

9 The Waxing and Waning of Academic Pathology: a Personal View

Nicholas A. Wright

INTRODUCTION

Let us start with a definition of terms. What is academic pathology? Ah, ‘there’s the rub’ as they used to say. Because on what people have understood by the term ‘academic pathology’ whole careers have been decided, departments withered on the vine and the discipline itself placed in severe jeopardy. Overstated? Alarmist? Wait and see.

The life of a clinical academic working in pathology is usually said to be *tripartite* – research, teaching and practice – with different individuals having strengths in each sphere and thus doing more of one and less of the others. So far, so good. But what sort of research? Now we are down to the wire. From my own perspective, some time in the 1950s – it may indeed have been before that – a great divide opened in the ranks of British academic pathologists, arranging the profession into two major groupings: in the first group were the *academic surgical pathologists*, who based their research on the clinical material that came their way. So, what is this academic surgical pathology? It is difficult to define and some very eminent colleagues of ours would claim that it does not exist as a discipline – but I believe strongly that it does. It is the use of morphological and usually histological observational methods to define new clinicopathological entities and refine old ones, to identify and develop prognostic indices, to correlate treatments with its effects, to support clinical trials by correct histopathological diagnosis and classification, to accurately classify diseased tissues for tissue banks and microarrays and, most recently, to support mouse genetics through the phenotyping of transgenic and knockout animals. Techniques may include histochemistry, immunohistochemistry and/or *in situ* hybridisation, expression profiling and sophisticated three-dimensional reconstruction but, make no mistake, this research is based centrally and unequivocally in *morphology* – our core technique. Surgical pathology is frequently derided, often not appreciated at all and, most disgracefully of all, not thought to be internationally competitive with other disciplines within the context of the Research Assessment Exercise (RAE). In the 1950s and 1960s cardinal examples of such individuals were Herbert Spencer, Basil Morson, John Azzopardi and Harold Fox, and as the century advanced we saw the likes of Roddy MacSween, Peter Scheuer, Chris Elston, Chris Fletcher, Thomas Krauz, Ian Ellis, Mike Wells, David Slater and Neil Shepherd emerge to make their contribution.

And then there were the experimental or investigative academic pathologists – those who believed that only the study of basic pathological processes, often in non-human systems, was the way to advance the discipline. For many of these the future lay in non-morphological methods, in well-planned animal experiments and in the new developments in cell and tissue culture. Early examples can be found in the work of Cameron, Florey, Heppleston, Spector, Willoughby and Harris, and latterly Chambers, Pignatelli, Lemoine, Hall and Wynford-Thomas, who have

embraced modern cell and molecular biology and made them work in solving problems in pathology and pathogenesis.

So what, you might say. Indeed, it would have been all sweetness and light had the two philosophies lived in peaceful coexistence and mutual support, but they did not. I have heard Professors of Pathology – dyed in the wool, London-shrunk, copper-bottomed, out and out experimentalists – refer to research in surgical pathology as ‘muck-raking’ (A. G. Heppleston, ca. 1969, in my presence) and its protagonists as ‘the hacks’, (C. Lumsden, ca. 1968), and even one who was seemingly proud to be the ‘only Professor of Pathology (In the country? In the world?) who has never performed an autopsy’ (H. Harris, ca. 1978, in my presence). Nor has the invective been all one way: anyone who has visited Australia will have heard the scorn reserved by the surgical pathologists for their ‘academic colleagues’ (here, for academic, read experimental) and, closer to home, many has been the vituperative comment directed at the basic end of the spectrum by the clinical pathologists.

Why should this be? What is the cause of this mutual antipathy? Pass. My own personal view, for what it is worth, is that the Pharisees of the experimental method regard the quintessentially morphological approach of the surgical pathologist as being somehow intellectually inferior. On the other hand, the disdain felt by some surgical pathologists for basic pathological research might be based on the feeling that it is impractical, arcane and recondite, and thus of very limited interest to them.

A moment’s reflection will show that both groups are absolutely wrong. The thoughtful investigative pathologist will quickly appreciate that it is surgical pathology that presents the problems that are really worth working on: what defines the differences in invasiveness or metastatic potential seen so often between different tumours? What is the cause of the metaplasia seen diagnostically in Barrett’s oesophagus? Which cells are responsible for the ductular reaction in the liver? How are the multiple urothelial tumours in the bladder related to each other? And when the surgical pathologist stains for Her2, defines a cytokeratin phenotype or assesses the proliferative status of a melanocytic lesion with Ki67 or mcm2, he/she uses the fruit of a great deal of basic science. You can, I am sure, think of many more examples from both spheres of endeavour.

But what has this to do with the development of academic pathology over the last 45 years, I hear you ask. A great deal, and dire. I suppose that up to the very early 1990s it was possible to run a University Department as a *spectrum*: at one end there were the star investigative pathologists with high grant income and graduate students, whereas at the other were the academic surgical pathologists, deriving their research material from the routine service and their referral practice. Somewhere in the middle were some who, although good surgical pathologists, also had a reasonable, or in some cases considerable, basic or translational research presence. Everyone did some teaching. So, at the end of the year, all activities – the research, the practice and the teaching – were covered. I know, you see, because this was the way I ran the Hammersmith Department for nigh on 17 years, and there is no doubt, at least my mind, that it worked there, as I am sure in other places. The whole was greater than the sum of the parts, and pathology flourished.

