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July 21, 1988

Professor Joshua Lederberg Rockefeller University 1230 York Avenue New York, NY 10021

Dear Josh:

Thanks for your note dated July 5 received here July 12 while I was on vacation. I was intrigued by your attempt to clear up some loose ends and like your idea of rummaging in the attic to find old treasures. I can't help you much in this instance.

- 1. The Bombardia story, so far as I can tell, was not taken further after Jean Mathieson. Esser and Kuenen in their book on <u>Genetics</u> of <u>Fungi</u> (1967) have a section on polarized segregation of non-homologous chromosomes, or affinity, but don't deal with this instance. They do, however, cite other papers by Zickler (see copies of pp. 122 and 261) from their book. Since one of these was from 1952, it suggests that he survived the war! You might try contacting Karl Esser at Ruhr-Universitat Bochum, Germany. He may well have information on Zickler. I have also written to John Fincham whose encyclopedic knowledge of these things may reveal something of interest.
- 2. Solopathogenic or diploid sporidia in <u>Ustilago maydis</u> result from failure of meosis. This can be readily detected by plating teliospores. You will find a note of the frequency (0.26 0.43%) of unreduced diploids among two samples of smut from a farm crop in my book, <u>Genetics of Host Parasite Interaction</u> (1974), p. 75.
- 3. On page 69 of the same book you will find a reference to differences between reciprocal crosses in <u>Puccinia</u> <u>graminis avenae</u> described by Green and McKenzie (1967). On pages 86 and 87 there is some speculation about the possible role of fungal viruses in bringing about these effects. Johnson helped to supervise a Birmingham Ph.D. student named Adrian Newton during my early days at the Institute who tested for the presence of double-

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stranded RNA in a range of rust isolates in an attempt to correlate this with physiologic race or pathogenecity type on different cereal cultivars. The results were negative.

4. Jean Mathieson is married to George Mayo who was at the University of Adelaide. They both retired several years ago, but I assume that a letter to her, care of the Genetics Department of the University, would be forwarded and might uncover some more information. Another possibility is George Bistis who recently retired from Drew University but who still has an office in the Department of Botany.

I am sorry I missed you at the Waksman Institute celebration of several months ago when I was out of town.

Best regards.

Yours sincerely,

Peter Day Director

Enclosures pt/d30