

Wellcome Laboratory for Molecular Pharmacology



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Response to the Green Paper

Dear Provost

Thank you very much for producing such a constructive document, and above all, thank you for asking for the opinions of the people who are doing the teaching and research on which UCL's reputation is based. I have spent most of the weekend trying to answer your 20 questions (and a few more that you might well have asked). I'm sorry it is so long, but the questions that you have raised are crucial for our future, and they deserve serious consideration.

Best regards

David Colquhoun

Response to the Provost's Green Paper

(1) From the perspective of your department or discipline, what do you believe are the major challenges facing UCL and how far are these captured in the Green Paper?

Many but not all are captured. Within our department, it has not proved easy to get ideal staff. One reason is the fact that the salary which we can offer is barely sufficient for a family to live in London. This has not been, so far, as disastrous as it might have been, because so far the reputation of the department –it is the oldest and highest rated in the UK –has so far been enough to overcome the salary problem in most (but not all) cases and we have got some good young people. The major problem in maintaining top quality in the department has been one that it is rather politically incorrect to mention publicly, but I guess I can be frank here. It has come from staff being forced on the department that it would, in several cases, not have chosen. This happened mainly through merger (first with Middlesex and then with Royal Free) with departments which (despite the fine words in public –and in the green paper) whose staff were not all up to our standards (two of them had been previously rejected at interview, as it happens). The department also had two appointments made directly to it by Derek Roberts (without consultation with the HoD), one of whom at least would have been very unlikely to have been selected in open competition. This is now water under the bridge (with one possible exception) but it has not helped us, and we should learn from it.

That is departmental experience, though not unique to Pharmacology I imagine. As far as UCL as a whole is concerned, I feel the ‘spirit’ of the place has never been better. The saga of the proposed ‘merger’ was unpleasant at the time, but its after effect seems quite good. We were drawn together, made to think about what makes UCL unique, and left optimistic about its future development. I see only two things that impede this. The obvious one is money. The other is a widespread feeling that our central services are not very efficient, and still worse, often do not seem to regard themselves as providing services to the academic community (the workers who actually do the teaching and research), but more as their managers. Part of this, but not I think all of it, results from ever more legislation with which UCL must comply. Part of it results from a seemingly inexorable rise in non-academic staff and management gobbeldy-gook (see also para 21).

(2) Is the vision and the analysis in this paper on the right lines?

The green paper is written, given the vagueness of the questions, with admirable clarity. We perhaps heard a bit too much of the word ‘vision’ during the merger to be fond of it, but the paper certainly sets a desirable course. Naturally we all want UCL from strength to strength.

(3) Given the financial implications spelled out in the Green Paper, do you believe that, overall, student numbers should be increased, held steady or reduced?

Reduced, I think, certainly for undergraduates anyway. I would very much like UCL head towards more graduate teaching. In my own subject at least, there is simply not enough expertise in the country for every university to run courses at an advanced level (though it does not stop some of them trying). This should have been pointed out by the QAA but since that organisation chose to ignore the *quality of content*, it failed entirely to do the one really important thing that it could have achieved. The green paper does not really deal with this question, and to do so will need a frank assessment of what graduate schools are for. UCL, like many universities, now has a graduate school, but it is not remotely like the Yale graduate school where I once taught –more a vehicle for providing courses in how to use Powerpoint. Last year I volunteered to run one of the few graduate school courses with advanced academic content, and it seemed to be quite a success and will be run again this year. The modest ambitions of our present graduate school (compared with the very different US graduate schools) will have to be admitted frankly before progress can be made. I found the green paper's description of the Bologna Process (of which I'm ashamed to say I was barely aware), very helpful. After my initial alarm, it occurred to me that this process could provide a wonderful opportunity for UCL to move to more advanced graduate teaching. Is this an opportunity to be grasped as soon as possible?

(4) What would be the implications of each of these approaches for your discipline or department?

