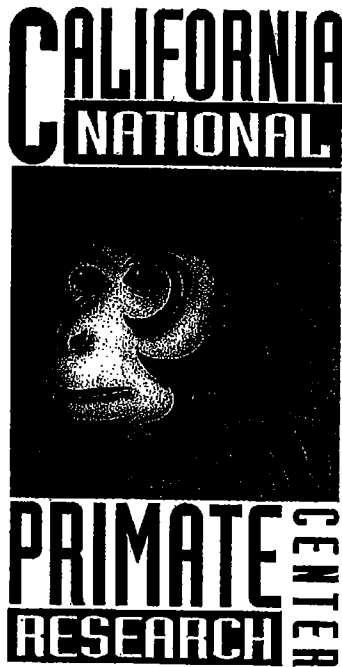


**CALIFORNIA NATIONAL  
PRIMATE RESEARCH CENTER**



**ANNUAL PROGRESS REPORT**

**5P51RR000169-45**

**05/01/2006-04/30/2007**

withheld

**Office of the Vice Chancellor for Research  
University of California, Davis  
Davis, CA 95616**

APARR 06 2007

NATIONAL INSTITUTES OF HEALTH  
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL PRIMATE RESEARCH CENTERS (NPRC) PROGRAM  
DIVISION OF COMPARATIVE MEDICINE  
NATIONAL CENTER FOR RESEARCH RESOURCES

