

Rest in Peace: *The life of mmu24974, one of the thousands held prisoner at the California Regional Primate Center from May 21, 1989-May 21, 1999.*

The Primate Freedom Project's mission is to connect individuals. Monkeys trapped in laboratories with humans locked outside. One monkey with one human. It puts a face, a person, at each end of the bond. Sometimes, this leads to insights that make the plight of the laboratory victims more palpable. It always seems to hurt.

The Primate Freedom Project often gets a small stack of documents from people who are at a loss; they wonder what can be done, who they should tell. We don't know. We are sure that the stories of these demolished lives must be told.

We received this letter, along with about 100 pages of laboratory and daily records:

Primate Freedom Tag Project
54 Gray Lawn Ave
Petaluma, CA 94952

Please find enclosed all the information sent to me by UC Davis regarding tag# 24974. I have not found it possible to name this monkey; I find it hard to give such a wonderful creature a "human" name after her life spent in "our" hands.

The knowledge that there are other caring people who care gives me strength to continue to educate both myself and others. The news today about the genetically modified monkey, and the "happy" scenes of him playing with other monkeys only makes me more determined not to forget the suffering that goes on daily at the Regional Primate Research Centers.

[Signed]
Derek

mmu24974

This is the history of one monkey, mmu24974, as recorded by many different workers at the California Regional Primate Research Center (CRPRC), a National Institutes of Health (NIH) supported institution. mmu24974's life was sacrificed in bits and pieces in the quest for human immortality and in the name of Science.

mmu24974 was born on May 21, 1989. Her mother was mmu21907. They were rhesus macaques (*Macaca mulatta*.)

On May 21, mmu24974 was examined for the first time. A "Neonatal Monitoring Session" and a "Newborn Behavioral Test" were administered. She weighed .833 kg.

mmu24974 weighed .39 kg on May 26.

On August 29, 1989 she had 3 cc of blood taken and was given a "prewean" physical examination. mmu24974 weighed .65 kg.

On September 5, 1989 she was sent to "Therapeutics" where she was examined again. Her spleen/lymph nodes were reported to be "abnormal," she had partial hair loss on the top of her head. Her overall condition was reported as "good," and she was approved for weaning [removal from her mother]. She was 108 days old and weighed .692 kg. [In normal situations, such young infants are still being carried tightly against their mother's abdomen and are not yet ready even to begin riding on her back.]

September 6, 1989: mmu24974 was reported as "quiet" and "8% dehydrated." She was given Pedialyte, a commercial oral fluid given to human children for the dehydration associated with diarrhea.

The next day, September 7, someone else recorded her disposition as "depressed" and "8%-10% dehydrated." Her temperature was 95 degrees, she was administered Pedialyte again, and given a salt solution. She was moved to a "hospital cage" and placed with two "partially adapted weanlings."

September 8: She was offered Tang and Pedialyte soaked biscuits. She was reported as having "some attitude improvement, improved ambulation." She was offered some fruit.

The Tang/Pedialyte/Biscuit treatment was continued through September 11. She weighed .628 kg. She was sent back to a regular cage. She had a cage-mate.

On September 13, 1989, she was reported to have a "poor appetite," being "depressed," "quiet" and as "maladaptive." She had diarrhea. She was given dextrose, and was "force-fed." The notation in her record suggests that she had become ill due to "exposure to cage-mate." She was given an antibiotic injection. A lab report showed she was infected with *Campylobacter coli*, a bacterial infection of the intestine.

On September 14, she was reported as being “quiet” with “marginal hydration” and was moved back to a “hospital cage” as “a companion for a weak infant.”

September 15: “Will not eat when offered formula by bottle.” “Maladaption possible.” She was fed with a stomach tube. According to the entry, her treatment was complicated by the “possible enteric pathogen,” the *Campylobacter coli*. A note was made for nursery staff to offer her Enfamil [infant formula] every two hours.

Later in the day, she was reported to be “depressed.” Her cage mate was moved back to his or her own mother. Someone ordered that mmu24974 be moved back to her own cage with the suggestion that nursery staff supplement her diet with the Enfamil every 2 hours. She weighed .672 kg.

