

11-21-00

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. CERTIFICATE NUMBER: 84-R-0001
CUSTOMER NUMBER: 1080

FORM APPROVED
OMB NO. 0579-0036

NATIONAL Jewish Medical & Research Center

National Medical & Res. Ctr.
1400 Jackson St., Dalla

Telephone:

(303) 388-4461

(303) 398-1432

Denver, CO 80206

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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 y	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, a	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 in these animals and the reasons such drugs were not used must be attached to	TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					0
5. Cats					0
6. Guinea Pigs	27	111			111
7. Hamsters		3			3
8. Rabbits	21	100	16		116
9. Non-human Primate					0
0. Sheep	8				0
1. Pigs					0
2. Other Farm Animals					0
3. Other Animals					0

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 all 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. SACRAMENTO, CA
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

DATE SIGNED

11-15-00

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1080

1400 Jackson St.
Denver, CO 80206
County: Denver

Telephone
(303)388-4461

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NOV 16 1988

W. A. APHIS, AG
SACRAMENTO, CA

This report is required by law (7 USC 2143). Failure to report according to the regulations can

See attached form for additional information

Interagency Report Control No.:
11-28-02 605

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0003
CUSTOMER NUMBER: 1195

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Colorado State University
203 Administration

Telephone:
(303)491-7364

Fort Collins, CO 80523

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs		181	98		279
5. Cats	70	86	188		274
6. Guinea Pigs		364			364
7. Hamsters		108			108
8. Rabbits		155			155
9. Non-human Primate					
0. Sheep		16	337		353
1. Pigs		15	327		342
2. Other Farm Animals					
Cattle		20	14		34
3. Other Animals					
Ferrets		43			43
Marmots	8	8	7		15
Horses		15	31		46

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

11-27-00

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

SIGNATURE

APHIS

(Aug 31)

APPROVED

11/20/00

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1195

Veterinary Teaching Hospital
Fort Collins, CO 80523 2001
County: Larimer

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0008
CUSTOMER NUMBER: 1087

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Univ. Of Northern Colorado
Pres.'S Office, Carter 4000
Dept. Of Biological Sciences
'Greeley, CO 80639

Telephone:
(970)351-2921

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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 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 in these animals and the reasons such drugs were not used must be attached to	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs	<i>0</i>				
5. Cats	<i>0</i>				
6. Guinea Pigs	<i>0</i>				
7. Hamsters	<i>0</i>				
8. Rabbits	<i>0</i>				
9. Non-human Primate	<i>0</i>				
0. Sheep	<i>0</i>				
1. Pigs	<i>0</i>				
2. Other Farm Animals	<i>0</i>				
3. Other Animals					
SIBERIAN FERRETS <i>(MUSTELA EVERSHANNI)</i>					
→	<i>0</i>	8	<i>0</i>	<i>0</i>	8

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

S

DATE SIGNED

11/15/00

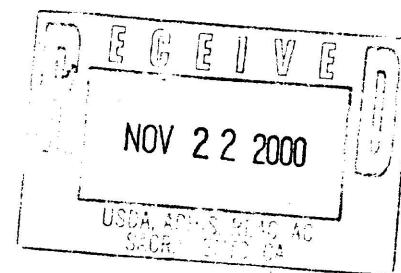
Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1087

Animal Facility
Ross Hall Of Sciences
Greeley, CO 80639
County: Weld

Telephone
(970)351-2921



12-4-00

This report is required by law (7 USC 2143). Failure to report according to the regulations can

See attached form for additional information

Interagency Report Control No.:

FORM APPROVED
OMB NO. 0579-0036

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 85-R-0010
CUSTOMER NUMBER: 1074

**ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)**

Canyon Colorado Equid Sanct.
P.O. Box 60639

Telephone:
(719)579-0707

Colorado Spgs, CO 80960

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, 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 in these animals and the reasons such drugs were not used must be attached to	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals					
Grevy's Zebra	0	66	1		67
Hartmann Zebra	0	181	21		202
Kulan	0	180	3		183

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.

