



## OFFICE OF THE ASSISTANT TO THE SECRETARY OF DEFENSE 1400 DEFENSE PENTAGON WASHINGTON, D.C. 20301-1400



PUBLIC AFFAIRS

4 AUG 1994

Ref: 94-F-1255

Mary Beth Sweetland Research and Investigations People for the Ethical Treatment of Animals P.O. Box 42516 Washington DC 20015-0516

Dear Ms. Sweetland:

This responds to your February 17, 1994, Freedom of Information Act (FOIA) request filed with the Office of the Under Secretary of Defense (Acquisition and Technology), referred to the Defense Nuclear Agency and subsequently referred to the Secretary of Defense and received in this Directorate on June 8, 1994.

We have completed our review of the documents responsive to your request which were referred to us by the Armed Forces Radiobiology Research Institute. The documents and a copy of your request are at the enclosure. There are no assessable fees in this instance.

Sincerely,

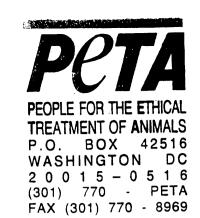
M. W. MCDOU

Director

Freedom of Information and Security Review

Enclosures: As stated

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February 17, 1994

Kelly D. Akers
FOIA Program Manager
Office of the Under Secretary of Defense
(Acquisition & Technology)
Defense Technical Information Center
Cameron Station
Alexandria, VA 22304-6145

Dear Ms. Akers:

This request for records is made under the Federal Freedom of Information Act, 5 U.S.C. Sec 552.

People for the Ethical Treatment of Animals makes this request. We are a non-profit organization, based in Washington, D.C., dedicated to educating the public about issues concerning animal rights. People for the Ethical Treatment of Animals may be referred to hereafter as "the requester."

This request is for copies of abstracts of projects in progress that involve the use of dogs, cats, primates, pigs, or birds in experimentation whether the projects are funded by DOD or conducted in DOD facilities with grant monies from other sources. Please include Veterans Administration hospitals in this request.

If any records or documents pertaining to the above request are considered to be exempt from release, please segregate and provide access to non-exempt portions and justify deletions by reference to specific exemptions in the Freedom of Information Act.

The requester is prepared to pay all reasonable search and duplication fees relating to this request up to the amount of fifty dollars (\$50.00), but asks that such fees be waived, or at least reduced, pursuant to Sec.552 (a) (4) (iii) of the Freedom of Information Act, which provides that provides that

[d]ocuments shall be furnished without any charge or at a charge reduced below the fees established under clause (ii) ["reasonable standard charges"] if disclosure of the information is in the public interest because it is likely to contribute significantly to public understanding of the operations or activities of the government and is not primarily in the commercial interest of the requester.

Requester satisfies the cited fee waiver/reduction provision because disclosure of the requested information would be likely to contribute significantly to public understanding of issues related to the care of animals as required by the U.S. Fish & Wildlife Service, and the requester, a non-profit public interest organization whose federal tax-exempt number is 521218336, has no commercial interest in disclosure of the information requested.

If the waiver or reduction is denied, and fees are expected to exceed fifty dollars (\$50.00), kindly notify requester by telephone before this disclosure request is processed, so that the requester may decide whether to pay the disputed fees, or, instead, to appeal the denial of the request for waiver or reduction.

I may be reached during business hours at (301)770-7444. If you have any questions regarding any aspect of this request, please contact me by telephone rather than by mail in order to expedite timely disclosure of the requested information.

Thank you for your assistance. I will look forward to receiving your reply within ten business days.