September 16: “Drinking Tang on his own (*sic*)... 5% dehydrated; weight improved but still low; stronger; ate biscuit placed in [cheek] pouch. Won’t supplement [with] fluids since drinking Tang on it’s own . . .” (*sic*) “Discontinue Enfamil feeding since ‘fights’ drinking from bottle. Request nursery techs to place soaked biscuits in mouth/cheek pouch 4-5x/day.”

September 17: “Nibbling @ food. . . food in cheek pouch; wt [up] but still less than weaning wt of 0.692. Improvement but still not ready to move to BB. Cont to encourage to eat.”

September 18: “Marginal hydration. Food in cheek pouches. . . watched him eat biscuits.” (*sic*)

September 19: “Subdued but alert . . . Food in cheek pouches. Dermatitis on belly and knees. Give bath on 9/20 with Betadine. Monitor closely.”

September 20: “Subdued. Dehydration (5%). Due to declining health will move to 1407.”

An entry in a new and unique handwriting, later that day, “Loves banana & apple, eating it all.”

September 21: “0-5-8% dehydrated. Being given only Tang. Consider pairing.”

September 22: “Vocalizing.” Dehydrated. “Attitude, hydration improved from 2/21. Continue to monitor.” mmu24974 weighs .666 kg.

She is now four months old.

September 26: “Paired with 25103.”

September 27: “Repaired with 25106.”

On September 28, she was given a bath in an attempt to control the dermatitis that had now spread to her back. Her weight had improved and her appetite was reported to be fair to good. She weighed .682 kg.

September 30: "...rash on chest... dehydrated... has lost weight since housed alone... dehydrated... consider pairing."

October 1: "Rash clearing up."

October 2: "More stable now that she's paired." A further entry during the day: "Borderline hydration; stomach full. Stable. Since eating, won't give fluids for borderline hydration status, but monitor closely."

On October 5, her weight was up to .724 kg. She was given a bath and was reported as showing "improvement."

Over the next week her appetite remained "fair." On October 12, she was paired with #25024.

October 13: "4th finger on [left] hand purple." She was examined and no injury to her finger was identified. The condition of her finger was diagnosed as "due to sucking on finger."

By October 24, her weight was up to 964 kg. She was reported as being "slightly dehydrated."

On October 31, she is reported to be in good health except for the hair loss on her head. The *Campylobacter* is determined to be "asymptomatic" based on the firm consistency of her stool.

November 1: "Paired with #25041."

On November 6, she was moved again; and moved again on November 15, 1989.

January 22, 1990: she was moved again. She is eight months old.

On February 8, 1990, she was immobilized with Ketamine for the first of very many times and given a measles vaccination. She now weighed 1.63 kg.

On March 22, she was immobilized with Ketamine and administered Ivermectin, a general intestinal parasite medication.

[On May 21, 1990 she turned one year old.]

On April 5, she was again immobilized with Ketamine and given another dose of Ivermectin and given a "shampoo."

August 1: mmu24974 is moved to a new cage. She was moved again on September 17.

September 21: "To Hosp. General Trauma." Later that day she is immobilized with Ketamine and examined. She weighs 2.41 kg. Her pulse is strong. Her temperature is 101 F. She is described as "lean." She has a wound to her left palm, a small wound on her right foot, and a puncture wound to her right forearm. It is noted that she has scars from previous wounds. She is given a prophylactic antibiotic.

September 22: It is discovered that the main wound on her left palm is "communicating" with another wound on her hand. The wounds were cleaned and dressed.

The wounds continued to be treated through September 30, and on October 1, she was moved from a "hospital cage" back to a regular cage.

From October 1, 1990, through July 17, 1992 her record is generally quiet except for being immobilized with Ketamine on six different occasions and receiving a tetanus vaccination.

[On May 21, 1991, she turned two years old.]

[On May 21, 1992, she turned three years old.]

July 18, 1992: "To hosp. general trauma." The record is difficult to read due to a poor copy, caused perhaps, by having been written in light-colored ink. What is clear is that mmu24974 was severely injured. She had wounds to both hands and feet. Her hands were swollen and some of the bones had been broken. X-rays revealed previous and apparently undiagnosed fractures. At least one finger was amputated.

