

Academic Perspective: Making the switch across caging types

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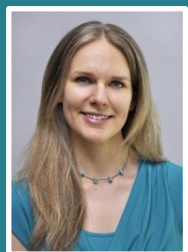


University of Colorado
Anschutz Medical Campus

Environmental Health Monitoring (EHM)

CU Anschutz Stats

- ✓ Started March 2022
- ✓ 11 months to implement
- ✓ Est. \$41,500 savings/yr.
- ✓ 2,200 rodents saved/yr.
- ✓ Widely Accepted
- ✓ Nominated and Won
CU Efficiency Award 2022



Lauren Habenicht, DVM, MS, DACLAM (left)
Sentinel Program Veterinarian



Christina Avena-Roman, CVT, ALAT (right)
Sentinel Program Coordinator

EDT

Exhaust Dust Testing

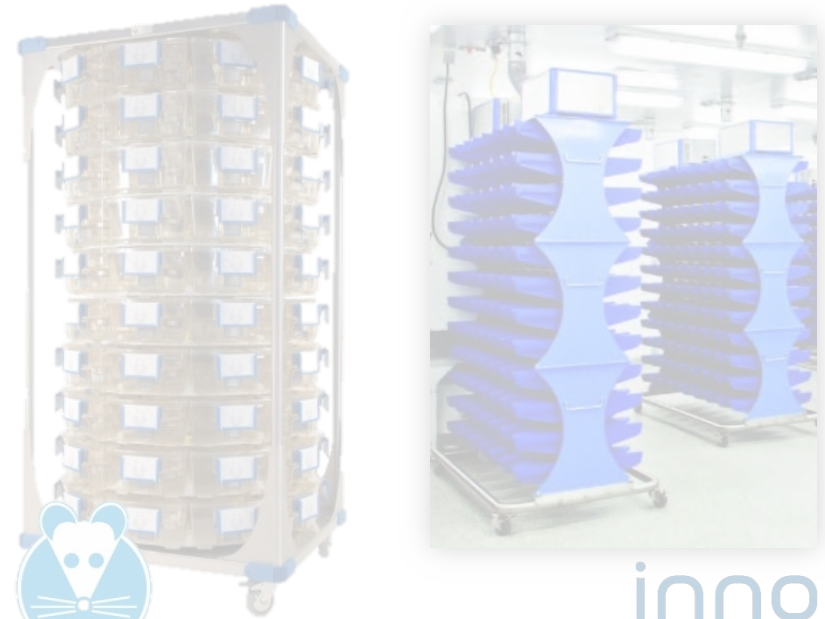


Allentown

98%
~23,000

SFSB

Sentinel-Free Soiled Bedding



Animal Care | Systems

Allentown

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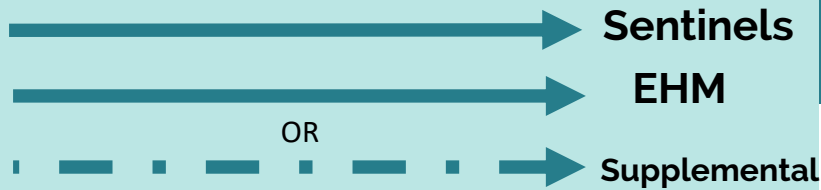


