



DEPARTMENT OF THE AIR FORCE
59TH MEDICAL WING (AETC)
JOINT BASE SAN ANTONIO - LACKLAND TEXAS

5 JAN 2017

MEMORANDUM FOR SGVUO

ATTN: ERICA DEAN

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **Use of Miniature Marshmallows to Reduce Stress, Enhance Safety, and Increase Efficiency When Working with Sinclair Miniature Swine** presented at/published to **2017 Laboratory Animal Welfare Training Exchange Conference in Hershey, PA, 13-16 June 2017** in accordance with MDWI 41-108, has been approved and assigned local file #**17012**.
2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are 59 MDW staff member, we can forward your request for funds to the designated wing POC.
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS

INSTRUCTIONS

1. The author must complete page two of the 59 MDW Form 3039 (this form):
 - a) In Section 2, add the funding source for your study [e.g., 59 MDW CRD Graduate Health Sciences Education (GHSC) [SG5 O&M]; SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP); Grants; etc.]
2. Print your name, rank/grade, sign and date the form in the author's signature block or use electronic signature.
3. Attach a copy of the 59th MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g., case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box of the 59 MDW Form 3039.
4. Attach a copy of your abstract, paper, poster and other supporting documentation.
5. Save and forward, via email, the processing form and all supporting documentation to your Unit Commander, Program Director or immediate supervisor for review/approval.
6. On page 2, have either your Unit Commander, Program Director or immediate supervisor:
 - a) Print their name, rank/grade/title, sign and date the form in the approving authority's signature block or use electronic signature.
7. Contact the 59th CRD/Publications and Presentations Section at (292-7141) for instructions for submitting the request form.
8. The 59th CRD/Publications and Presentations Section will route the request form to clinical investigations and public affairs and forward you a final letter of approval or disapproval.
9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on the 59 MDW Form 3039. **[NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.]**
10. If your manuscript is accepted for scientific publication, please contact the 59th CRD/Publications and Presentations Section (292-7141). This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DTIC). See 59 MDWI 41-108, *Presentation and Publication of Medical and Technical Papers* for additional information.

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement:

"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components."

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving humans:

"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DoDI 3216.02_AFI 40-402, Protection of Human Subjects in Biomedical and Behavioral Research ."

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving animals, as required by AFMAN 40-401_IP, *The Care and Use of Laboratory Animals in DoD Programs*:

"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS

TO: Clinical Research Division/SGVU (59 MDW/SGVU)	FROM: Author's Name, Rank, Grade, Office Symbol Erica Dean, GS-11, SGVUO	PROTOCOL NUMBER: FWH20160012A
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PROTOCOL TITLE - [NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.]
 GENERAL PROTOCOL FOR HOLDING ANIMALS IN A "POOL" AT WHMC/CRD PENDING ASSIGNMENT TO A RESEARCH OR TRAINING PROTOCOL

1. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED
 Use of Miniature Marshmallows to Reduce Stress, Enhance Safety, and Increase Efficiency When Working With Sinclair Miniature Swine

2. FUNDING RECEIVED FOR THIS STUDY? YES NO **FUNDING SOURCE:**

3. IS THIS MATERIAL CLASSIFIED? YES NO

4. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT ETC.? YES NO
 NOTE: If the answer is "YES" then attach a copy to the Agreement to the Publications/Presentations Request Form.

5. MATERIAL IS FOR (Check appropriate box or boxes for approval with this request.) DOMESTIC RELEASE FOREIGN RELEASE
 (ATTACH COPY OF MATERIAL TO BE PUBLISHED/PRESENTED)

- PUBLICATION/JOURNAL (List intended publication/journal)
- PUBLICATION ABSTRACT (List intended journal.)
- POSTER (To be demonstrated at meeting/Name of Meeting, City, State, and Date of Meeting)
- PLATFORM PRESENTATION (At civilian institutions/Name of Meeting, State, Date of Meeting)
 At 2017 Laboratory Animal Welfare Training Exchange Conference in Hershey PA, June 13-16 2017.
- OTHER (Describe: Name of Meeting, City, State, and Date of Meeting)

6. WHAT IS THE EXPECTED DATE YOUR PRESENTATION/PUBLICATION WILL BE SUBMITTED TO THE DEFENSE TECHNICAL INFORMATION CENTER (DTIC)?

POINT OF CONTACT

7. WHO IS THE PRIMARY 59 MDW POINT OF CONTACT? (Last, First, MI.) (Include email) Dean, Erica, L (erica.dean.5@us.af.mil)	DUTY PHONE/PAGER No. 210-292-2962
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AUTHORSHIP AND CO-AUTHOR(S) (List in the order they will appear in the manuscript)

LAST NAME, FIRST NAME AND MI.	GRADE/RANK	SQUADRON/GROUP/OFFICE SYM	INSTITUTION (If not 59 MDW)
a. Primary/corresponding author Dean, Erica L.	GS-11	AETC/59CRD/SGVUO	
b.			
c.			
d.			
e.			
f.			
g.			