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2P51RR000169-45  
CALIFORNIA NATIONAL PRIMATE RESEARCH CENTER

Final

UNIVERSITY OF CALIFORNIA - DAVIS

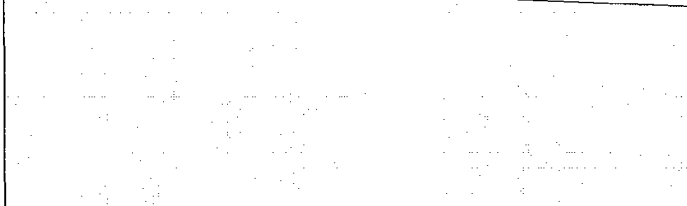
ANNUAL PROGRESS REPORT

Reporting From: 05/01/2006

Reporting To: 04/30/2007

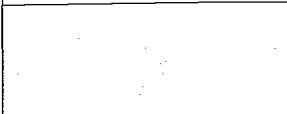
40.300% AIDS Related

withheld



3/29/07

CALIFORNIA NATIONAL PRIMATE  
RESEARCH CENTER



## TABLE OF CONTENTS

|   |    |
|---|----|
| PERSONNEL ROSTER  | 2  |
| SUBPROJECT DESCRIPTIONS   | 5  |
| NPRC MANAGEMENT SUBPROJECTS   |    |
| MODERNIZE & IMPROV - AID  |    |
| withheld  |    |
| - AIDS RESEARCH FACILITY IMPROVEMENT GRANT (0258)                                     | 6  |
| - PURCHASE AND INSTALLATION OF BIO-ISOLATION UNITS (0259)                             | 7  |
| - G20 MODULAR ANIMAL HOUSING UNITS FOR PRIMATE NURSERY (0260)                         | 8  |
| - EXTRAMURAL RESEARCH FACILITIES CONSTRUCTION II (0344)                               | 9  |
| MODERNIZE & IMPROVEMENT   |    |
| withheld  |    |
| - EXTRAMURAL RESEARCH FACILITIES CONSTRUCTION (0290)                                  | 10 |
| PRIMATE SERVICES  |    |
| withheld  |    |
| - PRODUCTION OF PEDIGREED SPF RHESUS MACAQUES (0168)                                  | 11 |
| - GENETICALLY DEFINED HERPES/RETROVIRUS SPF MACAQUES (0275)                           | 12 |
| RESEARCH SUBPROJECTS  |    |
| AFFILIATE RES PROGRAM   |    |
| withheld  |    |
| - SYNERGY BETWEEN SALMONELLA AND SIV INFECTION (0409)                                 | 14 |
| withheld  |    |
| - HEIRARCHICAL PROCESSING IN THE MOTION SYSTEM (0272)                                 | 15 |
| - THE ROLE OF THE PULVINAR IN VISUAL ATTENTION (0375)                                 | 16 |
| withheld  |    |
| - METABOLIC ACTIVATION OF AIR TOXICS IN ASTHMATIC MONKEYS (0302)                      | 17 |
| withheld  |    |
| - DEVELOPMENT AND REORGANIZATION OF PRENATAL VISUAL SYSTEM (0405)                     | 18 |
| - PRENATAL DEVELOPMENT OF VISUAL SYSTEM (0410)  | 19 |
| withheld  |    |
| - INTESTINAL CYTOKINE & T CELL HOMEOSTASIS IN SIV INFECTION (0387)                    | 20 |
| withheld  |    |
| - LINKING FUNCTIONAL IMAGING, NUBROPHYSIOLOGY & ANATOMY (0377)                        | 21 |
| withheld  |    |
| - FLOW EFFECTS OF ENDOTHELIAL/TROPHOBLAST INTERACTION (0279)                          | 22 |
| withheld  |    |
| - IN VIVO LEUKOCYTE TRAFFICKING IN THE SIMIAN MODEL FOR AIDS (0268)                   | 23 |
| withheld  |    |
| - GRAVITY AND LIGHT AS COUNTERMEASURES FOR CIRCADIAN DYSF. IN ALTERED GRAVITY (0187)  | 24 |
| withheld  |    |
| - PHARMACOKINETIC STUDIES OF SELECT MILLENNIUM COMPOUNDS IN CYNOMOLGUS MONKEYS (0284) | 25 |
| withheld  |    |
| - SCREEN FOR FRAGILE X MUTATIONS IN PRIMATES (0249)                                   | 26 |
| withheld  |    |
| - EFFECT OF CHROMIUM ON PROGRESSION OF INSULIN RESISTANCE (0348)                      | 27 |

## RESEARCH SUBPROJECTS

AFFILIATE RES PROGRAM

|  |    |
|--|----|
| - EFFECTS OF FISH OIL AND ALPHA-LIPOIC ACID ON THE PROGR. OF INSUL. RESIST. (0404) | 28 |
| withheld   |    |
| - STRUCTURAL BASIS OF AMBLYOPIA & STRABISMUS (0083)                                | 29 |
| withheld   |    |
| - XENOTRANSPLANTATION OF PORCINE ISLETS IN DIABETIC RHESUS MONKEYS (0361)          | 30 |
| withheld   |    |
| - NONHUMAN PRIMATE MODELS FOR HUMAN XENOTRANSPLANTATION (0355)                     | 31 |
| withheld   |    |
| - SOMATOSENSORY CORTEX & THALAMUS (0310)   | 32 |
| withheld   |    |
| - BRAIN AND BEHAVIOR IN EARLY IRON DEFICIENCY (0381)                               | 33 |
| withheld   |    |
| - NIEHS CENTER FOR HEALTH EFFECTS OF AGROCHEMICALS (0338)                          | 34 |
| withheld   |    |
| - FUNDAMENTAL CRYOBIOLOGY OF MACAQUE SPERMATOZOA (0225)                            | 35 |
| withheld   |    |
| - A MONKEY MODEL FOR ANTI-CYTOMEGALOVIRUS THERAPY (0379)                           | 36 |
| withheld   |    |
| - FUNCTION OF MACAQUE SPERM PROTEINS IN FERTILIZATION (0018)                       | 37 |
| - CENTER FOR DEVELOPMENT OF ANTI-SPERM CONTRACEPTIVES (0380)                       | 38 |
| withheld   |    |
| - AUDITORY-VISUAL INTERACTIONS IN PERCEPTION (0296)                                | 39 |
| withheld   |    |
| - TRANSMISSION OF H. PYLORI IN THE RHESUS MONKEY (0193)                            | 40 |
| - GENE EXPRESSION DURING H. PYLORI-HOST INTERACTION (0340)                         | 41 |
| withheld   |    |
| - FREQUENCY INTEGRATION IN AUDITORY CORTEX (0161)                                  | 42 |
| withheld   |    |
| - FUNCTIONAL PROPERTIES OF NEURONAL CIRCUITS FOR VISION (0159)                     | 43 |
| withheld   |    |
| - NON-HUMAN PRIMATES FOR LENTIVIRUS LATENCY AND RESERVOIRS (0378)                  | 44 |
| withheld   |    |
| - A SAFER AND MORE EFFICACIOUS SMALLPOX VACCINE (0376)                             | 45 |