August 2: "The bd was removed from the hand and the suture line was intact on [dorsal surface] of the [right] hand. [The third finger] did not appear to be as swollen as it had seen before. The hand was washed... to clean off the dried blood. Monitor the animal over the rest of the weekend to see if the monkey is pulling the sutures out. If not then it looks good for a discharge on 8/3."

August 4: "Perfect use of the hand. Discharge tomorrow."

August 5: "Returned to home cage."

Between August 5, 1992 and June 23, 1993 only three entries are recorded. Each time she is restrained with Ketamine and weighed. On February 1, 1993, she was reported to be "eating gravel."

[On May 21, 1993, she turned four years old.]

June 24, 1993: "Trauma to rt. hand; flap wound to rt. hip. Move to hosp."

June 24, at the "hospital" after being immobilized with Ketamine: "Right hip flap wound with fibrous exudates. Wound edges necrotic, fibrotic. . . . Scrubbed & prepped with Betadine/alcohol. Trimmed away necrotic flap. Cleaned laceration on left hand." The wounds were dressed and the comment made: "Check left hand [fourth digit] wound daily." She weighed 6.38 kg. She was described as lean and well-muscled. No explanation was offered for the right/left mix up.

mmu24974 was returned to her home cage on June 28.

mmu24974 continued to be immobilized with Ketamine, examined and weighed over the next months. On October 4, she weighed 6.75 kg.

On December 7, 1993, she was treated for a laceration between the fourth and fifth toes of her left foot. She had the wound sutured and was returned to her home cage. She also received an ultrasound. The results were negative.

On April 1, 1994 she was reported to have suffered a trauma to her right breast. There was reported to be "redness and some infection." She was sent back to the "hospital."

Her weight was up to 8.04 kg, her general body condition was recorded as "good," her temperature was 102.2 F. She had a pus-filled wound next to her nipple; another wound to one of her wrists was sutured shut. A drain was sutured into the wound on her breast with the directions that it should be flushed daily. She was bandaged and placed in a "jacket" to keep her from pulling out the drain and stitches in her chest.

On April 4, the drain was removed.

On April 5 when the bandages were removed to clean the wound, it was noted that the wound had "dehiscid," or opened on the right side and that it was still oozing pus, but only minimally. Dead tissue was removed. Antibiotic ointment was applied, the wound was dressed and she was placed back in the jacket.

April 6: The wound was cleaned again, and no pus could be expressed by squeezing on the wound. Every time she is examined she is immobilized with Ketamine.

On April 7, it was discovered that the bacteria infecting her wound was resistant to the antibiotic she had been receiving.

A change in antibiotics was made, and on April 8, it was noted that she seemed to be improving though some pus could still be expressed. The wound was flushed, ointment applied, the bandage was not replaced.

On April 13, 1994, she was discharged and sent back to her home cage.

She continued to be periodically immobilized, examined, and weighed.

[On May 21, 1994, she turned five years old.]

January 5, 1995: "Laceration to hip. To hospital." Later that day: "Flap wound over left hip fresh. Shaved and flushed liberally... sutured, animal returned to home cage..."

February 19, 1995: "To hospital. Flap wound right posterior." Later that day: "0.9 ml Ketamine; small flap wound @ tail base on [right] side. Removed flap as tissue appeared to be dead. Other tissue healthy and bleeding. Small punctures x2 on [right] hip. Flushed. Two sutures removed from old hip flap wound. Small amount of pus squeezed from suture line but other... area... well-healed.

February 2: Her wounds were cleaned. Treatment continues throughout the next weeks.

February 23, 1995: "Suture line just to the right of the tail base is moist but it appears that some of the sutures may be holding."

February 27: "Wound healed. Removed suture. Discharge 2/28."

February 29: "Returned to home cage."

On March 7, 1995 mmu24974 became a mother -- gave birth to mmu28635, another monkey born to suffer at our hands.

March 28: "To hospital; Flap wound on back. With infant 28635."

mmu24974 weighed 7.55 kg at this examination. "Old, rectangular flap wound (4.0 cm long X 2.0 cm high) just cranial to tail base. Skin flap still present but dry, purple and nonviable. Flap removed with scalpel." the wound was electro-cauterized.

March 31: "Healing tail-base wound; flap wound on right thigh will probably heal ..."

She continued to receive treatment for her wounds until April 10, when she was returned to her home cage. No mention is ever made again of her child.

