May 15, 1942

Dear Dr Korenchevsky,

I have just read your letter of May 6th with the fuller statement of what you think could usefully be done with mice. I am exceedingly sorry to hear of your daughter's grave illness, and hope that she is now recovered.

What you suggest does raise a certain number of problems, which I hope it may be possible to overcome in further discussion with you. Of these I think the most important is the question of injection rather than feeding as the chosen treatment.

It is entirely a matter for you to judge whether my stock could best be used for hormone or vitamin treatment, and, if the former is preferred, whether injection is essential as the method of administration. I have, however, no one in the Department who is qualified (and licensed) to carry this out. If, as I suppose, the injection is to be performed only every two months, you may have in view yourself or an assistant coming down to perform the operation at intervals. This, I think, would be feasible if you could make sure that the conditions laid down by the Home Office governing vivisection experiments can be satisfied by this procedure.

Among minor points I should mention that my own stock are
kept permanently mated and allowed to have litters, if they will, at as close an interval as three weeks. The more usual interval is, I think, about five weeks. The total output of young mice from different matings varies rather considerably, but I believe that this variation would not be appreciably diminished by the controlled timing which you suggest, and which really would require what I have tried to avoid — and indeed have no room for here — the setting up of matings exclusively for senility research, rather than the use for this research of matings made up for the normal purposes of the Laboratory.

The falling off of fertility with age in my material, as they are kept here, is sufficiently marked after 10 months of age for me to feel sure that any arrest of senility would show its greatest effect as measured by fertility at ages 10 to 15 months, as suggested in my previous letter. It is quite possible that other stocks of mice, kept in different conditions, might show the contrast better from 12 to 24 months, but I think the treatment would have ample opportunity to show striking success in my material within the first 15 months of life. Of course if it were so successful that the mice bred up to 15 months, I should not object to keeping them longer, so as to demonstrate even more strikingly the success of the treatment. One must, however, remember that natural causes of death will greatly diminish the number of pairs surviving beyond this age.

Using my own stock and experimental matings, I could set aside all unwanted mice at 28 days, weigh them, and preserve in alcohol for the examination of special organs. A number of mice from these pairs would, of course, be selected as parents of subsequent litters. New
matings are made up from time to time throughout the year, and I should suggest that they should be allotted to experimental and control groups in turn as they are made up, so that varying seasonal conditions would be eliminated from the comparisons of fertility ultimately made.

I have at present one young boy, and am hoping to obtain another. They will for some time both be learners, but I think can carry out the routine feeding and cleaning satisfactorily, so that you need only consider the "young scientist" if you are able to procure any such assistance at the present time.

I shall be very happy to see you if ever you can come to Harpenden.

Yours sincerely,