DEC 06 2004

See attached form for additional information. Interagency Report Control N

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 11-R-0001 CUSTOMER NUMBER:

1960

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)

Jackson Laboratory, The 600 Main Street Bar Harbor, ME 04609

Telephone: (207) -288-6000

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 Atached Listing

REPORT OF ANIMALS L	ISED BY OR UNDER C	CONTROL OF RESEAR	CH FACILITY (Attach additions	al sheets if necessary or use APHIS Form 7023A)	
A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use or 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 an 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 wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reast such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits					
9. Non-human Primates	-				. <u> </u>
10. Sheep					
11. Pigs					
12. Other Farm Animals					
3. Other Animals					
eranyscus	78				
			·		
ASSURANCE STATEMENTS					

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rese 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 ap 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 inc brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attend

y has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects	or animal care and use.
CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer or Legally Responsible Institutional Official)	
	DATE SIGNED
_	CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer or Legally Responsible Institutional Official)

See attached form for additional information.

Interagency Report Control No

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 11-R-0002

CUSTOMER NUMBER: 71

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

Maine Medical Center 81 Research Drive Scarborough, ME 04074

Telephone: (207) -885-8182

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 Atached Listing

REPORT OF ANIMALS L	JSED BY OR UNDER C	ONTROL OF RESEAR	CH FACILITY (Attach addition:	al sheets if necessary or use APHIS Form 7023A 1	
A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use or 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 an 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 whithe use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, resion interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reast such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters					
8. Rabbits	<i>Ø</i>	4	ψ	Ø.	<u> </u>
9. Non-human Primates	,				
10. Sheep					
11. Pigs	Ø	Ø	33	Ø	33
12. Other Farm Animals					
13. Other Animals					

ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquillizing drugs, prior to, during, and following actual rese 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 ap 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 incoming 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.

	TIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL hief Executive Officer or Legally Responsible Institutional Official)	
SIGNATURE OF C.E.O. OR INSTITUTIONAL OFFICIAL	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)	DATE SIGNED
SIGNATURE OF THE OF THE STATE O		

APHIS FORM 7023

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

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UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO. 11-R-0002

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)

Maine Medical Center 81 Research Drive Scarborough, ME 04074

A. Animals Covered By The Animal Welfare Regulations 12. &/OR 13. Other (List by species)	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, analysisic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An experiment of the procedures producing pain or distress in these enimals and the reasons such drugs were not used must be effected to this report).	TOTAL NO. OF ANIMALS (Cols. C + D + E)
Peromyscus leucopus	/				
maniculatus (White-footed/deer	0 ·	18	0	0	18
Clethrionomys gappe					
(Boreal red-backed	vole 0	9	0	0	9
Tamias striatus (Eastern chipmunk)	0	17	0	0	17
Tamiasciurus hudson	icus O	2	0		
(Red squirrel)	U	2	U	0	22
Glaucomys volans (Southern flying sq	oirrel) 0	1	0	0	1
Blarina brevicauda/ (Short-tailed shrew	/ shrew			·	
other spp)	0	0 .	0	2 (please see attached)	2
					<u>-</u>
					i

- 1). Professionalty acceptable standards governing the care, treatment, and use of animals, including approriate 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

CERTIFICATION BY HEADQUARTES RESEARCH FACILITY OFFICIAL (Chief Executive Officer or Legally Responsible Institutional Official) 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		
		1-18-05		
		1		



- 1. Registration Number: 11-R-0002
- 2. Number of animals used in this study: 2
- 3. Species (common name) of animals used in this study: Short-tailed shrew / Shrew other spp.
- 4. Explain the procedure producing pain and/or distress:

Live trapping for this protocol involves the use of HB Sherman aluminum box traps. Traps are baited with a mixed ball of peanut butter and oats weighing ~ 6 grams and are placed at field sites in the afternoons (after 3pm) and checked the following morning. Traps are usually checked within 1-2 hours after sunrise, rebaited and examined around noon and then closed and reopened in late afternoon. Trapping operations performed prior to June 21 and after September 21 have the added complication of cooler temperatures. Consequently, when trapping occurs at this time, cotton batting is added to Sherman traps to insulate captured animals. The 2 (two) shrews referenced above were found deceased in the live animal traps.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results:

Shrews have high energetic costs relative to other small mammal species. This may result in higher mortality among trapped individuals despite precautions such as checking the traps early, placement of adequate insulation material (bedding), and food in the traps.

