

November 1, 2004

Barbara J. Slatt, Ph.D., MBA
Manager—R&D
The Procter & Gamble Company (P&G)
Miami Valley Laboratories
P.O. Box 538707
Cincinnati, OH 45253-8707

3 pages via fax (513-627-1587) and US postal mail

Dear Barbara:

As you are well aware, Iams is currently funding a research study at Purdue University in which debilitating muscle atrophy is being induced in mice.¹ On October 20, 2004, we received a forwarded e-mail that included correspondence from Kelly Vanasse, associate director of Global External Relations at Iams, in which Ms. Vanasse made several arguments for why Iams feels justified in funding this Purdue experiment. However, we have conducted extensive research and found that she is sorely mistaken in each of her justifications. After you review our findings, we request a point-by-point response and an assurance from you that Iams will immediately end its involvement (financial and otherwise) in this cruel research study.

Ms. Vanasse said: "The mouse study at Purdue University is very basic discovery work for which we [Iams] sought non-animal alternatives and found none. It is based on a model that NASA has used for 20+ years to study weightlessness in humans."

The fact is that non-animal alternatives *do* exist, especially for muscle-atrophy experiments. One of the most promising technologies currently in use was discussed at length in NASA's "Gene Therapy: Putting Muscle Into the Research."² The article cites the work of Dr. Herman Vandenburg and his colleagues, who have been "developing a model for atrophy using bioartificial muscles [BAM] in his laboratory." Using avian, mouse, rat, or human cells, Vandenburg said, "[W]e can grow the bioartificial muscles in our lab and then we can induce atrophy by reducing the tension on the muscle [using a force transducer]. ... The muscles generate less force, so they don't make as much protein and they waste away." Using this model, he's able to test the efficacy of IGF-1 in attenuating atrophy in the BAM model.

¹Purdue University researchers Dr. Bruce A. Watkins and Dr. Kevin Hannon have been allotted \$195,140 in Iams grant money from May 1, 2004, through June 30, 2006, to conduct a research study entitled, "The Influence of N-3 Polyunsaturated Fatty Acids (PUFA) on Musculoskeletal Atrophy During Unloading."

²To view this NASA article, please go to http://spaceresearch.nasa.gov/research_projects/spacebiology_12-2001_lite.html.



PETA

PEOPLE FOR THE ETHICAL
TREATMENT OF ANIMALS

501 FRONT ST.
NORFOLK, VA 23510
757-622-PETA
757-622-0457 (FAX)

PETA.org
Info@peta.org

AN INTERNATIONAL
ORGANIZATION DEDICATED
TO PROTECTING
THE RIGHTS OF ALL ANIMALS

Watkins and Hannon are trying to find fatty acids to attenuate muscle atrophy induced in live mice. When questioned whether “it [was] possible to test [or] identify nutraceutical fatty acids that attenuate the muscle [or] bone loss associated with the disuse atrophy [induced in a bioartificial muscle],” Vandenburg said, “It is certainly possible.” We urge P&G and Iams to fund and pursue this humane avenue of research for studying the influence of fatty acids on muscle atrophy and immediately end the use of live mice in such experimentation.

Ms. Vanasse said: “If the study is successful, we’ll know more about the role of enhanced nutrition in the bone/muscle wasting and in the healing process. This could help dogs delay such losses and to heal better/faster from surgery, long term illnesses, or muscle and bone diseases.”

This information already exists as a result of experiments conducted by Watkins. In Purdue University’s “21st Century Grant Final Report for October 2000-November 2003,” Purdue notes, “Researchers in the Schools of Veterinary Medicine and Agriculture have **identified nutraceutical fatty acids that attenuate muscle and bone loss associated with disuse atrophy.**³ Patent application [attributed to Watkins] filed by OTC [Office of Technology Commercialization] and \$1 M grant application (NRA-03-OBPR-04-0020) submitted to NASA.” When asked whether this discovery applied to dogs, Hannon (Watkins’ colleague) said, “We are confident that they [the fatty acids tested in this experiment] will work in dogs as they have in our rodent studies.” Thus, Ms. Vanasse can’t justify using live mice in the muscle-atrophy experiment for the purpose of identifying beneficial fatty acids since such research has already been successfully completed and can be confidently applied to dogs, according to Hannon. Subjecting more animals to needless repetition of muscle-atrophy experiments is abuse—plain and simple—and should be immediately stopped.

Ms Vanasse said: “The study is also seeking markers of bone and muscle atrophy that could be applied to investigating bone and muscle loss/healing in dogs. Additionally, this work could also lead to an alternative to muscle biopsies for evaluating muscle loss/healing and enable us to go to clinical studies of bone and muscle conditions.”

The fact is that markers of bone and muscle atrophy in dogs already exist, as described in the work of Dr. Daniel C. Richardson. Richardson says, “Serum and urinary markers of bone turnover may be of value in animals as noninvasive tools for determining the response of the skeleton to disease and injury. . . . The results of this study suggest that serum BALP [bone alkaline phosphatase] and ICTP [carboxy-terminal telopeptide of type I collagen] concentrations in giant and toy breeds are the same as in beagles and that these assays may be used for dogs of all sizes.”⁴ Furthermore, Richardson says, “Serum and urinary assays of bone markers provide a noninvasive alternative to bone biopsy in

³To view Purdue’s “21st Century Grant Final Report for October 2000-November 2003,” please go to <http://www.efph.purdue.edu/media/21stImpactdec2003.pdf>.

⁴Richardson, Daniel C., *et al.* “Markers of bone metabolism in dog breeds of different sizes.” *Research in Veterinary Science*. Feb. 2004. 76(1): 53-55.

the study of bone metabolism in humans. Many of these commercial assays that were originally developed for use in humans have been shown to cross-react in dogs, and it should therefore be possible to use these assays to study bone remodeling in dogs. ... Our findings confirm the utility of these assays in dogs.”⁵ Clearly, Iams could use such serum and urinary assays without having to reinvent the wheel, so to speak.

Ms. Vanasse said: The mice have a piece of surgical tape applied to the tail which is then used to lift their hind limbs slightly off the floor. ... The suspension lasts for seven days.”

Barbara—imagine having your legs lifted off the floor for seven days, so that you could only move around with your hands. Clearly this would be considered painful and inhumane, and you would most likely not volunteer yourself to undergo such a procedure for a day let alone a week. According to Iams’ research policy, such a procedure would not be allowed on dogs or cats either: “[T]he company [will not] use non-surgical methods to induce or simulate diseases that are not acceptable in nutritional or medical research on humans.” Like dogs and cats, mice are capable of experiencing pain and they deserve to be treated humanely. Iams’ use of animals other than dogs and cats in experiments that cause pain and discomfort is as indefensible as their use of dogs and cats in experiments.

All of Ms. Vanasse’s justifications for conducting the muscle-atrophy research on live mice are woefully lacking in support. Please give thorough consideration to our findings and immediately end all of Iams’ involvement with this Purdue experiment on mice. Watkins and Hannon can change their research protocol to reflect viable non-animal alternatives (e.g., bioartificial muscles). May we please hear from you by Monday, November 15, 2004? You can contact me with any questions at ShalinG@peta.org or 757-962-8325.

Sincerely,

A handwritten signature in black ink, appearing to read "Shalin D. Gala", written over a horizontal line.

Shalin Gala, Research Associate
Research & Investigations Department

cc: Mary Beth Sweetland

⁵Richardson, Daniel C., *et al.* “Biological variability in serum and urinary indices of bone formation and resorption in dogs.” *Calcif Tissue Int.* Mar. 2002. 70(3): 186-93.