I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401_IP AND 59 MDWI 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.

AUTHOR'S PRINTED NAME/RANK/GRADE Erica Dean GS-11	AUTHOR'S SIGNATURE DEAN.ERICA.L.1457922155 <small>Digitally signed by DEAN.ERICA.L.1457922155 DN: cn=U.S. Government, ou=DoD, ou=PE, ou=USAF, ou=DEAN.ERICA.L.1457922155 Date: 2016.11.09 13:06:38 -0600</small>	DATE Dec 8, 2016
APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE Linda D Harris, GS 14, Chief, Ops Branch, CRD	APPROVING AUTHORITY'S SIGNATURE HARRIS.LINDA.DAWN.1131890580 <small>Digitally signed by HARRIS.LINDA.DAWN.1131890580 DN: cn=U.S. Government, ou=DoD, ou=PE, ou=USAF, ou=HARRIS.LINDA.DAWN.1131890580 Date: 2016.12.22 07:58:57 -0600</small>	DATE Dec 21, 2016

Use of Miniature Marshmallows to Reduce Stress, Enhance Safety, and Increase Efficiency When Working With Sinclair Miniature Swine

E. Dean

59th Clinical Research Division, Joint Base San Antonio Lackland, San Antonio, TX

“The views expressed are those of the authors and do not reflect the official views or policy of the Department of Defense or its Components. The experiments reported herein were conducted according to the principles set forth in the *National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals* and the *Animal Welfare Act of 1966, as amended.*” This is original work done by the author.

We are constantly being asked to do more with less- more research studies with more animals to care for but with less time and fewer employees. How do we continue to keep our quality of care top notch while still meeting the desired pace? Enrichment is the answer. Enrichment reduces animal and employee stress, enhances safety, and increases facility efficiency. Our facility has found Sinclair Miniature Swine are calmer and less stressed if they are provided extra human interaction and enrichment during their acclimation period. At first glance the initial cost of employee time may appear prohibitive but the resultant savings are priceless. Sinclair Miniature Swine familiar with people and mini-marshmallows are easily trained to perform simple husbandry behaviors such as standing still or walking from one cage to another. These behaviors minimize the need for physical handling thereby reducing stress, decreasing procedure time, and enhancing safety. Everyone wins with enrichment.



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Disclaimer



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Use of Miniature Marshmallows to Reduce Stress, Enhance Safety, and Increase Efficiency When Working With Sinclair Miniature Swine