If loss of undergraduates meant loss of income it would, of course, be disastrous, but if elementary undergraduate training could be replaced by more advanced graduate training so as to maintain our income it could have a wonderful effect. One of these could be that it would make the department more attractive for the best brains. It is not much fun for the best brains in the business to be running vast first year practical classes, whereas running our graduate school course was sheer pleasure.

(5) What further contribution do you believe your department or discipline is capable of making to the future development of UCL as a global university?

The term 'global university' was not defined as clearly as I would have wished in the green paper, but I take it to mean that UCL would be become (still more) attractive to students from all over the world, and seen (still more) has a leader in research. One way to do that would be that which I have just described –more emphasis on high level graduate teaching. Most universities can run first year lectures in Pharmacology (well more or less) but very few can run graduate level courses in (to take the example of my own graduate school course), 'A course on analysis and interpretation of single ion matrix methods'. More of that sort of thing could make us distinctive on the world scale (we had one US student, out of 12, last year, and expect at least one next year).

(6) What, if any, obstacles stand in the way of it making that contribution?

None for the department, but to make it a means of earning our living (maintain our income) would need a rather large change in our views of graduate education, and of the division of graduate and undergraduate effort between institutions. Given the generally conservative attitude of universities to change, that might not be easy, but I am excited by the idea that the Bologna process might be a real help in this process.

(7) What conditions and incentives could help it achieve that contribution?

That is answered in the last paragraph.

(8) What are the key emergent research themes for the next 10 years in your area in which UCL should be investing?

That is a very interesting question, and response to mind is to wonder whether the UCL management should be asking it at all. I can answer only for science, but I realise that UCL has more 5* departments in arts than sciences, and my reply is not intended for a moment to devalue them –on the contrary their existence is one of the thing that makes working here a pleasure.

Scientific research is a ‘bottom up’ business. Each researcher, or research group, is almost like a small entrepreneur, getting their own funding through a peer-review process from research councils and charities. The individual researcher is the best person to know what is feasible and novel, and the best way we have to judge that is by peer review. The method that emphatically does *not* work is to have some more or less elderly people (such as me) dictating to individual researchers what is important and what is not. Not only do they usually get it wrong, but they also cause a lot of unhappiness that will, in the end, result in the best people leaving. We saw this quite recently when Prof Frackowiak proposed (when he was vice-provost biomedicine) to reorganise both faculties into vast divisions that made no more sense than the departments they would have replaced, with priorities set by himself and an external committee. The idea that UCL’s best brains needed, or would tolerate, this sort of top-down direction caused a great deal of outrage, and the idea was dropped when Derek Roberts returned to UCL.

None of this is to say that some initiatives, like the nanotechnology centre are not good and timely ventures. But on the biomedical side, you need to be much more careful. Much of what is said to be ‘emergent themes’ are little more than buzzwords, supported by much hyperbole but little substance. The governance of science by buzzwords is become a real danger to high quality original work. Furthermore, the proliferation of separate institutes has created problems of its own in costs, and for teaching (see para 23).

It should never be forgotten that many Nobel prizes have gone individuals who do not run big empires, but have pursued highly original ideas (that is certainly true of UCL’s Nobel prize winners, though admittedly they are not very recent). Some of them might not have scored very

well in today's environments of 'productivity' and impact factors (which are mere substitutes for thought) but they are the sort of people we need to enhance our reputation in the future.

Comments on multi-disciplinarity (para 9), and on the proliferation of separate institutes (para 23), are also relevant to this question.

(9) What are the key overarching research questions of the first importance to society to which UCL's multi-disciplinarity capability can bring real value?

I can see that ventures like the Jill Dando Institute do exactly that. I wish I could think of more such examples, but since I can't I'll have to restrict myself to science.

A few words about multi-disciplinarity within science do seem relevant at this point. I believe that multi-disciplinarity is a frame of mind, not a building, and not something that can be imposed from above. It has always been a bit disappointing to me that only a small proportion of UCL staff use or appreciate the great wealth of knowledge at UCL, and how few know many of the interesting people who are outside their own area. But this has very little to do with departmental boundaries –there are people within my own department whom I would not recognise because they never come out of their labs. Within the Wellcome Lab for Molecular Pharmacology we have had (I'm very sad to say) people working next door to each other who barely spoke to each other. Some projects (but *not* all) need interdisciplinary work and any good researcher (the sort we want) will go out and arrange it if it is needed. It cannot be enforced by UCL or by Research Councils –the only proper way to encourage it, and the only way that will work, is for peer reviewers to turn down grants that do not propose interdisciplinary work when it is needed. It has, like most other things in science, to come from the bottom up.