September 26, 1995: mmu24974 was sent to the hospital for "tail trauma" she received during "round-up." "The top portion of her sex skin is very dirty, bloody and torn. No other apparent wound."

September 27: "0.8 cc Ketamine to examine; removed bandage which contained a lot of [red] drainage from wound. Wound emitted a strong malodorous scent associated with tissue; has an area of discoloration similar to necrosis."

September 28: "... noted discolored tissue seemingly appearing necrotic ..."

September 29: "OK to discharge as soon as tail adequately healed."

October 2: "Assess for skin graft."

October 10: "Harvested split thickness graft from lateral left thigh and placed on granuloma bed [tail wound]. Rebandaged."

October 12: "90% of larger graft has taken."

October 16: "Bandage graft has taken well."

October 19: "Grafted skin looks good."

October 23: "Returned to home cage."

December 21, 1995 "To hospital; flap wound." Later that day she is examined. Her general body condition is described as "thin." She has moderate gingivitis and calculus. She weighs 7.3 kg. "Gave 0.7 cc Ketamine. Large laceration flap to right lateral abdomen; fresh, fairly clean; still bleeding. Cleaned thoroughly with Betadine and saline.... Old flap on dorsal aspect of tail base is contracted, but large and creating an exposed pocket of granulation tissue. Cleaned with DNS.... Small old flap on tail base needs trimming to prevent further trauma."

December 22: Both wounds treated.

She continued to have her wounds treated until she was sent back to her home cage on January 2, 1996.

January 22, 1996. mmu24974 is now almost six-and-a-half years old. She was taken from her mother far too early and suffered depression and a failure to thrive that required medical intervention. She seems to have been individually housed often when very young – a stressor known to adversely affect the emotional health of monkeys. She has had one child whose disposition is unknown. During the six-and-a-half years that she has been a prisoner of the California Regional Primate Research Center other monkeys have repeatedly injured her. She has suffered repeated cuts and abrasions. She has had fingers amputated and had skin grafts. Often, the animal "care" staff did not notice the injuries until the flesh around her wounds began to rot. Her repeated violent interactions with other monkeys have been largely due to the failure of CRPRC to maintain the intact social groups typical and necessary in rhesus society.

But, for this initial maturing period, she had not been subjected to the curiosities of the vivisectioning staff, and that curiosity was the sole reason that any veterinary care was ever provided to her – to have her ready.

On January 22, 1996, the entry in her records reads: "US preg [check mark] [followed by a circled P] PGA: 55 days. R/C taken. Harvest to THPAD. Moved to THPAD."

Apparently, mmu24974 had been assigned to a study to produce fetuses. An ultrasound [US] had determined that she was 55 days pregnant.

April 4: "C-section performed this A.M. Infant moved to [unclear] for study. Mother returned to 1406-89."

May 5: She is immobilized with Ketamine and given a "dental." She weighs 6.11 kg.

May 21: "Reported to be vomiting. Unconfirmed." [She turned seven on this day.]

September 6, 1996: Another "dental." She weighs 5.88 kg.

September 8: "Reported heavy menses."

November 11: Another ultrasound showed that she was again pregnant.

November 22 : She is estimated to be 28 days pregnant. Since November 6, she has had blood taken on five occasions.

Throughout this pregnancy she is being bled every two to three days. Also, on the November 12, 15, 18, 21, 24, 27, 30, December 3, 6, 9, 15, 16, 18, 21, 24, 27, and 30, the entry in her record indicates that she is receiving the experimental injection "BIRR-4, 6.0 mg/kg SQ SID." BIRR-4 is likely an experimental "common cold" medicine produced by Gilead Sciences, Inc. in Foster City, CA.

On January 31, 1997 mmu24974 has her 100 day old fetus "excised" in a procedure termed "Fetectomy."

On February 3, her sutures seem to be holding and she is returned to her home cage.

May 6: She is given a dental exam.

[On May 21, 1997, she turned eight years old.]

June 6: She has another ultrasound examination. She is pregnant.

Beginning on June 8, mmu24974 is injected every day with the experimental drug: (R)-9-(2-phosphonylmethoxypropyl) adenine (PMPA). This continues through October 16. During the four months, she is periodically examined by ultrasound, and has blood taken. PMPA is also called Tenofovir. It is manufactured by Gilead Sciences, Inc. in Foster City, CA.

