

RMB Newsletter Vol 4:2 New scientific thought, persistent vet school madness

April 2004

Dear Reader,

How's 2004 treating you? Are your pets thriving, are you spreading the good-health message?

Daily I receive letters from pet owners who, having switched their pets to a raw diet, confirm the good health of their pets and savings on vet bills. These benefits, if spread across the majority of the world's dog, cat and ferret owners would make for the alleviation of cruelty on an immense scale and the dollar benefits could finance a large chunk of third world debt – and ease some of the global tensions.

That, you might say, is a mighty set of objectives and reason for us to press on with the good health message.

But that's not all. The fundamental biological scientific and medical benefits waiting to be discovered and harvested add a mighty extra dimension.

This edition of the RMB Newsletter looks at a couple of aspects of the 'extra dimension' and concludes with comments from an oppressed veterinary student rebelling against veterinary school brainwashing.

Wishing you, your family and pets the best of good health,

Tom Lonsdale

Time (Australia/Pacific) Cover Story – February 23, 2004

<http://www.time.com/time/covers/1101040223/>

THE SECRET KILLER

The surprising link between inflammation and heart attacks, cancer, Alzheimer's and other diseases

What you can do to fight it

'Chronic inflammation may be the engine that drives many of the most feared illnesses of middle and old age.' Says Time magazine in their cover story. Here are some excerpts from the article:

'This concept is so intriguing because it suggests a new and possibly much simpler way of warding off disease. Instead of different treatments for, say, heart disease, Alzheimer's and colon cancer, there might be a single, inflammation-reducing remedy that would prevent all three...'

'This new view of inflammation is changing the way some scientists do medical research. "Virtually our entire R.-and-D. effort is [now] focused on inflammation and cancer," says Dr. Robert Tepper, president of research and development at Millennium Pharmaceuticals in Cambridge, Mass. In medical schools across the U.S., cardiologists, rheumatologists, oncologists, allergists and neurologists are all suddenly talking to one another—and they're discovering that they're looking at the same thing. The speed with which researchers are jumping on the inflammation bandwagon is breathtaking. Just a few years ago, "nobody was interested in this stuff," says Dr. Paul Ridker, a cardiologist at Brigham and Women's Hospital who has done some of the groundbreaking work in the area. "Now the whole field of inflammation research is about to explode."

Time report:

'Problems begin when, for one reason or another, the inflammatory process persists and becomes chronic; the final effects are varied and depend a lot on where in the body the runaway reaction takes hold. Among the first to recognize the broader implications were heart doctors who noticed that inflammation seems to play a key role in cardiovascular disease.'

Diabetes researchers have adopted the new approach.

'What they have discovered is a complex interplay between inflammation, insulin and fat—either in the diet or in large folds under the skin. (Indeed, fat cells behave a lot like immune cells, spewing out inflammatory cytokines, particularly as you gain weight.) Where inflammation fits into this scenario—as either a cause or an effect—remains unclear. But the case for a central role is getting stronger.'

And the underlying inflammation, in humans as well as animals, is often considered to be periodontal disease, that chronic inflammation affecting the gums and supporting structures of the teeth.

At the end of a most illuminating article Time comments:

'But there is a sense that much more basic research into the nature of inflammation needs to be done before scientists understand how best to limit the damage in chronic diseases.'

In the meantime, there are things we all can do to dampen our inflammatory fires. Some of the advice may sound terribly familiar, but we have fresh reasons to follow through. Losing weight induces those fat cells—remember them?—to produce fewer cytokines. So does regular exercise, 30 minutes a day most days of the week. Flossing your teeth

combats gum disease, another source of chronic inflammation. Fruits, vegetables and fish are full of substances that disable free radicals.'

Of course the Time recommendation to eat lots of fruit and vegetables refers to our (omnivorous) dietary needs. Time make the point about periodontal disease and the need for dental hygiene with an illustration of dental floss being pulled from the floss-dispenser. Dogs, cats and ferrets (carnivores) floss and brush as they eat their natural food. And fresh natural carnivore food provides them with the nutrients necessary to combat the chemical effects of chronic inflammation too.

CYBERNETIC HYPOTHESIS OF PERIODONTAL DISEASE IN MAMMALIAN CARNIVORES

<http://www.rawmeatybones.com/Cybernetic.html>

How periodontal disease inflammation might fit into the bigger picture of health, disease and population control, to my mind, is an intriguing question. The Cybernetic Hypothesis of Periodontal Disease, conceived in a dream on Christmas morning 1992, sets out a possible explanatory framework.

Last year, during the Emory University Extension course, Dr Erin Mayfield found new information that appears to provide crucial support for the Cybernetic Hypothesis.

