February 4, 1958

Dr. I. A. Jenkine
Dopartiment of tonotien Univeroity of California Batcoloy 4, Galifornia

Dear \$12:
To yeurs of tho 30 th. The argumant shout Malford 3at Bind do sound mbentais. That is too bad. I'll juat follow along vithiyour suggentiona new, of siving the rafor apeolifioutions.

I aun onolosing one of the penultimate plan for modical Genetion here: it imoludes most of the deaign featureny whioh is not to see it ought to be ondilated foot by foot. The basic furndture unite are 31-m, a $31^{*}$ high work bonoh with open shalving on the walls bulit in illuminiter and a cet of dravere and cabinete not too unconventionm. The 37-m unite are onemitially uhonical berch. Hoom 124 is a Tair approximation to what I might call a besic unit; multiply this by 3 or $31 / 2$ and you have the baicesoope. I have in mind e croup of 12 actimu wordere (including Eother \& nywelf, postcootoral fellewe, graduate etudents and technical ameistants) plus come casual workere and perheps itinerant studnte. The plan ealle for about 16 bench spaces in the core iabs, to allou aome flexibility; e.g., when I ar doing some micromanipuiations, I way well need 2 or three unite.

Ir my lat letter, I already mentioned aom of the rolative shortecringe, part of which have to do with the purpose of the design here which was to accomodete two other itet etatt. Conequontly, 126 is too peripheral. 107-108 are too ansil. There in ne 'lab office' in thit plan, though 121 would aubstitute for 1t. There oughtrto be bettor cloakroom facilitios. And I hope the whole departiont will have antiable place (or places) wherw e.g., the students can have lumohes or coffee breake witheut dieturbing the lab. routine. There is not an adequate storeroom fuelilty or mhop on the plan; these would be met (less atilefactorily) by some apace in the basement bolow. Room 125 is not so woll arranged; we wore constrained by heving to put the hoode along the para-corridor paces.

I very well renlize that our space neede are relatively high. I think you also undormtand the meason for this. If we vore elosely affiliated (topographicaliy) with anether experimental group, e.g." in the Virus Laboratory, wo should not need noerly so muoh as wo to to be a self-guntained group. If we are to move along the ilnes that ourrent inveatigation is opening up wo have to be in a position to do a modieum of ohemical vork, in addition to our basic miarobiological facility, and I think it is a sine qua non that we have the flexibility, e.g., to handlo more difficult mieroorganimm than $E$. coli, such as Hola colls. We will still be lacking a number of things, e.g. a plant for growing and harvesting medium bulk cultures ( $20-50$ gallon scale), for which wo may atill reasonably rely uponour colloagues in other departments.

And of courses, all of our effort: are concentrated in the laboratory, and we do not use crop acreage, greenhouse apace, or field exploration. I am sure you are very well aware of all this, but you might have use of an explicit justification. We will still have to rely on cooperative facilities, eeg. for animal care, as that comes up.

I am enclosing memorandum which comprise one of my initial calculation a for space requirements. It wall already trimmed mere than once. Let me know posthaste what dol se I can do.


## Posteoript:

I've aince apont eeveral hours going over the Mulford Plens, with the following conciusions.
Browne's plan, dated 1-7-58, has some clever arrangements, but no matter how I try to nocomedate 14 , 14 ocmes out rather uniatiefactorily for my partloular work neede. The thought of an internal corridor speake for the desirability of the icolation of our internal trafific, but it is at best wanterul, and with the bottienook at the etairwoll (Pre 334), and the whole length of the otring of rooms ( 122 foot) I cannot beeome onthusiastic about 1t. While we noed scan maller rooms, there are too many shallow onen north of the intermal corridor. Before going much further along this line, I would ask you about the practicality of asalgning some of the odd-numbered reoms south of the corridor in 11eu of 338 and 340 (which are beyond the bottleneok).

In faot, after mandpriation of the space, I see another seheme which looks several order: of magnitude better from the otart. I refer to the 'Eant End', roughly rooms 356, 238, 356a, 360a, $360,357,351353,349$ and just poesibly (depending on hbw the detailed plan works out) 347 and 345 . I think proliminary propesal will be olearer if you look at the enelosed sketchoz, E1-E3. The following premisee obtaint
Eastind P ans 1) Accese between 360 and 360 c is necessary, at most, on an mergeny baila.
2) The men's rocm $356-356$ a can be deloted or moved. (Will the density of cocupancy justify more than 312\%) In any ease, this seons a trivial priority over a choice area.
3) The outlet from the astanost atalrcase can be shifted tomopen to the E-W corridor, just $E$ of the olevator shaft. The present outlet oould be retained, but it would be wasteful.
4) The N-S corridor, much as it is, would be shifted to the $I$ of the pillars, leaving apace to the w for 2 or 3 rooms about 11-12 foet deep. I have to see more careful drawings than wy $30^{\prime}=1^{\prime \prime} 3 \mathrm{~d}$ floor plan to judge whother the exioting partition along the pillars could be used a: the $W$ wall of the new corridor.
5) Just as quory: if the stairway torminates at this floor, is the epace outlined in green the available for oxtension of a room?
Of course; I looked over the West wing with the same viow, but the distal stairease there makes the soheme impractical, and at that, we would have to plan an oven nore dratic rebuilding.

This plam givee a space sonewhat comparable to the cul-de-sac in Giannini, If anything loan awkward (no odd anglea!). For a group of our size and charaoter of daily operation, I am convinced we need a private traffic lane, and by this cofern, we can make the corridor do multiple duty. We also arrive at an approximation to a peripheral arrangement around a central max traffic aree, with obvious advantages.

This is, of course, an utteriy blind proposal with reapect to the other plans of the dopartment. I most anxious to know what your procedure is on that, and what your present conclusions are. Do not think that because wo find it advantageous to make a more or leas melf-contained unit that we want to isolate oureelves in any sensel I am sure that yous wore the more pleased with the Mulford plan for its bringing the department together on one floor. We will have to diseuss the detaile of this when we get together personaliy, but I hope you will fill me in on your thoughts as to the allocation of the other activities in the dept. Moanwhile, I do hope there is nothing impoasible about the sehom just sumnarized.

I am amxious to go ahead with a more detailed plan for the area outilined, but I had better walt until I get your reassurance that there is no irremovable obstacle. It should not be neoessary to wait for formal clearance- I'll just roly on your judgent whether it is worthwhile to apond the time on this lead. I would also urgently need a more dotailed plan, say at $8^{\prime}=1^{\prime \prime}$ of the oxiating conatruction in that wing, if that can pomeibly be obtained.

Your cost estimates are fabulous! They are muning about three timea as high as what the medical sohool is paying for new construction (omitting land cost of course) of the mame sort. But that is hardly an item we can afford to be conservative about here!

A few phone calle might clear up a whole lot. I'll make it a point to have the Mulford plans at home erenings, and you could reach me there, station to station, at Cadar-3-2968 just about any day at 6:30 PM CST ( $1: 30$ your timo, of course, so that should be reasonably convenient for both ofvus.) If you want to give a fow day: notice by letter, ok too; alnce the main advantage is give-and-take, not speed.

If I can get another copy, I'll send some draft plans for the Modical Genetice Dopartment, to give you an idea of one layout. I think there will be enough delays before the final final plans are activated here that no one will be atung, but this is one point that obviously calls for delicacy and judgment of timing.

