

THE JOHNS HOPKINS UNIVERSITY

BALTIMORE 18, MARYLAND

MCCOLLUM-PRATT INSTITUTE
INVESTIGATION OF
MICRONUTRIENT ELEMENTS

9/24/58

Dear Josh,

It is 5¹⁵ a.m. - just the
time of the solid log. phase
of this damned bug. I am
trying to do your lactose exp.
and on top of that ~~is~~ a penicillin
exp. Probably two sleepless nights -
and people will probably be forced
anyhow to know that galactose ferrets
3096 against penicillin (if it does?!).

Mike Jarmolinsky is with me - but
to tonight (at 'midnite' we both went to
our Baltimore rooms with alarm clocks - he
probably just knock his down for the table).
I hope that I can get him and a
graduate student interested in H₂.

- Your question about galacton in some
cell wall can best be answered with
respect to 4-epimerase-less 3099. I ought
to send you a photograph of a pretty chroma-
togram sprayed with silver (not Danish silver).
This the glucose-gal spot rechrom. in a pyridine
mix which separates gluc. & gal well. There
are probably 100% glucose in this nice spot
and not a trace of gal (0.5% words have

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been just detectable. Hence unlike many B strains which acc. to Westphal & al contain rhamnose (main part) and gal 2 gal 10 to 3 (i.e. acc. to Delois's equil.) K₁₂ 3099 has no detectable galactose. This corresponds well with the fact that '99' grows well in a pure glycerol, amm. min. med. The other strain analyzed is 3096 (transf.-less) and it has neither detect. amounts of galactose. I did not mount as much on the paper as on 99 and the lack of galactose is therefore not that 'water tight.' We must do 3100 of course but I need some coworkers. It is a lot of work, espec. the fractionations.

- The ^{triple} 'leaky' 'Gal 3' interests me very much. Phil Hartman put his bet on an inversion. This interests me somewhat - because I find that the constit. epimerase moderately lowered and the induced greatly lowered (only 1% of 3100, 3096 + 3092). Could it be that the location of a repressor gene (or inducer gene) affects the amount of induced protein synthesis? - I have still frozen the 'lysates' of a 300 L₁₂ run of '3092'. But the agency of getting things running here has prevented me from working the batch up. The fingerprinting is far off. But remember that yeast epimerase has built in DPN and is probably only 30×10^3 big (pr. incorp DPN). This applies probably also to

K_{12} epimerase. — Bernie Horochw has gotten some
of your strains through a "semi phony" character at NIH.
I sent him 3096 upon his request. I don't know
what he is doing with it and I don't care; I
suppose you don't either. I am looking forward to see
Jacques Monod in Boston next month. Are you coming?
We missed you at the Genetic Symposium in Chicago.
It is 5:40 — next aliquots

— Hope to see you soon
— As ever yours
— H. D.