On October 16, she has another "Fetectomy," and her fetus is "excised." She weighs 6.95 kg.

On October 17, she was moved back to her home cage.

October 20: "Reported heavy menses, poor appetite and no stool. Able to confirm heavy menses and poor appetite. First report of heavy menses. Large spots of fresh & clotted blood under cage as well as left over cookies."

October 21: "All sutures intact. Incision is clean & dry. Incision healing well."

October 29: Ketamine, blood drawn, ultrasound.

November 14: Ketamine, blood drawn, ultrasound.

November 20: "Progressive wt loss over the last 5 of [unclear] .7 kg.; recent fetectomy appears lean & [unclear] but very active." She weighs 6.34 kg.

December 2, 1997: Another ultrasound. More blood taken.

January 7, 1998: "Hvy menses conf."

January 8: "1.0 cc ket. Dental."

February 7, "... rept foot trauma – small laceration between D4 & D5 [right] foot. Animal scheduled for breeding today – poss breeding trauma..."

March 9, 1998: More blood taken.

March 12: Ketamine, ultrasound, blood sample.

March 19: Ketamine, ultrasound, blood sample.

April 8: Ketamine, ultrasound, blood sample.

April 22, 1998. mmu24974 is given another ultrasound. Her developing fetus is apparently at the appropriate stage of development for experimental infection with simian immunovirus (SIV). The entry reads in part, "Fetal SIV MAC 251 INOC..." SIVmac 251 is the name given to one of the hundreds of SIV strains developed through the massive monkey infection and re-infection programs funded by the NIH.

From April 22, to May 29, she is immobilized with Ketamine, given an ultrasound examination and has blood taken on six occasions. On May 27, she weighs 7.19 kg.

[On May 21, 1998, she turned nine years old.]

On May 29, the daily injections of PMPA begin again and continue through July 24. On June 8, she was reported to be mildly anemic.

Throughout this period she is immobilized with Ketamine, given an ultrasound examination and has blood taken repeatedly.

On July 27, she has another "Fetectomy." This time the fetus is reported to be a "live" birth. The actual entry reads, "PREGNANCY TERMINATION: LIVE NON-VAGINAL-EXPERIMENTAL..."

July 29: "Reported for poor appetite. Seven (7) left over cookies in cage some nibbled but eating supplements (sunflower seeds). Monitor appetite."

On September 18, mmu24974 weighs 6.55 kg. "Reported for poor appetite. Confirmed. 17 left over cookies. Eating some cookies and seeds. Losing wt. Monitor appetite closely. If persists offer supplements."

October 12: She weighs 6.45 kg.

On October 15, a protocol is approved by the Animal Care and Use Committee of the CRPRC. The protocol is titled, "Monkey Model for *In Utero* Gene Therapy." A brief description is provided on the title page: "These studies focus on transferring genes into fetal monkeys *in vivo*. Studies include collection of fetal/maternal samples during gestation, delivering newborns by cesarean-section at term, collection of infant blood and bone marrow monthly, and necropsy for a complete tissue harvest at 3 months postnatal age." The protocol goes on to explain what is in store for the 88 monkeys they will experiment on throughout the study. On page 7, Part K, the question is posed: "At what point in the study, if any, will the animals be euthanized?" to which the scientist responds, "Infants will be euthanized at approximately 3 months of age. The dams cannot be returned to the colony because the fetuses will be injected with retroviral vectors. Thus, the dams will either be euthanized if significant transfer of the vectors from the fetus is detected, or re-bred and used for other reproductive studies if no transfer is detected."

mmu24974 is assigned to the study.

October 28: "Heavy menses this AM."

November 27: "Heavy menses, not effecting appetite (*sic*), achieving level, No apparent discomfort."

November 30: Ultrasound negative.

December 30: Ketamine, blood taken, ultrasound positive.

January 11, 1999: Ketamine, blood taken, ultrasound positive. She weighs 6.77 kg.

January 19: Ketamine, blood taken, ultrasound positive.

January 27: Ketamine, blood taken, ultrasound positive.

February 5: Ketamine, blood taken, ultrasound positive.