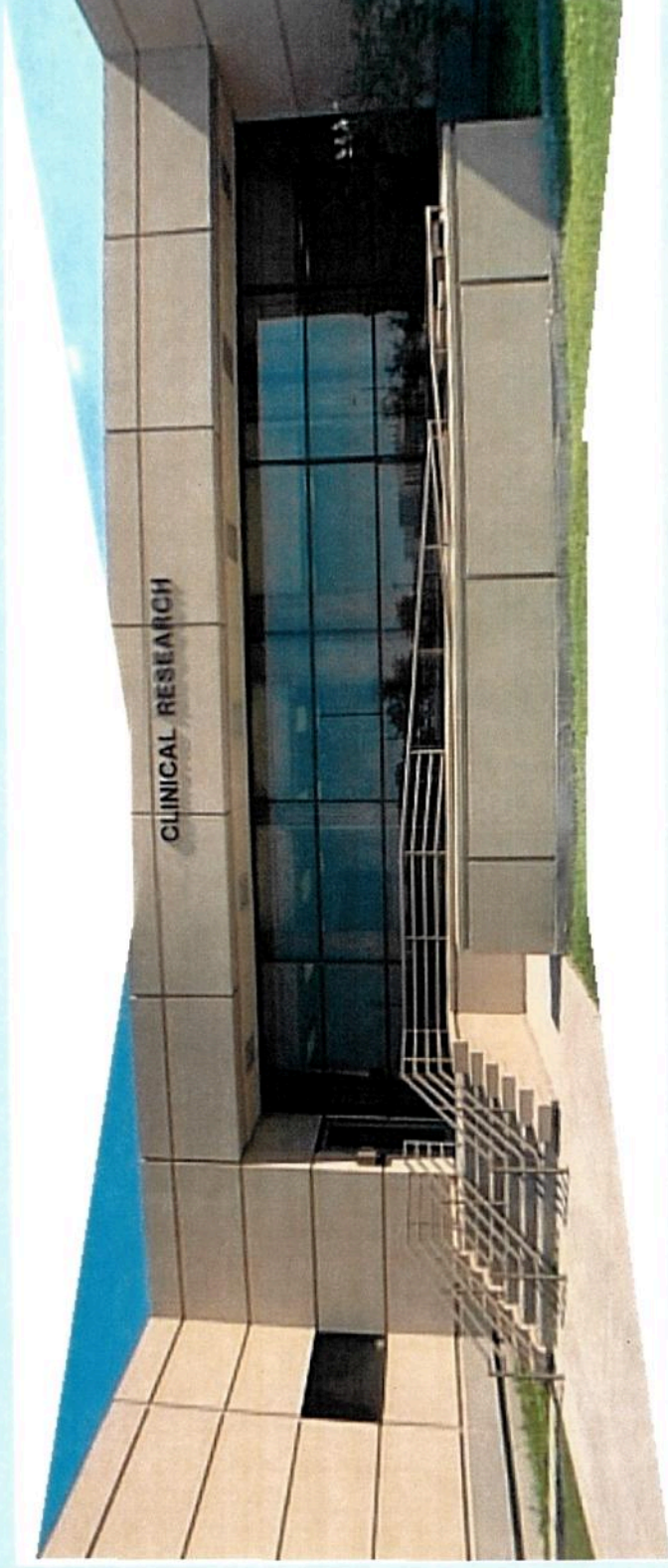
Presented by: Erica Dean, RN

Who am I?