DEC 2000

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 in the annual report. In addition to identifying the

the adequacy of other aspects of animal care

or Print

DATE SIGNED

11/30/00

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO.
85-R-0010

FORM APPROVED
OMB NO. 0579-0036

**CONTINUATION SHEET FOR ANNUAL REPORT
OF RESEARCH FACILITY
(TYPE OR PRINT)**

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

CANYON COLORADO EQUID SANCTUARY
P.O. Box 60639
Colorado Springs, CO 80960

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

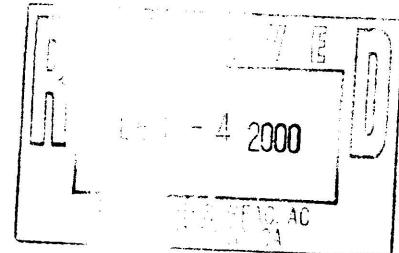
DEC - 4 2000

<i>Type or Print</i>)	DATE SIGNED
	11/30/00

Annual Report Site Listing:

• Customer ID and Site Address:

Cust ID: 1074



UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0011
CUSTOMER NUMBER: 1089

FORM APPROVED
OMB NO. 0579-0036

**ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)**

Western State College
Western State College
Gunnison, CO 81231

Telephone:
(970)943-2114

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals					
Deer mice (Peromyscus maniculatus)	38				38

RECEIVED

NOV 13 2000

U.S.D.A. Animal Health

ASSURANCE STATEMENTS

- 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.
- Each principal investigator has considered alternatives to painful procedures.
- 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.
- The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

SIGNATURE OF C.E.O.

DATE SIGNED

10-27-00

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1089

Western State College
Gunnison, CO 81231
County: Gunnison

Telephone
(970)943-2114

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0012
CUSTOMER NUMBER: 1090

FORM APPROVED
OMB NO. 0579-0036

**ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)**

Colorado Mountain College
3000 County Road 114

Telephone:
(970)945-8691

Glenwood Spgs, CO 81601

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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 y	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, a	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 in these animals and the reasons such drugs were not used must be attached to	TOTAL NUMBER OF ANIMALS (COLUMNS C. + D + E)
4. Dogs	0	13	0	0	13
5. Cats	0	22	0	0	22
6. Guinea Pigs	0	2	0	0	2
7. Hamsters	0	2	0	0	2
8. Rabbits	0	3	0	0	3
9. Non-human Primate	0	0	0	0	0
0. Sheep	0	7	0	0	7
1. Pigs	0	3	0	0	3
2. Other Farm Animals	0	12	12	0	12
<i>Cattle</i>					
<i>Horses</i>	0	7	0	0	7
3. Other Animals			0		0
<i>Goats</i>	0	10	0	0	10
<i>Llamas</i>	0	3	0	0	3
<i>Ferret</i> s	0	2	0	0	2

ASSURANCE STATEMENTS

- 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.
- Each principal investigator has considered alternatives to painful procedures.
- 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.
- The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

OCT 20 2000

**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)**

DATE SIGNED
10.11.00

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1090

3000 County Road 114
Glenwood Spgs, CO 81601
County: Garfield

Telephone
(970)945-8691

RECEIVED
OCT 20 2000

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0013
CUSTOMER NUMBER: 1092

FORM APPROVED
OMB NO. 0579-0036

**ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)**

Bel-Rea Inst. Of Animal Tech.
1681 South Dayton Street
Denver, CO 80231

Telephone:
(303)751-8700

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs		2			2
5. Cats		3			3
6. Guinea Pigs		4			4
7. Hamsters		6			6
8. Rabbits		5			5
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals	Do not enter Horse	4			4
3. Other Animals	Do not enter Dogs	22			22
Rats		12			12
Gerbils		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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

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

DATE SIGNED
11/7/00

11-27-00

This report is required by law (7 USC 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.

See reverse side for additional information.

Interagency Report Control No
0180-DOA-AN

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO.

84 - R - 0014

FORM APPROVED
OMB NO. 0579-0036

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

Colorado College
14 E. Cache la Poudre
Colorado Springs, CO 80903-3298

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

FACILITY LOCATIONS (Sites)

Barnes/Olin Rooms 111 thru 137	
Palmer Hall Rooms 233 and 324	

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

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. 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 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 in these animals and the reasons such drugs were not used must be attached to this report).	E. 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 in these animals and the reasons such drugs were not used must be attached to this report).	F. TOTAL NO. OF ANIMALS (Cols. C + D + E)
4. Dogs	—	—	—	—	—
5. Cats	—	—	—	—	—
6. Guinea Pigs	—	—	—	—	—
7. Hamsters	—	—	—	—	—
8. Rabbits	—	—	—	—	—
9. Non-human Primates	—	—	—	—	—
10. Sheep	—	—	—	—	—
11. Pigs	—	—	—	—	—
12. Other Farm Animals	—	—	—	—	—
13. Other Animals	—	—	—	—	—

ASSURANCE STATEMENTS

- 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.
- Each principal investigator has considered alternatives to painful procedures.
- 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.
- The attending veterinarian for this research facility has appropriate authority to ensure the provision 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 or Legally Responsible Institutional Official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