On February 7, mmu24974 is reported to have "liquid stool."

February 9: Ketamine, blood taken, ultrasound positive. "Gene transfer IP (MLV [unclear]." MLV is the murine (mouse) leukemia viral vector. According to the protocol, the MLV is injected directly into the fetus, apparently intraperitoneally (IP), or directly into his or her abdomen.

February 10: Ketamine, blood taken, ultrasound positive. The entry notes that after three days of diarrhea, some action should be taken, though exactly what is unclear, "Ask perm R/C [unclear] SS".

February 12: Ketamine, blood taken, ultrasound positive.

February 16: Ketamine, ultrasound positive.

February 19: Ketamine, blood taken, ultrasound positive.

February 22: "... rept liq stool".

February 23: "... rept liquid stool 2nd recent rept ... monitor for persistence." Ketamine, ultrasound positive.

February 26: "... rept of liq stool; intermittent recent repts. PC corrected (2/12). rept poor appetite 1st rept. contact [unclear] lab regarding RC, monitor." Ketamine, blood taken, ultrasound positive.

February 27: "RC (2/12) negative; monitor."

March 4: Ketamine, ultrasound positive.

March 8: Ketamine, ultrasound positive.

March 10: "... re liquid stool – confirmed."

March 11: "... re liquid stool – confirmed"

March 12: "4 half-eaten biscuits in cage, ... good hydration liquid stool present."

March 13: "Re: ... liqd stl. Confirmed. ... if liqd stl persists, R/C."

March 14: "Re: ... liqd stl, vomit. Cage recently cleaned. P: R/C, SS not warranted, notify vet staff about emesis [vomiting]."

March 17: Ketamine, blood taken, ultrasound positive. She weighs 7.58 kg.

March 19: mmu24974 still has diarrhea. It seems to come and go. The suggestion is made that a stool sample be taken if the loose stool continues.

March 22: Ketamine, ultrasound positive.

March 24: The intermittent diarrhea continues.

March 30: Ketamine, blood taken, ultrasound positive. The intermittent diarrhea continues.

March 31: The diarrhea continues. Orders are written to notify the vet staff if her weight declines. But, her weight has not been recorded since March 17, and will not be noted again until April 27.

April 5: Ketamine, ultrasound positive.

April 9: The diarrhea continues. She is reported to have a poor appetite.

April 15: Ketamine, ultrasound positive.

April 19: Ketamine, ultrasound positive. The diarrhea is "persistent."

On April 20, her appetite is poor; they consider dietary supplements.

On April 26, she is eating a bit. She is reported to have a "good" attitude. They suggest she be given fruit and peanuts for the next two weeks. She is scheduled to be examined by the PI the next day. [PI: primary investigator, the primary recipient of the money being spent to experiment on her.]

April 27. Ketamine, blood taken, ultrasound positive. The diarrhea continues. She weighs 6.76 kg.

April 28: She is nibbling some of the fruit and peanuts.

May 5: Ketamine, blood taken, ultrasound positive. The diarrhea continues.

May 8: "Eyes slightly sunken." The diarrhea continues.

On May 9, a notation is made that no medicine for the diarrhea will be given because of the pregnancy.

May 14: Ketamine, blood taken, ultrasound positive. The diarrhea continues.

May 16: "Eats fruit only."

On May 18: mmu24974 undergoes a Caesarian-section. Her baby is dead.

On May 19 she is reported to have a poor appetite, to be weak, to have diarrhea, and to be "Very bright."

May 20: mmu24974 continues to have a poor appetite, she is reported to be depressed, to be scratching at her sutures, and to have liquid stool. The entry says, in part, "Attitude is typical for this animal... notify investigator of care staff's concerns."

On May 21, 1999, mmu24974 celebrated her tenth birthday all alone but for the occasional human. On May 21, 1999, at 2:00 P.M., workers at the California Regional Primate Research Center, a part of the University of California – Davis, killed her. She weighed 5.24 kg. She was suffering from SIV, colitis, and splenic lymphoid hyperplasia at the time of her death.

Please don't forget her or the 3,500 other monkeys being held by CRPRC. Speak out.

Information provided by Stan Nosek, CRPRC, translated by Rick Bogle, co-founder, Primate Freedom Project.