That information forms the basis of an article soon to be published by the University of Sydney Post Graduate Foundation in Veterinary Science

CALCULUS, OLFACTION AND CYBERNETICS: A CRUCIAL TEST

University of Sydney Post Graduate Foundation in Veterinary Science, Control and Therapy No. 4516

Dr Erin Mayfield (medical doctor and gynecologist) is: 'Horrified by the pandemic of periodontal disease, which appears to be precipitated by the artificial pet food diets.' Delighted with the tenor of an article she found on the Internet, Dr Mayfield shared her find with fellow students in the Raw Meaty Bones class.¹

Predilection to dental calculus formation in a group of dogs: Influence of calculus on the sense of smell.

The tendency of some dogs to rapidly develop dental calculus is well known. A group of beagle dogs being utilized in a study of bovine estrus detection

capability was found to have such a tendency. Over a period of several months it was observed that the dogs gradually lost the ability to perform the trained detection task. Subsequent examination revealed extensive tartar on the teeth of each of the dogs. Behavioral olfactometry was used to determine the olfactory threshold. For each individual the threshold was significantly depressed from the average. The teeth were cleaned and the behavioral olfactometry repeated the following day. In each case, the olfactory threshold returned to normal.

Subsequent olfactory threshold determinations were made, following the dogs for 3 months. The olfactory threshold was depressed in a rough correlation to the repeated development of dental calculus.

This finding strongly suggests that a major factor in the efficacy of detector dogs is good dental health, and, further, that dogs with tendency to rapidly form dental calculus should be selected against within any breeding program.²

The author, Dr Larry Myers's suggestion to use breeding programs — expensive, slow and unreliable — as a solution seems at odds with the known biology of calculus accumulation.³ Otherwise the research appears to be a major contribution to carnivore health. Customs agencies, bomb detection units, police forces, hunters and anyone dependent on the canine nose has reason to celebrate.

The interests of pets and their owners should not be overlooked. Clearly they need to share in the benefits too.

The bigger the breakthrough, the bigger the questions that follow. What are the mechanisms? What's the purpose of a canine's ability to detect odours? And perhaps more importantly: What's the purpose of this measurable loss of olfaction correlated with an increase in calculus formation?

Dr Johan Joubert, veterinary dentist and cybernetician, and I postulate that while a good sense of smell in the carnivore is important, the rapid loss of that sense, correlated with a build-up of calculus, might in the scheme of things be equally important. Also we postulate that the vomero-nasal organ (Organ of Jacobson, Ludvig Jacobson 1813)⁴ might be involved in this dramatic finding.

The vomero-nasal organ is described as: 'Part of the olfactory sense system that consists of a pair of fleshy tubes found on the floor of the nasal cavity on either side of the nasal septum, supported by cartilage sleeve. Probably concerned with scenting and aftersmell of food.'⁵

Keverne says:

The nature of stimulus access [fluids pass through an opening behind the upper incisors] suggests that the vomero-nasal organ responds to nonvolatile cues, leading to activation of the hypothalamus by way of the accessory olfactory bulb and amygdala. The areas of hypothalamus innervated regulate reproductive, defensive, and ingestive behavior as well as neuroendocrine secretion.⁶

If foul fluids from diseased teeth and gums gain immediate access to the vomero-nasal organ and if those fluids have a negative effect on sense of smell, reproductive, defensive, ingestive and neuroendocrine functions, then we have a powerful set of determinants for the health and well being of the subject animal.

Regardless of putative mechanisms, Dr Myers's work on olfaction shows that animals with periodontal disease suffer impaired ability to detect prey, competitors and enemies — a dismal prospect for the individual carnivore already conspicuous by its bad breath — but, in the scheme of things, doubly advantageous for prey animals, competitors and enemies.

And this scenario, if correct, has direct correlation with the predictions of the Cybernetic Hypothesis of Periodontal Disease in Mammalian Carnivores.⁷ The Hypothesis explains that regulators, carnivores, need regulating — and in the absence of sufficient prey that there needs to be a feedback loop, preferably with high 'gain', leading to the rapid demise of redundant carnivores. Failing hunters become the hunted and balance is thereby maintained.

- The Cybernetic Hypothesis sets out a uniting paradigm of health and disease for animals — with far-reaching implications for human health too.
- If Dr Myers's work demonstrates a high-gain feedback loop then it appears to provide a crucial test for the Hypothesis.
- If the Hypothesis passes the test then elevation to accepted theory comes closer.
- If adopted as a theory Cybernetics can provide the foundation for new cures and 'miracle preventions'.⁸

Thank you Dr Myers, and thank you Dr Mayfield for bringing the information to light.