Sincerely

Mary Beth Sweetland

Research & Investigations

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- (U) Radiation; (U) Therapy; (U) Cytokine: (U) Sepsis
  23. TECHNICAL OBJECTIVE 24. APPROACH 25. PROGRESS (Precede lext of each with Security Classification Code)
- 23 (U). To characterize the pathophysiology of radiation-induced bone marrow stem cell aplasia and associated sepsis from opportunistic pathogens and to define therapeutic protocols for inducing recovery of the hemopoietic system and abrogate cellular demage consequent to inflammation and sepsis. Emphasis is also placed on determining the mechanisms involved in diminishing the host response to opportunistic pathogens and identification of areas for therapeutic intervention.
- 24 (U). Preclinical models utilizing the canine and the non-human primate have been established for cobalt-60 and mixed neutron-gamma radiation in addition to a canine model of hyperdynamic gram negative/positive intraperitoneal sepsis. A chronic tracheostomy in the sepsis models allows for analysis of systemic and a septic episode. Sublethal and lethally irradiated animals are treated with recombinant growth factors/cytokines to enhance recovery of the hemopoietic system and prevent sepsis-associated lethality.
- 25 (U). Primary emphasis has been placed on developing therapeutic protocols for correcting radiation-induced marrow aplasia. Protocols have utilized single cytokines in comparison to combinations of these cytokine in an attempt to promote recovery of both neutrophils and platelets in marrow aplastic non-human. Single cytokines that were most efficacious in reducing neutropenia were GM-CSF and G-CSF, these cytokine effective in reducing thrombocytopenia were IL-6 and IL-3. The best combinations were IL-3 co-administered with GM-CSF for producing both neutrophils and platelets. While IL-3 and IL-6 administered sequentially was as effective in producing platelets only.

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23. TECHNICAL OBJECTIVE 24. APPROACH 25. PROGRESS (Procede text of each with Security Classification Code)

23. (U) Objective: Establish animal models for evaluating effects of ionizing radiation on complex behavioral tasks. Establish the role of behavioral, biological and radiobiological factors antiemetic drugs on performance decrements. Evaluate the effects of radioprotectant and decrements produced by radiation.

24. (U) Approach: Animals are trained to perform complex behavioral tasks. Dose-effect curves for disruption of performance by radiation, radioprotectants and antiemetics are determined. Radioprotectants and antiemetics are tested for efficacy in blocking radiation-performed to determine their relative contributions of behavioral and biological factors are decrements.

25. (U) Progress: Repeated low-doses of gamma radiation cause progressive deteriorations in cognitive performance. Acute sublethal doses of ionizing radiation increase behavioral disruptions induced by the central nervous stimulant amphetamine. 5-HT3-antagonist antiemetic drugs do not prevent postirradiation anorexia, nor do they prevent chemotherapy-induced behavioral toxicity. The glucocorticoid dexamethasone prevented chemotherapy-induced behavioral toxicity. 5-HT3 antagonists are not behaviorally toxic when administered alone, but they exacerbate the behavioral toxicity of metoclopramide, a widely used antiemetic drug. Behavioral toxicity caused several other drugs (the anticonvulsant and anxiolytic chlordiazepoxide, the stimulant caffeine, and the motion sickness drugs scopolamine and buspirone) was only minimally increased by 5-HT3-antagonist antiemetic drugs. Strong environmental stimulus control can attenuate performance decrements caused by the sedative pentobarbital, the stimulant amphetamine, the anaesthetic ketamine, and the antiemetic 8-OH-DPAT.

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- 23. TECHNICAL OBJECTIVE 24. APPROACH 25. PROGRESS (Precede lext of each with Security Chamification Code)
  - 23. (U) Measure the size of the Hematopoietic Stem Cell (HSC) population in mice and monkeys to either prove or disprove that all mammals have the same total number of HSC and to determine how radiation affects the HSC population.
  - 24. (U) If a female is heterozygous for a genetic locus (A or B) located on the X-chromosome and one X-chromosome is randomly inactivated, then most cell compartments, including the HSC compartment, are mosiacs composed of either A or B cells. Using this system, the total number of HSC can be determined by the binomial formula n=pq/s² where p is the fraction of "A" HSC, q is the fraction "B" HSC, s² is the variance of p, and n is the total number of HSC.
  - 25 (U) Mice were given whole body irradiation to total doses of 3, 4, 5, 6, and 7 Gy. The number of hematopoietic stem cells surviving these radiation doses was calculated using the corrected equation  $n=pq/(s^2_{post-irradiation}-s^2_{pre-irradiation})$ . To date the number of stem cell surviving 3 Gy irradiation was found to be 333 cells; 4 Gy, 33 cells; 5 Gy, not yet determined; 6 Gy, 5 cells; and 7 Gy, 4 cells. This preliminary data might suggest that stem cells surviving high dose radiation are part of an unique stem cell sub-population characterized by a rather large  $D_0$ .