I do not make these points out of any hostility to multi-disciplinary work. Quite on the contrary, because my own research has been strongly interdisciplinary –in my case the collaborations have been with mathematicians and statisticians. Nobody is proposing to put us in the same building to 'encourage collaboration' and if they did so it would not work. My collaborations were mostly arranged in the Housman room at lunchtimes –that is a marvellous and undervalued resource where you can find, with a little persistence, the answer to almost any question. I first used it to find the mathematician I needed in 1969, and most recently in 2003 (that paper is about to come out).

(10) What should be the key priorities for funding through UCL's forthcoming fundraising campaign?

A bit more local infrastructure. For example it has been very hard for Pharmacology to hang on to the one electronics technician that we need. For 10 years he was paid jointly from my MRC Programme Grant and that of David Brown (an example of the MRC subsidising teaching). Now all that all our secretarial staff have been transformed into administrators, devolved from the

central administration, academics of every rank have to do their own typing, photocopying and filing (that has become their fourth job, after teaching, research and form-filling).

(11) If UCL continues to increase its percentage of international students, would the “international” reputation of the UCL be enhanced without damaging its image in the UK?

Yes I think it would, if the process did not go too far.

(12) What would be the implications for your department or discipline of this strategy?

I don't think it would harm us. The standard of UK applicants that we can attract is not bad but it certainly could be better. Some more highly motivated students from abroad would do no harm at all, in my view.

(13) What would be the implications for your department or discipline of shifting the balance of its teaching towards postgraduate students?

As far as I am concerned, excellent, as explained at length above (the only potential problem is that one or two –not many –staff might have problems coping at that level).

(14) How should we develop our relationships with the University of London and the neighbouring Bloomsbury colleges?

I'm all for strong interactions (but not for forced mergers). But it does depend on which neighbours and which subjects. For most of our neighbours, the more the better, but some care is needed. For example the University of Westminster has some courses in 'alternative medicine' which I would regard as near-fraudulent (the details are in a report that I wrote at the request of the Select Committee on Science and Technology).

(15) What should be our priorities for UCL in improving our estate?

Our department is in reasonably good state now, but there is just not enough space. That is a problem for the whole of UCL and I deal with it below, in para 23. Expansion has reached, or exceeded capacity, and consolidation, preferably with a change to more graduate teaching, seems to be what we need now,

(16) What are the main estates issues affecting your department?

As above (but HoD's comments will be more authoritative than mine)

(17) How best can UCL promote a greater sense of internal coherence: the “single UCL” objective?

In the aftermath of the proposed ‘merger’, I think the “internal coherence” of UCL is better than I ever remember (see para 1). It could still be a lot better though. The main problem, I think, is that people do not talk to each other enough. That is *not* a problem that arises from departmental boundaries –it is often as bad within a department as between departments. It results partly from pressure of work (the ‘lunch at the desk’ syndrome), partly from poor facilities to meet at lunchtime (the only time when it is feasible), as mentioned in para 9, partly from the tendency of some people to build private empires that discourage interaction, and partly from the proliferation of separate institutes (see para 23).

See also comments in paras 1, 9 and 23.

(18) In what areas of academic activity is there potential for developing closer working relationships within UCL?

As I said above, there is little that UCL can do to foster close working relationships. About all they can do is to try to appoint the sort of outward looking and enterprising researchers who will seek out the close relationships that they need. The one thing that perhaps could be done (and I am perfectly serious about this) is to provide more attractive lunch facilities (at present they are a disgrace) and automatic membership of the Academic staff common room (at present you have to opt in). These ideas might sound trivial, but it is in fact the only way that people working in different areas can ever get to meet is at lunchtime. The refectory is a million times more effective for promoting collaboration than any committee, or at least it could be if it were not so dreadful (both food and surroundings).

