

CHATHAM JUNIOR HIGH SCHOOL

CHATHAM, NEW JERSEY

Principal

DR. JOSEPH F. CALLAHAN

TELEPHONE
MERCURY 5-9100

January 15, 1962

Robert A. Kehoe, M.D., Director
Kettering Laboratory
Eden and Bethesda
Cincinnati, Ohio

Dear Dr. Kehoe:

While reading an article about lead poisoning in the January, 1962, issue of the magazine, Today's Health, I came across several references to the work done at Kettering Laboratory to analytically detect traces of lead in the body. The author of the article, a Dr. John E. Allen, particularly praised your contributions in this area.

The aforementioned article was brought to my attention by an inquisitive fourteen-year old science student of mine who was stimulated to do an experiment on mice to note some of the effects of lead poisoning. Since I am not well grounded in this specific area, we jointly decided to learn more about the topic to determine the feasibility of pursuing this experiment, keeping foremost in mind that the lives of the experimental animals must not be jeopardized.

I would very much appreciate your advice. Listed below under column A are some considerations we wish to investigate. Column B lists the means by which we hope to obtain the needed information. If you will be so kind as to evaluate these steps and add suggestions, you would be most helpful.

Column A

1. how to detect the presence and amount of Pb pigment in paint
2. find out the amount of Pb which, if administered to mice in the form of paint scrapings in their food would be sub-lethal

Column B

1. write to the National Paint, Varnish, and Lacquer Association, Inc., 1500 Rhode Island Ave., N.W., Washington 5, D.C.
2. ? ; perhaps this information can be obtained from Ciba Pharmaceutical Products, Inc.

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Column A

3. how to perform laboratory tests on blood and/or urine to obtain evidence (other than external symptoms) of abnormal concentrations of Pb
 - a. what is the test agent used in the sample screening test, and where can it be obtained?
 - b. is the ether used $(C_2H_5)_2O$ or another ether?
 - c. what volume of urine is required?
4. learn "de-leading" techniques
 - a. what specific compounds and in what quantity can be used as cleansing enemas to 'de-lead' the mice
 - b. can the drug, edathamil calcium disodium (EDTA) be obtained for injection? if so, where can it be obtained, what quantity need be purchased, what is the cost involved, and will specific directions be included to explain how to inject the animals (subcutaneous, intravenous, or in muscle)?

Column B

3. cognizant of our lack of suitable equipment and techniques, we hope to duplicate the sample screening test which doctors can perform by adding a few drops of a test agent into a urine specimen, add some CH_3COOH and H_2O_2 , and then add a small amount of ether
 - a. perhaps the local
 - b. physicians can
 - c. supply this information
4. ? : perhaps this information can be obtained from Ciba Pharmaceutical Products, Inc.

As you can gather from the above listings, at present we lack much information needed before undertaking the experiment. The student is anxious and I might add, quite able, to tackle this project.

Any information that you can forward to us will be gratefully received.

Very truly yours,

Gertrude H. Clarke

Gertrude H. Clarke (Miss)
9th. Grade Science Teacher

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