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alter	COUL	ractility	of smo	oth mu:	muscle in vitro. A morilin analog						
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### 22. KEYWORDS IPrecede EACH with Security Chaiffcetton Code)

- (U) Radiation; (U) Therapy; (U) Cytokine: (U) Sepsis
- 23. TECHNICAL OBJECTIVE 24. APPROACH 25. PROGRESS (Precede lest of each with Security Classification Code)
  - 23 (U). To characterize the pathophysiology of radiation-induced bone marrow stem cell aplasia and associated sepsis from opportunistic pathogens and to define therapeutic protocols for inducing recovery of the hemopoietic system and abrogate cellular demage consequent to inflammation and sepsis. Emphasis is also placed on determining the mechanisms involved in diminishing the host response to opportunistic pathogens and identification of areas for therapeutic intervention.
  - 24 (U). Preclinical models utilizing the canine and the non-human primate have been established for cobalt-60 and mixed neutron-gamma radiation in addition to a canine model of hyperdynamic gram negative/positive intraperitoneal sepsis. A chronic tracheostomy in the sepsis models allows for analysis of systemic and a septic episode. Sublethal and lethally irradiated animals are treated with recombinant growth factors/cytokines to enhance recovery of the hemopoietic system and prevent sepsis-associated lethality.
  - 25 (U). Primary emphasis has been placed on developing therapeutic protocols for correcting radiation-induced marrow aplasia. Protocols have utilized single cytokines in comparison to combinations of these cytokine in an attempt to promote recovery of both neutrophils and platelets in marrow aplastic non-human. Single cytokines that were most efficacious in reducing neutropenia were GM-CSF and G-CSF, these cytokine effective in reducing thrombocytopenia were IL-6 and IL-3. The best combinations were IL-3 co-administered with GM-CSF for producing both neutrophils and platelets. While IL-3 and IL-6 administered sequentially was as effective in producing platelets only.

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	ILIAN APPLICAT			HCBRIDE, Sharon A.						

(U) Complex Behavior; (U) Performance; (U) Antiemetic Drugs; (U) Radioprotectants

23. TECHNICAL OBJECTIVE 24. APPROACH 28. PROGRESS (Procede test of each with Security Cleanifestion Code)

23. (U) Objective: Establish animal models for evaluating effects of ionizing radiation on complex behavioral tasks. Establish the role of behavioral, biological and radiobiological factors that affect these performance decrements. Evaluate the effects of radioprotectant and antiemetic drugs on performance, and determine their ability to counteract performance decrements produced by radiation.

24. (U) Approach: Animals are trained to perform complex behavioral tasks. Dose-effect curves for disruption of performance by radiation, radioprotectants and antiemetics are determined. Radioprotectants and antiemetics are tested for efficacy in blocking radiationinduced performance decrements. Manipulations of behavioral and biological factors are performed to determine their relative contributions to radiation-induced performance

25. (U) Progress: Repeated low-doses of gamma radiation cause progressive deteriorations in cognitive performance. Acute sublethal doses of ionizing radiation increase behavioral disruptions induced by the central nervous stimulant amphetamine. 5-HT3-antagonist antiemetic drugs do not prevent postirradiation anorexia, nor do they prevent chemotherapyinduced behavioral toxicity. The glucocorticoid dexamethasone prevented chemotherapy-induced behavioral toxicity. 5-HT3 antagonists are not behaviorally toxic when administered alone, but they exacerbate the behavioral toxicity of metoclopramide, a widely used antiemetic drug. Behavioral toxicity caused, several other drugs (the anticonvulsant and anxiolytic chlordiazepoxide, the stimulant caffeine, and the motion sickness drugs scopolamine and buspirone) was only minimally increased by 5-HT3-antagonist antiemetic drugs. Strong environmental stimulus control can attenuate performance decrements caused by the sedative pentobarbital, the stimulant amphetamine, the anaesthetic ketamine, and the antiemetic 8-OH-