Static Caging

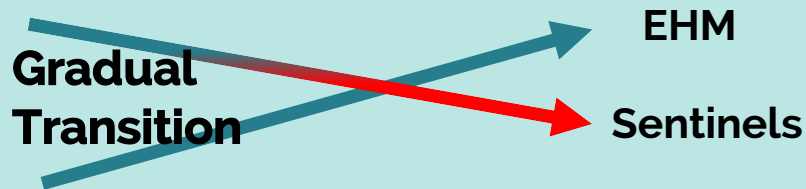
2%
~400

EDT Decisions

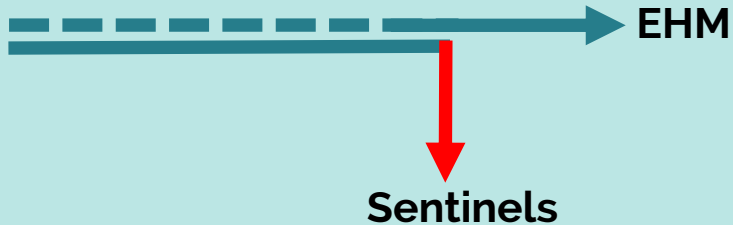
Hybrid Health Monitoring



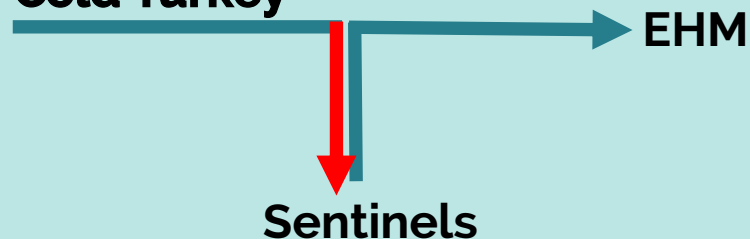
Transition Models



Parallel Transition



Cold Turkey

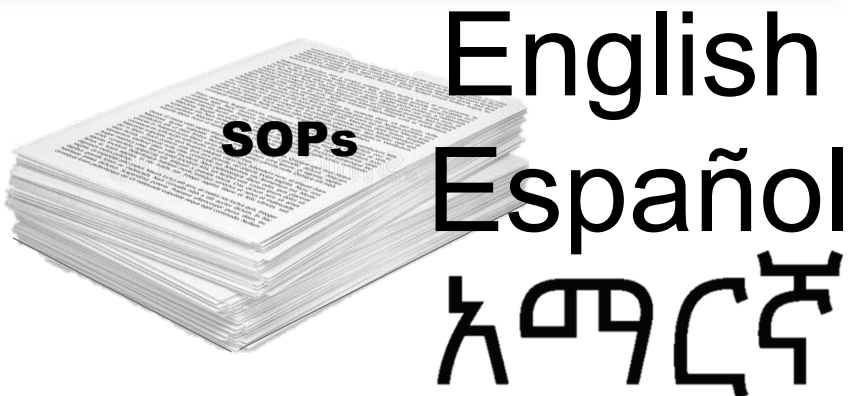


- Sentinel™ media holders @ \$37,510
 - Long run; maximize staff efficiency
 - Decrease sampling variability
- Stagger facility starts by 1 month
- January – March 2022
 - Nation wide short staffing begins.....
 - Vet Techs = harvest SBS program
 - Vets = startup EDT program
- All IVC racks except ABSL2+ & 3
- COVID restriction still in effect

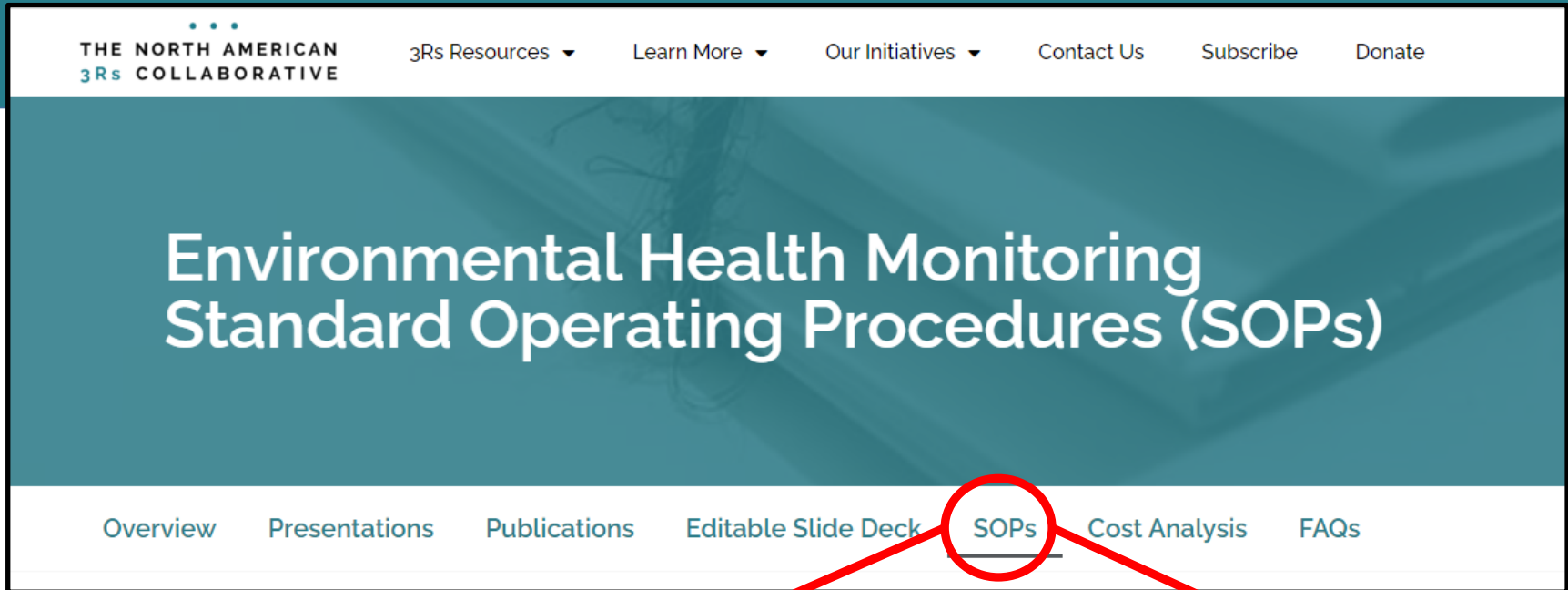
EDT Training: Dismantling a 50 Year Old Program



