Dear Esther and Josh,

<u>business</u>
(1) experiment # 269 was in three parts - unlabelled as to subparts - with three crosses with diploid isolations:

W 2 5 7 8   W 1 3 2 4
W 2 5 7 8 x W 1 3 2 4
W 2 5 7 8 x W 1 3 2 4

- (2) concerning G_{al} 7 of W 583 (which I was given with the label G_{al} a):

   a. W 583 and W 2406 were both mixed for Ip_2 and I selected the one which was given in the book - both cultures were singled by me (but these would be derivatives of the master stocks)

   b. W 583 and W 2406 never tested on EMB galactose since W 583 X W 2406 gave Gal + recombinants

   c. unusual G_al fermentation color of $H_e$ts IV-2 and IV-76 is recorded in my notes but attributed to medium differences (?)

   d. 'reversions' of $H_e$ts IV-2 and IV-76 were never back-crossed as far as can find in my notes

      Thus a Gal-slow in 2406 is not ruled out by my data. As noted in my book 583 was called G_{al} a because it was not yet sure that it was G_{al} 7 - something to do with ability or inability to be transduced.

(3) wrote library re book which should have been returned thru usual channels - I found it the morning I took off for Cal and left it to be returned but apparently it never was

(4) nothing new here research wise

(5) by Parisian (ienne) informant and from CSH - Jacob has 'irrefutable proof' of partial transmission in K12 - as near as I can figure what he does is this: cook cross in buffer or broth/for/ferm/, withdraw aliquots as function of time, pop into Waring blendor, plate for recombinants and test for battery of unselected markers - findings: longer one cooks before blending the greater the frequency of recombs with unselected marker derived from F+ (or, rather, Hfr) parent

   CSH very excited about this according to Werner Braun - but I pointed out that this is solely a coitus interruptus experiment and proves nothing about the normal mechanism except that one can chop up the chromosome with a Waring blendor - apparently Yvonne Lanni has done the same thing with phage (using two marked phage and blendor).

<u>other</u>
(1) was at CSH phage grad - Gus Doermann fell and broke his elbow - had to have bone chip removed but is recovering uneventfully according to late reports
(2) saw Seymour - he and Susie Mayr quite thick by criterion of squirting each other with water pistols all day - no discussion of science
(3) rumor that Roger R id of ONR will be next director here
(4) Bernie Davis turned up with wife at CSH - rumor that he left her waiting at the church also rife - but apparently the wedding did come off

(5) Braun is foaming at mouth here because anti-genetics faction (everyone but Waclaw, Braun, and myself) maintains:

"nucleus has nothing to do with cell growth, metabolism, etc."
"chromosomes are waste products of cell metablosim - made up of alkaline phosphatase condensed on unspecific protein and metaphosphate"
"mutants are due to different conditions of nutrition of the cell"

(6) point brought up at Brookhaven:

re Demerec et al linear subgenic structure - only one found for each amino acid in Salmonella but there are loci scattered over all the chromosomes in Neurospora - why?

answer by Davis or Hotchkiss - maybe several pathways of synthesis of amino acids in Neurospora (but then why does a mutation at one point close down the cell?)

Waclaw, Braun, and I got to talking - prposed that amino acid, etc., is not merely synthesized at a given locus (or structural mechanism of synthesis determined at that locus) but also incorporated into a pre-fab sub-unit of cellular structure - thus each locus is indispensible but externally supplied amino acid, etc. can be used - to test this idea labelled amino acid would be fed to several mutants and resultant myelium fractionated for structural components - cell walls, mitochondria (?), ratio of labelled to total total amino acid should vary in different fractions, furthermore, unlabelled component should be found (but difficult to test since obviously)

What do you think of the idea?

Regards — may drop in for dinner if I get job out west + have to drive out

Lou