

NOT FOR PUBLICATION
For Your Information Only

JAMES E. CROW

FIFTH CONFERENCE ON GENETICS

JOSIAH MACY, JR., FOUNDATION

November 3-6, 1963
Princeton, New Jersey

TABLE OF CONTENTS

	Page
Sunday Evening Session November 3, 1963	
Call to Order and Opening Remarks by Chairman James V. Neel.....	1
Monday Morning Session November 4, 1963	
"The Results and Analysis of Studies on In- breeding Effects," led by Dr. Alan Robertson	3
"Inbreeding Effects in Plants," by Dr. H. F. Robinson.....	15
Monday Afternoon Session	
Continuation of Discussion of Inbreeding Effects:	
"Inbreeding Effects on Larger Mammals," by Dr. G. E. Dickerson....	89
"Introduction of Homozygosity into Heterozygous Background," by Dr. Richard C. Lewontin.....	131
"Experiments with Spontaneous Muta- tions," by Dr. Bruce Wallace....	150
Tuesday Morning Session November 5, 1963	
Continuation of Discussion of Inbreeding Effects:	
"Studies on Inbreeding Effects in Japanese Children," by Dr. W. J. Schull.....	167
Concluding Remarks by Dr. Robertson....	220
Tuesday Afternoon Session	
"Studies on the Distortion of Genetic Ratios and Their Interpretation," led by Dr. L. C. Dunn.....	247
"The SD Phenomenon," by Dr. J. F. Crow	273
"Implications of T Allele in Mice," by Dr. Howard Levene.....	297
"Prospects for Changing Transmission Ratios," by Dr. Everett Dempster....	324
Remarks by Dr. Dunn.....	335
"Drive Effect," by Dr. K. G. Atwood....	339

TABLE OF CONTENTS

Wednesday Morning Session November 6, 1963		P a g e
"Approaches to Distinguishing Between Mutational and Segregational Loads," by Dr. James F. Crow, and Discussion Thereof.....		343
Wednesday Afternoon Session		
Continuation of Discussion on Distinction Between Mutational and Segregational Loads....		442
Suggested Studies to be Done.....		469
Adjournment.....		484

SUNDAY EVENING SESSION

November 3, 1963

The Fifth Conference on Genetics, sponsored by the Josiah Macy, Jr., Foundation, convened on Sunday evening, November 3, 1963, in the Colonial Room of The Nassau Inn, Princeton, New Jersey, at eight-thirty o'clock, Doctor James V. Neel presiding.

NEEL: As announced, this opening session is always very short. Welcome to the fifth and last conference of the Macy Foundation series on genetics, which is also the last Macy conference on any topic. As many of you know, some twenty years ago now, the Macy Foundation pioneered in the idea of small, informal, closed conferences of this nature, and, in its lifetime of sponsoring such conferences, must have sponsored twenty or thirty. Other foundations, other sources of funds, picked up the idea, and it is now a very widespread one, so much so that the Foundation came to the conclusion three or four years ago that it had fulfilled its role in this respect and would be very happy to bow out of the field. It happened that at that time, they had made a commitment to a series on genetics, and they carried through with that commitment. This is, then, the passing of an era, as it were, tonight, or the next three days.

Ordinarily, Dr. Rappleye, who is Director of the Foundation, would be with us, but he is unable to be here. There was a letter awaiting me when I checked in, which I will read:

My dear Jim:

On my return from Chicago, I find myself scheduled to be the speaker on Monday for the National Fund for Medical Education's national conference. As I told you earlier, I am also caught with the meeting of our Board on Wednesday. It now looks impossible for me to attend the meeting. Will you convey to the members and guests my great regret at not being able to welcome the group on behalf of the Foundation, but please do extend my best wishes for a satisfying and successful session. With the warmest of all good wishes to all of you, I am

Sincerely yours,

Willard C. Rappleye

Again, by tradition, the next item on the agenda is introductions. This is a group which is well acquainted each with the other, but, even so, we will go through the formality of starting at one end of the table and just working around the table with a brief self-introduction, identifying yourself by name, and, if you wish, a brief statement of your interests. This statement, by the way, has taken many forms, depending on how the preprandial refreshments went.

[The members and guests introduced themselves.]

NEEL: The next item to be attended to, I think, is to reassure you concerning the presence of Miss Meininger, who has been the very efficient stenotypist for the Macy conferences in recent years. There are no present plans to publish this one, in departure from the usual pattern. However, it seemed quite possible that a number of you would like some kind of record of this gathering, and the present plans are that Miss Meininger will cut a stencil, based on her notes, and it will be distributed to the participants in the gathering.

The only other announcement has to do with some of the formal arrangements here.

[Announcements re hotel bills, etc.]

NEEL: One other thing I should say is, if you have any problems of any kind, we have a real specialist here in solving problems, Mrs. Teebor.

TEEBOR: Please do not hesitate if you have any problems concerning airplane tickets or transportation.

NEEL: Particularly the matter of checking your reservations. If you have any questions, Mrs. Teebor will be very happy to take care of them.

For the rest of the evening, in the past, we have found that the discussion leaders sometimes liked to get together with people they have spotted to bring out particular points and work out some kind of sequence. This is precisely what we will do from here on. Dr. Robertson is leading the first day's discussion, Dr. Dunn will lead the second day's discussion, and Dr. Crow, the third day. It is over to you now. The meeting is adjourned.

[The session adjourned at eight forty-five o'clock.]