



UK university culture

Academic Values No Longer Add Up

Photo: Forclic/NAK

At UK universities, there has been an inexorable rise in business culture at the expense of academic freedom. Once upon a time, administration provided services for academics. Now it directs and manages them. The frightening extent of these changes is now being revealed at Queen Mary University London, where academic staff in biology and medicine are to lose their 'secure' jobs because their research metrics no longer match the 'aspirations' of university management. Jeremy Garwood investigates the decline of UK academia.

Academic staff in biological and medical science are to be made redundant at Queen Mary University London (QMUL). Starting in February 2012, 11 biologists and 29 medical academics received letters informing them that their jobs are "at risk" and that they will be made "redundant" this summer.

Why are they losing their jobs? Because the university has a Strategic Plan for 2010-2015 that aims to raise its ranking in the various university league tables, both within the UK and internationally. A university's position in the UK league table for research has a direct relationship to its share of government research funding.

Strategic planning

To raise its research ranking (and income), Queen Mary has targeted research performance as the area where it must make big gains. In particular, it must make a good submission of its research to the UK government's next research assessment exercise, the Research Excellence Framework, to be conducted in 2014. As outlined in the Strategic Plan, there are several ways to achieve their aims: recruit new staff with high research profiles, take on more PhD students and post-docs, obtain more research funding from grants, and get rid of staff that are not doing 'good' enough research.

In the 2008 research assessment exercise (RAE 2008), QMUL got a surprising

boost. It managed to rise from position 48 in the previous RAE 2001 to an unheard-of 13th place (out of 132 universities). Submitting 687 academic staff for assessment on a scale of 1* to 4*, the university obtained an average score of 2.73. A fifth of its evaluated units (19%) were considered 4*, defined as "quality that is world-leading", 44% as 3* ("quality that is internationally excellent"), 29% at 2* ("recognised internationally") and 8% at 1* ("recognised nationally"). Meanwhile, the league's winning university was Cambridge, whose 2,040 staff received an overall assessment of 2.98.

But not all parts of the university had equally high scores. Biology was only given a note of 2.25, placing it in 35th position (out of 51 assessed units). Only 5% of its research activity was considered to be 4*, i.e. "world-leading". By comparison, the number one spot in biology was held by the Institute of Cancer Research with a score of 3.25 and 40% of its research was rated 4*.

For QMUL management, the performance of its biologists had to improve before the next assessment, REF 2014. Their avowed target is to get into the top five. Based on RAE 2008, this would put Queen Mary on a par with two other London universities: Imperial College and King's College, both of whom scored 2.75 with 20% of their research activity at 4*.

But what is the definition of 'good' research? To conduct what *The Lancet* referred to as an "Academic Witch Hunt" (vol.

379, 7 April 2012, p.1284), QMUL uses research metrics – it counts what it considers to be measures of research performance and then sets minimum thresholds. If you pass the thresholds, your research metrics are good enough to keep you in your job (for the time being), if you don't, the university will terminate your job. To give you an idea of how this works, you can assess your own chances of survival at QMUL's School of Biological and Chemical Sciences (SBCS) in the accompanying table – 'Research survival metrics' on p. 22.

Those who fail this test will face job "redundancy", although the University and College Union (UCU) insist it is more like job "dismissal". 'Redundancy' implies these jobs will cease to exist, whereas the SBCS restructuring plans make it clear that the dismissed academics are going to be replaced by more 'capable' staff. SBCS even has plans to create new jobs.

A biologist "at risk" – Fanis Missirlis

Greek biologist, Fanis Missirlis, is one of those who will lose his job this summer. His experience is a clear illustration of how academic values are being crushed by the use of research metrics and performance management.

In 2007, Missirlis accepted the job of lecturer at Queen Mary's SBCS. "At the time, I understood I was walking into a permanent post (my contract still states my retirement date in 2041)." As a typical university lec-

turer, his job entailed teaching undergraduates while continuing to pursue his scientific research, in this case, investigating the genetics, cell biology and physiology of iron metabolism using the model organism *Drosophila melanogaster*.