See attached form for

Interagency Report Control No.:

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 21:

UNITED STATES DEPARTMENT OF AGRICULTURE

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

additional information.

1. CERTIFICATE NUMBER: 11-R-0006

CUSTOMER NUMBER: 75

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

University Of Maine 5717 Corbett Hall-Room 420 Orono, ME 04469

Telephone: (207) -581-1498

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 Atached Listing

REPORT OF ANIMALS I	USED BY OR UNDER C	ONTROL OF RESEAR	CH FACILITY (Attach addition	nal sheets if necessary or use APHIS Form 7023A)	
A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use o 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 an 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 whithe use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, resor interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reason such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs					
5. Cats					
6. Guinea Pigs					
7. Hamsters		12			12
8. Rabbits					
9. Non-human Primates					
10. Sheep					
11. Pigs					i
12. Other Farm Animals					
horses		14			14
13. Other Animals					
seals *				69	69
gray whales *	t	2			2
		<u></u>			

ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquilizing drugs, prior to, during, and following actual reset 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 ap 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 inc brief explanation of the exceptions, as well as the species and number of animals affected.

4) The attendir	g veterinarian for this research facility has appropriate authority to ensure the provi	sion of adequate veterinary care and to oversee the adequacy of other aspects ERS RESEARCH FACILITY OFFICIAL	of animal care and use.
i		y Responsible Institutional Official)	
	I NAME 8	TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)	IDATE SIGNED
			11/22/09



UNITED STATES CEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE 1. REGISTRATION NO. 11-R-0006

FORM APPROVED OMB NO: 0579-0036

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

University of Maine 5717 Corbett Hall Orono, ME 04469 NOV 2 3 2004

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

REPORT OF ANIMALS USED BY OR	UNDER CONTROL OF	RESEARCH FACILITY	(Attach adiditional sheets if nec	essary or use this (orm.)	
A. Animals Covered By The Animal Welfare Regulations 12. &/OR 13. Other (Ust by species)	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.	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.	g. 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 enimals and the reasons such drugs were not used must be attached to this report).	TOTAL NO. OF ANIMALS (Cols. C + D + E)
		# Released	# Euthanized	# Found Dead in Trap	# Caught
Masked Shrew*		1			1
Short-tailed Shrew	7*	23		12	35
Eastern Chipmunk*		131		1	132
Red Squirrel*		18		1	19
So. Flying Squirre	*	3			3
White-footed Mouse		117			117
Red-backed Vole*		273	2	4	279
Deer Mouse*		167			167
Woodland Jumping Me	use*	1			1
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- 1). Professionally acceptable standards governing the care, treatment, and use of animals, including approriate use of aniesthetic, 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.

CERTIFICATION BY HEADQUARTES 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	

ASSURANCE STATEMENTS

University of Maine 11-R-0006

Facility Locations:

One site for the University of Maine includes the Small Animal Facility, the Psychology Lab, and the Witter Center (horse barn).

Animals listed with "*" were used in field studies and not housed in research facilities.

University of Maine Registration # 11-R-0006 Reporting of Exceptions 10/1/2003-09/30/2004

We have included this project as an exception based on our interpretation of the USDA's Reportable IACUC-Approved Exceptions (hamsters are kept in light-dark cycles, constant light, constant darkness, and brief light pulses; they are housed in commercial cages that are 5.0 inches in height, not the 5 ½ inches normally required for hamsters). If we have misinterpreted this Policy, please let us know by contacting the Office of Research and Sponsored Programs (207/581-1498).