Then, in the 1960s universities were expanding and Heads of Departments were actually being *offered* positions rather than having them taken away. I recall my first professor, a certain A.G. Heppleston, actually *refusing to accept* another lecturer, presumably on space grounds. Can you imagine that happening today? So the number of positions in academic pathology rose, and new medical schools were established in those days with proper departments of pathology,¹ such as Southampton, to be populated with the likes of Dennis Wright and Peter Isaacson, and Leicester, with first Eric Walker and then Ian Lauder and Rosemary Walker. Then there

¹ I was incensed by a piece in acpNews reporting a debate entitled ‘Medical students do not need to be taught the pathological basis of disease’, held at one of these new medical schools – the Peninsula – and fired off arguably the most vituperative article I have ever written, full of personal invective against the (named) proposers of the motion. To my surprise, it was accepted and can be found in acpNews, Autumn 2003.

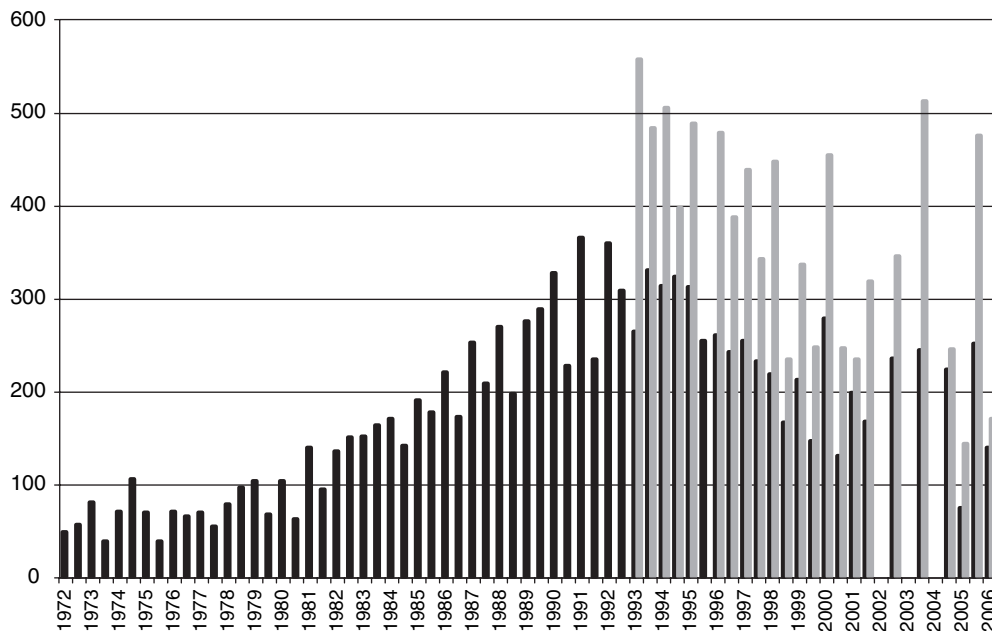


Figure 9.1 The number of abstracts received (black bars) and the number of registrants (grey) attending Pathological Society meetings from 1972 to 2006 (compiled by Professor Peter Hall). Note that prior to 1993 registration data are not available.

were the new techniques for studying disease, at the ultrastructural level, for measuring cell proliferation and cell death, and then the impact of the ability to localise proteins (see Chapter 15) and then mRNA species in tissue sections. Then came the explosion in cell and molecular biology, and by the late 1980s academic pathology in this country was really booming. The investigative pathologists were driving forward the development of these methods and the academic surgical pathologists were applying these advances to practical problems. And in those days pathology did indeed wax: I know that such metrics are not to everyone's taste, but Fig. 9.1 shows the number of abstracts presented at the Society's meetings over the years, it can be seen that in the 1970s (and indeed in preceding decades) meetings of the Society were small, with about 50–60 presentations per meeting. But then the number of abstracts rose steadily, reaching a peak in the early 1990s, possibly the Society's heyday. I can well recall a winter meeting at the Hammersmith Hospital in the early 1990s when I was reliably informed that there were nearly 800 registrants on one of the days.

But the dark clouds were even now gathering over academic pathology. Since then we have seen a decline, so much so that in 1999 the Society voted to stop the winter meeting because it was felt that there was insufficient material to be presented, with the result that, bizarrely, the summer meeting became the main meeting of the Society.² Now these data are of course open to different interpretations, but it is very clear that, judged by activity, research in academic pathology was now waning. The dark clouds I spoke of had now brought rain.

² I recall being told by Professor J. O'D. McGee in 1977, on my arrival in Oxford, that 'the Winter Meeting was for science, but the Summer Meeting was mainly a social occasion'.

