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September 1, 1956

Dr. D. G. Catcheside
~~Birmingham~~ The University
Birmingham, Eng.

My dear Catcheside:

The Winge Festschrift has just come to hand, and I noticed there your comment about "plasmid". I am afraidbthat all of genetics in in for hard times ~~remixed~~ terminologically: aside from squabbles about neologia, I am quite startled to see how old standby's like "gene" and "allelic" are being reshaped. What is there to do about it? I can think of few things more profitless than arguing about the appropriateness of a usage, and we have neither the standards nor the judiciary to assess correctness; the only solution I can see is to prefix a glossary to every discussion, until we have some means of measuring and congealing the consensus. So I have no deepseated objection to your re-definition of plasmid, but I fear it will be necessary in further uses to specify which definition is being applied. We may end up like the taxonomists, writing plasmid (Catch., not syn, plasmid Leder.).

1956 is no longer 1952, and some of the issues have evaporated, but I hope I can explain why I wanted to add to the plethora (to which one could recently add homeostat, Danielli '56 also). In this country, plasmagene was popularized almost simultaneously by Spiegelman and by Sewall Wright, with a usage that comes close to "plasmagenic plasmid"; i.e., a gene-product with self-replicative capacities. At that time, both Spiegelman and Sonneborn believed they had evidence for such intermediaries of gene action. Shortly thereafter, Lindegren introduced "cytogene" as a near-synonym. In my own discussions, where I used plasmagene in the generic sense, my correspondents here felt it had acquired the connotation of a gene-initiated particle (you might ask Sonneborn about that). This may well differ, say, from Darlington's intention.

Then, Darlington himself (Nature, 1944) distinguished plasmagene from plastogene.

Finally, the main point of my article was to correlate all the species of extranuclear determinants, including even highly organized endosymbionts which may have a life history and genetic complexity of their own. I don't believe any of the other terms then current carried this sense, or if it did originally, other connotations had accreted, as they almost inevitably do. That article was provoked by my impatience over the squabble whether kappa, e.g., was a "plasmagene" or a "virus", which is a ridiculous semantic obstacle to getting to work on these determinants.

I am not clear whether plasmid (Catch.) is intended as a category of plasmid (Led.); I gather not if it is defined as "a characteristic product of each gene liberated into the cytoplasm", regardless of its reproductive behavior. The term "ergid" comes to mind as having been used this way, but I don't remember where, if surely at all.

To my mind, it is no great loss to have this evolutionary divergence in meaning; there is no stopping it anyhow, and better to have it obvious than subtle. If writers are impelled to consider, and make explicit, their nomenclature it may be all to the good.

Have you any news of arrangements for travel support? Our Australian trip ~~begins~~ will be June 1 - October 1, and probably cannot be fitted into a visit to Britain. But I do have an invitation for the Ciba in late March & would be delighted to extend the trip then if it made it possible for Esther and me to come over together.

In any case, with best regards,

Yours sincerely,

Joshua Lederberg