

SH

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0579-0036. The time required to complete this information collection is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

OMB APPROVED
0579-0036

This report is required by law (7 U.S.C. 2143). Failure to report according to the regulations can result in an order to cease and desist and to be subject to penalties as provided for in Section 2150.

Interagency Report Control
No. 0180-DOA-AN

Fiscal Year: 2009

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

REGISTRATION NUMBER: 33-R-0023

Customer Number: 603

2. HEADQUARTERS RESEARCH FACILITY (Name and Address, as registered with USDA include ZIP Code)

University Of Illinois At Urbana-Champaign
1 Observatory Building
901 S. Mathews
Urbana, IL 61801

Telephone: (217) 333 2564

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, teaching, testing, or experimentation, or held for those purposes. Attach additional sheets if necessary.)

FACILITY LOCATION(S) (Site) See Attached Listing

University of Illinois

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS FORM 7023A.)

A.	B.	C.	D.	E.	F.
Animals Covered By The Animal Welfare Regulations	Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs	Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	Number of animals upon which teaching experiments, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress on these animals and the reasons such drugs were not used must be attached to this report.)	TOTAL NUMBER OF ANIMALS (Cols. C + D + E)
4. Dogs		158	408		566
5. Cats		149	163		312
6. Guinea Pigs		18		12	30
7. Hamsters					
8. Rabbits		138	40		178
9. Non-human Primates					
10. Sheep		39			39
11. Pigs		559	222	152	933
12. Other Farm Animals					
Cattle		69	11		80
13. Other Animals					
Bats		10			10
Chinchilla			32		32
Ferret			4		4

ASSURANCE STATEMENTS

- 1.) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2.) Each principal investigator has considered alternatives to painful procedures.
- 3.) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all such exceptions is attached to this annual report. In addition to identifying the IACUC approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4.) The attending veterinarian for this research facility has appropriate authority to ensure the provisions of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer (C.E.O.) or Legally Responsible Institutional Official (L.R.O.))
I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

(b)(6), (b)(7)(c)

DATE SIGNED

11-30-09

NP
12/28/2009

APHIS Form 7023 Site Addendum for FY: 2009

Registration Number: 33-R-0029
Customer ID Number: 603

Facility Business Address Information:

University Of Illinois At Urbana-Champaign
1 Observatory Building
901 S. Mathews
Urbana, IL 61801

Telephone: (217) 333 2564

Facilities Site(s) Address Information:

Site Code(s):

001
1 Observatory Bldg
901 S Mathews
Urbana, IL 61801
Assigned Inspector: Susan Kingston, D V M

REC 01 2009

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **33-R-0029**

2. Number 12 of animals used in this study.

3. Species (common name) Guinea Pigs of animals used in the study.

4. Explain the procedure producing pain and/or distress.

The Guinea pigs were challenged via intra-nasal cannula with *Streptococcus equi* ssp. *equi*.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below).

These experiments were designed to evaluate the efficacy of the Guinea pig as a model for the equine disease, strangles. As Guinea pigs are subject to respiratory infections with *Streptococcus equi* ssp. *zooepidemicus*, we hypothesized that they would be subject to *S. equi* infection. They were sedated for this procedure, however, they were not administered any analgesics post-challenge as the use of analgesics may alter the immune response.

6. What, if any, federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency _____ CFR _____

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **33-R-0029**

2. Number 104 of animals used in this study.

3. Species (common name) swine of animals used in the study.

4. Explain the procedure producing pain and/or distress.

Pigs received 1 daily dose during 3 consecutive days of a pathogenic E. coli; these doses were delivered orally, with a concentration of 10^{10} cfu per dose. The experiment continued for 10 to 12 days after the first challenge. The infection model we used causes light to mild diarrhea and does not induce mortality. In fact, this model actually allows pigs to be in recovery process by the end of the experiment.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below).

The results we require depend on a series of animal responses to evaluate both the resistance against the infection and the ability to recover. Those responses can be evaluated as the growth rate, severity of the diarrhea, and changes in bacterial populations, among others. The use of antibiotics or therapeutic drugs will directly interfere with those animal's responses we need to evaluate.

6. What, if any, federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency _____ CFR _____

Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: **33-R-0029**
2. Number 48 of animals used in this study.
3. Species (common name) pigs of animals used in the study.
4. Explain the procedure producing pain and/or distress.

Piglets were used in a study to assess brain and cognitive development and the effects of neonatal infection on learning and memory. Some piglets were treated with poly I:C to mimic a viral infection and others received LPS to mimic a bacterial infection. Poly I:C and LPS induce moderate transient behavioral changes lasting 4-8 hours reminiscent of an acute infection. The behavioral effects are thought to be induced by the inflammatory response to poly I:C and LPS.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see question 6 below).

The purpose of the study is to investigate how a viral or bacterial infection in the neonatal period affects brain and cognitive development. The behavioral changes induced by poly I:C and LPS are moderate and transient lasting only a few hours. Administering a drug (e.g., NSAID) to inhibit inflammation and mask the behavioral effects of poly I:C or LPS would obviate testing the hypothesis.

6. What, if any, federal regulations require this procedure? Cite the agency, the Code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency _____ CFR _____