DATE SIGNED

-22-00

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0016
CUSTOMER NUMBER: 1094

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Denver Health Medical Center
777 Bannock St.
Denver, CO 80204

Telephone:

(303) 893-7645

436-5663

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs		36			36
2. Other Farm Animals					
Goats		4			4
3. Other Animals					

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

S [Redacted]	[Redacted]	DATE SIGNED <i>10/17/00</i>
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This report is required by law (7 USC 2143). Failure to report according to the regulations can

See attached form for additional information

Interagency Report Control No.: 10/25/00

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0021
CUSTOMER NUMBER: 8224

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Fort Lewis College
1000 Rim Dr.

Telephone:
(970)247-7010

Durango, CO 81301

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primate	0	0	0	0	0
0. Sheep	0	0	0	0	0
1. Pigs	0	0	0	0	0
2. Other Farm Animals					
3. Other Animals	mice 600 rats 0 amphibians 24 Reptile 6	130	0	0	130

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

OCT 23 2000

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

DATE SIGNED

10/17/00

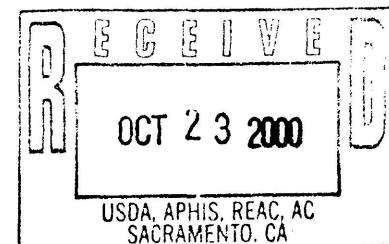
Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 8224

758 Berndt Hall
Durango, CO 81301
County: La Plata

Telephone
(970)247-7010



Report is required by law (7 USC 2143). Failure to report according to the regulations can

See attached form for additional information

Interagency Report Control No.: 11-811

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0024
CUSTOMER NUMBER: 1095

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Gambro Bct
10810 W. Collins Avenue
Lakewood, CO 80215

Telephone:
(800)644-2623

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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	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 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 in these animals and the reasons such drugs were not used must be attached to	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 in these animals and the reasons such drugs were not used must be attached to	TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs			288		288
7. Hamsters					
8. Rabbits			34		34
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals					

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

SIGNATURE

DATE SIGNED

9/26/00

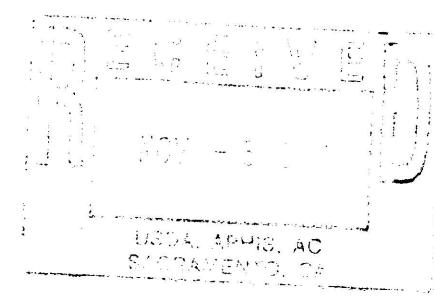
Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1095

10810 W. Collins
Avenue
Lakewood, CO 80215 4440
County: Jefferson

Telephone
(800)644-2623



11-27-00

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE	1. CERTIFICATE NUMBER: 84-R-0040 CUSTOMER NUMBER: 1097	FORM APPROVED OMB NO. 0579-0036
ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)		
Inhausen Research Institute, Inc. 2601 S. Lemay Ave., Suite 7-505 Telephone: (970)221-1090 Fort Collins, CO 80525		

FACILITY LOCATIONS (Sites) - See Attached Listing

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

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

NOV 27 2000

**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)**

DATE SIGNED
11/21/00

This report is required by law (7 USC 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 in Section 2150.

See reverse side for additional information.

Interagency Report Control No
0180-DOA-AN

12-7-02

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

1. REGISTRATION NO.

84-R-0052

FORM APPROVED
OMB NO. 0579-0036

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

Gilead Sciences

2860 Wilderness Place

Boulder, CO 80301

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

FACILITY LOCATIONS (Sites)

Above location only

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

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. 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.	E. 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 in these animals and the reasons such drugs were not used must be attached to this report).	F. TOTAL NO. OF ANIMALS (Cols. C + D + E)
4. Dogs					0
5. Cats					0
6. Guinea Pigs					0
7. Hamsters					0
8. Rabbits		10	17		27
9. Non-human Primates					0
10. Sheep					0
11. Pigs					0
12. Other Farm Animals					0
13. Other Animals					0

ASSURANCE STATEMENTS

- 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.
- Each principal investigator has considered alternatives to painful procedures.
- 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.
- The attending veterinarian for this research facility has appropriate authority to ensure the provision 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 or Legally Responsible Institutional Official)
I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL

NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)

DATE SIGNED

12/6/00

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0054
CUSTOMER NUMBER: 1310

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Ribozyme Pharmaceuticals, Inc.
2950 Wilderness Place
Boulder, CO 80301