- How to insert media
- How to move media
- How to collect media
- Starting a new rack?
- Removing a rack?
- Moving a rack?
- Glove changes**
- Rack + media in cage wash?



I hate writing SOPs...



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Environmental Health Monitoring Standard Operating Procedures (SOPs)

Overview Presentations Publications Editable Slide Deck **SOPs** Cost Analysis FAQs

Google: "NA3RsC health-monitoring"
www.na3rsc.org/health-monitoring/sops/



NA3RsC Standard Operating Procedures for Environmental Health Monitoring

1. Exhaust Dust Testing with Allentown Racks
2. Exhaust Dust Testing with Tecniplast Racks
3. Sentinel Free Soiled Bedding Sampling (for static, open top, or racks filtering at the cage level)
4. Direct Colony Sampling
5. Room and Equipment Monitoring

Physically...

Making the Switch

How many racks?



Existing: ~27 holders

3/2021: 409 holders

Uh...Chris, we don't have enough

2/2022: ~~80~~ 95 holders

Chris..., we are short on holders

+ 7/2022: 20 holders

551 racks

How do you hide 115.... 2022 Chevy Spark's ?



Physically... Making the Switch

How many
racks?



Existing: ~27 inserts

3/2021: 409 inserts

2/2022: 95 inserts

+ 7/2022: 20 inserts

551 racks

Lots of...
media and holders



Is it in there?



Reminders !!!!



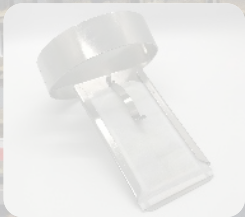
Rack Sanitation Interval

- Every 6 months
- 2-3 racks are changed-out/day
- Racks move!
- Media in rack at cagewash?



EDT

Exhaust Dust Testing



≡Allentown≡

98%
~23,000

SFSB

Sentinel-Free Soiled Bedding

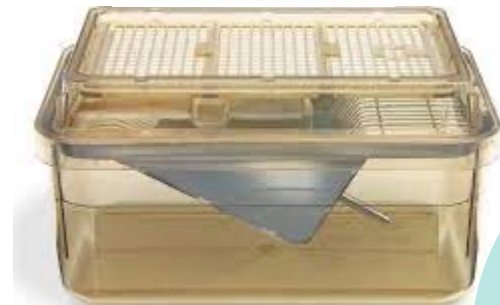


Animal Care | Systems



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Static Caging

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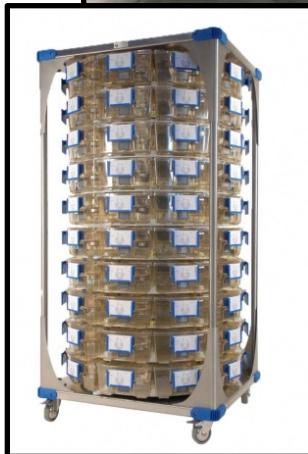
Cage Level Air Exhaust Filters



