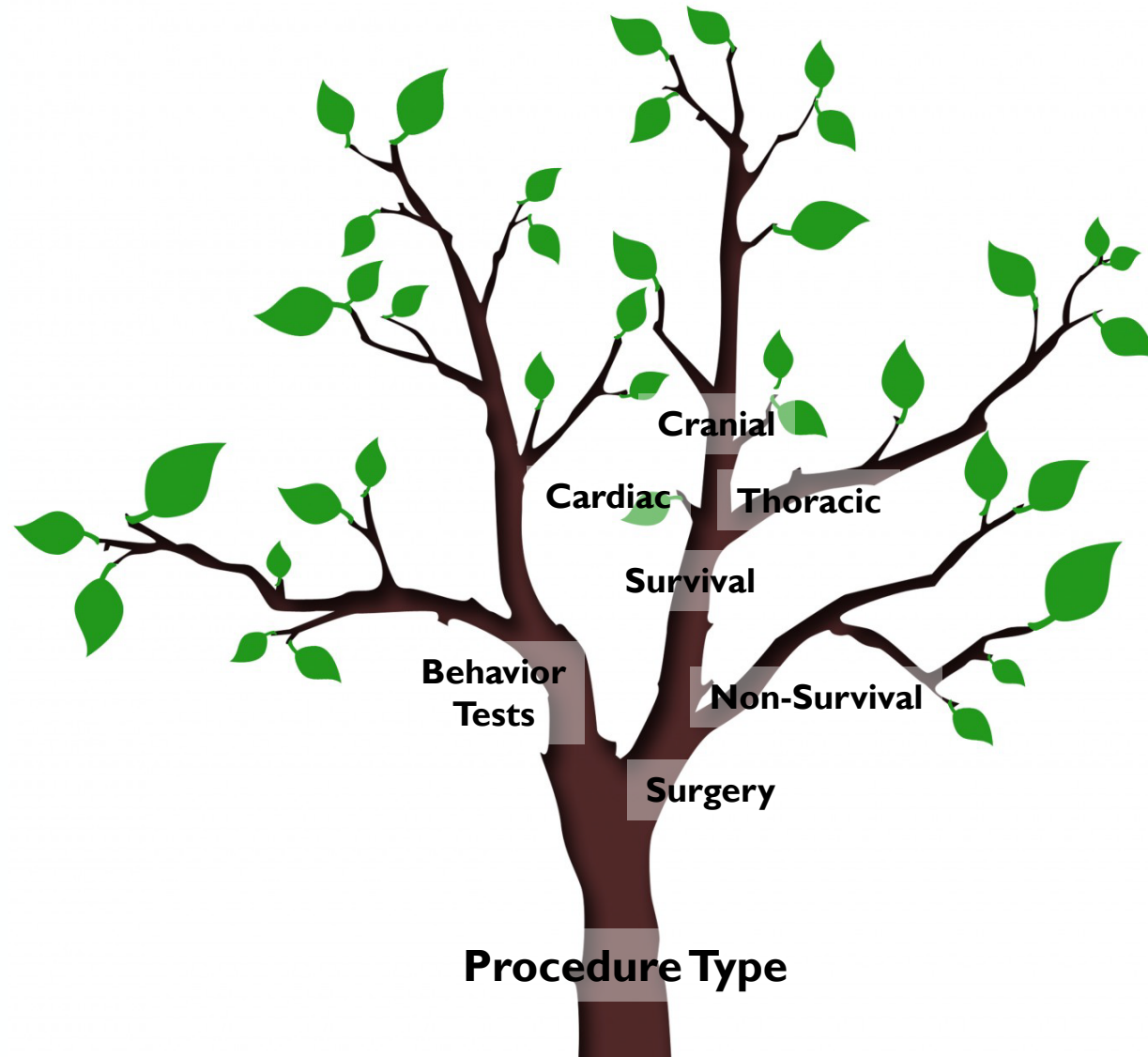
WORKING GROUP:



WHAT HAVE WE BEEN UP TO THIS PAST YEAR?