Telephone:
(303) 270-7417
449-6500

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	0	0	0	0	0
7. Hamsters	0	0	0	0	0
8. Rabbits	0	0	0	0	0
9. Non-human Primate	0	0	0	0	0
0. Sheep	0	0	0	0	0
1. Pigs	0	0	0	0	0
2. Other Farm Animals	0	0	0	0	0
3. Other Animals	0	0	0	0	0

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

Print

DATE SIGNED

10/4/00

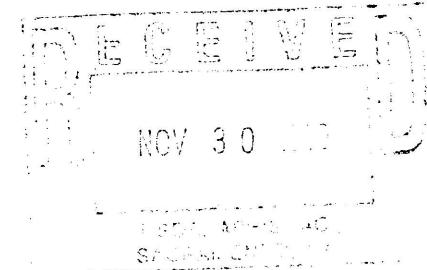
Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1310

2950 Wilderness Place
Boulder, CO 80301
County: Boulder

Telephone
(303)270-7417



UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0055
CUSTOMER NUMBER: 1312

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Healthone
1850 High Street
Denver, CO 80218

Telephone:
(303)839-6821

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals				No regulated animals are present.	

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

DATE SIGNED

9/25/00

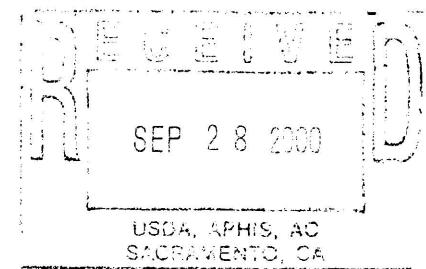
Annual Report Site Listing:

*Customer ID and Site Address:

Cust ID: 1312

5125 North Stapleton
Drive
Denver, CO 80216
County: Denver

Telephone
(303)320-4061



10-12-00

This report is required by law (7 USC 2143). Failure to report according to the regulations can

See attached form for additional information

Interagency Report Control No.: S-1

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0057
CUSTOMER NUMBER: 1783

FORM APPROVED
OMB NO. 0579-0036

**ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)**

Bolder Path, Inc.
Univ. Of Colorado At Boulder
Mcdb Campus Box 347
Boulder, CO 80309

Telephone:
~~(303)401-1481~~
735-5001

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs	6	24	48		72 <i>pjz alep com</i>
7. Hamsters					
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals					

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. *TO, CA*
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

OCT - 6 2000

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

DATE SIGNED
9/29/00

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE		1. CERTIFICATE NUMBER: 84-R-0058 CUSTOMER NUMBER: 1784	FORM APPROVED OMB NO. 0579-0036
ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)		A M C Cancer Research Center 1600 Pierce Street Lakewood, CO 80214	Telephone: X3033264321 (303) 239-3561

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. Number of animals upon which experiments, teaching, 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 in these animals and the reasons such drugs were not used must be attached to	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters	0	273	0	0	273
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals					
Mice	0	1011	27	0	1038
RATS	0	206	0	0	206

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 provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

DATE SIGNED

10-5-00

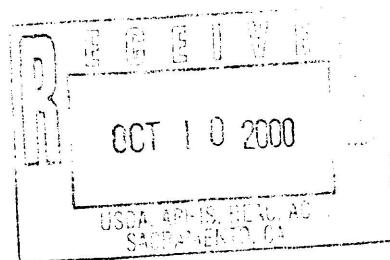
Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1784

1600 Pierce Street
Lakewood, CO 80214
County: Jefferson

Telephone
~~XXX-5254-322~~
(303) 239-3561



UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE		1. CERTIFICATE NUMBER: 84-R-0060 CUSTOMER NUMBER: 1835	FORM APPROVED OMB NO. 0579-0036
ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)		University Of Colorado-Boulder Department Of Animal Resource Cb 26 Boulder, CO 80309	Telephone: (303)492-2890

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

FACILITY LOCATIONS (Sites) - See Attached Listing

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS Form 7023A)					
A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters	100	0	900	0	900
8. Rabbits					
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
<u>GROUND SQUIRREL</u>	0	0	47	0	47
<u>DEER MICE</u>	0	95	0	0	95
<u>PRairie Vole</u>	0	11	0	0	11
<u>POCKET MICE</u>	0	15	0	0	15
<u>MEXICAN Free R.</u>	0	5	0	0	5

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.
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- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care.