BRAIN, MIND, & BEHAVIOR

|   |    |
|---|----|
| withheld  |    |
| - ANATOMY OF PRIMATE AMYGDALOID COMPLEX (0001)                                    | 46 |
| - NEUROBIOLOGY OF PRIMATE SOCIAL BEHAVIOR (0002)                                  | 47 |
| - FUNCTIONAL ORGANIZATION OF THE HIPPOCAMPAL FORMATION (0003)                     | 48 |
| withheld  |    |
| - SIMIAN AIDS SOCIAL STRESS, ENDOCRINE, & IMMUNE FUNCTION (0004)                  | 49 |
| - BIOBEHAVIORAL CHARACTERIZATION OF INFANT RHESUS MONKEYS (0136)                  | 50 |
| withheld  |    |
| - SOMATOSENSORY CORTEX IN THE EXPRESSION OF AFFECTIVE SOCIAL RELATIONSHIPS (0301) | 51 |

PRIMATE SERVICES

**RESEARCH SUBPROJECTS****PRIMATE SERVICES**

withheld

- GENETIC MANAGEMENT OF ANIMAL COLONIES (0392) 52

**REPRODUCTIVE SCIENCES**

withheld

- CENTER FOR FETAL MONKEY GENE TRANSFER FOR HEART, LUNG, AND BLOOD DISEASES (0206) 53
- ANNUAL GENE THERAPY SYMPOSIUM FOR HEART, LUNG, AND BLOOD DISEASES (0232) 54
- RHESUS MESENCHYMAL STEM CELLS FOR FETAL GENE DELIVERY (0314) 55
- CENTER OF EXCELLENCE IN TRANSLATIONAL HUMAN STEM CELL RESEARCH (0395) 56

withheld

- PROTOCOLS FOR FREEZING AND MATURING MONKEY OOCYTES (0132) 57
- EFFECTS OF TOBACCO SMOKE ON PRIMATE SPERM FUNCTION AND GENETICS (0364) 58

**RESEARCH CORES**

withheld

- BEHAVIOR ASSESSMENT CORE (0396) 59

withheld

- COMPUTATIONAL IMAGING CORE (0223) 60

withheld

- ENDOCRINE CORE SERVICES (0221) 61
- ADAPTING MICROTITERPLATE ASSAYS TO AN AUTOMATED PLATFORM (0341) 62

withheld

- PATHOGEN DETECTION LAB CORE/SIMIAN RETROVIRUS LABORATORY (0222) 63

withheld

- IMMUNOLOGY CORE SERVICES (0286) 64

withheld

- INHALATION EXPOSURE FACILITY (0226) 66

**RESPIRATORY DISEASES**

withheld

- RHESUS ASTHMA MODEL MICROARRAY EXPERIMENTS (0359) 67

withheld

- GENETIC RESOURCES FOR NON-HUMAN PRIMATES (0383) 68

withheld

- EARLY IMMUNE EVENTS IN CHILDHOOD ASTHMA (0412) 69

withheld

- ENVIRONMENTAL INFLUENCES ON THE PERINATAL LUNG DEVELOPMENT (0027) 70

withheld

- AFFERENT NERVE ACTIV. IN ISOL. TRACHEA OF INF. MONKEYS EXP. TO OZONE & ALLERGEN (0123) 71
- IMMUNE RESP IN NEONATAL HOUSE DUST MITE-SENSITIZED MONKEYS FOL. EXP. TO OZONE (0124) 72
- POSTNATAL REMODELING IN DIST. AIRWAY OF INFANT MONKEYS EXP. TO OZONE & ALLERGEN (0183) 73
- GLUTATHIONE LEVELS IN AIRWAYS OF INFANT MONKEYS EXP. TO O3 WITH & WITHOUT HDMA (0184) 74