Approved Study Allowing Exceptions to the Standards and Regulations Under the Act:

The protocol entitled, "Effects of Ethanol on the Rodent Circadian Pacemaker" was approved on 02/25/2002. Approved number of Syrian hamsters: 184 (over three year period); number used during this reporting period: 12. Annual review of this project conducted on 1/09/2004.

Lighting exception approved by the IACUC: animals are kept in either light-dark cycles, constant light, constant darkness, and brief light pulses for the circadian rhythm studies. Food is always freely available.

Cage size exception approved by the IACUC: the cages are standard commercial cages designed for rats that the investigator has used for much of his circadian rhythm research. The IACUC agreed that the lack of ½ inch space is not detrimental to the health and well being of the animals. The animals have free access to a 14-inch diameter running wheel, giving them 7 inches of headroom while in the wheel; the wheel is about 4.25 inches wide. Animals are held in this innovative housing for a period of several weeks to several months, depending on the circadian rhythm experiment. The IACUC approved the use of "innovative primary enclosures that do not precisely meet the space requirements, but do provide the hamsters with sufficient volume of space and the opportunity to express species-typical behavior."

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

1. Registration Number:

11-R-0006

2&3. Number of animals and Species (common name) used in this study:

	Total Captures	# Found Dead	# Euthanized	# Released
Masked Shrew	1	0	0	1
Short-tailed Shrew	8	0	0	8
Eastern Chipmunk	132	1	0	131
Red Squirrel	2	0	0	2
So. Flying Squirrel	2	0	0	2
White-footed Mouse	117	0	0	117
Red-backed Vole	1	0	0	1
TOTAL	263	1	0	262

Total trapnights for August Session = 2,206

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

Animals are live trapped and released at capture site. A cotton nestlet is placed in each trap to occupy their time and to provide insulation. Sufficient food is placed in each trap for animals to maintain metabolism. Apple pieces are added for a source of moisture. Each trap is covered by a cedar shingle to keep the trap dry in wet weather and to keep direct sunlight off the trap. Despite these procedures, incidental mortality was expected by the investigator. Animals found dead are reported in Column E of the report, as they presumably suffered; for this year's report, 1 Eastern chipmunk was found dead in the trap.

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

N/A. Objectives of the study are to document population changes over a long period of time, to document habitat use, and document the effects of forest harvesting on populations and habitat use. Animals are marked, sexed, aged, weighed, and sometimes measured. They are also examined for ticks and other parasites. Animals are marked (ear tags, PIT tags, marker), so that individuals can be recognized, which is an essential component of mark/recapture studies. The IACUC will review these numbers.

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

CFR _____

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

1. Registration Number:

11-R-0006

2&3. Number of animals and Species (common name) used in this study:

	Total Captures	# Found Dead	# Euthanized	# Released
Shrew species*	27	12	0	15
Red Squirrel	16	1	0	15
So. Flying Squirrel	1	0	0	1
Deer Mouse	160	0	0	160
Red-backed Vole	277	4	2	271
TOTAL	481	17	2	462

Total trapnights for field season = 2,400.

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

Animals are live trapped and released at capture site. A cotton nestlet is placed in each trap to occupy their time and to provide insulation. Sufficient food is placed in each trap for animals to maintain metabolism. Traps are covered with organic material in order to shade the trap during the day and insulate the trap at night. Despite these procedures, incidental mortality was expected by the investigator. Animals found dead are reported in Column E of the report, as they presumably suffered; for this year's report, twelve shrews, one red squirrel, and four red-backed voles were found dead in the trap.

- 5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below.)
 - N/A. Objectives of the study are to test the effects of forest habitat modification to determine if small mammal abundance in the harvested treatments and near an induced edge is influenced by different forest cutting regimes; and 2) to determine how each forest treatment influences the movement of small mammals through the landscape or across an edge and examine the abiotic and biotic factors that influence these movements. Animals are marked (with a small metal numbered ear tag), sexed, and aged. Selected mammals will be marked with nontoxic fluorescent powder to mark a trail of movement. The IACUC will review these numbers.