THE RESEARCH ASSESSMENT EXERCISE AND ITS EFFECTS

In the latter years of the Thatcher era, a clamour arose that universities should be accountable for the vast (!) amounts of the money they received, and should in some way be able to measure the efficacy of their outputs. Thus was born the QAA inspections, which 'measured' how good we were at teaching our students. Fortunately, there were no financial penalties for poor performance. However, in the early 1990s we began, with some trepidation, to prepare for the Research Assessment Exercise (RAE). New terms arose, such as grant expenditure/FTE³ and impact factors of journals and citation indices of papers,⁴ matters that academic pathologists of both persuasions had hitherto been oblivious to. And so we moved blindly into the first RAE. It now became important for *individual* senior members of staff to become 'RAE returnable' – each had to have grant income, preferably from a research council, to be supervising research students and to publish in high impact journals. And who suffered? The answer is, both groups, but the academic surgical pathologists suffered much, much worse because effective surgical pathology research does not require much in the way of grant income. Most surgical pathologists worked with junior medical staff, or at most a clinical fellow, and a few supervised PhD students. And where do they publish?: in the *American Journal of Surgical Pathology*, in *Histopathology* or *Human Pathology*, which is hardly comparable to *Nature*, *Cell* or the *Journal of Clinical Investigation* in which *some* of their experimental colleagues published. And it has done them little good to be part of a large team doing good clinical research, even when publishing in good journals, as many have done.⁵ But by no means all the experimentalists did well: in recent years the surrogate metric for a 5* (the highest score) has been an average of £150K/FTE expenditure and two graduate students per year. Few academic pathologists could reach those dizzy heights. Consequently, with a few notable exceptions, university departments of pathology began to score badly. Unlike the QAA, the RAE has a financial sting in its tail, and the score, multiplied by the unit of resource, equals your research

³ Grant expenditure/FTE (full-time equivalent of staff) has become an important metric in the RAE – in the last two assessments there seemed to be a linear relationship between grant expenditure/FTE and unit score in the RAE.

⁴ Despite protestations that impact factors and citation indices are not used in the RAE, the author can vouch for their use in the 1996 RAE.

⁵ In the 2001 RAE it was proposed that surgical pathology contributions to multi-author papers should automatically be graded 3a (a low score and unfunded by the High Education Funding Council). This was successfully resisted but it reflects the view of surgical pathology by some in these circles (Professor Simon Herrington told me this). It is thus very clear that surgical pathology research has been poorly regarded in successive RAEs. It is very difficult to understand from whence such a demeaning view has arisen; a moment's reflection will immediately reveal how critical a pure morphological observation actually is – we would not treat a melanoma without first assessing the Breslow thickness of the Clarke level, probably with serial section analysis of the sentinel node biopsy, nor a breast cancer patient without axillary node sampling or clearance and fairly exhaustive histological analysis. There have been recent British contributions where histopathological observations have been central, and where international interest and appreciation are manifest; space obviously precludes an exhaustive analysis of all fields where our research has made a significant impact, but I am sure you can add your own examples from your own field if I chose two or three examples that immediately come to mind. So what examples of British surgical pathology would I grade as 5*? I suppose that few would now issue a report on a breast cancer specimen without at least some mention or consideration of the Nottingham Prognostic Index (NPI), which has made a major impact internationally. Combining a measurement of the diameter of the tumour with an assessment of the tumour grade made using defined criteria with knowledge of the number of axillary nodes involved, the NPI is used internationally in clinical assessment, management, prediction and in obtaining comparative data in clinical trials. This is the definition of 5* research; I have yet to see Nottingham's pathology flagged as such. A second example would be that the resection margins of rectal carcinomas define the local recurrence rate. This is very much a multicentre effort, in which Basingstoke and Leeds figure largely. I have heard American surgeons at the 2004 Digestive Diseases Week agree that this was among the most prominent observations that defined clinical practice in this field in the last 10 years – if this is not again the definition of internationally competitive research, then what is? There are of course British observations that have attracted some credit among our peers – the recognition of complex sclerosing lesions in the breast, the adenoma/carcinoma sequence and the resultant molecular pathology, and MALT and the MALTomias – but there are others that remain totally unrecognised.

income from the Funding Council for the next few years. Poorly scoring medical schools lost money, and the brunt of the fallout hit the poorly performing departments. Senior lecturers with clinical interests moved into the National Health Service – some voluntarily, others forcibly. Clinical lectureships were either lost or changed into non-clinical lectureships or senior lectureships to provide positions for scientists who were RAE returnable, which is not a bad thing in itself but from the viewpoint of academic pathology it is disastrous. Most importantly, it was more or less the end of the road for those academic surgical pathologists hoping to be appointed to established chairs of pathology in this country. But our loss has been America's gain – we have watched while some of our best surgical pathologists have been enticed across the pond, because of their inability to land such a chair, to positions in the USA where, as surgical pathologists (an American term really), they are appropriately venerated and revered.