NOV 13 2000

USDA, APHIS, REAC, AC

ANIMAL RESOURCES

NOV 6 2000

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

DATE SIGNED

SIG

APH

(AUG 91)

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1835

Department Of Animal
Resources
Boulder, CO 80309
County: Boulder

Telephone
(303)492-2890

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1835

Department Of Animal

Resources

505 Weld County Rd. 1

1/2

Longmont, CO 80504

County: Boulder

Telephone

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0061
CUSTOMER NUMBER: 10643

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

The Veterinary Referral Center Of Colorado
3550 S. Jason St.
Telephone:
(303)398-1313
Englewood, CO 80110

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Cats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Guinea Pigs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Hamsters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Rabbits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Non-human Primate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0. Sheep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1. Pigs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Other Farm Animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Other Animals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

11-2-00

SIGNATURE
APHIS

DATE SIGNED
11-2-00

11-14-00

This report is required by law (7 USC 2143). Failure to report according to the regulations
can

See attached form for
additional information

Interagency Report Control No:

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

FORM APPROVED
OMB NO. 0579-0036

**ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)**

1. CERTIFICATE NUMBER: 84-R-0007
CUSTOMER NUMBER: 1086

Colorado Serum Company
4950 York Street
Denver, CO 80216

Telephone:
(303)295-7527

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

FACILITY LOCATIONS (Sites) - See Attached Listing

OK per Dr Flynn 11-14-00

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs	0	0	0	0	0
5. Cats	0	0	0	0	0
6. Guinea Pigs	26	236	186	1203	1625
7. Hamsters	0	0	0	166	166
8. Rabbits	4	0	170	0	170
9. Non-human Primate					
0. Sheep					
1. Pigs					
2. Other Farm Animals					
3. Other Animals					

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.
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NOV 13 2000

**CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)**

SIGN/	OFFICIAL	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)	DATE SIGNED
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11-6-00

APHIS

18-23 (OCT 88), which is obsolete.

(ADG 91)

Colorado Serum Company
License No. 84-R-0007

For FY 1999 – 2000 Annual Report of Registered
Research Facility – APHIS Form 7023

Each animal in each referenced test was employed in testing a Licensed Veterinary Biological product as required by Federal Regulations as codified in Title 9 CFR. Humane euthanasia of animals on 9 CFR required tests are provided for in Federal Register publication dated August 21, 1995 citing part 117.4(d) – Animals at Licensed Establishments – test animals (filed August 18, 1995) has been initiated and included as standard testing protocol. Attending veterinarians and related employees have been informed and Colorado Serum Company is complying with this regulation.

Explanation of usage of animals listed in Column E.

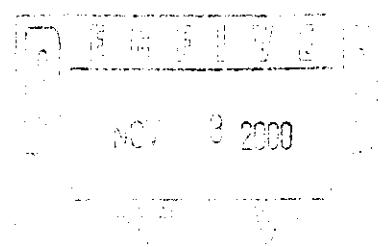
Line Item 6. Guinea Pigs

1203 Guinea Pigs were tested causing pain, for which no anesthetic, analgesics, or tranquilizers could be used. A detailed breakdown of guinea pigs by test reference is provided.

9 CFR 113.451(d) Tetanus Antitoxin potency testing – 917 guinea pigs.

9 CFR 113.106(c) Clostridium chauvoei Bacterin potency testing – 198 guinea pigs

9 CFR 113.107(c) Clostridium haemolyticum potency testing – 88 guinea pigs



ATTACHMENT NO. 1

Page 2
of 1999 - 2000 report

Colorado Serum Company
License No. 84-R-0007

Line Item 7.

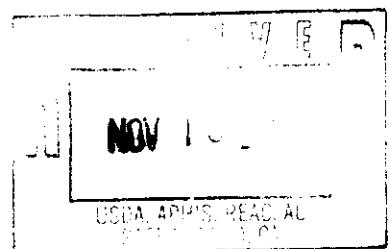
Hamsters

166 Hamsters were tested causing pain, for which no anesthetics, analgesics, or tranquilizers could be used. A detailed breakdown of hamsters by test reference is provided.

