

# THE FRANCIS M. POTTENGER JR. SCIENTIFIC EXHIBIT

## A COMPARISON OF THE EFFECT OF HEAT PROCESSED AND RAW FOODS ON LABORATORY ANIMALS

*"The inadequate health of civilization today . . . is due to the failure of modern man to realize his place in the biological order." — F.M.P. Jr., M.D.*

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### FRANCIS M. POTTENGER JR., M.D., F.A.C.P.

Important advances in medicine and dentistry have always sprung from the minds of independent and original thinkers — from keen observers whose imagination, integrity and common sense gave them the courage to question official dogma.

Francis M. Pottenger, Jr. was familiar with the work of Sir Robert McCarrison, Weston A. Price, Harold Hawkins, William Albrecht, Tom D. Spies and others. Therefore he used applied nutrition and endocrinology early in his practice. Dr. Pottenger was one of the first to use crude extracts of the adrenal cortex for allergic states and the syndrome of depletion. An unexpectedly high mortality among cats undergoing adrenalectomy and a chance observation regarding their food, led to the classical experiments outlined in this exhibit.

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The following quotations are taken from articles written by Dr. Pottenger, describing his research on the use of processed and raw foods and their effect on laboratory animals.

"The experiment stemmed from the fact that we suffered steady mortality among the cats on which we were performing adrenalectomies for the purpose of standardizing adrenal cortex material. We were feeding these animals the meat scraps from the Sanatorium, together with raw milk and cod-liver oil. The scraps consisted of liver, tripe, sweetbread, brain, heart and muscle. We were at a loss to explain the reason, for it had been taught that such a diet contained the substances necessary to maintain animals in a condition of health.

"In time, more cats had been given to us than we were able to feed on the scraps from the Sanatorium. We placed an order for raw-meat scraps at the market where the Sanatorium meats were bought; these scraps included muscle, bone and viscera.

"We at first fed the raw scraps to cats in one particular pen. The change in the animals in that pen compared with the others was almost unbelievable, and demanded explanation; so the present study was undertaken.

"Over a period of ten years, 900 cats were studied, while complete records were kept on 600. Routinely the cats were weighed, numbered and described. On donated cats, all possible information was obtained from donors regarding history of development and type of food the cats had received, before they were placed in the pens.

"Clinical notes were kept. Each kitten was described, weighed on date of birth and other pertinent data noted, such as behavior of mother during birth. Clinical notes were continued on all viable kittens. Calcium and phosphorus determinations were done on femurs at close of experiment, which ran for ten years.

"Feeding experiments were conducted to determine the effects of raw and cooked meat. Another series of experiments went on to compare the differences resulting from the feeding of raw and processed milks.

#### THE MEAT STUDY

"Two diets were used in this study.

ADEQUATE DIET A:  $\frac{1}{3}$  Raw milk and cod-liver oil  
 $\frac{2}{3}$  RAW MEAT

DEFICIENT DIET B:  $\frac{1}{3}$  Raw milk and cod-liver oil  
 $\frac{2}{3}$  COOKED MEAT

#### THE MILK STUDY

"Five diets were used in this study:

DIET A Basic diet:  $\frac{1}{3}$  Raw meat . . . cod-liver oil  
 $\frac{2}{3}$  RAW MILK

DIET B Basic diet:  $\frac{1}{3}$  Raw meat . . . cod-liver oil  
 $\frac{2}{3}$  PASTEURIZED MILK

DIET C Basic diet:  $\frac{1}{3}$  Raw meat . . . cod-liver oil  
 $\frac{2}{3}$  EVAPORATED MILK

DIET D Basic diet:  $\frac{1}{3}$  Raw meat . . . cod-liver oil  
 $\frac{2}{3}$  SWEETENED CONDENSED MILK

DIET E Basic diet: RAW METABOLIZED VITAMIN D MILK only  
1. From cows on dry feed  
2. From cows on green feed

#### SUMMARY

(1) Cats fed two thirds raw meat and one third raw milk were healthy and reproduced in homogeneity. (2) This was also true of cats fed one third raw meat and two thirds raw milk.

Cooking the meat of group (1), or substituting heat processed milks for raw in group (2), resulted in heterogeneous reproduction and physical degeneration that increased with each generation. Kittens of the third generation failed to survive six months. Diet E produced unexpected results, i.e. rickets and early death of male kittens.

Vermin and parasites abounded. Skin diseases and allergies increased from an incidence of five per cent in normal cats to over ninety per cent in the third generation of deficient cats. Susceptibility to infections rose markedly and severe osteoporosis was universal. Mortality was high. These cats suffered from most of the degenerative diseases encountered in human medicine, including endocrine dyscrasias. Autopsy findings were revealing.

The precise food factors destroyed by heat processing are unknown. Alterations in the physicochemical state of globulins, albuminoids and minerals, together with partial destruction of vitamins, enzymes and amino acids, may be involved. The former could interfere with digestion and assimilation.

Change is shown not only in the immediate generation, "but as a germ plasm injury which manifests itself in subsequent generations of plants and animals." Four generations on raw meat and raw milk were required to bring some of the second generation of degenerating cats back to normal.

## FURTHER OBSERVATIONS

"We observed the following circumstances in the (cat) pens which lay fallow for five months at the conclusion of the experiment: volunteer weeds came up in each pen. The number of weeds and their hardiness were in direct proportion to the health and vigor of the animals that had lived in the pens.

"Following the harvesting of the weeds, we planted navy beans in the pens. The growth of these beans, in number, outward appearance and other respects bore the same distinct relationship to the health and vigor of the animals that lived in the pens as did the volunteer weeds.

"In the two plots fertilized with the excreta of cats on the milk diets, the beans of the certified milk (raw) germinated ahead of, and the beans formed earlier than those of the pasteurized milk group. The beans grown in the plot fertilized with the excreta of cats fed raw meat were by far the best. These plants were sturdier, their color better, and the texture of the leaves superior to any of the others.

"We believe that the healthy animals in our pens returned to the soil materials which, in turn, raised healthy plants; that the sick animals returned to the soil materials inadequate or even toxic for the growth of the plants.

"Students of bionomics find today that the primordial life cycle from the soil to the plant, through the animal and back to the soil is frequently disrupted. Man fails to return to the soil much of his crops, his animals and excrements, thus breaking the natural cycle of life."

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**"Man has been pointed to as the perpetrator of the greatest disasters to fertility and potential agricultural resources by ignoring the relation to each other of forests, soils, and the animals that dwell in them."**

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*Contributions are needed to help disseminate this knowledge.  
They are deductible for income tax purposes.*

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