Just as academic surgical pathologists have felt the pressure of the RAE and the need to win grants in strong competition, investigative pathologists have felt under pressure from the demands of the National Health Service (NHS), have been unable to cope with the tripartite role and have departed into a career of research and teaching only or even into the NHS itself. An example from Kings: 'the last proper academic pathologist appointed as senior lecturer was Dr Vasi Sundaresan in 1997; he promptly buried himself within experimental pathology (which was always physically, and in reality administratively, separate from histopathology) and worked on lung cancer and neuronal developmental biology. He faced the classic dilemma of wanting to hold onto a clinical contract whilst realising that working six sessions a week for the hospital would wreck significant research activity. In reality he did about 1.5 sessions of diagnostic work (between 06.30 and 08.00 on some mornings), which did not sit well with purely diagnostic colleagues as the cancer networks got organised, and in 2004 he finally gave up to work full-time elsewhere in the NHS. There were no hard feelings on the part of St Thomas's Hospital, only contempt from Sunderesan at the lousy management structures of the medical school. When Sebastian Lucas approached the new Guy's, King's and St Thomas's Dean about appointing a new senior lecturer to replace him (intended as tongue in cheek), the answer was a straight 'No' (S. Lucas, personal communication).

And what have we done about this? Not a lot. There was a time when I thought I detected a cadre of academic pathologists who were widely respected for their diagnostic acumen but who also led a team of clinical academics and scientists doing internationally competitive research: individuals such as Peter Isaacson and Dillwyn Williams. This, I thought, was the way forward. I was probably wrong. We simply have not produced enough individuals with the happy knack of bridging the two branches of our profession successfully. In addition, as Peter Hall pointed out,⁶ we also have not produced enough good experimentalists to win programme grant support in a highly competitive environment. And where are the surgical pathologists now? Mainly in the NHS out of the way of the RAE, some with honorary chairs (if they are lucky at the local university, or in some cases further afield).⁷ The Society has, with the help of the Private Patients Plan (PPP) and the College, established a few clinician scientist positions in pathology, but transparently not enough. The Society's Centenary will hopefully provide a new impetus to this!

And so academic pathology positions have been lost, and people have now begun to notice.⁸ The Council of Heads of Medical Schools recently wrote to the Royal College of Pathologists to enlist its help in reversing this trend. The Trent Regional Committee of the College was trenchant in its criticism: 'We found it risible that the Council of the Heads of Medical Schools should look

⁶ In his talk 'Academic Pathology – a Way Forward', delivered to the Academic Forum at the winter meeting of the Society in January 2006.

⁷ Professor Neil Shepherd, working in Gloucester, is a Professor (now a Visiting Professor) at the University of Cranfield.

⁸ In 2005 the Council of Heads of Medical Schools Report on Academic Staff Numbers drew attention to the loss of positions in histopathology.

to the College for action over the decimation of academic pathology while it was the heads of medical schools themselves who had wilfully closed 40% of academic pathology posts in a single year and closed 81% of lectureships in pathology since 2000'. I can really see their point but I can also (well I would, wouldn't I) see it from the viewpoint of the hard-pressed Dean of Medicine with a deficit budget, desperately casting about to increase the School's score in the next RAE or else see the School go even deeper into the financial mire.

There have been other explanations for the waning of academic pathology, and the examinations of the Royal College of Pathologists has been an old chestnut in this respect. 'Young people were being forced to learn innumerable facts, and to concentrate on the examinations over a five or six year period – to the exclusion of anything else – during what is supposed to be their most formative years when they should be laying the foundations of a research career' was the cry from one side. 'The examination has driven up standards of diagnostic pathology in this country' came the counter from the other side. And so it went on, with Professor Dennis Wright having many a fight with his opponents, whom he christened, a trifle ungraciously I thought, the 'backwoodsmen'. In fact the Association of Professors of Pathology, in perhaps its only effective political action, decided to run a number of candidates for the College Council with the express policy of changing the examination system to a single exam to be taken after three years of training. In this they succeeded, only to see the 'backwoodsmen' subsequently flood the Council and re-apply for a further tough exit examination at 5 years – perhaps the worst of all worlds. But I have always been ambivalent about the effect of the examination on academic aspirations; believing, as I do, that academic pathologists should at least endeavour to have a foot planted firmly in both experimental and surgical pathology, I can see nothing really wrong in taking the Part 1 examination, then getting a fellowship to do a PhD and then returning to take Part 2 and obtain a CSST or CST – as it will be called in the future. That is what I did, and I think it behoved me well, actually.

The academic expansion of the 1960s was matched in the 1980s and 1990s by a crisis in recruitment, largely brought about by ourselves (well, some of us). Alarmed at the apparently large number of senior registrars seeking consultant appointments, our College and the Department of Health actually *froze* recruitment into our discipline for 18 months – an unmitigated disaster for pathology, which then saw recruitment plummet even when the ban was lifted. The reasons for this are complex and have been discussed elsewhere (see Chapters 12 and 13), and the trend is only now being reversed with the establishment of the SHO Schools. But even with the recruitment of more individuals into pathology, we are not seeing many naturally follow an academic interest: the Society is now having to make a special effort to interest juniors in an academic career. Why then is the situation compounded by an apparent decline in research interest among junior pathologists? Apart from saying the obvious – that this is a position seen in most, if not all, other clinical academic disciplines in this country – there are probably several reasons: lack of local academic leadership and encouragement; knowledge that consultant appointment within 5 years of starting training is standard (the issue of the shortage of pathologists); lack of money to take time out for research; clinical lectureships being stopped, or made it impossible to appoint, through the simple rule that appointees would have a substantial opus already to be presented for the RAE (S. Lucas, personal communication).