Missirlis was recruited because he had a good research background. He obtained his PhD in Germany at the Max-Planck Institute for Biophysical Chemistry in Göttingen, studying genetic responses to oxidative stress in Herbert Jäckle's group. He published well and continued doing good research during his five years as a Visiting Fellow at the National Institutes of Health in the USA.

In QMUL's submission to the 2008 national Research Assessment Exercise (RAE 2008), the school presented him as one of their five promising new appointments, contributing to the development of a notable new research cluster in the neurobiology and cell biology group. Four of his first-author publications were duly submitted for the assessment, covering the period 2001-2008 (*Curr Biol*, 11:1272-7; *J Biol Chem*, 277:11521-6 and 278:47365-9; *PNAS*, 103:5893-8).

In his employment contract, there was mention of a probation period but Missirlis was assured this was just a formality. In order to fail probation, he was told things like "I would need to sleep with my students and not show up", "no one had ever failed probation and this was largely a safety net in case an appointment was an absolute failure".

Failing the numerical count

However, "Soon after I arrived, I was asked to meet with the Head of School, who presented me with 'targets' and asked me what I thought of them. I replied that there was no way I could see myself meeting those targets in three years. I added that it would be a dream but that in my field good papers take longer to generate. Also, I would, of course, apply for grants but I didn't know how easy or hard it was to get one. The Head of School said that it was his duty to inform me about the targets, which were being presented to all new recruits, and asked me to sign a paper that I had seen them."

During the next few years, Missirlis worked hard, pursuing his research as best he could. But he had a heavy teaching load. He was solely responsible for two 1st year modules "that cover cell biology for almost all our programmes. As a result," he notes, "I had to completely abstain from research during Term A to cope with this one, and all the other teaching responsibilities." But

he was still doing good research when he had time.

The university's Human Resource management did not, however, agree with Missirlis. In April 2012, they sent him one of their letters: 'Faculty Panel's Decision – Application of Selection Criteria' informing him that his job was "at risk" because he had failed in their numerical count.

Fanis Missirlis was already questioning the fairness of this "highly controversial operation" that does not respect the College's "core academic values" when he read their numbers. Missirlis vigorously disputes the university's assessment of his work at QMUL.

Not good enough

As set out in the SBCS criteria, the minimum threshold for a lecturer is: Research quantity: 4. On this point, they both agree, Missirlis has 6 papers, all as last author (*Biochem Soc Trans*, 36:1313-6; *Biochimie*, 91:1331-4; *FEBS Lett*, 584:2942-6; *J Exp Biol*, 214:971-8; *Biometals*, 24:679-86; *Neurobiol Dis*, 43:213-9.)

But for 'Research Quality', he requires a score of '1'. That's to say, one of his six papers has to pass the 'quality research' rating. This means it must appear in a journal that meets the metrical requirements. Mis-



Fanis Missirlis with wife Irma in less frustrating days.

irlis was given a zero. None of his six papers were judged to be good enough; not because of their content but because the journals did not appear high up enough on the relevant lists.

What about research funds? He had to obtain £200,000 in total, half in his capacity as 'PI'. Missirlis insists he meets this criteria but the university says he obtained only £80,000 without disclosing how they arrived at this figure. Missirlis has sent them

his own calculations for this period, listing seven grants he received as Principal Investigator. These include £76,425 from the European Commission, £80,000 from the Biotechnology and Biological Sciences Research Council, and £15,000 from the Royal Society. This gives him a total of £198,111. In addition, two researchers were trained in his lab on European grants totalling €11,393, bringing him to around £207,362. Furthermore, this figure should be even higher but the university won't tell him how much they received for his research based on the results of the RAE 2008 (remember he was already part of their RAE submission). Therefore, Missirlis is quite clear – he has passed this threshold.

The fourth criteria – one successful PhD completion – did not apply to Missirlis because he had not been at QMUL long enough. Nevertheless, he is already pretty close to passing this one too, since his first PhD student will be examined in June 2012.

The university has not responded to his letter.

Zero score for Head of School

The future? Missirlis has been offered a job elsewhere to continue his research but he says he doesn't really want to leave QMUL. He's been there five years and likes his colleagues. However, he has also publicly challenged the restructuring plans.