**VIROLOGY & IMMUNOLOGY**

withheld

- ROLE OF TYPE I INTERFERONS IN SIV PATHOGENESIS (0401) 75

## RESEARCH SUBPROJECTS

## VIROLOGY &amp; IMMUNOLOGY

|   |    |
|---|----|
| withheld  |    |
| - A NON-HUMAN PRIMATE MODEL FOR CYTOMEGALOVIRUS VACCINES (0218)                           | 76 |
| - EVALUATION OF PROTECTIVE CMV VACCINES IN RHESUS MACAQUES (0406)                         | 77 |
| withheld  |    |
| - MULTIPLEX IMMUNOASSAY FOR ANTIBODIES IN MACAQUES (0343)                                 | 78 |
| - NONHUMAN PRIMATE MODEL FOR TB VACCINES (0407)   | 79 |
| - IMMUNOASSAYS FOR DETECTION OF MYCOBACTERIUM TUBERCULOSIS (0408)                         | 80 |
| withheld  |    |
| - REPLICATING VIRAL VECTOR AS NEONATAL VACCINE TO PREVENT ORAL SIV TRANSMISSION (0346)    | 81 |
| - VACCINE-ELICITED ANTIBODY DEPENDENT CELL. CYTOTOXICITY IN PROTECTION AGAINST SIV (0363) | 82 |
| withheld  |    |
| - MEASLES VACCINE DEVELOPMENT IN RHESUS MONKEY (0055)                                     | 83 |
| - MAINTENANCE OF IMMUNOLOGIC MEMORY TO MEASLES VACCINE (0199)                             | 84 |
| withheld  |    |
| - SIV TARGET CELLS IN VAGINAL TRANSMISSION (0060)   | 85 |
| - PROTECTIVE MECHANISMS WITH ATTENUATED LENTIVIRAL VACCINES (0162)                        | 86 |
| - ANTI-IFNA ANTIBODY ON VIRUS REPLICATION IN CHRONIC CMV & SIV CO-INFECTED RHESUS (0329)  | 87 |
| - HIV-1 VACCINES DESIGNED TO INDUCE MUCOSAL IMMUNITY (0334)                               | 88 |
| - EFFECT OF MICROBICIDES ON MUCOSAL HIV TRANSMISSION (0335)                               | 89 |
| - MUCOSAL AND SYSTEMIC ANTI-HIV VACCINES MACAQUES (0342)                                  | 90 |

## PILOT SUBPROJECTS

## PILOT RES PROGRAM

|   |    |
|---|----|
| withheld  |    |
| - ANGIOGENESIS AND INFLAMMATION IN RHESUS MONKEYS (0397)                                  | 92 |
| withheld  |    |
| - AUGMENT. OF DEND. CELL VACCINE EFFIC. BY BLOCKING ENDOGEN. INTERLEUKIN 10 ACT. (0365)   | 93 |
| withheld  |    |
| - PATHOGENICITY OF A NEWLY IDENTIFIED HUMAN PARVOVIRUS (0411)                             | 94 |
| withheld  |    |
| - IL-2 AND G-CSF FOR MAINTEN. AND EXPANS. OF REG. T-CELLS IN NEONATAL RHES. MACAQ. (0399) | 94 |
| withheld  |    |
| - BEHAVIORAL ASSESSMENT OF NURSERY-REARING STRATEGIES FOR RHESUS MACAQUES (0400)          | 94 |
| withheld  |    |
| - HOST RESP. TO VIRAL PATHOGENS UTIL. HIGH CONTENT MICROSPHERE ARRAY TECHN. (0367)        | 94 |

## COLLABORATIVE SUBPROJECTS

## BRAIN, MIND, &amp; BEHAVIOR

|   |    |
|---|----|
| withheld  |    |
| - NEUROBEHAVIORAL RELATIONS IN SENESCENT HIPPOCAMPUS (0295) | 94 |
| withheld  |    |
| - GENE THERAPY FOR ALZHEIMERS DISEASE (0008)                | 94 |
| withheld  |    |

**COLLABORATIVE SUBPROJECTS****BRAIN, MIND, & BEHAVIOR**

- ESTROGEN & AGING BRAIN (0006) 94
- withheld
- COGNITIVE FUNCTION IN THE AGED MONKEY (0185) 94
- withheld
- GENE THERAPY FOR TREATMENT OF SPINAL CORD INJURY (0009) 94