Because this is a personal piece, I can give you another view. There has been much comment on the lack of exposure of medical and dental students to pathology in the undergraduate curriculum, so that, unlike in other disciplines, students do not know what pathologists do. This has been argued effectively and evocatively elsewhere (see Chapter 12) but there may be another reason why recruitment into the pathology disciplines has fallen so precipitously since the admissions procedure of 1984. About 15% of students make up their minds to do pathology *before* they apply to medical school – I know I did. When asked why I wanted to read medicine, I told the interviewers and they appeared entirely unfazed. These days they would probably call for security, such is

the concentration on 'aptitude', 'communication skills' and 'empathy': we could well be selecting against those individuals who regard medicine as merely a first scientific degree.

RECENT EVENTS

The impact of the Alder Hey and Bristol episodes on recruitment in pathology and on the incidence of autopsies has been discussed frequently but their effects on research and teaching have received less attention. In the days when the Retained Organ Commission was sitting, I can recall distinguished surgical pathologists being literally terrified of the consequences of sending out sections for a slide seminar, and several who almost broke down under the strain. And the impact on tissue-based research has been really quite dreadful. The inclusion of surgically acquired tissues within the Human Tissue Act was an issue that the Society fought long and hard against. Despite the Retained Organ Commission assuring us, on multiple occasions, that these tissues were not on their agenda, they appeared as part of the Act and no amount of lobbying on our or anyone else's part could get them off the statute book. Initially they needed to be consented for research *and* teaching (the latter prior to any diagnosis – whatever that was supposed to mean). At least we were able to get the teaching and training for research off the consent agenda, with a great deal of help from our friends, some of them noble. Interestingly, the Scots, as in so many things, were wiser, exempting surgically acquired tissues from the legislation; whether this will result in a move over the border by disenfranchised tissue researchers is a matter for the future.

As I write, nobody is yet clear how the Human Tissue Act is going to work, but we will definitely see the licensing of all tissue banks, the need to consent all tissue (including blood and cerebrospinal fluid) and the need to get ethical approval for even the smallest tissue-based project that in any way will count as research. This might be as innocuous, for example, as looking for male cells in the archived biopsies of female patients who have received a bone marrow transplant: for this, one currently has to fill in an entire COREC form (over 60 pages long) and wait at least 60 days before you can actually cut the sections. There is no doubt that researchers in this country generally, and especially in pathology, feel ground down by the sheer bureaucratic burden of prosecuting research, and wonder if it is worth the candle. It is interesting to note that a recent consultation document from the Department of Health seeks to reduce this bureaucratic burden, which is especially piquant when you think who created all this bureaucracy in the first place.⁹

Finally, and somewhat at the risk of being labelled a dinosaur, there is the attack on professionalism in this country to consider: we have seen the introduction of the new consultant contract, at huge expense, which in my view has done a great deal to expedite this loss. We used to be paid a fair amount to do a job that was, by its nature, open-ended: now we have slavishly accepted a deal that actually measures what we do and pays us accordingly. From the professional viewpoint, I consider this a debasing step. However, when I expressed this view at a recent College Council meeting I was subjected to considerable abuse – this is how far we have come. Of course, I am sure that many of us, especially in universities, carry on much as before, but it is the principle underlying the contract to which I object. It leads to a certain mind set: I well remember feeling close to despair when, at a recent meeting held to consider the Society's strategy over the next few years, I heard a young woman describe how she set up her period in research with funding and a project, but on reflection pulled out of it because 'she would lose her banding' and any way, during this proposed period, a consultant position in her area that she had had her eye on would become vacant. If her research mattered so little to her, what is the point anyway, I reasoned. Before becoming maudlin and bemoaning the death of idealism, I had to remind myself that it was I who was probably being unreasonable and expecting more from her than she was prepared to give. But it upset me, nonetheless.

⁹ 'Best Research for Best Health', Department of Health, 2005.

THE SCOTTISH CONNECTION

It is difficult to dissociate the happenings in the last few years without to some extent discussing the men and women who contributed to this process: in this book there are several chapters that deal with people and happenings in relation to the Society, but where have our leaders come from over this period? Well, first things first – there is no reasonable doubt that from the 1950s and well into the 1970s the era was dominated by what has been called the ‘Scottish Mafia’ or even more specifically as the ‘Glasgow Mafia’, although other Scottish cities might also claim that title. A number of people who were appointed to the Aberdeen Department by Alastair Currie subsequently went on to be appointed to chairs of pathology elsewhere in the UK (John Beck, Dundee; Colin Bird, Leeds and Edinburgh; Eric Walker, Leicester and Aberdeen; Andrew Wylie, Edinburgh and Cambridge). But it has to be emphasised that the Scottish hegemony held considerable sway not only in Scotland, where you would *a priori* expect them to dominate, but also in England: Anderson in Liverpool, Bird in Leeds, Crane in Sheffield, Curran in St Thomas’s, McGee in Oxford, Walker in Leicester, Wylie in Cambridge, Munro Neville at the Institute of Cancer Research, Wilson Horne in Newcastle and Levison at Guy’s. Together with their indigenous Scottish brethren – Currie, MacSween, Goudie *et al.*, who are always active in the Society – it is probably true to say that they dominated the academic scene in the period leading up to the 1980s.