The green paper mentions, at one point, the possibility that the space problem might be solved by having some facilities outside London. This would be quite disastrous for “close working relationships within UCL”. It would destroy what little interaction already exists between people in different areas of work, at a time when the aim is to improve those relationships. It is because of that that I have been willing to suffer the progressive loss of all daylight in my own labs without grumbling too much –it is the price we have to pay to stay close to each other. The case of Edinburgh University is a good example. They disconnected biology from medicine, and even statistics from mathematics (!) when they decided to move a much of their activity to their Kings Buildings site, 7 miles from the main university. That is academic nonsense and an enormous hindrance to interaction and multi-disciplinarity. It doesn't need to be as much as 7 miles either. When the statistics department here moved from the Pearson building to Torrington Place, its members stopped coming to the Housman room at lunchtime and informal interactions between them and the rest of UCL's people stopped. It sounds like a small thing, but I believe it is actually quite important.

(19) Should the balance for the next 10 years be shifted more towards consolidation than additional growth?

Yes I suspect that it should. There is simply not enough space for more expansion. There is not even enough space for what we try to do now (in my area at least). To consolidate a bit would lead to no loss of quality and might well improve quality of work as well as morale (see also paras 22 and 23). But consolidation should not mean no changes occur. As mentioned in para 3, a move towards more high level graduate education seems very desirable to me.

(20) Should we consider advertising internationally for appointment as Deans, Directors, and Heads of Department?

Yes of course –we certainly did so already when looking for a new HoD to follow David Brown, and I'm amazed if it is not always done, at least for HoDs. In general it should be done at all levels, but I have one caveat. They must be people who know the UK, and the UCL, way of doing things. I have heard alarming reports from the USA of harm done by Deans who are really no more than professional bureaucrats with little appreciation of the needs of research. That danger gets bigger the higher you go. Deans should be people who are (or at any rate were recently) research based themselves.

I should like to add three more questions that seem relevant, but which have not been asked explicitly above.

(21) Are any savings possible?

This seems an appropriate place to answer a question that, curiously, is not explicitly asked, namely how might UCL save money, and focus what money we have on academic excellence. There is undoubtedly a widespread perception that UCL seems to have more and more non-academic service departments, and that they more and more regard themselves as managing academics, not providing a service for them. Much though I dislike attempts to audit everything, financial prudence dictates that careful costing should be done on the departments such as educational and professional development (EPD), procurement and development, to make sure that they really earn their keep. In particular, I very much doubt that the cost of running the procurement office offsets the savings it makes (a recent example is provided by a colleague who needed shelving for a new lab –tenders produced a quotation of £1000, but my colleague took 10 minutes on the web to find identical shelving –the same brand for £400). Likewise a colleague (a reader) was outraged to find that the Development Office was advertising for someone to manage the alumni data base at the same salary as a reader. And as far as EPD is concerned there is widespread disquiet that people are being forced to attend courses on how to do things that those doing the teaching have never had to do in earnest. Of course we need a fund raisers (now more than ever), and we need to be able to provide training in some areas, but it can, and should, be asked whether we need courses in how to answer the telephone, or in post modernist email (these are real examples, by the way, not parodies).

There are times when UCL appears to lose sight of the basic fact that its reputation and income depend *solely* on the academics who do the teaching and the research. All the rest are services whose job should be to make life easier for the academics, but which too often seem to make it more difficult. I'll admit the perception may be worse than the reality, but perceptions matter for morale, and morale is crucially important.

(22) Can anything be gained by reorganising departments? How best can staff morale, and UCL's reputation, be maintained?