Frustrated by the university's refusal to discuss or even reply to their letters of protest, Fanis Missirlis and John Allen, Professor of Biochemistry at SBCS, sent a letter to *The Lancet* (4th May 2012). Their satirical protest was titled "Nobody expects the Spanish Inquisition", inspired by an old Monty Python sketch of the same name (with Michael Palin as the Grand Inquisitor).

In it, they point out various absurd aspects of the use of research metrics as well as the disastrous consequences for biology teaching and research at QMUL if the plan is implemented. They also question the 'transparency' of the whole selection process, claiming that neither the Head of SBCS nor medicine's Dean of Research (the 'Grand Inquisitor') would have passed the thresholds. "How does the Head of School fair? Zero, actually. He fails. Just consult Web of Science. Take care though, the result is classified information. Some things must be believed. To question them is heresy. We hope to report back on our Head's one-to-one in-

terview with himself. After all, we have his word, and that of College senior management, that the restructuring is proceeding with complete fairness and transparency. Perhaps he'll use a mirror?"

John Allen and Fanis Missirlis have since both received letters informing them they are subject to disciplinary action. At least this time, the university has dropped the term 'redundancy', now they are openly threatening 'dismissal'.

Managed like a business

Queen Mary's Strategic Plan 2010-2015

In a sense, the academic staff at Queen Mary University London were forewarned of the impending changes – the university published a 'Strategic Plan' for its development over the period from 2010-2015 (www.qmul.ac.uk/docs/about/32329.pdf).

QMUL is managed like a business, just like other UK universities. Accordingly, it publishes annual statements to keep its 'stakeholders' informed of the current financial situation and business plans for the

future. The Strategic Plan is in fact a business plan for the university. Prepared either directly or indirectly by people trained in management consultancy, it is written in business terms and outlines an aggressive expansion plan.

It is divided into sections: Knowledge Creation, Knowledge Dissemination, Fundamental Commitments and Enabling Strategies. Within each section there are "ambitious and quantifiable objectives that will allow both Queen Mary and others to judge our progress".

But to make sure all is going to plan, internal measurements will be made: "The extent of our achievement will be monitored each year through the Planning and Accountability Reviews of each Faculty and of the Administration and Professional Support Services, and through the Annual Stocktake to be reported to Queen Mary Council."

The first section is appropriately concerned with "The Queen Mary research enterprise – knowledge creation"!

This is where QMUL outlines the scope of its planned expansion. Thanks to its good score in RAE 2008, the university received correspondingly higher research funding from the Higher Education Funding Council. In 2009-10, funding per academic staff member was in the top 10% of UK universities. It warns, however, that "performance according to this measure is highly variable across the College" and that "significant improvement is required to substantiate Queen Mary's position in the very top rank of UK research-led institutions".

To achieve this goal, we have "Strategic Aim 1" that will "contribute to the body of human knowledge by performing research that is judged to be uniformly of international quality and that includes contributions that are internationally leading".

To do this, they will increase their "Research Power (= quality x volume) in those areas where the RAE 2008 revealed a marked discrepancy between a high quality ranking and a low power ranking."

'Research Power'? An example of Administrative Physics? By 'quality', they presumably mean the metrical value of the journal you publish in; multiplied by 'volume', the number of papers. What switches will QMUL flick to increase its 'research power'?

It's simple really. You recruit new academic staff with "a record of exceptional achievement or with extraordinary potential". Then, of course, you increase "the proportion of our research output that is delivered via mechanisms of high impact, such as publication in the most prestigious journals". And since it also sounds good, why not also improve "efficiency of the conduct of our research".

The performance targets

In true business fashion, 'Strategic Aim 1' is then sub-divided into ten specific parts, each of which has a "performance indicator" that can be measured against a defined numerical "target". Highlights include:

"SA1.1 – Overall ranking in the next UK assessment of research quality and research power." The target here is a modest ranking within the top 10 broadly-based UK universities, according to research quality, and within the top 20 according to 'research power'.



Measuring Profitability

Research survival metrics for biologists and chemists at Queen Mary University London. These are for the period January 2008 to December 2011 and were announced retrospectively.