**karen
pryor**
CLICKER TRAINING

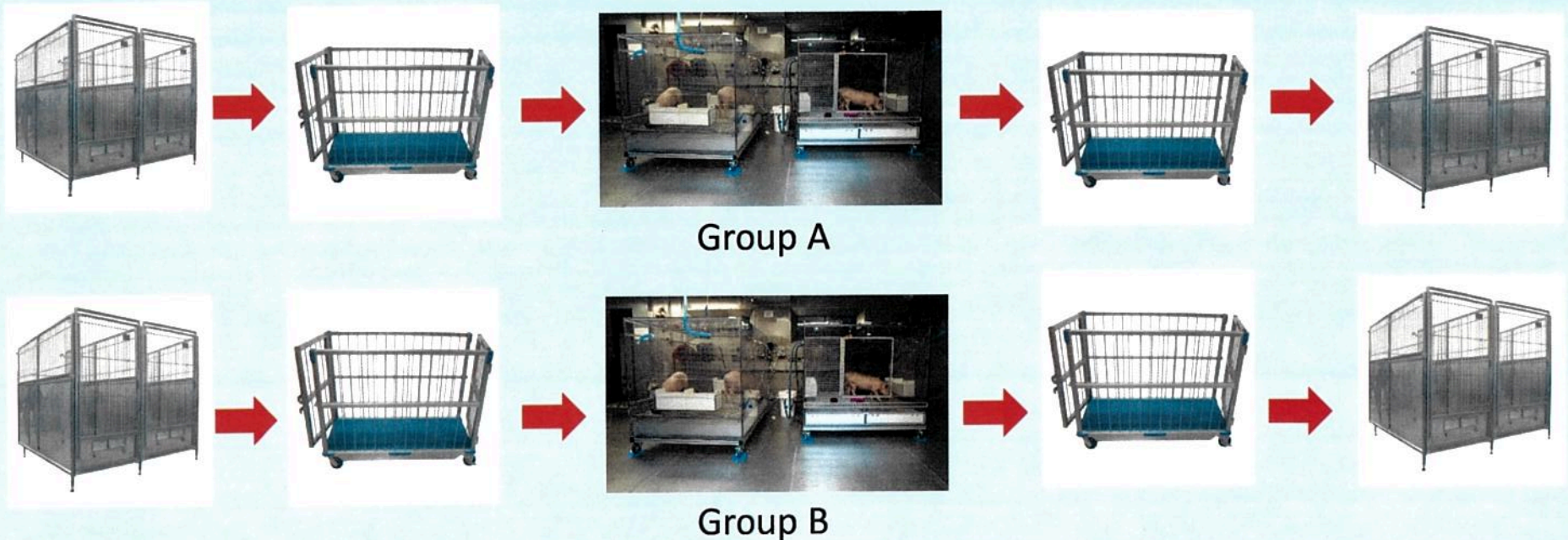


59th Clinical Research Division



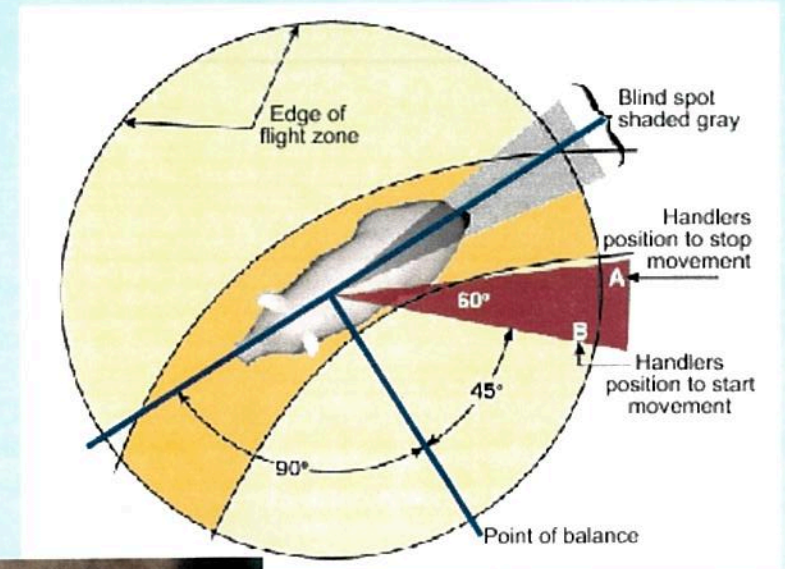
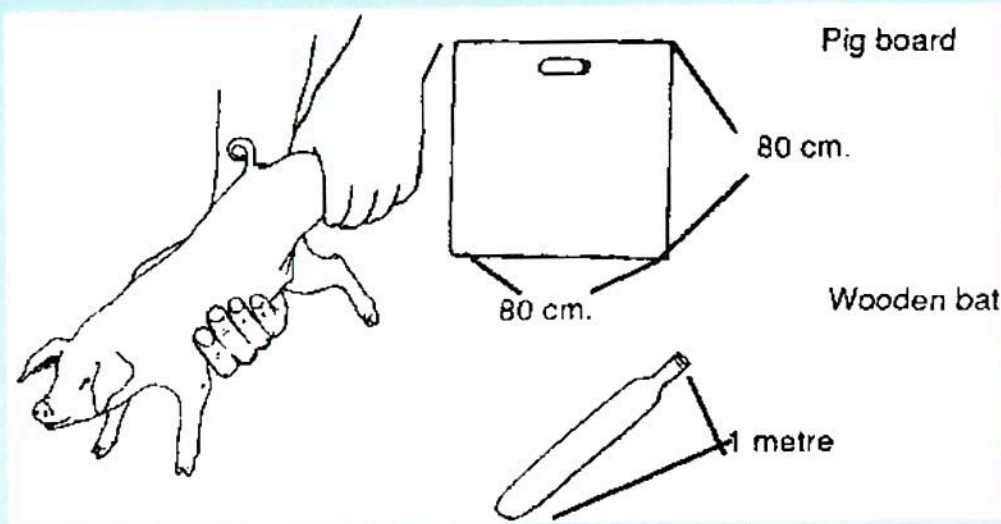
How it all started...

- Research project proposed
- 2 groups of 3-4 Sinclair Miniature Swine
- 4 cage changes every three days for six episodes
 - 4 cage changes X 4 animals/group X 2 groups X 6 episodes = **192 Cage Changes** per study arm