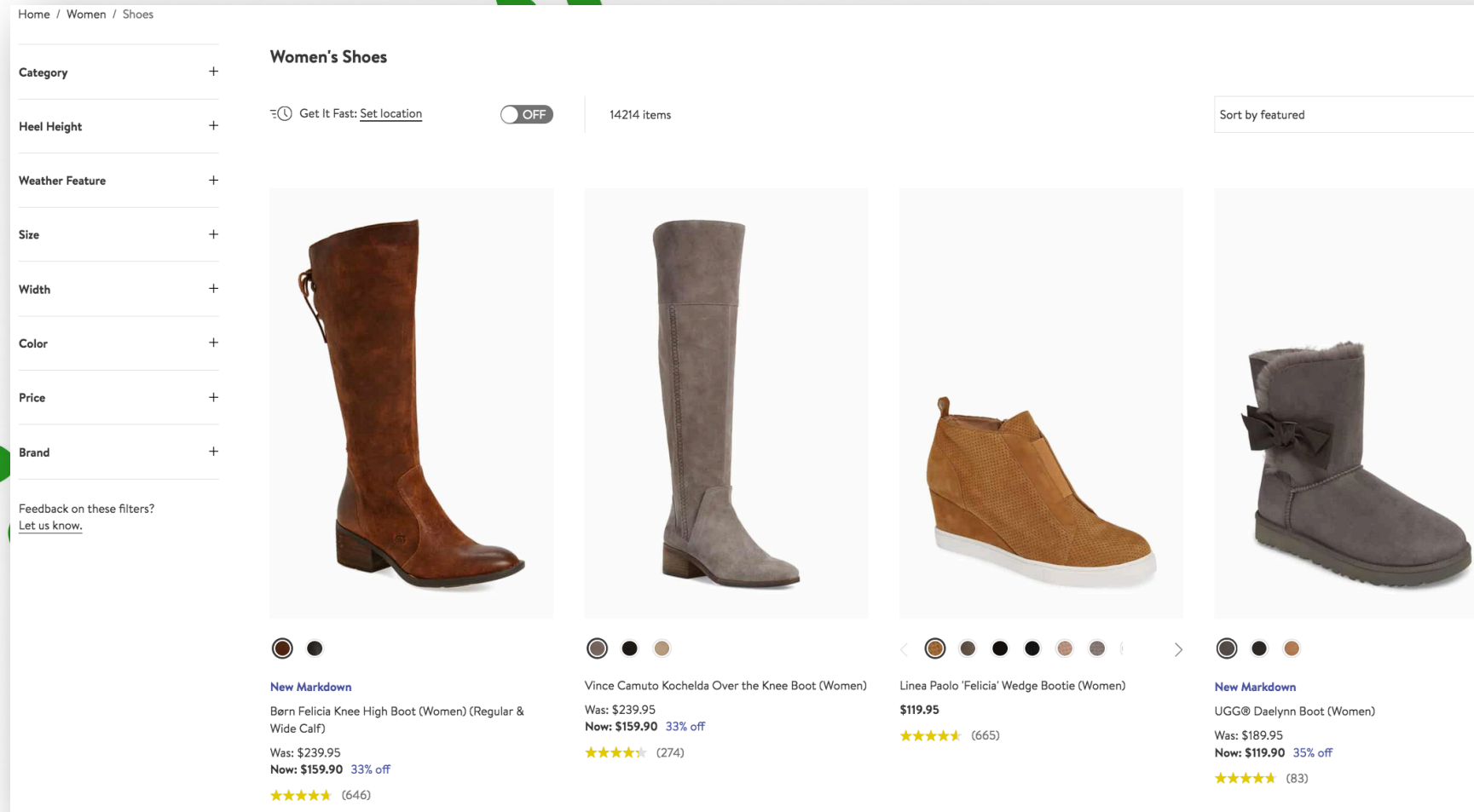


1. DATA ORGANIZATION: PICK LISTS



- Procedures will be characterized by various attributes, such as species or procedure type.
- Granular organization → Pick lists
- Pick lists will be dynamic; can be combined with free text search.
- Pick lists developed for species, substance type, 2 procedure types (euthanasia, blood/sample collection)

1. DATA ORGANIZATION: PICK LISTS



are characterized
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procedure types
/sample

