TELEPHONE: SELLY OAK 0340

TELEGRAMS: "BACTERIUM", B'HAM

UNIVERSITY OF BIRMINGHAM

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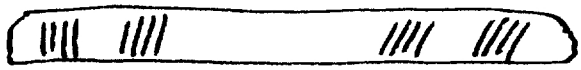
THE MEDICAL SCHOOL,
THE HOSPITALS CENTRE,
BIRMINGHAM, 15.

13th July 1951

Dear Josh,

Many thanks for the photomicographs. Will you convey my message to Miss Lively also. I have been studying them, and consulting with Grace and Morris (Myxos and actinos, respectively). The conclusion to which we came — more or less independently of one another — is that the haploids are (11 11), and that a large proportion in the large picture of the diploids are (11 11 11 11), with some

apparent haploids. In the small picture, of the filamentous diploids, many appear more like  . Now is it genetically possible that these are tetraploids, as they seem to be cytologically? Or what?

You seemed puzzled to know why I asked for your agreement. The answer is quite simple: — You have ideas, and don't hesitate to express them; you also make positive, and not merely negative criticisms. Accordingly, I like to know what you think.

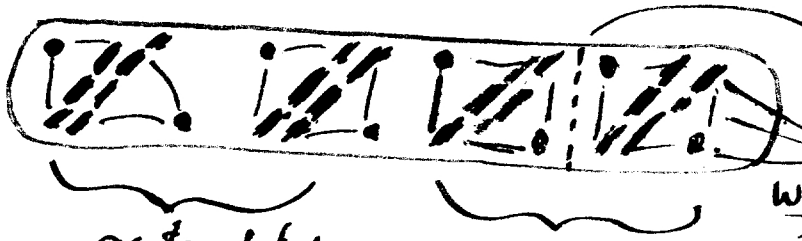
Of course, just as I accord you the right to know better than me (from your greater experience) in purely genetical matters, so I consider myself capable of forming my own conclusions about cytology (I have some experience too), but I still like to know what other people think — especially yourself.

I know what I think about D-L-S, and since he asked for a light he'll quite probably get one. I'm sorry that you were not

in the room when I explained his error; so, in case you are interested, I'll expound.

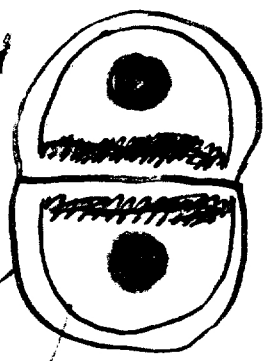
Firstly, B. megatherium: —

Now, DeL—r, admittedly ignorant of the existence of the cross-walls and associated structures, and using a technique which in my (not entirely unskilled) hands stains all these membrane elements equally with the nucleus and produces some shrinkage in the fixation, interprets these as below:—

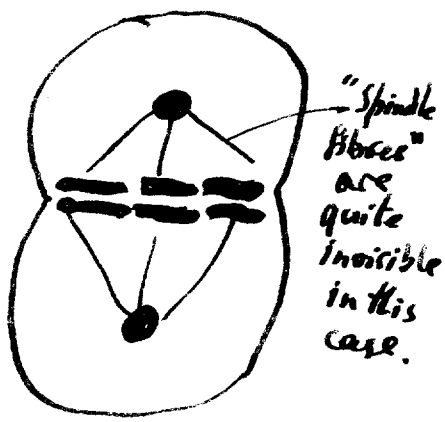


Secondly, the cocci: —

As I, and a lot of other people see it.



DeL—r, again ignorant of the cross-wall and all the rest; Shrinking the nucleus considerably, interprets →



In other words, the man is simply God-damned ignorant about his material

The amusing thing is that this error crops up with persistent regularity among inexperienced cytologists. All my associates laughed like drains when they saw it, without any explanation from me. They'd all made the same world-shaking

discovery themselves, at one time or another, and found out the snag just as soon as they looked at a cell-wall stain.

The "fusion tubes" like many other such monstrosities, can be got any time on blood agar. They also have cross-walls, and

are, small, degenerate bacilli, in chains.

If Del—r had taken the trouble to <u>read</u> my book, instead of merely looking at the pictures, he'd have seen his first error, at least, expounded.

Best wishes,

K. A. Bisset