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Controversy over Nutrition and Hip Dysplasia

By
Kathleen W. Berge, BS*

On October 3, 1986, Alpo Petfoods, Inc., filed suit in U.S. District Court against Ralston Purina, the largest pet food manufacturer in the United States. Alpo claims Purina falsely advertised its reformulated Purina Puppy Chow. Since October 1985, Purina has been advertising in major veterinary journals and other publications that Puppy Chow reduces the incidence of canine hip dysplasia (CHD).¹

Canine hip dysplasia is believed to be of multifactorial origin. The disease primarily affects large breeds of dog, such as the German Shepherd and St. Bernard, and is known to have a polygenic inherited component. Whether or not nutrition can be a factor in the prevention and occurrence of CHD is the basis of the dispute between Alpo and Purina.

In July 1986, the FDA issued a regulatory letter to Purina stating that the FDA "...has obtained sufficient opinion from the scientific community to indicate lack of consensus in support of the claims made for Puppy Chow." The FDA told Purina to cease any advertising implying benefits to hip joint conformation due to feeding Puppy Chow. In addition, Purina was told to publish a corrective announcement.¹

Purina ceased these advertising claims in December 1986. In return, Alpo has agreed to stop publicizing the lawsuit. Purina manager, Pat Farrell plans to defend Purina Puppy Chow in court, claiming, "We believe we have found a scientific breakthrough for helping decrease the severity of canine hip dysplasia by reducing hip-joint laxity through improved nutrition."²

Unfortunately, Purina's studies on the reformu-

lated Puppy Chow are unpublished. Alpo claims the monograph Purina did publish is inconclusive. Alpo claims that most researchers have concluded that CHD "...is not altered by a dog's diet except in those cases where overall weight gain or very rapid growth is controlled by calorie reduction."¹ Overfeeding during growth of large breed dogs may result in a faster growth rate, which may lead to skeletal problems such as CHD.³ Hedhammer, et. al., found less incidence of CHD in Great Dane pups fed a restricted diet than in those fed free choice.⁴ Most studies support the contention, and Alpo and Purina seem to agree, that overfeeding and increased growth rate do increase the incidence of CHD in dogs prone to the disease.

Studies on changes in diet formation have had less consistent results. In a study of 6 mixed breed puppies, Resnick found dogs fed a high carbohydrate diet had an increased incidence of CHD over those fed an all-meat diet.⁵ However, Tvedten, et. al., found no evidence that amount of dietary carbohydrate contributed to the development of CHD.⁶ A study by Hazewinkel, et. al., on growing Great Danes fed supplemental calcium indicated that high levels of calcium in the diet led to several abnormalities, including disturbances in endochondral ossification, leading to osteochondrosis. Hip radiographs were not taken in this study, so although it shows that specific changes in nutritional formulations can influence skeletal development, it does not specifically address effects on normal hip development.

It seems possible that Purina's dietary formulation could help reduce the incidence of hip dysplasia. However, these claims should be substantiated with reproducible well-documented studies. I believe complete publication of Purina's data and subsequent scrutiny by the scientific community would have been the optimal course of action by Ralston Purina. Whether or not Purina has actually made a breakthrough in canine nutrition remains to be seen.

*Ms. Berge is a second year student in the College of Veterinary Medicine at Iowa State University.

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Hospital Design Competition Held at ISU

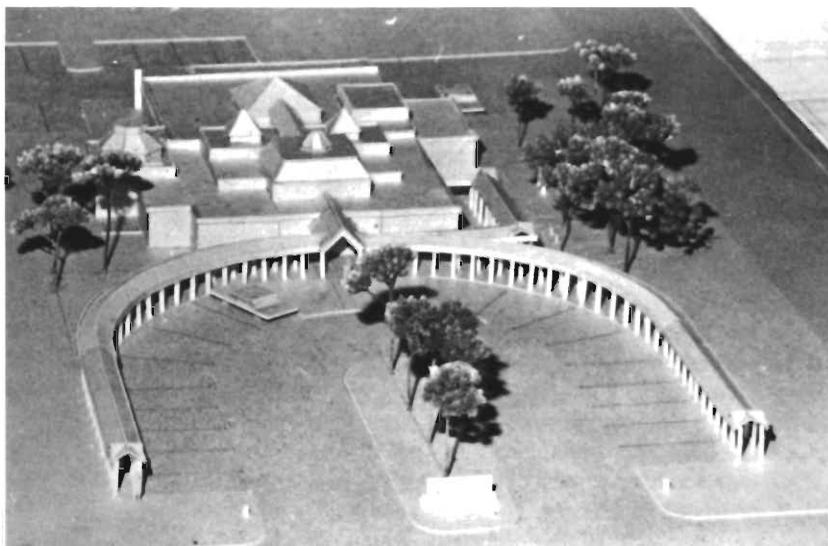
Luceen Mansfield*

When it comes time to build their own clinic, some ISU students will be more prepared for such a project, thanks to Hill's Pet Products of Topeka, Kansas. Each spring, Hills sponsors the Veterinary Medical-Architectural Student Hospital Design Competition. In this competition one veterinary student and a teammate from the College of Design are assigned the formidable tasks of designing detailed floorplans, building scale models, and completing an extensive portfolio. This portfolio outlines the space utilization, efficiency, construction, and aesthetic concepts that went into their design.

This February a judging panel, consisting of a

representative of the College of Veterinary Medicine (Dr. William D. Hoefle), a representative of the College of Design (Mr. Dale A. Brentrup), and a private practitioner (Dr. Marvin Johnson of Des Moines), awarded the first place prize of \$1,800 to the team of Thomas A. Carlson (Veterinary Class of '88) and Della E. Ihns (Architecture Class of '87). The winning design which represented Iowa State University then progressed to the national level competition held in Topeka.

Faculty advisors for the competition were Dr. Daniel M. Betts from the College of Veterinary Medicine and Mr. Dale A. Brentrup from the College of Design.



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