6.	What, if any, federal regulations require this proc	edure? Cite the agency, the code of
	Federal Regulations (CFR) title number and the s	pecific section number (e.g., APHIS
	9 CFR 113.102): N/A	
	Agency	CFR

^{*} on form 7023A, the 27 shrews are listed under short-tailed shrews, as the investigator did not identify different shrew species.

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

1. Registration Number: 11-R-0006

2. Number of animals: 69 -- 67 pups, 2 adults

3. Species (common name) of animals used in the study: Harbor Seal

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

Neonate pups are captured using a small boat and a 1-m diameter hoop net attached to a 2-m aluminum pole. Pups are spotted in the water with their mothers. Pup/mother pairs typically swim in straight lines; therefore, the investigator can predict when they will surface. Capture typically occurs ~5 minutes after initial sighting. Once captured, an attempt will be made to capture the mother, so as to keep them together. If this is not possible, the research crew will make pup calls to keep the mother in the vicinity. Once aboard, pups will be placed in a nylon mesh bag and weighed using a suspended spring scale. Sex will be noted and standard length and axillary girth measurements will be obtained using a 1-m flexible tape measure. Upon initial capture, pups will be marked with a uniquely numbered flipper tag placed in the interdigital webbing of one hind flipper. A numbered pyramid head tag and a VHF radio (Lotek Wireless, Inc.: RMMT4) will be glued to the pelage atop the head with 5-minute apoxy or cyanoacrylate adhesive and accelerator (Superbonder 422 Instant Adhesive and Tak Pak⁷ 7452 Accelerator, Loctite). The VHF and pyramid head tags will be lost when the individual molts. Heart rates on 44 pups were recorded using a commercially available sport heart rate monitor (Polar S series) that consisted of a watch to record heart rate and a strap with sensor that went around the chest of the animal. The investigator put the strap around the pup's chest and recorded heart rate for about 30 minutes. He also recorded apneas with a digital video camera.

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

Investigator follows handling procedures described in Marine Mammals Ashore: A Field Guide for Strandings, 1993, Geraci and Lounsbury. Geraci and Lounsbury recommend physical restraint rather than chemical immobilization. They recommend not drugging seals, but monitoring for hyperthermia. Investigators bathe the seals with water periodically to minimize risk of hyperthermia. By not drugging the seals, they can be released immediately after handling, reducing the length of stress. This activity is conducted under a permit issued by the National Marine Fisheries Service under the Marine Mammal

Protection Act. Personnel from the National Marine Fisheries Service, USDC, SUNY Potsdam, and U.Mass-Boston are also involved in this study.

6.	What, if any, federal regulations require the Federal Regulations (CFR) title number a 9 CFR 113.102):	- -	
	N/A		
	Agency	CFR	

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 21:

See attached form for additional information.

Interagency Report Control No.:

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. CERTIFICATE NUMBER: 11-R-0012

CUSTOMER NUMBER: 68

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

Bushover'S Biologicals, Inc. Cross Hill Road

992 Cross Hill Road Vassalboro, ME 04989

Telephone: (207) -923-3374

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 Atached Listing

A. Animals Covered By The Animal Welfare Regulations	B. Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use o 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 an 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 wh the use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, res or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reast such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs	N/A	N/A	N/A	N/A	N/A
5. Cats	N/A	N/A	N/A	N/A	N/A
6. Guinea Pigs	N/A	N/A	N/A	N/A	N/A
7. Hamsters	N/A	N/A	N/A	N/A	N/A
8. Rabbits	66	212	0	0	212
9. Non-human Primates	N/A	N/A	N/A	N/A	N/A
10. Sheep	N/A	N/A	N/A	N/A	N/A
11. Pigs	N/A	N/A	N/A	N/A	N/A
12. Other Farm Animals	40	77	N/A (O)	_{N/A} (0)	77
Llama	0	11	N/A (O)	_{N/A} (O)	1
13. Other Animals	N/A	N/A	N/A N/A	N/A	N/A
					<u> </u>

ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rese 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 ap 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 incident 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.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL (Chief Executive Officer or Legally Responsible Institutional Official)						
CITIES OF A CORDINATIONAL OFFICIAL ALTIES OF A CORDINATIONAL OFFICIAL OFFICIAL ALTIES OF A CORDINATIONAL OFFICIAL OFFICIAL ALTIES OF A CORDINATIONAL OFFICIAL OFFI	NAME & TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Turns or Print)	DATE SIGNED				

(AUG 91)

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. 11-R-0014 CUSTOMER NO.