**REPRODUCTIVE SCIENCES**

- withheld
- MECHANISMS OF LUTEINIZATION IN THE PRIMATE OVARY (0318) 94
- withheld
- FETAL ANDROGEN EXCESS AND POLYCYSTIC OVARIAN SYNDROME (0230) 94
- withheld
- EFFECT OF BROMODICHLOROMETHANE ON PLACENTAL DEVELOPMENT (0293) 94
- EFFECT OF PHTHALATES ON THE PRIMATE PREGNANCY (0398) 94
- withheld
- NON-VIRAL DNA AND MRNA GENE DELIVERY TO THE RHESUS CNS FOR NEUROPROTECTION (0237) 94
- withheld
- FETAL MONKEY MODEL FOR GENE THERAPY FOR SICKLE CELL DISEASE (0128) 94
- withheld
- USE OF GENE THERAPY TO INDUCE TRANSPLANT TOLERANCE (0231) 94
- withheld
- LENTIVIRAL VECTOR FOR GENE TRANSFER TO HEMATOPOIETIC STEM CELLS (0235) 94
- withheld
- THE PRIMATE EMBRYO GENE EXPRESSION RESOURCE (0394) 94
- withheld
- A NONHUMAN PRIMATE MODEL OF OBSTRUCTIVE RENAL DYSPLASIA (0023) 94
- withheld
- ETHANOL EFFECTS ON PRIMATE EMBRYONIC CELLS (0332) 94

**RESPIRATORY DISEASES**

- withheld
- MECHANISMS OF HEMEOSTASIS AND REPAIR IN THE LUNG (0319) 94
- withheld
- IMMUNOSTIMULATORY DNA PRIMING OF LUNG INNATE IMMUNITY (0317) 94
- withheld
- PATHOBIO OF HIV(SIV)-INDUCED ANGIOPROLIFERATIVE PUL (0391) 94
- withheld
- MECHANISM OF SPECIES DEPENDENT ENVIRONMENTAL LUNG INJURY (0389) 94

**VIROLOGY & IMMUNOLOGY**

- withheld
- MODULATING LYMPHOTOXINS IN PRIMATES FOR VIRAL DEFENSES (0386) 94
- withheld
- MEASLES VIRUSES WITH ADDED VACCINE SPECIFICITIES (0384) 94
- IMMUNOSUPPRESSION BY MEASLES & CANINE DISTEMPER VIRUSES (0385) 94
- withheld
- PATHOGENICITY OF SIVMAC239 VARIANTS IN NEONATAL MACAQUES (0220) 94

## COLLABORATIVE SUBPROJECTS

## VIROLOGY &amp; IMMUNOLOGY

|  |    |
|--|----|
| withheld   |    |
| - BARTONELLA MODEL FOR AN AIDS OPPORTUNISTIC PATHOGEN (0256)               | 94 |
| withheld   |    |
| - PROTECTION AGAINST RESPIRATORY PATHOGENS WITH OLIGONUCLEOTIDE CPG (0330) | 94 |
| - PULMONARY IMMUNE ACTIVATION FOR BIOTERROR DEFENSE (0347)                 | 94 |
| withheld   |    |
| - BASIC AND CLINICAL STUDIES OF CPG ODN IN HIV DISEASE (0388)              | 94 |
| withheld   |    |
| - ROLE OF REGULATORY T CELLS IN SIV PATHOGENESIS (0403)                    | 94 |
| withheld   |    |
| - HEMIN RECEPTOR GENE FAMILY OF BARTONELLA QUINTANA (0382)                 | 94 |
| withheld   |    |
| - NORTH-CENTRAL CALIFORNIA-CENTER FOR AIDS RESEARCH (0322)                 | 94 |
| withheld   |    |
| - HIGHLY ATTENUATED SIV VIF DNA VACCINES (0262)                            | 94 |
| withheld   |    |
| - LONG-TERM SAFETY AND EFFICACY OF PMPA (TENOFVIR) (0069)                  | 94 |
| - ROLE OF CD8+ CELLS ON SIVMAC1A11 REPLICATION (0370)                      | 94 |
| withheld   |    |
| - MOLECULAR MECHANISMS OF HIV POST-INTEGRATION LATENCY (0390)              | 94 |
| withheld   |    |
| - VACCINE EFFICACY OF VSV-SIV/MVA-SIV IN INFANT MACAQUES (0402)            | 94 |