Category of staff	Research Output Quantity (No. of papers)	Research Output Quality (No. of high quality papers)	Research Income (£) (Total)	Research Income (£) As Principal Investigator
Professor	11	2	400,000	at least 200,000
Reader	9	2	320,000	at least 150,000
Senior Lecturer	7	1	260,000	at least 120,000
Lecturer	5	1	200,000	at least 100,000

In addition to the three criteria, 'Research Output - quality', 'Research Output - quantity' and 'Research Income', there is a minimum threshold of one PhD completion for staff at each academic level. All this data is "evidenced by objective metrics; publications cited in Web of Science, plus official QMUL metrics on grant income and PhD completion".

To survive, staff must meet the minimum threshold in three out of the four categories, except as follows:

Demonstration of activity at an exceptional level in either 'research outputs' or 'research income', termed an 'enhanced threshold', is "sufficient" to justify selection, regardless of levels of activity in the other two categories. And what are these enhanced thresholds?

For research quantity: a mere 26 published items with at least 11 as significant author (no distinction between academic level); research quality: a modest six items published in numerically-favoured journals (e.g. impact factor > 7). Alternatively, you can buy your survival with a total 'Research Income' of £1,000,000 as PI.

“SA1.3” is concerned with “external recognition of research outputs” or, put more simply, the target is purely to increase the “proportion of research publications in high-impact journals and other media”.

“SA1.4” looks to “research grant and contract income”. Here, the target is “annual increases consistent with achievement by 2015 of an average income per academic ranked within the top 10 of UK universities for this metric”. Or put another way, “total research income increased by 50 % by 2015”!

“SA1.6” calls for the appointment of new academic staff “with exceptional research records and potential”. The target is an “increased proportion of staff performing internationally leading research, as judged by annual internal assessments”. More on those ‘internal assessments’ later.

Points “SA1.8” and “SA1.10” are concerned with increasing the numbers of researchers on short-term contracts, a phenomenon analysed in *LT* 04/2011 (‘The Disposable Academic’). For the “cohort of ear-

ly career researchers”, QMUL only wants a “year-on-year increase in the number of post-doctoral research assistants consistent with an increase of 50 % by 2015”! By 2015, however, they want to fully double the number of PhD students!

So, to summarise: In line with general trends, QMUL proposes to increase the over-supply of PhDs in order to provide enough post-docs to do more research. Faced with chronic job insecurity, these post-docs will have to compete hard to achieve an outstanding international research profile, in order to obtain an academic post. However, as QMUL’s staff in biology and medicine are now discovering, these academic posts are not as secure as they once were.

Do the finances add up?

Queen Mary’s last Financial Statement (2010/11) also makes for interesting reading because it reveals some of the speculative risks the university is taking with its future finances. The university Principal, Simon Gaskell, openly describes QMUL as

pursuing a “business-like” approach with the following characteristics:

“Attention to the development and maintenance of a strong and distinctive reputation (brand).” Yes, ‘brand’, the kind of concept behind Nike shoes or a McDonald’s BigMac.

“Clear understanding of, and consistent professional approach to, the needs of the beneficiaries (customer-equivalents) of our activities – students, employers, government, commerce, third sector, etc.” ‘Customer-equivalents’?

“Careful delineation of the costs of our activities, our pricing structures, and the connections between the two.” For example, $1 + 1 = 2$?

“Rigorous appraisal of our offerings (research, education, other forms of dissemination), with clear criteria for investment or for discontinuation.”

“Well-researched understanding of our competitors’ positions.”

Good point: What are all of QMUL’s ‘competitors’ doing at the moment?

For the sake of UK academia, one hopes it's not as bad as at Queen Mary's but signs are not good. Because one of the striking things about UK university funding is the balancing act they are being forced to perform. Nearly all their income comes from teaching or research activity – which is logical, since that's what universities are meant to do. But how secure is their future income?

Rising costs for administration

In the financial year 2010-11, we find that QMUL had a total income of £297 million, £100 million came from funding body grants, £83 million from student tuition fees (for teaching them) and £74 million from research grants and contracts (for research). Historically, most of the UK funding body grants have been for teaching.

QMUL provides an analysis, by activity, of how the money was spent in 2010/11. This shows that teaching accounted for 47.4% while total research was 22.7%. Administration, however, accounted for over £33 million or 11.2% of the university's total expenditure.

