January 17, 1935

Dr. Keith D. Fairley
Francis House
107 Collins Street
Melbourne, Australia

Dear Dr. Fairley:

I wish to thank you for your letter of November 21st with its full information concerning the men who are under your supervision. I am very glad to know that things are in such good condition.

I am sending you under separate cover a series of reprints of articles which we have published and as new work comes out, I shall send you further articles. I have no doubt you will be interested in the results which we have obtained as to the lead absorption and excretion of normal individuals. For the past year we have been studying this problem by the use of two methods of analysis carried out in parallel. Some of our redent results have appeared in the January 12th number of the Journal of the American Medical Association, a copy of which I shall soon be able to send you. The use of a spectrographic method has enabled us to settle the question of the sensitivity of our chemical analytical method, and in my opinion the results which we have obtained are now established on such a sound quantitative basis that there can be no question of their established accuracy.

While we have been studying normal lead, we have also been studying the question of normal blood findings, and I hope to be able to send you soon an article which will detail the results of a rather comprehensive study of the question of the stippling. One thing is quite certain - namely, that the presence of stippled cells in the circulating blood up to a certain point is an entirely normal phenomenon. There is no reason to believe that it has any relation whatever to the absorption of lead, and in fact, we have found certain other stimuli exclusive of lead which are capable of producing a distinct rise in the stipple count. In our experience the finding of stippled cells up to 10 per 50 fields (approximately 12,500 cells) has no diagnostic significance but is entirely normal, and from time to time figures up to 30 or more have been found in individuals without abnormal lead exposure. However, I believe it will be necessary to examine our entire statistical study to be able to establish the outside normal limits. One of my men is completing this study at present, and we hope to publish an article soon.

Dr. Keith D. Fairley

As to the treatment of lead poisoning and the use of lead compounds in the treatment of malignant tumors, all I can say is that our experience has not been instructive. It is still true, I believe, that although most cases of lead poisbning are mild and tend to clear up of their own accord, the best treatment of poisoning is to prevent it. The cases of poisoning from organic compounds of lead are likely to be severe, and in our experience which fortunately has been limited, the best results have been obtained by treating these acute cases on the assumption that the chief thing to be combated is cerebral edema. The use of magnesium sulphate administered by rectum, orally, or in acute cases intravenously, has resulted in improvement and in tiding the patient over the more acute period. From that time on we have used supportive treatment, have pushed foods and have attempted, thereby, to promote lead excretion as much as possible. However, I have not advocated "de-leading" since I believe it to be of little use and at the same time dangerous.

We have attempted to use lead compounds in the treatment of malignant tumors. In our somewhat scanty experience this has not given favorable clinical results, nor have we been able to demonstrate any unusual localization of lead in the tumor. I have hoped that tetraethyl lead might find some usefulness here, but I am extremely skeptical. One experimental fact in this connection which has interested me is that lead compounds actually absorbed into the brain seem to remain fixed in the tissue definitely. We are attempting to find out why this is.

Again my thanks for your letter and I hope that we may be able to maintain some degree of contact which will be mutually beneficial.

Cordially yours,

RAK"IS

Robert A. Kehoe, M.D.