|  |     |
|--|-----|
| RESEARCH SERVICES                      | 135 |
| PUBLISHED: ABSTRACTS, BOOKS & JOURNALS | 136 |
| IN PRESS: ABSTRACTS, BOOKS & JOURNALS  | 142 |
| SOURCE OF INVESTIGATORS' SUPPORT       | 143 |
| RESOURCE SUMMARY: SUBPROJECTS          | 149 |
| RESOURCE SUMMARY: ADMINISTRATIVE       | 150 |
| RESOURCE SUMMARY: PUBLICATION/SUPPORT  | 151 |
| COLONY STATISTICS                      | 152 |
| RESEARCH HIGHLIGHTS                    | 154 |
| ADMINISTRATIVE INFORMATION             | 167 |

# PERSONNEL ROSTER

## Core Doctoral Scientists

| Name, Degree | Department | Non-Host Institution: State, Country |
|--------------|------------|--------------------------------------|
| withheld     |            |                                      |

## Affiliated

| Name, Degree | Department | Non-Host Institution: State, Country  |
|--------------|------------|---|
| withheld     |            | Proprietary Info<br>USA<br>UNIVERSITY OF ARIZONA: AZ, USA<br><br>Proprietary Info<br>UNIVERSITY OF MARYLAND: MD,<br>USA |

**Affiliated**

| Name, Degree | Department | Non-Host Institution: State, Country  |
|--------------|------------|---|
| withheld     |            | Proprietary Info<br>AND UC DAVIS: CA, USA   |
|              |            | UC SAN FRANCISCO: CA, USA<br>UC SAN FRANCISCO: CA, USA                            |
|              |            | Proprietary Info  |
|              |            | NCI: MD, USA<br>UNIVERSITY OF COLORADO: CO, USA                                   |
|              |            | Proprietary Info  |
|              |            | UC SAN FRANCISCO: CA, USA   |
|              |            | Proprietary Info<br>UC SAN FRANCISCO: CA, USA<br>UC SAN FRANCISCO: CA, USA        |
|              |            | Proprietary Info<br>UC SAN FRANCISCO: CA, USA                                     |
|              |            | Proprietary Info  |
|              |            | Proprietary Info  |
|              |            | Proprietary Info  |
|              |            | TEMPLE UNIVERSITY, SCHOOL OF MEDICINE: PA, USA<br>UNIVERSITY OF MICHIGAN: MI, USA |
|              |            | Proprietary Info  |

**Affiliated**

| Name, Degree          | Department | Non-Host Institution: State, Country   |
|-----------------------|------------|--|
| withheld              |            | UC SAN FRANCISCO: CA, USA              |
|                       |            | UNIVERSITY OF MONTANA: MT, USA         |
|                       |            | Proprietary Info                       |
|                       |            | UNIVERSITY OF ALABAMA: AL, USA         |
|                       |            | Proprietary Info                       |
|                       |            | NATIONAL INSTITUTES OF HEALTH: MD, USA |
| UC SAN DIEGO: CA, USA |            |  |
| Proprietary Info      |            |  |
| Proprietary Info      |            |  |

## **SUBPROJECT DESCRIPTIONS**

### **NPRC MANAGEMENT SUBPROJECTS**

**AIDS RESEARCH FACILITY IMPROVEMENT GRANT (0258)**

NPRC UNIT: MODERNIZE &amp; IMPROV - AID

%NPRC \$: AIDS RELATED RESEARCH

| INVESTIGATOR | DEGREES | STAFF | DEPARTMENT | NON-HOST INSTITUTION: STATE, |
|--------------|---------|-------|------------|------------------------------|
|              |         | CODE  |            | COUNTRY                      |

withheld

**SUBPROJECT DESCRIPTION**

Objective: The CNPRC has expanded animal facilities to support AIDS research. The expansion of projects and the increase of animals for these studies have resulted in a shortage of basic infrastructure to support AIDS investigators.

The proposed improvements can be classified into two categories: 1) short and long term storage of animal tissue and biological samples utilized directly and indirectly to support AIDS related research and 2) improvements and replacement of existing resources and equipment utilized in support of AIDS related research.

