(XY) → 11/14/85

Personal Memo from
JOSHUA LEDERBERG

Prof. Barton Childs

Dear Bart'

NOV 12 1985

— Garrod, etc.
(What a pleasure to be engaging with you again.)

I recalled, and retrieved, another source as Garrod — H G Wells, enclosed. I would have seen that ~1940.

Wells' treatment reaffirms that
1) Alcaptonuria, interruption of metabolic pathways .... was well known in medical-biochemical circles.

Garrod could not have been invited to give the Croonian lectures on a whim.

2) Genetic disorders of metabolism were "freaks".

You do well to caution about "precursor disease".

Is there any evidence that Garrod made the (modern) extrapolation from pathogenic mutant genes to the view that genes were the sole or even primary source of development

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information. Does he say anything about the function of the normal allele?

Another way to tackle this intellectual history is to trace perceptions of "protoplasm". Well into the 30's I believe the idea was widely held of protoplasm as a "living colloidal system". Within species, gene polymorphisms might influence the manifestation of that protoplasm ....

The 1:1 theory is really a subset of a strong statement that the genes carry all the hereditary information of the cell. This is pretty old since Beadle + Tatum. I don't have an outline for that earlier — perhaps see Coulson.

What were Garrod's views on this question, (if any)? Josh.

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