That is not to say that other departments were not active in producing professors: from Birmingham came Donald Heath, chair in Liverpool, Douglas Brewer, chair in morbid anatomy in Birmingham; Walter Smith, chair in neuropathology in Birmingham. Dennis Wright joined the department and later was appointed from Uganda to the foundation chair of pathology in Southampton in the early 1970s, and of course Lyn Jones held the chair in Birmingham for many years. But it is clear that the Scottish mafia held sway and I have often wondered why this should be so. Did, or do, Scots have a special talent for pathology, or does the subject hold a special attraction for Scots? Could it be that the shade of Robert Muir still held influence? I well recall being told of the ‘red carpet’ treatment meted out to promising undergraduates in Glasgow if they selected pathology as a career (A. J. Watson, personal communication). Certainly, having been trained by a product of the Glasgow School of Pathology, I can vouch for their high standards and critical thinking, but times were changing. In more recent years we have seen a decline in the export of pathologists to departments south of the border, and even the accession of a Sassenach, Barry Gusterson, to that Holy of Holies – the chair in Glasgow. Apart from what might be called the Hammersmith/ICRF axis, which sent Evans to St Mary’s, Foster to Liverpool, Hall to St Thomas’s, Dundee and Belfast, Krausz to Chicago, Pignatelli to Bristol, Ilyas to Nottingham, El-Lalani to Birmingham and Stamp to Hammersmith itself, no one department has dominated in the manner in which Glasgow did. Where will our leaders be trained in the next millennium? Who will take up the banner?

So the face of pathology has changed. In London we have seen massive mergers and the example of Guy’s, King’s and Thomas’s, which became the United Medical and Dental School, is most instructive (S. Lucas, personal communication):

‘Tighe resigned in a huff and left early in Sept 1990 (too much hospital and district administration and too little practical pathology mainly) and, oddly, a replacement professor was appointed (Hall) although the UMDS already had one in Levison. Hall left for what appeared to be a better offer in Dundee in 1993. Levison was then the single UMDS professor, took a good look at the difficult people at St Thomas’ Hospital (McKee, Fletcher etc) and was attracted back home to Dundee in 1995. A long hiatus followed and Sebastian Lucas was appointed. This was actually bizarre, since there was an excellent local personal chair pathologist *in situ* (Fletcher), but three times he was rejected by the appointments committee, once with no appointment and twice in favour of outsiders (Hall, Lucas). Such was local politics! More bizarre was the fact that Lucas had strong backing from the Experimental Pathology Professor, Frank Walsh, even though anyone with open eyes would know that Lucas had no basic science research leanings

whatsoever, and little ability to stimulate such activity in others. In 1997, Whimster died whilst lecturing at Kings College London and there was no question of re-appointing a pathologist professor to Kings College Hospital, even though 'Guys, Kings and Thomas' had not yet happened. So from three to one professor in 4 years'.

And other parts of the country have faced similar problems: the period of most rapid and profound change was during the 1990s. The tension between the increasing pressure of service commitments and the drive to improve research quality and productivity led to the creation of NHS consultant posts to work alongside the clinical academic consultants. The headship of the histopathology service, historically an *ex officio* role of the academic head of department, became a rotational position open to NHS and academic consultants. The number of clinical lecturer posts was cut, although Sheffield is one of the few academic centres to have been able to retain as many as two!

In others we have seen appointments of non-pathologists to chairs of pathology, e.g. in Bristol when Tom Hewer retired (who was not only a general pathologist of the old school who carried full clinical responsibilities, but also an expert botanist; he was also a keen Comparative Pathologist and was extremely interested in the results of the autopsies on animals that died at the Bristol Zoo) he was succeeded by Professor Sir Michael Anthony Epstein. Professor Epstein is well-known as one of the discoverers of the Epstein-Barr virus and was succeeded in 1981 by Ian Silver, a Professor of Comparative or Veterinary Pathology. Although there is no room for doubt about the quality of Epstein as a scientist, I have yet to be persuaded that such appointments really do anything for our discipline: chairs of pathology should really be about developing our subject and providing role models for young people starting out in our subject, the scope of which I have defined above. Talented as such individuals are, I would argue emphatically that chairs of pathology are not appropriate for them.

However, more than one Professor of Pathology has asked me about their future and their role in the future academic firmament. Consider Sebastian Lucas: 'from being the leader within the Pathology Division of the old medical school, there is no such now, and he is a member of the Division of Immunobiology solely on the basis of an interest in HIV and other infectious diseases. He will not be included in the next RAE, because the medical school only wants 5 and 5* persons on its books. The reason why he has survived without transfer to the Trust, along with all (*sic*) the other clinical pathology professors in the medical school hospitals, is simple: the chair that he inherited from Levison is funded 80/20 by the NHS and the medical school. Because he does sufficient teaching to occupy the 20%, it is not worth the fuss (the medical school has handled the transfers with staggering cack-handedness and it is surprising that so many good people stay on into Trust positions). When he retires in 2012, he will not be replaced in the same mould. The gold-inscribed board listing Lecturers and Professors of Pathology at St Thomas's has some space under his name, but it is unlikely that a molecular biologist would want his or her name associated with the other names above. What is the role of a Professor of Pathology in modern times and how can he/she survive in the RAE climate of 'money is all'? The answers are, respectively, important and with considerable difficulty! Either by single-mindedly ploughing a field that is brilliant in output despite the odds (e.g. Isaacson); or by being less research interested but developing a special interest that makes him locally and nationally important in pathology governance. We do have a leadership role for our peers and trainees nationally, and the destruction of the old system is diminishing this.' (S. Lucas, personal communication).