This proposal seeks to purchase equipment and perform renovations to improve the CNPRC as a resource for AIDS related biomedical research as follows:

1. Increasing -80°C freezer capacity
2. Improving animal housing with the installation of environmental monitoring sensors
3. Improving necropsy facility by replacing the tables and fume hood
4. Improving clinical laboratory support by replacing the blood cell counter.

**SUBPROJECT PROGRESS**

The project provides space for 52 each, -80° Revco freezers. This project was completed on June 1st, 2006.

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**PURCHASE AND INSTALLATION OF BIO-ISOLATION UNITS (0259)**

---

**NPRC UNIT:** MODERNIZE & IMPROV - AID

**%NPRC S:** AIDS RELATED RESEARCH

---

| <b>INVESTIGATOR</b> | <b>DEGREES</b> | <b>STAFF</b> | <b>DEPARTMENT</b> | <b>NON-HOST INSTITUTION: STATE,</b> |
|---------------------|----------------|--------------|-------------------|-------------------------------------|
|                     |                | <b>CODE</b>  |                   | <b>COUNTRY</b>                      |

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|          |  |  |  |  |
|----------|--|--|--|--|
| withheld |  |  |  |  |
|----------|--|--|--|--|

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**SUBPROJECT DESCRIPTION**

Objective: The research program at the CNPRC is expanding in all areas and the demands for animals and animal housing have increased concurrently.

While the CNPRC has taken steps to increase available indoor space, the current limitations associated with separation of animals inoculated with different biological agents creates underutilization of current cage capacity in the infectious indoor housing areas. This proposal requests funds to purchase 25 bio-isolation cages.

---

**SUBPROJECT PROGRESS**

This project was completed.

**G20 MODULAR ANIMAL HOUSING UNITS FOR PRIMATE NURSERY (0260)**

**NPRC UNIT:** MODERNIZE & IMPROV - AID

**%NPRC S:** AIDS RELATED RESEARCH

| INVESTIGATOR | DEGREES | STAFF | DEPARTMENT | NON-HOST INSTITUTION: STATE,<br>COUNTRY |
|--------------|---------|-------|------------|---|
|              |         | CODE  |            |   |

|          |
|----------|
| withheld |
|----------|

**SUBPROJECT DESCRIPTION**

Objective: This is a G20 grant to purchase two modular animal buildings for expansion of research programs using the infant rhesus model. The modular units will provide necessary separation of infant cohorts that are either allergen naïve or have been exposed to both dust mite allergen and ozone. These units will be sited immediately adjacent to the CNPRC Respiratory Exposure facility to optimize transport of infant monkeys to the exposure chambers. These modular units will allow necessary expansion of asthma research program targeting development of strategies for prevention and treatment of this debilitating disease.

**SUBPROJECT PROGRESS**

The project is scheduled to be completed by May 1, 2007.

**EXTRAMURAL RESEARCH FACILITIES CONSTRUCTION II (0344)**

NPRC UNIT: MODERNIZE &amp; IMPROV - AID

%NPRC \$: AIDS RELATED RESEARCH

| INVESTIGATOR | DEGREES | STAFF | DEPARTMENT | NON-HOST INSTITUTION: STATE,<br>COUNTRY |
|--------------|---------|-------|------------|---|
|              |         | CODE  |            |   |

withheld

**SUBPROJECT DESCRIPTION**

Objective: To construct a new building, the Virology and Immunology Laboratory that will house the Virology and Immunology (V&I) Unit on the CNPRC campus. The specific aims of this proposal are to: (1) address significant deficiencies of research space, forcing the CNPRC to situate Staff Scientists (mainly from the Respiratory Disease (RD) Unit) in six widely separated spaces on campus, (2) co-locate V&I researchers currently widely dispersed at the CNPRC and Center for Comparative Medicine (CCM, located on CNPRC property), (3) provide appropriate containment (e.g., level 3) facilities and other current technologies that enable researchers to investigate diseases that they are currently unable to study and (4) provide new space for recruitment of Staff Scientists in cell and gene based therapies.