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- Z. KE TWOMOS (Precede BACH with Security Catalities Com)
- (U) Hematopoietic Stem Cell (U) Risk Assessment (U) Biogical Dosimetry
- 23. TECHNICAL OBJECTIVE 24. APPROACH 25. PROGRESS (Precede lext of each with Security Chamification Code)
  - 23. (U) Measure the size of the Hematopoietic Stem Cell (HSC) population in mice and monkeys to either prove or disprove that all mammals have the same total number of HSC and to determine how radiation affects the HSC population.
  - 24. (U) If a female is heterozygous for a genetic locus (A or B) located on the X-chromosome and one X-chromosome is randomly inactivated, then most cell compartments, including the HSC compartment, are mosiacs composed of either A or B cells. Using this system, the total number of HSC can be determined by the binomial formula  $n=pq/s^2$  where p is the fraction of "A" HSC, q is the fraction "B" HSC,  $s^2$  is the variance of p, and n is the total number of HSC.
  - 25 (U) Mice were given whole body irradiation to total doses of 3, 4, 5, 6, and 7 Gy. The number of hematopoietic stem cells surviving these radiation doses was calculated using the corrected equation  $n=pq/(s^2_{post-irradiation}-s^2_{pre-irradiation})$ . To date the number of stem cell surviving 3 Gy irradiation was found to be 333 cells; 4 Gy, 33 cells; 5 Gy, not yet determined; 6 Gy, 5 cells; and 7 Gy, 4 cells. This preliminary data might suggest that stem cells surviving high dose radiation are part of an unique stem cell sub-population characterized by a rather large  $D_0$ .

#### THE WHITE HOUSE

WASHINGTON

SECHTI/XCIDS

May 18, 1975

MEMORANDUM FOR

THE SECRETARY OF DEFENSE

SUBJECT:

The Rescue of the SS Mayaguez and its Crew

In the aftermath of the operation to rescue the SS Mayaguez and its crew, I consider it essential that we evaluate, as a means of insuring the most effective possible performance in future crises, the manner in which this operation was planned and conducted.

In order to facilitate this evaluation, I would like to receive, on a priority basis, the following:

- (a) A detailed and comprehensive chronological exposition of events and activities from the time of the seizure of the SS Mayaguez through the completion of the evacuation of Marines from Koh Tang Island, focussed on the activities of your Department.
- (b) A copy of each order, verbal or written, which was issued directing military plans and operations, from the time of the basic planning decisions made at the National Security Council meeting at 10:30 p.m. on May 13 through the evacuation from Koh Tang Island. Included should be all orders from you to the Chairman, Joint Chiefs of Staff, from the Joint Chiefs of Staff to the Commander, Pacific Command, and from that Commander to subordinate commanders in the field.
- (c) Any observations or suggestions which you consider would contribute to improvement in the ability of the National Security Council machinery to deal effectively with crisis situations.

SECRET/XODS

OF

SEC DEF HAS SEEN

Apr26,1999

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(i)

This evaluation should be conducted on a very close hold basis. The material in (b) above should be submitted by noon, Tuesday, May 20, and the remainder by close of business Friday, May 23. I have requested similar submissions from the Secretary of State, the Director of Central Intelligence, and the Assistant to the President for National Security Affairs.