- | | |
|---------------|--|
| 9 CFR 113.101 | Leptospira Pomona Bacterin potency testing – 40 hamsters. |
| 9 CFR 113.102 | Leptospira Icterohaemorrhagiae Bacterin potency testing – 46 hamsters. |
| 9 CFR 113.103 | Leptospira Canicola Bacterin potency testing – 40 hamsters. |
| 9 CFR 113.104 | Leptospira Grippotyphosa Bacterin potency testing – 40 hamsters. |

11-6-00

Date



UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

338-9
11-3600
1. CERTIFICATE NUMBER: 84-R-0045
CUSTOMER NUMBER: 1096

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

Colorado Division Of Wildlife
6060 Broadway
Denver, CO 80216

Telephone:
(303)297-1192

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (C + D + E)
4. Dogs	na				
5. Cats	na				
6. Guinea Pigs	na				
7. Hamsters	na				
8. Rabbits	na				
9. Non-human Primate	na				
0. Sheep	na				
1. Pigs	na				
2. Other Farm Animals					
cattle	-	-	-	11	11
3. Other Animals					
bighorn sheep	33	-	-	6	6
elk	4	19	-	-	19
mule deer	-	29	-	31	60

ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

ICIAL

NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)

DATE SIGNED

11/20/00

3-23 (OCT 88), which is obsolete.

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO. B4-B-0045

FORM APPROVED
OMB NO. 0579-0036

**CONTINUATION SHEET FOR ANNUAL REPORT
OF RESEARCH FACILITY
(TYPE OR PRINT)**

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

Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

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.
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 - 4). The attending veterinarian for this research facility has appropriate authority to ensure the provision 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 or Legally Responsible Institutional Official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143).

CIAL	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)	DATE SIGNED
		11/20 /00

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1096

4330 West Laporte

Avenue

Fort Collins, CO 80521

County: Larimer

Telephone

(970)472-4300

Column E Addendum
Explanation of animal uses involving unmitigated pain or distress

1. Chronic wasting disease (CWD) pathogenesis: Studies involved 5 mule deer and 7 white-tailed deer orally inoculated with infectious brain material. Handling and experimental procedures themselves were neither painful nor distressing. However, some ill-defined pain sensations and other adverse psychological manifestations may have arisen during the course of the disease [based on extrapolations from human transmissible spongiform encephalopathies (TSEs)]. No veterinary pharmaceuticals or other therapeutic regimens are recommended for treatment of animal TSEs, and it is unclear whether conventional analgesics would even be effective. Moreover, attempting to control elements of disease progression would have interfered with detection of clinical signs, and could alter the pathobiological processes under study. Instead, animals showing signs of severe clinical CWD were euthanized, as specified in study protocols on file.
2. Susceptibility of cattle to CWD: Study involved 26 mule deer and 11 domestic cattle naturally exposed to the CWD agent via confinement in outdoor paddocks where the disease is endemic. Handling and experimental procedures themselves were neither painful nor distressing. However, some ill-defined pain sensations and other adverse psychological manifestations may have arisen in mule deer during the natural course of the disease [based on extrapolations from human transmissible spongiform encephalopathies (TSEs)]. No veterinary pharmaceuticals or other therapeutic regimens are recommended for treatment of animal TSEs, and it is unclear whether conventional analgesics would even be effective. Moreover, attempting to control elements of disease progression would have interfered with detection of clinical signs, and could alter the pathobiological processes under study. Instead, animals showing signs of clinical CWD were euthanized, as specified in study protocols on file. (Note: Based on preliminary data available to date, it is unlikely that the cattle in this study will ever become infected with CWD; however, they are counted in column E of the report as a matter of completeness.)
3. Evaluation of a modified-live *Pasteurella haemolytica* vaccine in bighorn sheep: Study involved 6 bighorn sheep exposed to vaccine and/or pathogenic strains of *Pasteurella haemolytica*. Handling and experimental procedures themselves were neither painful nor distressing. However, some pain or distress may have arisen in bighorns that developed respiratory disease after exposure to vaccine and/or pathogenic strains of *Pasteurella haemolytica*. Attempting to control elements of disease progression with conventional therapeutic regimens prescribed for pneumonic pasteurellosis would have interfered with evaluation of vaccine efficacy, and could have altered the pathobiological processes under study. Instead, animals showing signs of severe respiratory disease were euthanized, as specified in study protocols on file.

11-30-00 R

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 84-R-0059
CUSTOMER NUMBER: 1834

FORM APPROVED
OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY
(TYPE OR PRINT)

University Of Colorado (Hsc)
4200 E. 9th Avenue, Box A-095
Denver, CO 80262

Telephone:
(303)315-2595

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

FACILITY LOCATIONS (Sites) - See Attached Listing

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

A.	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not y	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain-relieving drugs.	D. 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, a	E. 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 in these animals and the reasons such drugs were not used must be attached to	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs			77		77
5. Cats					0
6. Guinea Pigs		143		53	196
7. Hamsters					0
8. Rabbits	25	95		56	176
9. Non-human Primate	102			8	8
0. Sheep		164		16	180
1. Pigs		61			61
2. Other Farm Animals					
3. Other Animals					

ASSURANCE STATEMENTS

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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL
(Chief Executive Officer or Legally Responsible Institutional Official)

NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL / Type or Print

This is obsolete.

