

29 June 1934.

Dr. W. Landauer,  
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Storrs, Connecticut.

Dear Landauer,

I had noted the statement under your and Dunn's name that you had a non-crested bird which transmitted hernia. You give, however, no details as to the progeny of this bird, which, if hernia is separable from crest, should have led to an uncrested breed manifesting hernia. No such breed seems, however to have been produced. My statement was not an assumption, but it certainly is not the whole story, since the hernia has been almost completely suppressed in the Silky and was obviously suppressed or largely eliminated in your own  $F_2$ . As far as I can make them out, your linkage data support the identification of hernia with crest on the only point on which it could do so, namely, that all your coloured birds were crested, i.e. the 8 that survived to be scored for crest. As you have a Frizzle stock with some crested, perhaps you can tell me if you have confirmed Suttle and Sipe's statement Journ. Hered. 1932, 23 pp.135-42, that crest is linked with Frizzle. They report consistent progenies with 67 cross-overs out of 239. This should aid in judging whether the crest factor is the same as they used. The analogy

of the Silky breeds, however, shows clearly that the hernia can be suppressed by the appropriate modifier or complex of modifiers, and the same may be true in your Frizzle stock, just as the domed skull has been emphasized in the Polish.

If you can, I should be much obliged for further details of the uncrested female which transmitted hernia and of her progeny as far as these have been bred. I should be glad, too, to get the actual numbers scored for colour, hernia and crest at each stage at which they were counted in the  $F_2$ , which you published with Dunn, and any subsequent broods, which may have been derived from these.

My own material was, of course, designed, not to clear up the whole story of the modifiers accumulating in different domestic breeds but to study the reaction of single genes in the wild species. The single gene ratios have throughout been normal and there is no feature in my results which suggests more than trifling causes of modification. It will be interesting to see if my hernias are of both sexes and I should be glad in that connection to know if you have continued to find suppression in the males in later generations.

Yours sincerely,