**Animal Care Systems
Optimice**



Innovive

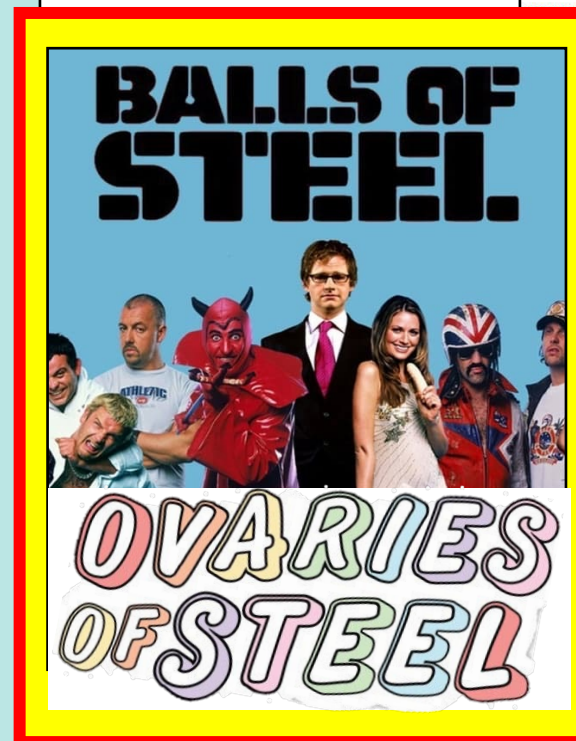
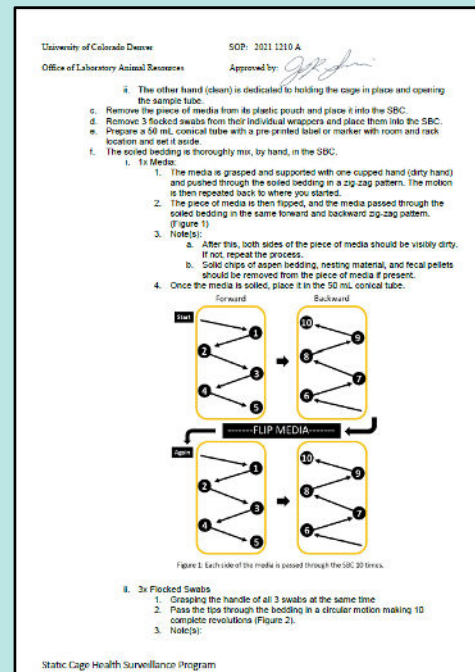


Bauer *et al.* 2016 Influence of Rack Design and Disease Prevalence on Detection of Rodent Pathogens in Exhaust Debris Samples from Individually Ventilated Caging Systems. *J Am Assoc Lab Anim Sci.* 55(6):782-88.

SFSB Decisions

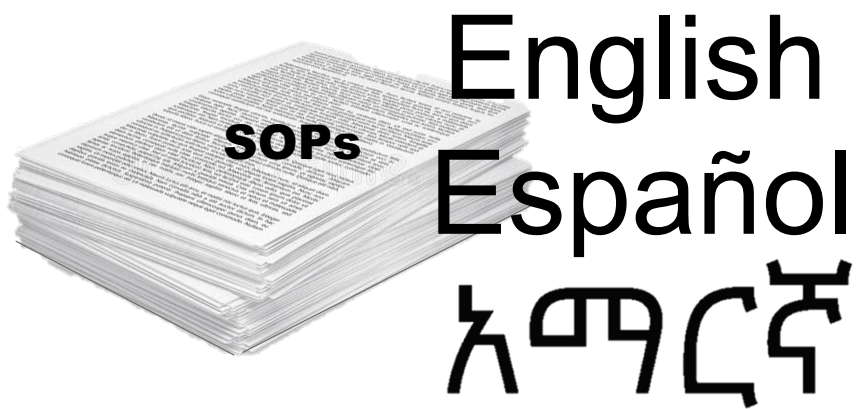
- No parallel period
- SFSB (Sentinel-free Soiled Bedding)
 - Qualifiers:
 - Dredge Allentown filter media
 - Swirl 3-flocked swabs
 - Single media exposure @ 3 months
 - i.e. non-indwelling
 - No agitation
 - No fecal collection

Contact your diagnostic lab to help make these decisions!