DATE SIGNED

11/27/00

Annual Report Site Listing:

Customer ID and Site Address:

Cust ID: 1834

4200 E. 9th Ave.

Denver, CO 80220

County: Denver

Telephone

(303)315-2595



CATEGORY E STUDIES

1. Sheep exposed to heat stress - 16 sheep

Description of Procedures:

Pregnant sheep are placed in an environmental chamber that cycles room temperature between 40-40.5 °C for 12-14 hours/day and 35 °C for the remainder of the day from day 33-35 of gestation until day 90-115. Humidity in the chamber is 45-50%. Animals are housed in standard cages with ad lib water and food. For safety, the heating system is equipped with an alarm and automatic cut-off system.

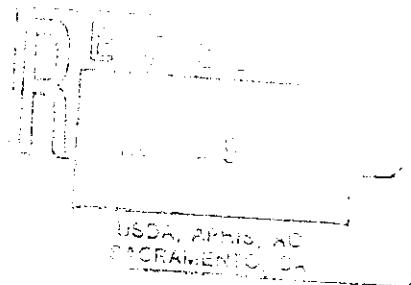
Explanation of Reasons Why Pain- or Distress- Relieving Drugs Were Not Used:

The procedure is designed to mimic a naturally occurring phenomenon, namely, pregnancy in hot climates where fetal intrauterine growth retardation is a common problem. The animals in the chamber under these conditions give no visual or clinical indication of stress. They eat and drink normally; their stool pattern is also normal; and their wool continues to grow. The procedure does alter placental development, but since altered placental development is not known to be associated with pain or distress in any species, use of any drug or other treatments would be speculative and possibly problematic for fetal development.

2. Rabbits exposed to E. coli - 56 rabbits

Description of Procedures:

This is a study of the effects of exposure to bacteria during the birth process. The goal of the protocol is to determine, after intra-cervical inoculation of pregnant rabbits with E. coli and treatment with antibiotics, the extent of tissue damage over time and whether therapeutic intervention with IL-1a reduces fetal injury. Timed pregnant rabbits at 70% gestational age are anesthetized and inoculated intra-cervically with 10^3 to 10^4 CFU E. coli and treated with ampicillin sulbactam. At 1, 3 and 5 days after inoculation, the animals are euthanized and the tissues evaluated. In another group, rabbits are given IL-1ra or saline each day (iv; ear vein) for 5 hours each day. This study requires an iv drip for 5 hours/day, therefore restraint is needed for the constant infusion. After consultation with the University Veterinarian, a wire rabbit box without neck restraint was chosen. The rabbits are gradually acclimated to this restraint over a 5 day time period. At 1, 3 and 5 days, animal are euthanized and the tissues evaluated.



Explanation of Reasons Why Pain- or Distress- Relieving Drugs Were Not Used:

It is important to understand the risk of maternal and newborn infection. It is therefore necessary to allow the experiment to continue until it can be determined whether or not the does and neonatal rabbits become infected by exposure to bacteria during the birth process. Antibiotics and IL-1ra treatment given to mothers before delivery may be an effective treatment. The difference in outcome of animals given IL-1ra and those not treated is the focus of these studies. Drugs given to relieve any possible distress would mask the degree of infection and interfere with the immunoassays to be done, therefore none are given.

3. Decapitation without prior anesthesia in guinea pigs – 53 guinea pigs

Description of Procedures:

Bradykinin affects many different tissues in the body. For effective drug development, new antagonists must be tested in a standard "classic" assay system. In this protocol, guinea pigs are euthanized by decapitation without prior anesthesia. Segments of the terminal ileum are then removed and hung in a tissue bath. Tissue responses are standardized with bradykinin, and then new potential antagonists are applied to the tissue to see if they block the action of the next standard ED₅₀ dose of bradykinin applied to the tissue.

Explanation of Reasons Why Pain- or Distress- Relieving Drugs Were Not Used:

Bradykinin is a peptide hormone involved in causing many serious kinds of inflammation, such as septic shock. The Investigators are developing new, more potent bradykinin antagonists as potential new drugs for these conditions. Isolated guinea pig ileum is the classical standard assay system for bradykinin. In order to compare results with new compounds, they must first be tested in this system. No one has described a more humane procedure that doesn't require anesthesia. Anesthesia adversely affects the response of the tissue. This has been demonstrated in the Investigators' laboratory, as well as in other laboratories. Additionally, the Investigator has tried using carbon dioxide anesthesia and found that the stress caused by this process causes bradykinin to be released in the tissues, such that an adequate baseline cannot be obtained.