These two questions are closely related. The external reputation of UCL is based, on individual people who work (or used to work) here, and secondly on departments. Almost everybody in academia is, unavoidably, specialist, and, for example, it is unreasonable to expect that most physiologists outside (or indeed within) UCL will have much idea of the reputation of German or History at UCL. But every physiologist will immediately connect with UCL the names of Andrew Huxley, or of Bernard Katz and his (erstwhile) Biophysics department. That connection (and I presume its equivalent in other fields) is what gives UCL its external reputation. The same, I think, applies to my own department, Pharmacology. The fact that it is the oldest, and the highest rated in the UK, with an illustrious list past holders of its established chair, is very important for the morale of the members of the department, and it is known (to pharmacologists anyway) world wide. Insofar as pharmacologists round the world think well of UCL it is largely because of the past reputation and track record of the department and the names associated with it (I hope that is being maintained but it would be invidious for me to comment on the present position). I have more than once had the pleasant experience of meeting a pharmacologist from the other side of the world who says, almost reverentially "oh you are from UCL" with the suggestion that it is the best place to be. But they are not thinking about our reputation in arts and architecture, but of the reputation of our department. That is a 'brand name' of enormous importance for the external reputation of UCL, and it is also an important reason why it is still (just) possible to attract good people to work in central London, with no prospect of being able to buy a house. It is what maintains the morale of staff members in difficult times. All this is forgotten when some bureaucrat decides (as happens from time to time –see para 8) it would be a good idea to reorganise us all into a faceless and reputation-free new structure. I would, of course, be the first to agree, that the intellectual boundaries between, say, Pharmacology and Physiology are arbitrary (though not non-existent), but the intellectual boundaries between proposed new divisions are invariably just as arbitrary as far as research goes (and often positively harmful from the point of view of teaching, an aspect that sadly tends to be neglected).

There is another reason, in addition to loss of very valuable 'brand names' why any wholesale reorganisation of departments into large divisions is undesirable, and that is to do with the essential (especially in central London) question of staff morale. People are happier when they work in relatively small units, because they feel that their boss knows something about what they do, and that they have easy access to him/her. They are unhappy in large divisions where neither of these things is true. Large divisions may be useful to administrators, and for reducing the amount of argument that senior management has to deal with, but that is not an acceptable price

to pay if the people who do the research and teaching are not happy. It is their morale, not that of senior management, which makes UCL's reputation.

These remarks also suggest, incidentally, that the recent agonising about UCL's reputation and 'brand name' runs a real risk of doing more harm than good. To improve our reputation we need more people like Bernard Katz, not a new logo or mission statement (the latter, especially, merely cause hilarity in everyone except those who are paid to invent them).

(23) Do we need more separate Institutes and buildings?

As the green paper notes, there have been many new institutes and centres on the UCL campus (one of which, the building that now houses the MRC's LMCB and the Wellcome Lab for Molecular Pharmacology, I and David Brown played a large part in securing). Often the only way to get new money has been 'earmarked projects' of this sort. They are much easier to get than the non-earmarked funds that we really need. Although many of these institutes have been more or less successful, they have also had some quite undesirable effects. For a start, they have usually cost UCL quite a lot of money, as the green paper notes. That could be regarded as investment for the future. What is less excusable is that they have tended to result, at least those that have separate buildings, to reduced communication between staff, and reduced communication between staff and students. Most of the new buildings are locked up so undergraduates have no easy access to their tutors, and informal contacts between staff are hindered. Although the locks are allegedly for security reasons, in fact these institutes have, I believe, suffered just as many thefts as more open departments. Worse still, there has been a tendency for academic staff in the new buildings to regard themselves as somehow privileged researchers, whose status makes them above doing the routine tasks of teaching and administration that keeps the UCL ship afloat. I would guess that 30% of the academic staff in pharmacology do a large majority of these jobs (and that willingness to do them shows very little correlation with ability in research). It is, of course, the job of HoDs to try to maintain an equitable distribution of chores, but even they can be worn down by the persistent reluctance of some people to do their bit. If we now have a period in which expansion is slowed, and if, as I hope will be the case, we head in the direction of more advanced and graduate teaching, this situation should get no worse. But I think efforts should be made to reduce the boundaries between institutes and the departments to which they are attached, to facilitate communications, and to ensure that everyone does their bit for the UCL enterprise as well as for themselves.

David Colquhoun
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