Balls of Steel (2005)
3 Seasons
British Comedy Series

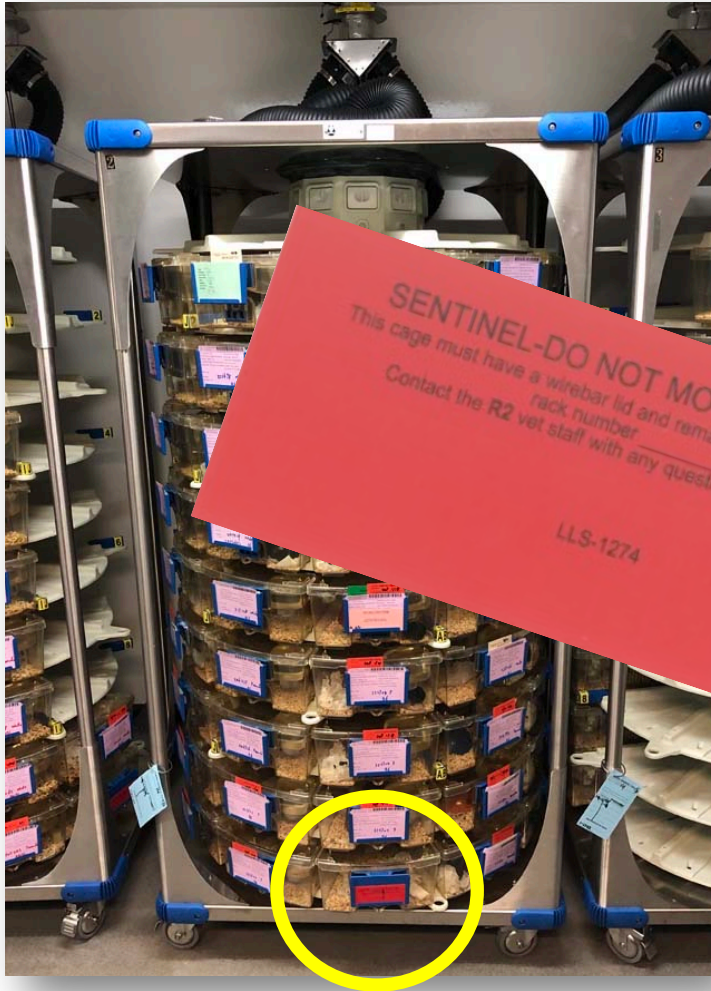
SFSB Training: Dismantling a 50 Year Old Program



- Scope
 - Significantly less leg work
 - Hands on training with:
 - 8 animal care technicians
 - 2 veterinary technicians



Physically... Making the Switch



Lesions Learned

- **Detail Oriented People**
 - Sentinel Program Coordinator
 - Tough not knowing the entire program
- **Managing Expectations**
 - No hole-in-one on the first swing
 - Build in room for mistakes
- **Communication**
 - It can always be better!
 - Hands on training!
 - Don't expect people to read emails!



Summary

- **Anticipating a 15% media loss in 1st quarter**
 - **Actual loss < 2% (n = 5-10)**
- **Program fully implemented?**
 - **Primary Facility: March 1st, 2022**
 - **Second & Satellites Facilities: April 1st, 2022**
- **Easiest to switch EDT vs. SFSB?**
 - **SFSB was the easiest**
 - **Potential bias with only ~400 cages?**
- **Detection comparison evaluation?**
 - **MNV detected at same rate**
 - **No new agents detected**
- **Financial and time comparison?**
 - **Pending**



Thank you



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Sentinel Program Veterinarian



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