

INDIANA UNIVERSITY

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Dear Josh:

In view of your comments, I went back to my Bellagio paper and can see that my exposition on pp. 7 and 13ff was not sufficiently clear. I have already submitted this as my manuscript for publication but, in view of your suggestions, I have made some changes in an attempt to clarify it. I am sending you a copy with these changes. If you think this will do, and have no further comments, I'll try to get the revision substituted for the original. Since I have already somewhat exceeded my space assignment, I don't think I can ask to have tables of the data included. I hope later to publish a full paper on d59 and other clones, including tables, photographs, and drawings. I showed some of the tables and photos at Bellagio. Do you think it is so desirable to have them in this paper that I should still try to get them in?

In case my modified manuscript remains unclear, I'll add here some further comments for you. The section on page 7 refers to the first meiosis after the normal haploid micronucleus was introduced into d59, i.e., at the first autogamy following the conjugation with the normal mate. When I say here that micronuclear behavior and survival is normal, I refer only to the passage of a reduced nucleus into the paroral cone, its survival, and its subsequent division. In the one exceptional clone, I refer to cytologic examination of 64 autogamous individuals at the stage when a micronucleus should be in the cone or soon thereafter; in more than 40 per cent of these, no micronuclei could be found.

The section on pp. 12-16 refers to a later stage, the stage when the products of division of the surviving nucleus should differentiate into two micronuclei and two macronuclei. The statement that nuclear development is usually abnormal means that usually one does not find at this stage two micronuclei and two macronuclei. Moreover, this section deals first with nuclear development immediately after introduction of the haploid nucleus from the normal mate; and then with the corresponding stage at the next autogamy.

Your comment about macronuclear material is of course well taken in certain connections. I don't see how it could be involved in the part discussed on page 7 unless there is some as yet unknown way in which macronuclear material persists after it has disappeared from view. (About twenty years ago I thought I saw macronuclear anlagen that had