4. Maternal-Infant separation in non-human primates - 2 mothers and 2 infants (M. nemestrina; for a total of 4 primates)

Description of Procedures:

When infants are 6 months old, mothers are removed from the social group for one separation period that lasts two weeks. During this time the infant is immunized with

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tetanus toxoid and blood is sampled biweekly. The infant remains with its social group during separation.

Explanation of Reasons Why Pain- or Distress- Relieving Drugs Were Not Used:

It is the effect of maternal-infant separation, which is being studied, so any psychoactive intervention to relieve the behavioral impact would negate the results of the study.

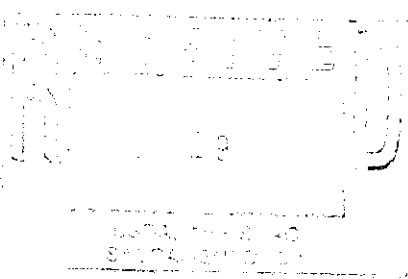
5. Parkinsonian Syndrome in non-human primates - 4 monkeys (M. radiata)

Description of Procedures:

The Parkinsonian syndrome is induced when MPTP-HCL is infused into the carotid artery to produce a stable unilateral lesion in the monkey. A dose of 0.8 mg/kg MPTP-HCL dissolved in 50 cc of sterile normal saline infused into the carotid artery over 20 minutes leads to unilateral dilation of the pupil and a weak arm and leg contralateral to the side of the lesion and sensory neglect on that side. The animals are infused at a rate of 2 ml/minute using a 30 gauge needle with the infusion in the direction opposite the normal arterial blood flow. Analgesics are given to all animals for any post-operative pain. The result of the surgical procedure is a weak arm and leg and sensory neglect on the side opposite the lesion. (Water bottles are adjusted for this disability.) Thus, once monkeys have been lesioned, abilities such as locomotion, visual fields, grasping, climbing, etc. are impaired. In addition, the lesioned animals are sensitive to sound and have an enhanced startle response. After the lesioning procedure has produced the hemiparkinsonian effect, each animal is assessed daily for any pain. L-dopa is given as needed to assist the animal in daily routine procedures. In addition, monkey's food intake is carefully assessed and animals are hand fed if necessary until they have learned to adapt to their limitations. Daily fruit, sunflower seed, pomegranate seeds, peanuts, etc., are provided to occupy their foraging behavior. The post transplant state lasts about six to eight months. As the animals become more adept with their routine movements, more foraging materials and additional toys are introduced.

Explanation of Reasons Why Pain- or Distress- Relieving Drugs Were Not Used:

To study the effective treatment of Parkinson's disease, an animal model of the disease is essential. There are currently no effective long-term treatments for this disease and therefore no way to completely eliminate the distress that may be associated with the physical limitations imposed by this disease. It is the goal of this study to test a treatment that may effectively cure the monkeys and, ultimately, human beings.



EXCEPTIONS TO REGULATIONS

The IACUC has approved an exception to the policy regarding multiple surgeries, specifically the placement of maternal and fetal catheters in sheep. The goal of the protocol is to determine how fetal glucose and plasma insulin availability regulate fetal energy and amino acid metabolism and thereby lead to changes in fetal growth. For the 2-3 week chronic studies, an initial surgery is done to catheterize the mother's femoral artery and vein. The catheters allow the Investigators to produce, by IV infusion, the necessary metabolic conditions (e.g. insulin-induced hypoglycemia; glucose induced hyperglycemia). The fetus is too small to catheterize at this time, and maintaining patency of fetal catheters for more than 2 weeks is very difficult. Thus, a second surgery to place uterine and fetal catheters is done when the fetus is big enough and close enough to final study. The fetal catheters are then used for infusions in both hyperglycemic and hypoglycemic studies. Within the last reporting period, twenty-three- sheep have had multiple surgeries for placement of maternal and fetal catheters.

The USDA Sector Supervisor has approved an exception to the policy regarding multiple survival surgeries, specifically multiple Cesarean sections in Bonnet monkeys (letter dated 6/29/94). There is currently a moratorium on the importation of Bonnet monkeys. Therefore, multiple surgeries will use the fewest possible number of a rare species. No multiple Cesarean sections were performed during this reporting period under this exception. Furthermore, no non-human primates received a Cesarean section in the past year.