Procedure Type

2. PROCEDURE LIFE CYCLE



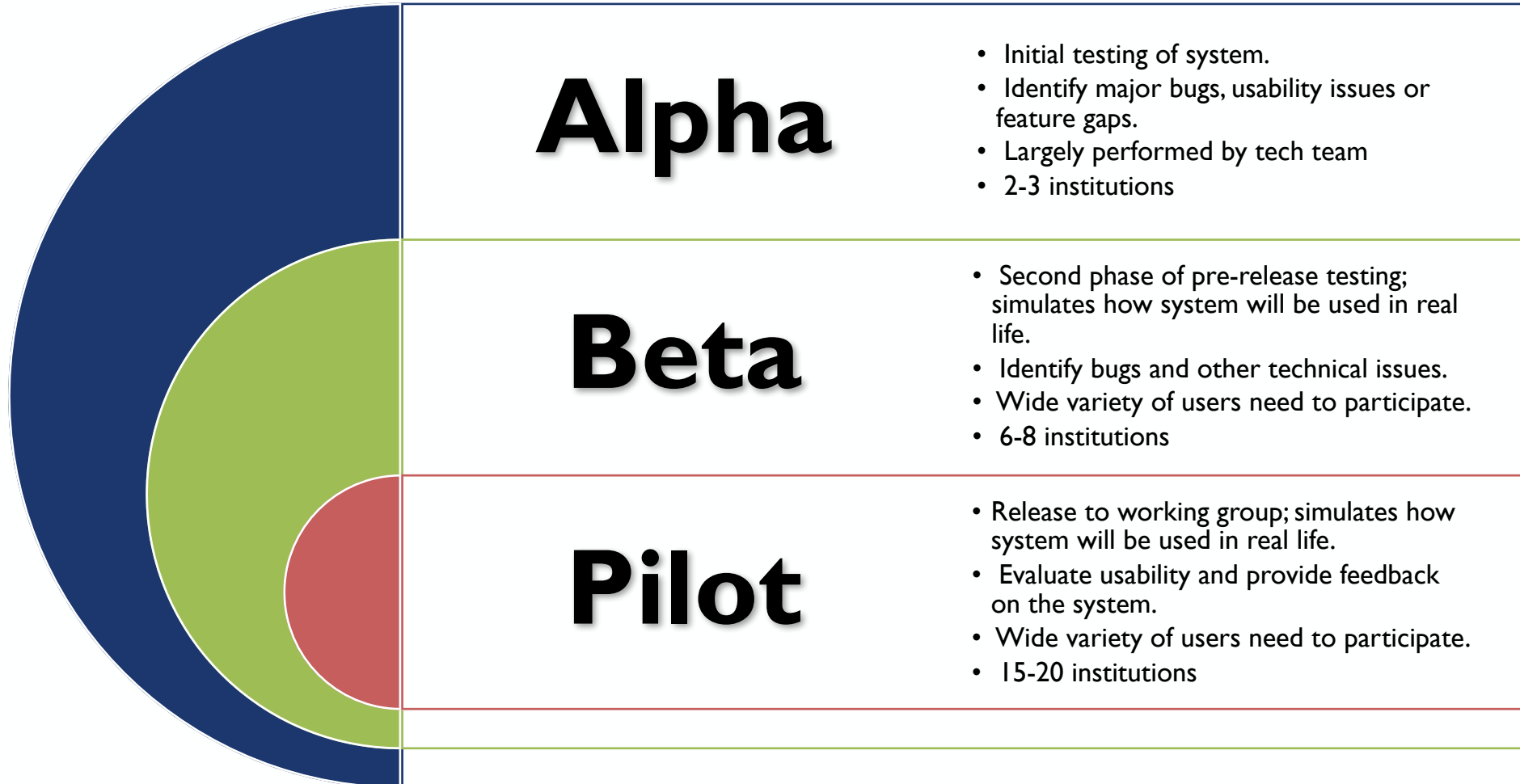
NEXT STEPS: DEVELOPMENT PHASE

- Currently building a model of the database in Microsoft Access.
- This exercise will help us determine the underlying data architecture and work out the necessary logic needed for search and filter features.
- Code can be easily transferred to the CMS the site will be built on.