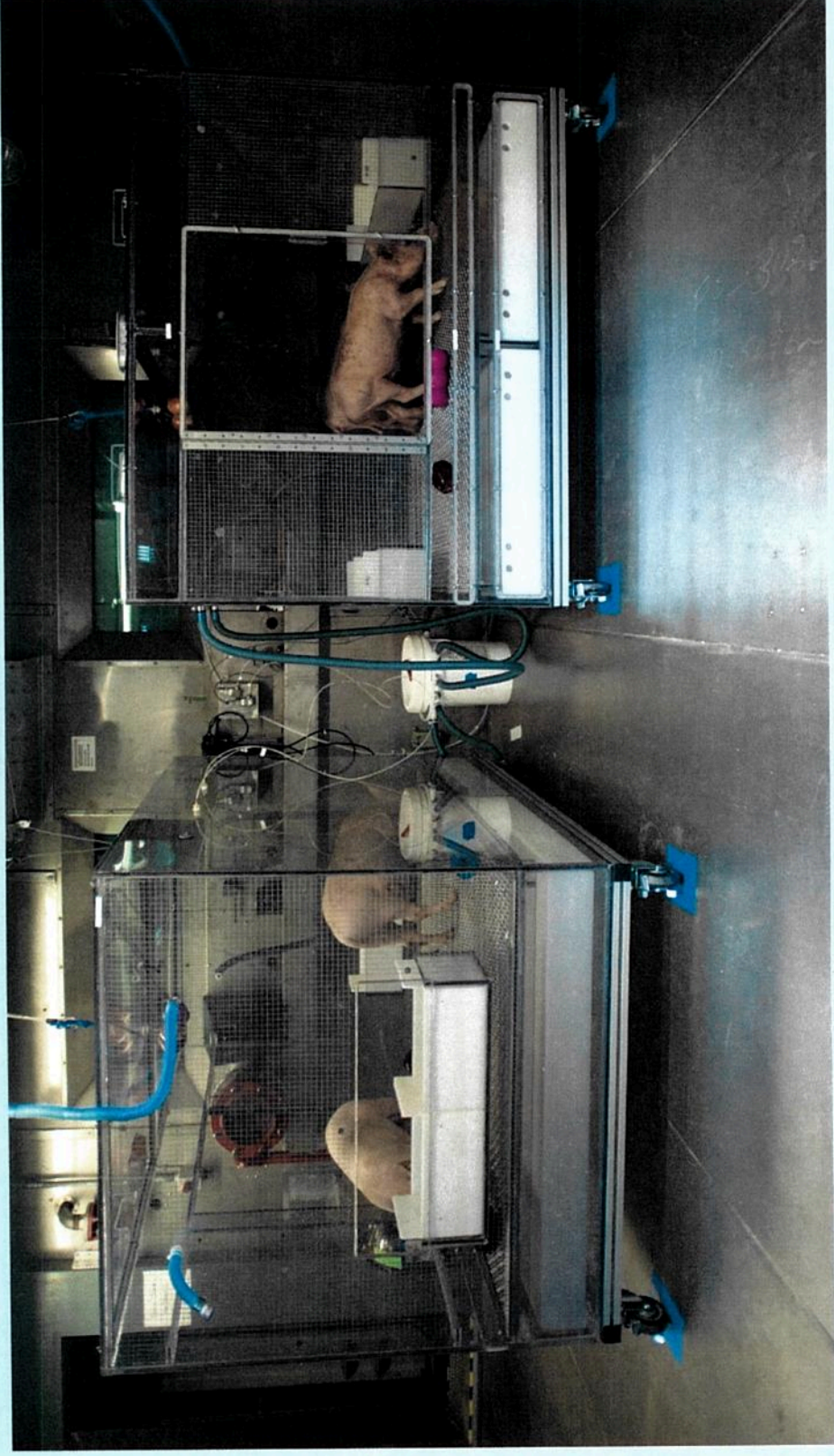


What are my options?

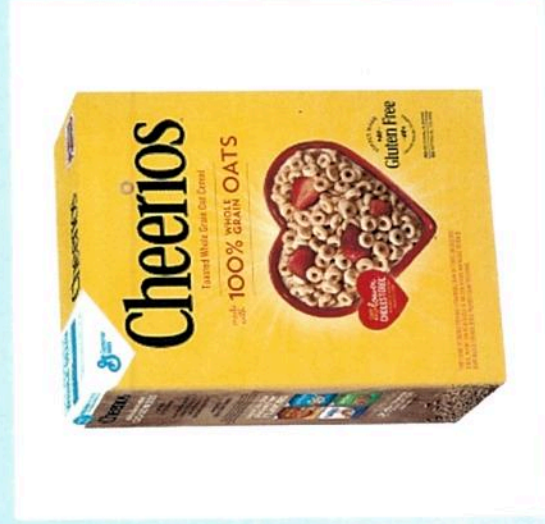
- Agricultural methods for movement



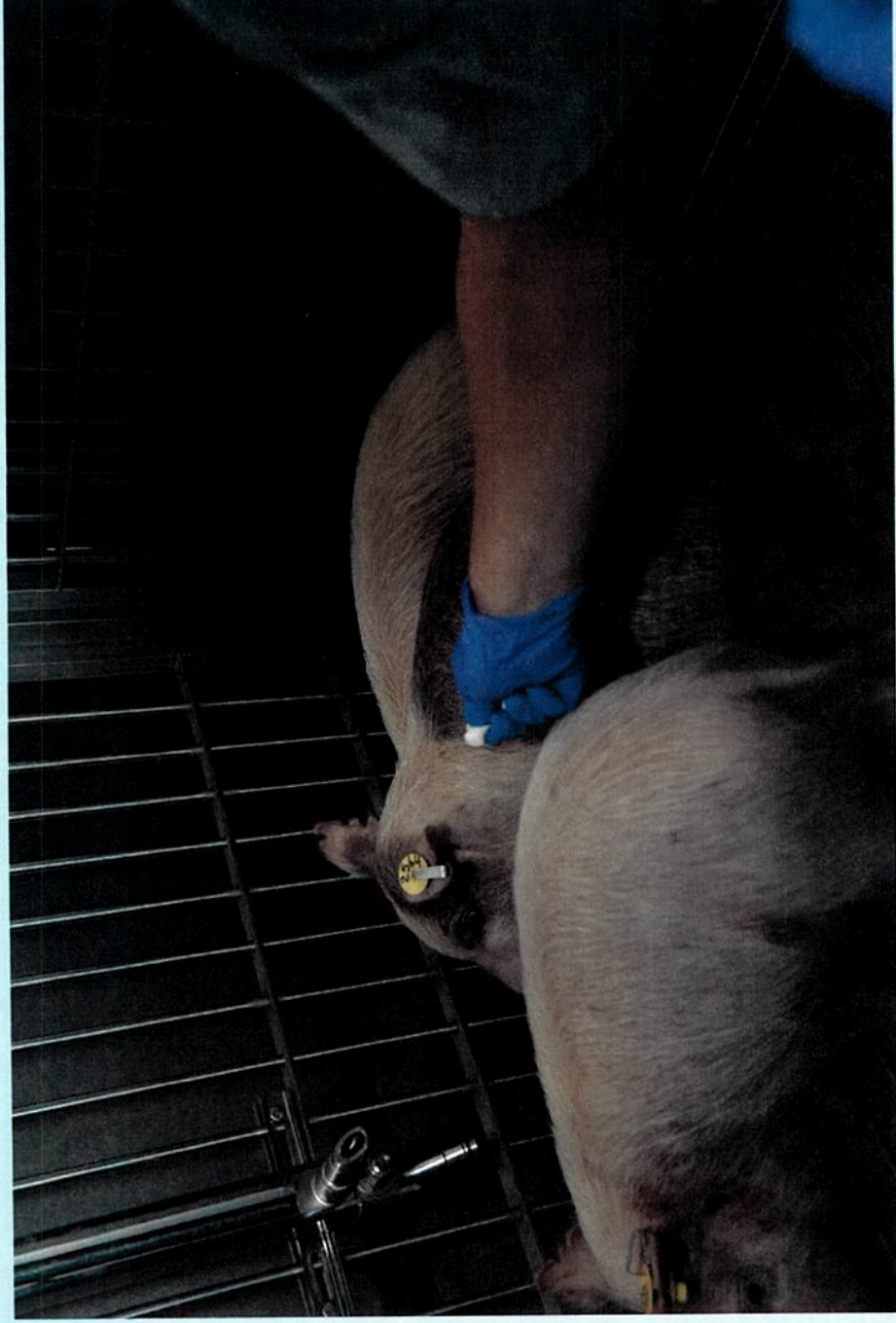
What makes a pig "tick"?



