Lead Industries Association

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May 24, 1955

Robert A. Kehoe, M. D., Director
Kettering Laboratory of Applied Physiology
University of Cincinnati
College of Medicine
Eden Avenue
Cincinnati 19, Ohio

Dear Bob:

From a man who is personally unknown to me, but who is apparently well thought of and is assistant professor of pediatrics at a leading medical school in another state, we have received an inquiry the body of which is copied herewith.

Depending on its probable usefulness and cost, this might or might not be a study to which we would feel justified in lending support at a future time. As I am obviously unable to evaluate the former factor, I have discussed it with Dr. George Wheatley and am now, at his suggestion, referring it to you, Dr. Norton Nelson and Dr. J. J. Chisolm, Jr., with the request that you give me any comments you may have on it.

The anonymity is simply because, at this point, it seems perhaps fairer to handle it in this way.

Sincerely yours,

MB:MM

KE 0014897

May 23, 1955

"I am writing to you to ascertain whether your organization might be interested in the support of a research project designed to evaluate the possible relationship of the symptomatology of lead poisoning to inactivation of Coenzyme A.

"This enzyme is a sulfhydryl containing enzyme which includes the vitamin pantothenic acid in its structure. The enzyme functions at a very key level in the intermediary metabolism of fat, carbohydrate and amino acids and its integrity is necessary for the proper functioning of all tissues. As lead combines with sulfhydryl groups it is possible that the presence of undue concentrations of lead in the tissues might result in at least a partial inactivation of this enzyme. This suggests that pantothenic acid administration might have prophylactic or therapeutic uses in preventing the biochemical injury involved in lead poisoning.

"We propose to test lead poisoned rats for evidence of pantothenic acid deficiency and to determine whether this postulated biochemical lesion can be reversed with pantothenic acid. We also plan to carry out studies in children along the same lines and also including the treatment of lead encephalopathy with pantothenic acid. We plan to use as index of possible affect of pantothenic acid the electroencephalogram as well as alterations in clinical condition and in the urinary excretion of amino acids."

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