Notes:

- 1.) Your Pet's Health: Nature's Way (2003) Emory University Center for Lifelong Learning, Web: <http://www.rawmeatybones.com/speaking.html>
- 2.) International Working Dog Breeding Association Conference, 5-8 October 2003 Web: <http://www.iwdba.org/>
- 3.) Hennet, P (1995) Periodontal disease and oral microbiology, in *Manual of Small Animal Dentistry*, Eds. Crossley, DA and Penman, S British Small Animal Veterinary Association, Gloucester pp 105–113
- 4.) Doving, K B, Trotter, D (1998) Structure and Function of the Vomeronasal Organ, *The Journal of Experimental Biology*, 201: 2913–2925 Web: <http://biologi.uio.no/genfys/PDFfiler/KD/vomeronasal.pdf>
- 5.) Blood, D C and Studdert, V P (1999) *Saunders Comprehensive Veterinary Dictionary*, 2nd Edition, W B Saunders, London
- 6.) Keverne, EB (1999) The vomeronasal organ, *Science* 286(5440):716-20

- 7.) Lonsdale, T (1994) Cybernetic Hypothesis of Periodontal Disease in Mammalian Carnivores, *Journal of Veterinary Dentistry*, 11:1 5–8 Web:
www.rawmeatybones.com/Cybernetic.html
 - 8.) Lonsdale, T (2001) A cybernetic hypothesis of periodontal disease, in *Raw Meaty Bones: Promote Health*, Rivetco P/L Windsor NSW pp 295–315
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A FIRST YEAR VETERINARY STUDENT COMMENTS

OK, we just started Nutrition on Monday and it's already absolutely unbearable. I guess I am just hopelessly naive, but I'm not sure I actually believed until I got there, that they could think it was worth anyone's time to devote a whole class to pouring dog or cat food out of a bag and into a bowl. And that a woman who spent seventeen years of post-high school education in veterinary nutrition studies could honestly think that commercial food is the only viable option to feed pets. She's not even making an attempt to teach us anything except how to evaluate dry foods, how to read dry food ingredient lists, how to do all these ridiculous calculations about Kcal, resting energy requirement, etc.

We had two hours of it today, once at eight and once at four. I didn't go to the eight o-clock class, because every time I go, it literally ruins the rest of my day. But, two friends, one raw-feeding and the other doing her research to start, spoke to the professor at the end of the class about some things she said that they questioned or didn't agree with. They tried to pose their questions politely, but apparently the conversation degenerated pretty quickly.

One of the things they asked about was her mantra, which she regularly asks the class to chant, "pets need nutrients, not ingredients", meaning, of course, that it doesn't matter what's in the food as long as the companies guarantee certain nutritional content. My friends brought up some non-species-specific ingredients, like corn, soy, wheat, etc. and asked if she didn't see a problem with that. Her reply was that corn gets a bad rap, that it's a perfect healthy ingredient, and that Native Americans survived on it well enough, so why not dogs? (I'm not joking) She also told them that high cooking temps/extrusion doesn't have any affect on the health of the food at all. When they mentioned raw and some good results they'd seen with it, she said that George Burns smoked and drank every day and lived to be 100, but that didn't mean those were healthy things to do.

She also said that raw is dangerous because of food borne pathogens, referencing an E coli. 01:57 outbreak at a Jack In the Box as proof, even though that deals with humans eating cooked meat?!? She then told them that they're just being influenced by fad diets on the Internet with no science behind them, and that she shouldn't just believe everything they hear or read. When they tried to stand up for themselves, she fell back on the "I'm one of only 50 certified veterinary nutritionists in the country" as if that ended the argument. They were both so furious they could hardly speak when I got there.

Then, for our second hour this afternoon, she taught us the nine steps she uses to evaluate a commercial food if a client wants her opinion. See what you think of these:

1. The bag, box, or can should contain the phrase "complete and balanced".
2. Products that contain this claim must also follow with one of two AAFCO statements, i.e. the product was tested through feeding trials or the calculation method.
3. The label should contain a toll free phone # so you can ask the company questions if necessary.
4. The product should have a digestibility of at least 80% (you may have to call the company to get this figure).
5. If you are feeding a dry product, it should contain a preservative (all of which are completely safe according to her).
6. Reputation of the company.
7. Cost
8. Animals require nutrients not ingredient (this one has about three paragraphs explaining why corn, soy and other ingredients are perfectly suitable for dogs).
9. How is the pet doing while consuming the product?

That's it. Nothing about what the ingredients are, ingredient sources. As long as it fits the above criteria, it's fine in her book. The really ridiculous thing is, she keeps contradicting herself. She told us about the experiment where they made a food out of leather boots, old tires, peanut hulls, whatever, that met the pet food companies nutrient requirements, but then she stressed that she thought Purina is a really quality brand of food that has an unjustified poor reputation (she's basing this on the fact that they claim their digestibility is 84%, which is supposed to be good, I guess). She also talked about ingredient splitting and how bad it is, but then showed us several labels of acceptable (to her) pet foods that had five or six split fractions of one ingredient.

I could go on with this forever, but I think this letter's long enough already :) I just need to blow off some steam; I think I'm going to have a sneer permanently affixed to my face after a couple months of that class.

Postscript:

We should not pretend that resolution of the multifaceted vet/pet food problem will be easy. But the more shoulders to the wheel the sooner it will turn.

Do your best – every little helps.

Best wishes,

Tom Lonsdale

2004 Raw Meaty Bones Seminars

June

United Kingdom Dates to be announced

July

San Francisco Bay Area, California, USA Dates to be announced

For updated information please check www.rawmeatybones.com