ENVOI

Well, I can hear you saying, what a desperate situation! What is he doing writing this stuff and not out there doing something about it? I think there is a need for a sense of perspective. These are troublesome times for academic medicine, and we are not alone, In the 'craft specialties' in

particular, where there is the expectation that a high level of practical competence has to be combined with internationally competitive research, as in academic surgery, we have suffered. There has to be a remedy for this somewhere. Moreover, we tend to compare ourselves now with the situation in the 1980s, when academic pathology was really motoring: what I hope this piece has set in perspective is that this was not always so. We have seen the waxing and waning of our subject and we can debate, as I have above, the reasons for this, but a visit to one of the Society's meetings does show, quite unequivocally in my view, that pathology research of the highest quality is being presented. I would concede that there is not enough of it: so what must be done? What we have to find now is a recipe for resurgence that is consistent with the new rules of the game. How can we re-establish an environment where both investigative and surgical pathology can regenerate in this country?

Of course, it is really a simply matter: we have to attract the right people and train them properly in the right environment. We need to nurture and support them but there are several barriers to this simple solution. Firstly, we have to get the career structure right. The recent Walport proposals,¹⁰ which really codify the path that a number of successful researchers have taken in recent years, but supported with (hopefully) acceptance and financial backing, will help considerably. I sincerely hope that the by-word will be 'flexibility', which will mean that those intent on pursuing an academic career will not meet with obstructionism in realising the level of their professional expertise: that is not to plead for a lapse in standards, but a more flexible approach to meeting those standards in a more specialised field. Then there is the nature of our subject. I would argue that there are a growing number of younger investigators in British academic pathology who are competing at the right level, and we need to encourage these and develop more of them; on the principle of like breeds like, these are the people we look to be the role models for the next generation and to found the next dynasty of academic pathologists in this country, and they must not shrink from this responsibility. At the same time, it is absolutely imperative that we support and underpin academic surgical pathology in this country and bring it back where it belongs – into university departments. This will be far from easy – the barriers have been pointed out above; we could start by trying to heal the breach between investigative and surgical pathology, and a good place to start is to recognise our mutual interdependence. We have to make surgical pathology recognised again as a legitimate academic pursuit of the highest order – the case is easily made but, as I have made clear, remains unrecognised. This rehabilitation must start from within – we ourselves have to recognise its importance and unashamedly proselytise to those outside. There are many avenues in which we can do this, and we should start now.

I hope it is also clear that the environment for conducting clinical research in this country is becoming more and more hostile: everywhere one looks there are barriers and more are erected by the year, much of it rabbinical in its complexity. We have let this happen to ourselves and now we have to reverse the trend. We now need leaders in all branches of our profession who are prepared to stand up and be counted and to say that enough is enough: the bureaucracy surrounding research has to be simplified and in some areas disappear. The Pathological Society should be an advocate of this and act as a catalyst for this broad view of pathology.

Finally, there is a case for remembering that, as Oliver Lacon remarked, 'we are not keepers of a sacred flame; we have to adapt'.¹¹ To some extent this is true and academic groupings may indeed change: we may see the demise of the traditional Department of Pathology, as has happened

¹⁰ In March 2005 a report was produced by the academic subcommittee of Modernising Medical Careers (MMC) and the UK Clinical Research Collaboration (UKCRC), providing recommendations for the future training of medically and dentally qualified academic staff. The subcommittee is chaired by Dr Mark Walport, Director of the Wellcome Trust, and has become known anecdotally as the 'Walport' report. The aim of the report is to set out clear training pathways for those doctors and dentists wishing to pursue an academic career. The recommendations in the report are supported by £2.5 million from the Department of Health as part of their commitment to establishing integrated academic training programmes for academic clinicians of the future.

¹¹ *Smiley's People* by John Le Carre, Hodder and Stoughton, 1980.

in several medical schools, but this should not be a matter for despair. What we must hold to is our firm belief that pathology is the foundation of medicine, that change in structure caused by disease and their cellular and molecular basis is arguably the most important field in medical research now and for the foreseeable future; and those who prosecute it, be they developmental biologists, neuroscientists, mouse geneticists or whatever, are really, whether they like it or not, thinking and working as pathologists. We simply have to make people recognise this, harness this effort and bring pathology back to centre stage, where it really belongs.

Fetal or foetal?