Spending on university administration as a proportion of total expenditure has risen in all UK universities since they became "business-like". Part of this extra cost has been for the managers. For example, the university heads are now remunerated as though they were running large private companies. At QMUL, the Principal earned a package worth £273,000 for 2010-11 (including free housing). This was up 18% on the previous year. By comparison, academic staff received an extra 0.5% for 2010-11 and £150 for 2011-12. Meanwhile, out of a total staff of 3,508, 102 earned more than £100,000 in 2010-11, up from 95 the year before.

Again, these trends are typical of all UK universities as reported, for example, in *The Telegraph* (Vice-chancellors 'receive up to £40,000 in benefits', 31/1/11) or *Times Higher Education* ('Universities are not businesses' 1/04/10; 'Executive overdrive' 10/5/12) or *The Guardian* ('Ever wealthier vice chancellors are leaving education behind' 17/1/12).

Will the managers who are dismissing academic staff set an example when it comes to future cost-cutting?

The biggest worry for QMUL and the other UK universities is that their teaching income may fall. The government has decided to reduce its contribution to teaching, arguing that the students must pay higher tuition fees to fill the gap.

The teaching problem

In 1997, the Blair government introduced annual tuition fees of £1,000, to be paid back when the students began working. The government has recently tripled the maximum levels of tuition fees to £9,000 a year. Most universities, including QMUL, will apply these fees for new students in 2012. In theory, the universities will earn more money from tuition fees but the government isn't waiting. It has already started cutting its direct funding of universities for teaching.

But will students still want to study when they have to pay £9,000 a year in tuition fees (plus living expenses)? For 2012, England's university applications are 'only' down 10% (*BBC News* 31/5/12).

There are still more applicants than places. But what will happen when initially unsuspecting 18 year old students leave university in their mid-twenties and discover the size of their debt? Under current plans, this debt will be repaid as 9% of their income over 30 years – that's quite a heavy extra tax burden. Currently,

top-ranked universities assume that they will continue to attract the best students but what might happen if student applications fall to the point where they are forced to take all the applicants?

The biologists at Queen Mary have warned that the restructuring plans will have 'disastrous' effects on the school's teaching capacities. (*Times Higher Education*: "Restructuring metrics could fail to add up" 19/4/12; "Value according to the metrics system" 26/4/12; "Madness of metrics" 3/5/12). This summer, almost 25% of their teaching staff will be made 'redundant'. Who will replace them? The problem

is particularly acute in biology because it is the university's most popular subject!

Under QMUL's previous Strategic Plan (2006-10), the university took on more students to increase income. At the time, central government funding for teaching paid them to take on as many students as possible. Student numbers at QMUL rose from 13,500 to over 16,500. University income rose.

Biology accordingly ended up with far more students. Its academic staff acted responsibly and chose to teach them well. This, they say, is one of the major reasons why their research has suffered. Another one being that the university did not invest enough money in improving their research facilities. They point out that their teaching loads have already become unreasonably heavy. What will happen when eleven teachers leave at once?

Unhappy students

Under the SBCS Restructuring Plan, one of the solutions proposed is to 'convert' staff to new "Teaching and Scholarship" jobs. These academic jobs no longer include research. But will those who have been made 'redundant' agree to such conversion? Fanis Missirlis has already been offered a post elsewhere and it seems that many of the other staff, especially those with good research profiles, have also been looking to get out.

In this case, the university says it will use 'contract' staff, employing teachers on short-term contracts to teach specific courses. How good will such teaching be? Currently, the academic staff have (or thought they had) stable positions. They get to know their students through small weekly tutorial groups. They do research (as best they can).

Many students in biology have already expressed their unhappiness with QMUL's restructuring plan with petitions and articles in the students' paper. Unfortunately for the university management, this discontent may already be influencing other UK university league tables, designed to help future students choose where they will study. Each May, *The Guardian* publishes a university guide by subject to help applicants choose for the following year. In 2011, biology at QMUL was rated 45th out of 95 universities. This year, it fell to 60th place.

For the moment, QMUL's management are more interested by their rankings in the university research tables but one day their neglect of teaching may come back to haunt them.

JEREMY GARWOOD



**Not in line with our business plan?
Please pack your bags and go.**