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

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

COLBY COLLEGE AREY BUILDING COLBY COLLEGE WATERVILLE ME 049

WATERVILLE, ME 04901
testing, teaching, or experimentation, or held for these purposes. Attach additional
TIONS(sites)

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 tranquillzing 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					L
7. Hamsters					_
8. Rabbits					
9. Non-Human Primates					
10. Sheep					
11. Pigs					
12. Other Farm Animals					
13. Other Animals					
	<u> </u>				
					1

- 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 the 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.

(Chief Executive	Y HEADQUARTERS RESEARCH FACILITY OFFICIAL Officer or Legally Responsible Institutional official) bove 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)	11/30/2004

See attached form for additional information.

Interagency Report Control No.	\mathcal{N}
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UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE 1. CERTIFICATE NUMBER: 11-R-0015

CUSTOMER NUMBER: 78

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

Diamed, Inc.

2 Inland Farm Drive Rand Windham, ME 04062

OCT 91 2004

Telephone: (207) -892-7521

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

FACILITY LOCATIONS (Sites) - See Atached Listing

REPORT OF ANIMALS	USED BY OR UNDER (ONTROL OF RESEAR	CH FACILITY (Attach additions	il sheets if necessary or use APHIS Form 7023A \	
Animais Covered By The Animai Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not ye used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use or pain-relieving drugs.	D. Number of animals upon which experiments, a teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals an 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 whithe use of appropriate anesthetic, analgesic, or tranquiliz 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 a the reasons such drugs were not used must be attached this report.).	OF ANIMALS (COLUMNS
Dogs					
Cats					
Guinea Pigs					
Hamsters		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>			
Rabbits					
Non-human Primates					
Sheep		-			
Pigs					
Other Farm Animals					
Gout's Other Animals	0	0	0	0	0
SCIPANCE CYATCHEN					
teaching, testing, sur	table standards governing the gery, or experimentation we	ne care, treatment, and use re followed by this research atives to painful procedures	facility.	of aneatetic, analgesic, and tranquilizing drugs, prior to, during, a	nd following actual res
Institutional Animal C	are and Use Committee (iA	ulations under the Act, and h CUC). A summary of all su especies and number of ani	ch exceptions is attached to this ar	tandards and regulations be specified and explained by the princi nual report. In addition to identifying the IACUC-approved excep	ipal investigator and ap ptions, this summary in
The attending vetering	erien for this research facill	CERTIFICATION B	to ensure the provision of adequate vi Y HEADQUARTERS RESEARC Officer or Legally Responsible In		nimelicant and use.
		which is obsolet	e.)		DATE SIGNED
(AUG 91)					

See attached form for additional information.

Interagency Report Control No.:

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE 1. CERTIFICATE NUMBER: 11-R-0016

CUSTOMER NUMBER: 103

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY (TYPE OR PRINT)

Immucell Corporation 56 Evergreen Drive Portland, ME 04103

NOV 0 1 2004

Telephone: (207) -878-2770

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 Atached Listing

REPORT OF ANIMALS	USE	D BY OR UNDER	CONT	ROL OF RESEAR	CH F	ACILITY (Attach addition	al she	ets if necessary or use APHIS Form 7023A 1	
A. Animals Covered By The Animal Welfare Regulations	В.	Number of animal being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yeused for such purposes.	C.	Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use or 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 an 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 whithe use of appropriate enesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, resor interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reast such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS C + D + E)
4. Dogs									
5. Cats									
6. Guinea Pigs				4					4
7. Hamsters									•
8. Rabbits									
9. Non-human Primates									
10. Sheep									L.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
11. Pigs									
12. Other Farm Animals							-		<u> </u>
CALVES	<u> </u>			39			10	UN SEE ATTACHMENT FOR EXPLANATION	55
13. Other Animale									
cows				225					ઢેરુડ
FORUS				184					184
			ŀ						

ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anestetic, analgesic, and tranquilizing drugs, prior to, during, and following actual rese teaching, testing, surgery, or experimentation were followed by this research facility.
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CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL Executive Officer or Legally Responsible Institutional Official)	
NAME & TITLE OF CEO OR INSTITUTIONAL OFFICIAL (Time or Origin)	DATE SIGNED



Description of calves used under "Category E" from Form 7023 of USDA Annual Report:

A study using 16 calves was conducted where pain or distress was induced and the use of appropriate anesthetic, analgesic or tranquilizer drugs were not used because they may have affected the procedures, results or interpretation of the study. Specifically, the research was to evaluate the ability of antibodies directed against newly discovered rotavirus antigens to protect neonatal calves against diarrhea, caused by bovine rotavirus, one of the leading causes of young calf morbidity and mortality. This was a pilot study to demonstrate 'proof of concept' of a potential product for the prevention of calf diarrhea caused by rotavirus.

The protocol for the study was approved by the ImmuCell Institutional Animal Care and Use Committee, NY State Veterinarian and the USDA Animal, Plant Health Inspection Service (APHIC). The trial was conducted under the supervision of (b)(6), (b)(7)(C)

The study was conducted under "Category D" (ImmuCell Designation) where there was potential for chronic pain and discomfort with no anesthesia, or analgesic drugs. The study involved a 'challenge-protection' study in calves whereby they were challenged with a virulent strain of bovine rotavirus in order to induce transient, but severe diarrhea. The study intended to model rotaviral disease as it occurs in the natural setting. Animals receiving this challenge were either treated with one of two experimental antibody products, or a placebo treatment, and were evaluated for 5 days for clinical signs and laboratory parameters. Generally, newborn calves exhibit some naturally occurring diarrhea in the first few days of life due to either nutritional factors or microbial insult. It is unclear how much 'pain' the calf would experience during the clinical manifestation of the disease. It was likely that the calf would experience some pain as a result of the rotavirus challenge. Clinical dehydration was the measurement parameter of the study and if severe in the opinion of the supervising veterinarian, rehydration therapy would have been instituted. Specific analgesia or anesthesia procedures may have influenced the outcome of the clinical measurements, and thus were avoided. If the clinical condition of each calf deteriorated substantially, the supervising veterinarian was provided with the option of terminating the observation period for the calf and euthanizing the animal. This type of study is the most reliable method to determine the preliminary efficacy of such a product.

See attached form for additional information. Interagency Report Cont

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE 1. CERTIFICATE NUMBER: 11-R-0024 CUSTOMER NUMBER: 20676

FORM APPROVED OMB NO. 0579-0036

ANNUAL REPORT OF RESEARCH FACILITY

(TYPE OR PRINT)

ILC.

Capricorn Products Llc

12 RICE STREET 301 U.S. Route 1

Scarborough, ME 04074 PORTLAND, ME 04103

Telephone: (207)-846-6269 - 207-321-0014

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)

STRATECIO BIOSOLUTIONS

FACILITY LOCATIONS (Sites) - See Atached Listing

52 ANDERSON RD LILLINGEN MIC 04062

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 animal being bred, conditioned, or held for use in teaching, testing, experiments. research, or surgery but not ye used for such purposes.	C. Number of animats upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use o 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 an 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 whithe use of appropriate anesthetic, analgesic, or tranquiliz drugs would have adversely affected the procedures, resor interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reason such drugs were not used must be attached to this report	F. TOTAL NUMBER OF ANIMALS (COLUMNS 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					
GOATS	4	97	9		106
13. Other Animals					

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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)	DATE SIGNED			
which is obsole	ete.)				