I had the great privilege of working for a year with Sam Freedman, the Canadian co-discoverer of CEA. We shared sabbaticals at the Chester Beatty Research Institute with Munro Neville and Tom Symington. Sam was keen for us to seek a substance in fetal lymphoid tissues that might be re-expressed in lymphomas and lymphocytic leukaemias, and having similar utility to that of CEA. We soon identified a candidate substance in splenic tissue harbouring lymphoma and we set about its characterisation. Eventually we realised that we had rediscovered fetal globin using immunological methods. It was expressed in the extramedullary haemopoietic tissue sometimes accompanying splenic infiltration by lymphoma.

After my presentation to The Pathological Society, Professor Bernard Lennox (1914–1997) challenged my use of ‘foetal’. I had avoided ‘fetal’, believing that it was an Americanised spelling (as with ‘tumor’). However, Professor Lennox suggested correctly that it should be ‘fetal’, derived from the Latin *fetus*. There was no time left to discuss the pathological aspects of my paper! I discovered only on reading Lennox’s obituary (*British Medical Journal* 1997;315:432) that he was the principal medical consultant to the *Oxford English Dictionary*.

James Underwood

The origins of Finnan Haddie

It was the summer meeting in Aberdeen, at a Civic Reception, hosted by the Provost at City Hall. Surprisingly, it was a glorious evening. The Provost was a man of such imposing stature as to rival Munro Neville, but about as useful for the purposes of conversation as a sea cucumber. So boring was he that the Officers of the Society were deputed to keep him company one by one, in rotation. It was my turn, and as the Program Secretary I followed Munro. I wished him a good evening, which he countered with a mere nod. Silence. I frantically cast about for a conversational gambit. Finally I had one – I had studied a local map on the plane coming up. Quoth I: ‘You’re very lucky having the seaside village of Findon so close to Aberdeen’. Raised eyebrows as the Provost growled ‘And why might that be, young man’ (I was younger then). ‘Well’, said I, ‘Because of the Finnan Haddie that comes from there’. (My senior colleague Alec Watson had told me this many years before). ‘Och no’, was the crushing response. ‘A Finnan Haddie is a special type of haddock. It has nothing to do with Findon’. ‘Oh,’ I said, very taken aback, ‘I’m sure you’re right’.

You may have noticed, but Englishmen have a way of saying these words which mean the very opposite, and this attribute had obviously kicked in without my realising it. The Provost glowered at me, and looking over my shoulder, called out to one of his colleagues – aldermen – or whatever they are called north of the border. ‘Angus. Tell the young man here the origin of the term “Finnan Haddie”.’ Of course he had to answer ‘Why, because they originally came from Findon, quite close to here’. Oh my God, I thought. Sure enough, the Provost was now exceedingly exercised, called over another colleague, and interrogated him, with the same result. I was now becoming quite agitated, since the Provost was showing every sign of losing

his temper, and heads were beginning to turn. But then the lovely Dr Boyd, a very senior member of the Society from Glasgow came across to my rescue, and pointedly asked me in a loud voice. ‘Professor Wright, what appears to be the problem here’. ‘The Provost and I were ruminating on the origins of the term “Finnan Haddie”’, I replied, weakly. ‘It’s well known,’ said the formidable Dr Boyd, in the same very loud voice that reverberated across the room. ‘It’s because they came from Findon. I’m very surprised, Provost, that you did not know this, it being so close to Aberdeen’. As they used to say in Punch, ‘collapse of stout party’.

But this was not the end of this affair. The following Tuesday, I received a letter. It was from Dr Boyd, enclosing a photocopy of a page from a Scottish Dictionary of Phrases, which gave chapter and verse about the Finnan Haddie. I noted, initially with consternation, and then with growing admiration, that the letter and enclosure had been copied to the Provost of the City of Aberdeen. How this was received I know not – but it increased my respect for that generation of Scottish pathologists, before whom, if you spoke at all, you had to be entirely sure of your ground and of your references. I have not forgotten this lesson.

Nicholas Wright

The value of stygian darkness

The meeting of The Pathological Society that remains most vividly in my memory is the first one that I ever attended in July 1959. This was shortly after I had come to Britain and started to apply the, then fairly new, technique of immunofluorescence to vascular lesions. The session at which I was to give my presentation was well attended, most notably by Professor Dorothy Russell from the London. I thought her terrifying, an impression that was reinforced by her savaging the presentation and its presenters that immediately preceded mine. In those days the degree of immunofluorescence obtainable was much inferior to what developed subsequently and, in order that my preparations would be clearly visible, I gave my paper in stygian darkness. The fact that the members of the audience, instead of the transparencies, were invisible, did wonders for my confidence and enabled me to give a blush-free presentation.

Neville Woolf

A gentleman pathologist

An anecdote has emerged from my foggy old brain! It illustrates the image that pathologists’ had of themselves over 50 years ago. The occasion was a Path Soc meeting in the early 1950s to which I went as a very junior trainee at the invitation of my chief, Professor Robert Scarff, the Director of the Bland-Sutton Institute of Pathology at the Middlesex Hospital. Scarff was a dour, down to earth character with a dry sense of humour. On this occasion I recall him pointing out the figure of Professor Hewer of Bristol who was very formally attired in wing collar and tie, black jacket, striped trousers and highly polished shoes. Scarff said ‘Ah, there is Professor Hewer, a gentleman Pathologist, the only one!’

Basil Morson