Food enrichment...so many options!



Step one: Introductions



Step two: Slow it down



Step three: Patience



Step four: Follow your nose



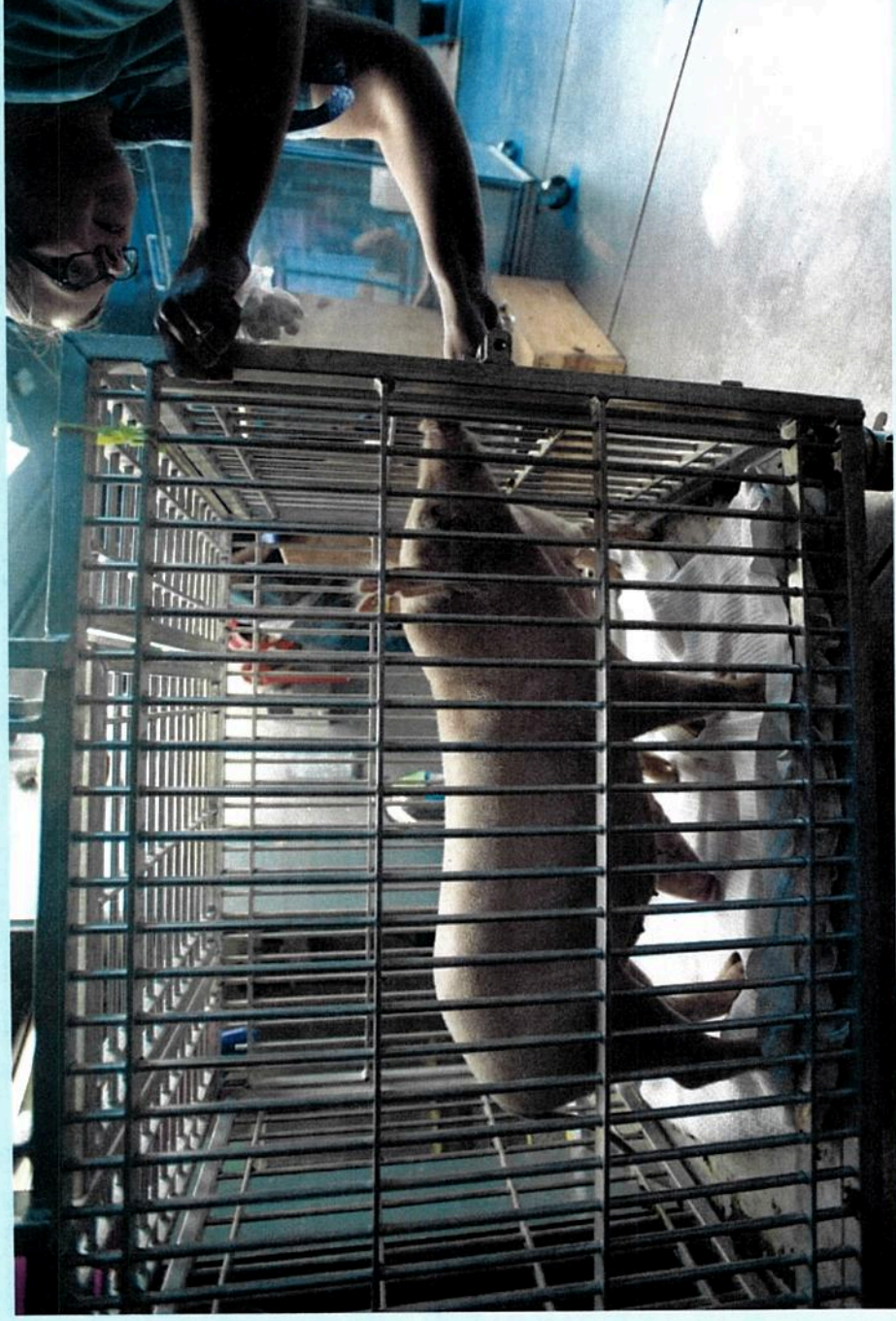
Step five: No more freebies!



