

The Most Painful Laboratory in the United States:

The Air Force Research Laboratory at Brooks AFB

By

**Michael A. Budkie, A.H.T.,
Executive Director, SAEN**

saen@saenonline.org

www.saenonline.org

513-575-5517

The Nature of Animal Experiments at the Air Force Research Laboratory, Brooks AFB, San Antonio (TX)

Brooks AFB use of animals in experimentation has long been a cause for concern due to the types of experiments performed within the Air Force Research Lab (AFRL) as well as the extremely long term nature of the projects involved. Recently obtained documents have allowed for an up-to-date evaluation of the projects at this highly publicized facility.

For the 2004 reporting year experiments at Brooks AFB utilized 2091 animals including dogs, rabbits, primates (rhesus monkeys and other species), pigs, rats, mice, frogs, and snakes. 907 (43.4%) of these animals were used in painful experiments without benefit of anesthesia. This may be the highest level of experiments with unrelieved pain of any laboratory in the United States. Fifteen of the animals experiencing unrelieved pain were dogs, five were primates, 685 were mice, and 202 were rats.

The type of experimentation conducted at Brooks AFB clearly reveals the reason for the highly invasive nature of these protocols. Information obtained from the DOD database (<http://www.scitechweb.com/acau/brd/>) discusses the use of primates in projects involving laser injuries, microwaves and radiation. Pigs are used in munitions research and wound research. Rabbits and guinea pigs are used in radiation research. Rabbits are also used in microwave experiments. When the nature of this research is examined it is not surprising that the laboratory at Brooks is among the nation's worst labs for performing painful experiments. In fact, a skeptical mind would wonder if the laboratory is actually under-reporting the number of animals used in painful experiments.

The DOD Biomedical Research Database reveals that the AFRL receives \$5,359,870 per year in funding for 34 separate projects, averaging approximately \$158,000 per project. These research projects do not appear to be unique in nature. The pubmed website, which is used to search medical journal articles, shows that many of the projects at the Air Force Research Laboratory are potentially duplicative. This website lists citations for 1717 research projects involving radiation in macaque monkeys. This same website lists 3546 publications that examine wound protocols with pigs. While Brooks is among the only labs currently studying laser eye injuries in macaque monkeys, other labs studied this area dating back to the 1970's¹.

1. Priebe LA, Cain CP, Welch AJ. Temperature rise required for production of minimal lesions in the Macaca mulatta retina. Am J Ophthalmol. 1975 Mar;79(3):405-13.

Powell JO, Tso MO, Wallow IH, Frisch GD. Recovery of the retina from argon laser radiation: clinical and light microscopic evaluation. Ann Ophthalmol. 1974 Oct;6(10):1003-6, 1009-12.

Pomerantzeff O, Kaneko H, Donovan RH, Schepens CL, McMeel JW. Effect of the ocular media on the main wavelengths of argon laser emission. Invest Ophthalmol. 1976 Jan;15(1):70-7.

Similarly, microwaves have been studied at other military labs and in other research facilities². It appears that the researchers at Brooks AFB may largely be in the business of producing protocols in areas that are already being investigated thoroughly by other researchers.

Documents obtained from the Air Force and Government databases illustrate that the protocols at Brooks AFB appear to be very long lived. Protocols which are similar, if not identical, to currently active protocols date back into the late 1990's and beyond. We must begin to wonder how many more decades these experiments will be allowed to continue. How many more animal lives will be swallowed up by experiments that have already spanned decades and wasted millions of tax dollars?

2 Nelson DA, Walters TJ, Ryan KL, Emerton KB, Hurt WD, Ziriak JM, Johnson LR, Mason PA. Inter-species extrapolation of skin heating resulting from millimeter wave irradiation: modeling and experimental results. Health Phys. 2003 May;84(5):608-15

Foster KR, D'Andrea JA, Chalfin S, Hatcher DJ. Thermal modeling of millimeter wave damage to the primate cornea at 35 GHz and 94 GHz. Health Phys. 2003 Jun;84(6):764-9

Jauchen, JR, Frei MR, Chang KS, Berger, RE Microwave-Induced Lethal Heat Stress: Effects of Phentolamine, Prazosin and Metoprolol Meth Find Exp Clin Pharmacol 1995, 17(4): 241 – 248.

Conclusion

The experiments performed on animals at the Air Force Research Laboratory (AFRL) at Brooks Air Force Base are among the most invasive projects involving animals anywhere in the US. The projects involve weapons research, radiation research, and laser injury research. The highly invasive nature of these experiments have put the AFRL at the top of the list (using currently available information) for the percentage of animals used in painful experiments without benefit of anesthesia in the US. 43% of the animals used in experiments at AFRL experience unrelieved pain, including dogs, primates, rats and mice.

The nature of the experiments at AFRL, the lack of independent supervision and oversight in all DOD labs, and past issues regarding animal care at this facility, have raised major concerns about the care of animals at AFRL, as well as the scientific validity of experiments and the potential duplication involved in these projects. Therefore, SAEN will launch investigation of experiments at AFRL. Our goal will be to obtain research protocols and animal health care records to allow us to perform an independent evaluation of the overall program at AFRL.

This is an especially important time to perform this evaluation since the potential exists that these experiments may be transferred to Wright-Patterson AFB in Ohio. It may be possible to seek the termination of unnecessary projects before they are moved to a different facility.