Mada R. Gal

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DECLASSIFIED BY <u>HQ A CC</u> DATE <u>Apr 23, 1799</u>

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EAST -
          IP - X ZERO NINE DEGREES TWENTY MINUTES NORTH
ITEM 5
                         ONE ZERO THREE DEGREES THREE EIGHT MINUTES
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                             09 - 20N
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ITEM 6
          TGT - ONE ZERO DEGREES THREE ZERO MINUTES ONE
                         NINE SECONDS MORTH ONE ZERO THREE DEGREES
                          THREE SEVEN MINUTES ZERO TWO SECONDS EAST.
                         10-30-19N
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          BOMB RUN AXIS - THREE SIX ZERO DEGREES
ITEM 7
                         360 DEGREES
ITEM 8
          TIME ON TOT TO ONE FIVE/ZERO ONE THREE ZERO ZULU:
          BOMBING ALT - HIGH ALTITUDE AS DETERMINED BY
ITEM 9
                          THIRD AIR DIVISION!
          TYPE RELEASE - SYNCHRONOUS
ITEM 10
          TRAIN LENGTH - TWO TWO ZERO ZERO FEET
ITEM 11
                         2200
          AFTER RELEASE - HOLD HDG ONE FIVE (15) SEC! LEFT
ITEM 12
                         TURN TO WITHDRAWALL HOG TWO ZERO
                         SIX DEGREES (206 DEGREES); DIRECT
                         ONE ZERO DEGREES ZERO ZERO NORTH
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                          - 10=00N
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PART THREE
          TGT NUMBER TWO - REAM AIRFIELD
ITEM ONE
          BE NUMBER - ZERO SEVEN THREE NINE - ZERO EIGHT
ITEM 2
                         SIX SIX SIX
                          - 2739 - 28666
          COMMON POINT - ZERO EIGHT DEGREES ZERO ZERO MINUTES
ITEM 3
                         NORTH ONE ZERO FOUR DEGREES ZERO ZERO
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ITEM 4
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          IP - ZERO MINE DEGREES FIVE EIGHT MINUTES NORTH
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          TGT - ONE ZERO DEGREES THREE FOUR MINUTES FORTY
ITEM 6
                         SECONDS NORTH ONE ZERO THREE DEGREES!
                               THREE EIGHT MINUTES TWO FOUR SECONDS EAST
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- 10=34-40N 103=38-24E
          BOMB RUN AXIS - ZERO SIX ZERO DEGREES:
ITEM 7
                        TIME ON TARGET & ONE FIVE/ZERO ONE FOUR FIVE ZULU
ITEM 8
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          BOMBING ALTITUDE - HIGH ALTITUDE AS DETERMINED BY
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                           THIRD AIR DIVISION
          TYPE RELEASE - SYNCHRONOUS
ITEM 12
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                              MINUTES EAST
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PART FOUR
          TGT NUMBER THREE - KOMPONG SOM HARBOR
ITEM 1
          BE NUMBER - ZERO SEVEN THREE NINE - ZERO ZERO
ITEM 2
                         ZERO NINE EIGHT
                         - 0739±00098
          COMMON POINT - ZERO EIGHT DEGREES ZERO ZERO MINUTES
ITEM 3
                         NORTH ONE ZERO FOUR DEGREES ZERO ZERO
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          PIP - ZERO NINE DEGREES TWO TWO MINUTES NORTH ONE
ITEM 4
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ITEM 5
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                         - 10-18N 102-19E
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ITEM 6
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                         -10-38-35N
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          BOMB RUN AXIS-ZERO SEVEN FOUR DEGREES
ITEM 7
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          TIME ON TARGET - CELL NUMBER THREE
ITEM 8
                         ONE FIVE/ZERO TWO ZERO ZERO ZULU
                         15/0200Z MAY 75
          TIME ON TARGET -CELL NUMBER FOUR
                         ONE FIVE ZERO TWO ONE FIVE ZULU-
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#15/0215Z MAY 75

ITEM 9 BOMBING ALTITUDE HIGH ALTITUDE AS DETERMINED BY THIRD AIR DIVISION

#8609
ANNOTES
STAMP THIS MSG SPECATEEXCLUSIVE
DISTR ONE CY BY NAME IN A SEALED ENV TO GEN JONES, GEN PAULY;
LTG SITTON, VADM TRAIN, MGEN SIMMONS, RADM WELANDER, LTG HUYSER,
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