**SUBPROJECT PROGRESS**

Due to delays pending resolution of available infrastructure, this project was impacted by construction cost escalations. Project scope has been reduced to match available funds. The project is currently in campus review. Current schedule has a construction start date of January, 2008.

**EXTRAMURAL RESEARCH FACILITIES CONSTRUCTION (0290)**

**NPRC UNIT:** MODERNIZE & IMPROVEMENT

**%NPRC \$:**

| INVESTIGATOR | DEGREES | STAFF | DEPARTMENT | NON-HOST INSTITUTION: STATE, COUNTRY |
|--------------|---------|-------|------------|--------------------------------------|
|              |         | CODE  |            |                                      |

|          |  |  |  |  |
|----------|--|--|--|--|
| withheld |  |  |  |  |
|----------|--|--|--|--|

**SUBPROJECT DESCRIPTION**

Objective: To provide approved animal testing and wet lab space currently housed in Personal Info

The new structure will accommodate several existing programs of research that are focused on Child Health and Disease.

All four Research Units at the CNPRC have research currently in progress in the area of Childhood Health, and this is an area of research focus that will continue to expand center-wide.

**SUBPROJECT PROGRESS**

This project has been impacted by unanticipated construction escalation costs and is currently in design development. The project's scope has been reduced to match existing budget. Construction is scheduled to begin June, 2007.

**PRODUCTION OF PEDIGREED SPF RHESUS MACAQUES (0168)**

NPRC UNIT: PRIMATE SERVICES

%NPRC \$: 1.300% AIDS RELATED RESEARCH

| INVESTIGATOR | DEGREES | STAFF | DEPARTMENT | NON-HOST INSTITUTION: STATE,<br>COUNTRY |
|--------------|---------|-------|------------|---|
|              |         | CODE  |            |   |

withheld

**SUBPROJECT DESCRIPTION**

Objective: There is a continuing need for rhesus macaques of Indian-ancestry that are free of specific pathogens, particularly persistent viral infections, for use in AIDS-related research. We have successfully established and maintained a long-term breeding colony of SPF, genetically characterized Indian origin rhesus macaques. The current colony census is 193 animals. To date, 132 animals produced in this colony have been made available to AIDS researchers at various institutions.

Animals produced in this colony are SPF for Cercopithecine herpesvirus 1 (CHV1), simian type D retrovirus (SRV), simian immunodeficiency virus (SIV), simian T-lymphotropic Virus (STLV) and simian foamy virus (SFV). All animals are of known pedigree and geographic origin. Offspring produced are also haplotyped for several MHC class I (Mamu A\*01, A\*02, A\*08, B\*01, B\*17) and class II (DPB, DQA, DQB) loci.

**SUBPROJECT PROGRESS**

Currently, this SPF breeding colony numbers 193 animals. Future plans include the expansion of the Indian-origin SPF colony through natural breeding of the established population, and by nursery-derivation of SPF infants born to non-SPF Indian-origin breeders.

**GENETICALLY DEFINED HERPES/RETROVIRUS SPF MACAQUES (0275)**

NPRC UNIT: PRIMATE SERVICES

%NPRC \$: 1.300% AIDS RELATED RESEARCH

| INVESTIGATOR | DEGREES | STAFF | DEPARTMENT | NON-HOST INSTITUTION: STATE,<br>COUNTRY |
|--------------|---------|-------|------------|---|
|              |         | CODE  |            |   |

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**SUBPROJECT DESCRIPTION**

Objective: Since the start date of 9/30/02, 87 adult non-SPF rhesus macaques (13 males, 74 females) have been assigned to this project. All 87 animals have completed a 90 day quarantine period and have been released to corn cribs for breeding. The objective of this project is to derive SPF animals from non-SPF founder stock.

**SUBPROJECT PROGRESS**

A total of 70 offspring have been produced on this project to date. All offspring from non-SPF breeders are taken at birth, nursery reared and eventually socialized for pair housing. Infants are tested for 7 persistent viral infections 4 times during the first year, and twice in the second year. All nursery derived infants have remained negative for SRV, STLV, SIV, SFV, B virus, CMV and RRV after one year of follow-up. With few exceptions, complete MHC haplotypes have been obtained for all non-SPF breeders and their nursery-derived SPF offspring.

## RESEARCH SUBPROJECTS

