

August 4, 1965

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Dear Torbjorn,

I hope you will recognize the enclosed plots as reduced-scale plots of the blueprint curves you sent me on the chromosomes of rye.

We used these as exercises for an optical curve-reading program that is now working on our computer - I think you will agree to considerable satisfaction. Also enclosed are the printouts from the digitized data as stored on tape, and as an illustration of a calculation, the computed integral of each curve.

These were only exercises for us, and I have no intention of doing any further calculations on these data except at your initiative. However, if there were any way in which we could be of assistance to you, I would be delighted to discuss it with you. There are for example statistical problems of objective classification of the chromosomes from their photometric records. What this does illustrate is the feasibility of storing and retrieving this kind of data as chart recordings.

Cordially,

Joshua Lederberg
Professor of Genetics

Enclosures:

- 1 - Tracings (computer-drawn plots)
- 2 - Calculated integrals
- 3 - Program printout

T.
CASPERSSON

$$\int y(x) dx$$

Record #

Area in sq. inches

1	CHROMOSOME	↓	A	19.448
2			B	22.024
3			C	18.176
4			D	21.432
5			E	18.776
6			F	21.704
7	CHROMOSOME	5	A	24.352
8			B	22.856
9			C	22.448
10			D	15.976
11			E	24.816
12			F	23.424
13	CHROMOSOME	6	A	16.312
14			B	21.752
15			C	25.464
16	CHROMOSOME	7	A	23.152
17			B	25.656