Step six: Social species to the rescue



Step seven: Priming the pump



Step eight: Up the ramp



Step nine: Positive reinforcement



Step ten: The jackpot!



Step eleven: The return trip

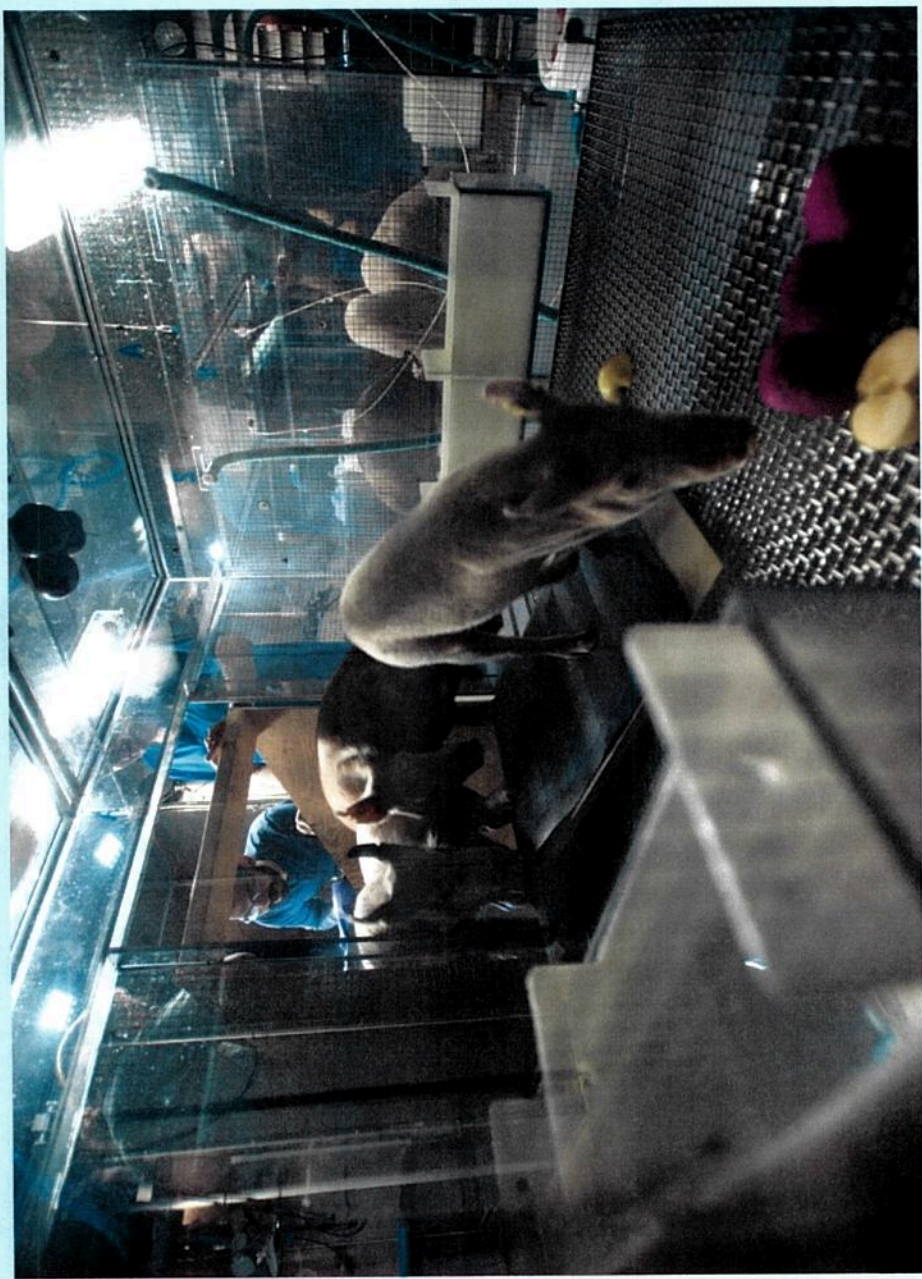


Let's fast forward a bit now...