NEXT STEPS: DEVELOPMENT PHASE

Goal: To create a functional procedure sharing database with a user friendly interface.



Timeline: Approximately 2 months/phase

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QUESTIONS?

Want to help?

Email Aubrey Schoenleben (aubreys@uw.edu) or
Sally Thompson-Iritani (sti2@uw.edu)

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21ST CENTURY CURES ACT RFI: DRAFT REPORT

Open for comment Fall 2018!

BENEFITS:

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



SITE GUIDELINES:

- 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 would not be reviewed, approved, or endorsed by the FDP or regulatory agencies.



DATA IMPORT & DATA EXPORT

Low Tech

Manual
CSV (Excel)



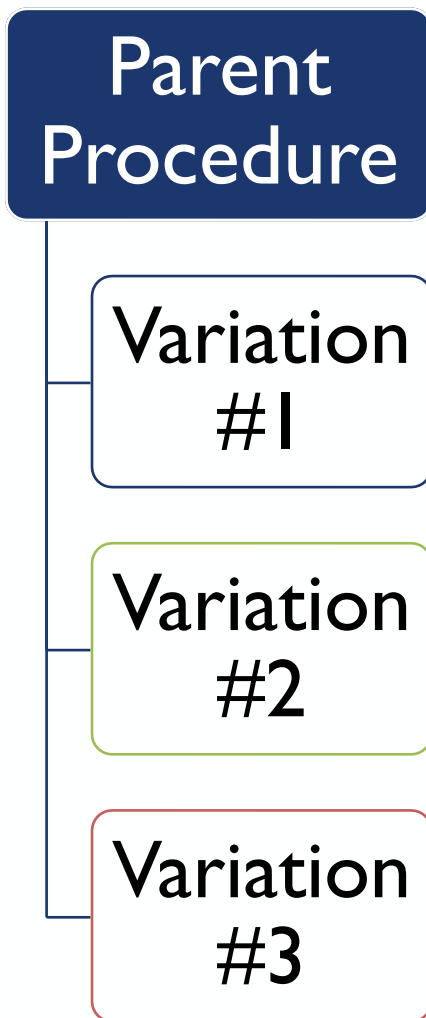
VS



High Tech

JSON
API

DATA ORGANIZATION: PARENT/CHILD MODEL



Example of when to Create a Variation (Child) Procedure or a New Procedure	
Create a Variation Procedure	Create a New Procedure
Same procedure, same species, different steps/dosages/timing/other info The system has an procedure for isoflurane anesthesia in mice, but your institution's procedure for isoflurane anesthesia in mice uses different steps, dosages, timing, and/or other details	Same procedure, different species Your institution has a procedure for isoflurane anesthesia in rats and the system does not already have any procedure for isoflurane anesthesia in rats Same species, different procedure Your institution has a procedure for Ketamine/Xylazine anesthesia in mice and the system does not already have a procedure for Ketamine/Xylazine anesthesia in mice
Same procedure, same species, different steps/dosages/timing/other info The system has an procedure for ovariectomy surgery in mice, but your institution's procedure for ovariectomy surgery in mice uses different steps, dosages, anesthetic/analgesic drugs, timing, and/or other details	Same procedure, different species Your institution has a procedure for ovariectomy surgery in rats and the system does not already have any procedure for isoflurane anesthesia in rats Same species, different procedure Your institution has a procedure for an osmotic pump surgery in mice and the system does not already have any procedure for isoflurane anesthesia in rats
Same procedure, same species, different steps/dosages/timing/other info The system has a procedure for administering BrdU in rabbits via intraperitoneal injection, but your institution's procedure for delivering BrdU in rabbits uses different steps, dosages, routes (e.g., in drinking water, or injected locally into the brain ventricles), timing, and/or other details	Same procedure, different species Your institution has a procedure for BrdU administration in mice and the system does not already have any procedure for BrdU procedure in mice Same species, different procedure Your institution has a procedure for administering LPS in rabbits and the system does not already have any procedure for administering LPS in rabbits

Final Procedure Type Categories

**Antibody
Production**

**Behavioral
Testing**

**Blood or
Sample
Collection**

**Capture and
Trapping**

**Diet
Modification**

Euthanasia

**Identification
and
Genotyping**

**Imaging and
Irradiation**

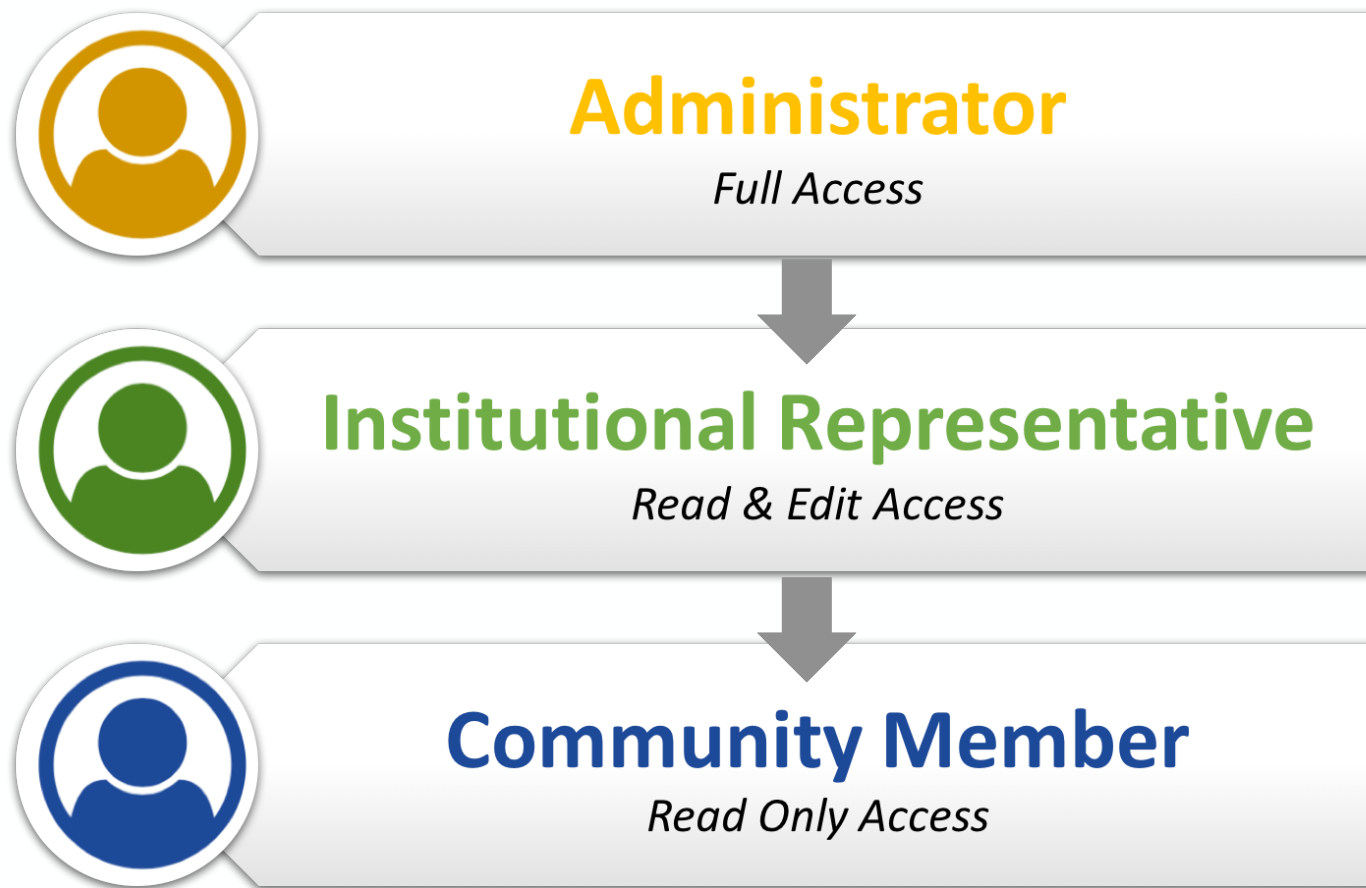
**Induction of
Illness**

**Substance
Administration**

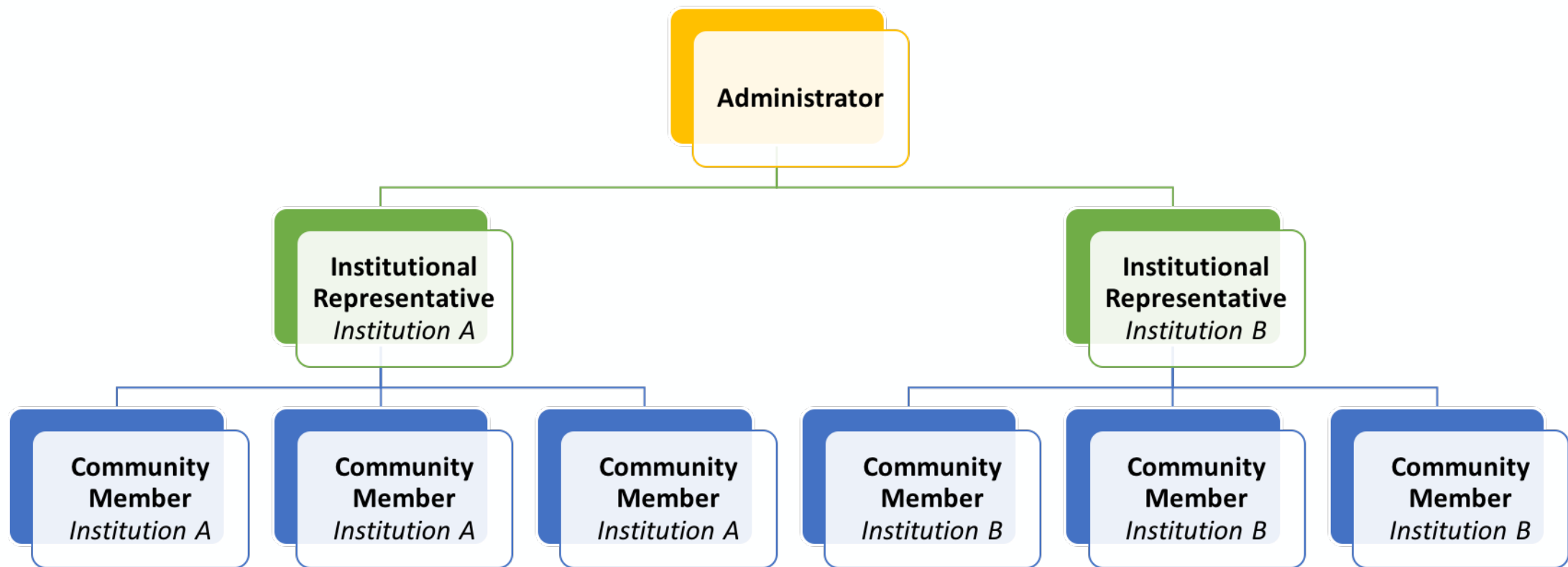
Surgery

Other

3. SITE ACCESS & USER ROLES



3. SITE ACCESS & USER ROLES





search

Download Selected Procedures

ID	Procedure Name	Species	Procedure Type	Contributing Institution	Date Submitted	Select
123	Buprenorphine Analgesia 14 ☆ 🚩	Mouse	Substance Administration	University of Washington	9/16/17	<input type="checkbox"/>
456	+ Intracranial Injection 32 ☆ 🚩	Mouse	Survival Surgery	Emory University	2/7/17	<input checked="" type="checkbox"/>
789	Administration of AAV 0 ☆ 🚩	Rat	Substance Administration	Institution Not Identified	4/21/17	<input type="checkbox"/>
234	CO2 Euthanasia 10 ★ 🚩	Mouse	Euthanasia	University of Washington	9/16/17	<input checked="" type="checkbox"/>
012	CO2 Euthanasia 25 ★ 🚩	Rat	Euthanasia	Michigan State University	8/5/17	<input checked="" type="checkbox"/>
345	Tricaine Overdose 11 ☆ 🚩	Zebrafish	Euthanasia	Penn State University	3/22/17	<input checked="" type="checkbox"/>