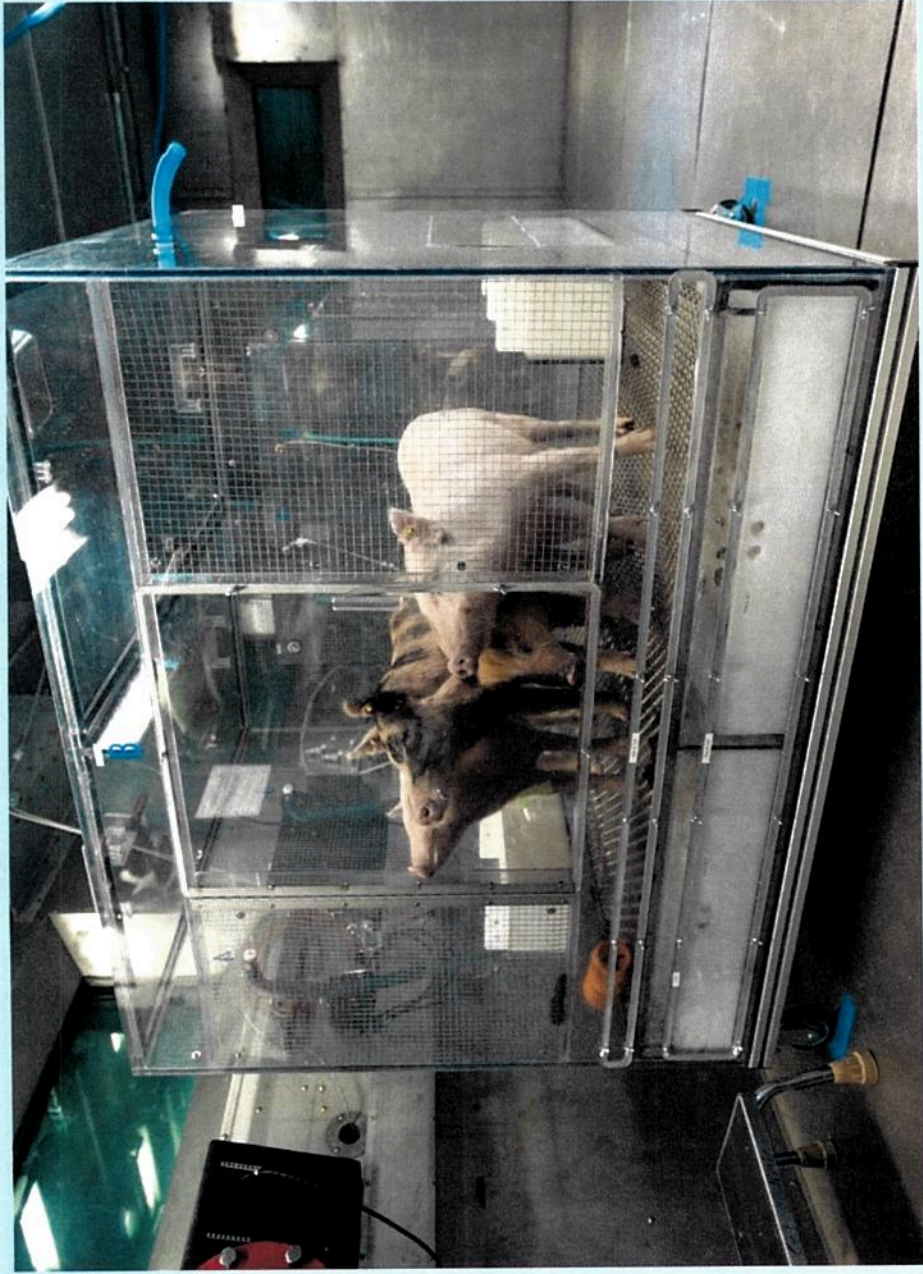
We've done this a time or two...



Success!!



We know what time it is...



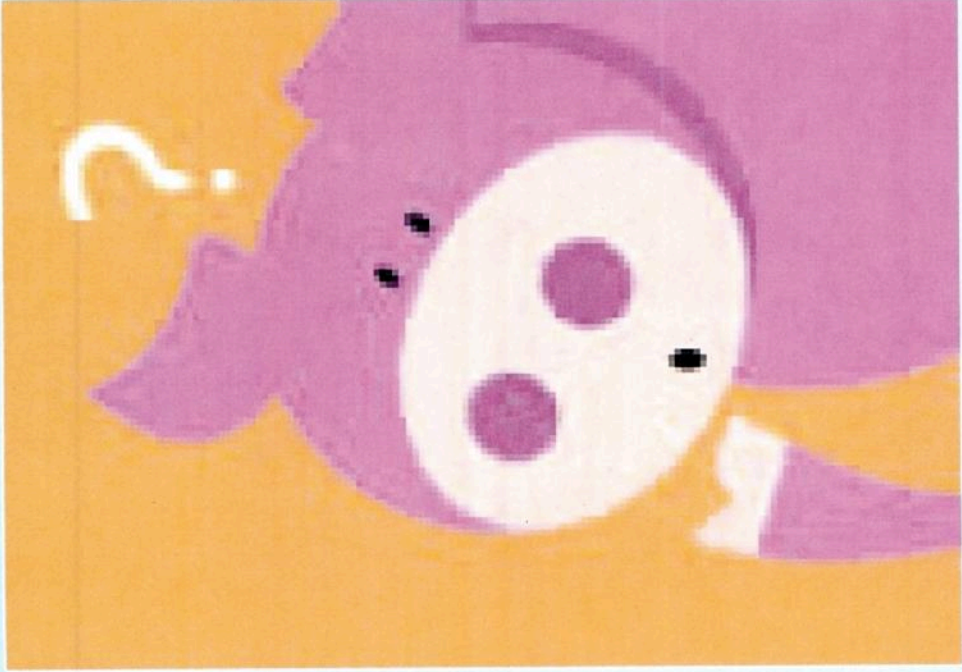
Let's GO already!!



We've got this.



Questions?



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