

**Sir John Walton Kt TD in interview with Sir Gordon Wolstenholme
Oxford, 9 May 1986
Interview 1**

GW John, I would be very interested to know something to begin with about your background in the north east of England and in particular your family and early schooling.

JW Well, my father and my mother both came from working class homes. My grandfather on my father's side was a miner and went down the mine at the age of ten. They lived in a little colliery village called Allendale Cottages, in County Durham, in a house, one up and one down, with the 'nettie' across the backyard.

GW Do you remember them?

JW I remember them very well and frequently went to visit them. My mother's father was a shipyard worker in Jarrow in Tyneside and she was the youngest of twelve. Both of them, both of my parents went to training college in Sunderland where they met and became teachers. And I was born in Rowlands Gill, about eight miles from Newcastle where my father had his first post as a schoolteacher, and later he got a headship and we moved to Spennymoor in County Durham. I went to the school at a little place called Pickering Nook where we lived in a schoolhouse. I remember it well; there was no bathroom; we used to have to bath in a tin tub in front of the kitchen fire in those days. But then when we moved to Spennymoor: I went to my father's school and then got a scholarship to go to the Spennymoor, Alderman Wraith Grammar School. And it was while I was there that I began to develop an interest in things scientific and in medicine and decided, with no particular family background... I think an example of my own GP whom I admired greatly, a Dr Davis was one of the things that inspired me, but I read a great deal about medicine and science, and decided that medicine was for me. Now, I was accepted for medical school in Newcastle in 1940, to go in 1941, but of course that was the time of the Battle of Britain and so on. So I became very ambivalent about it and actually went to Padgate to the RAF and had a selection board and was selected as a suitable pilot observer, but then was taken by my father to see the Dean of Medicine, R B Green, in Newcastle, who said, 'Well the country needs pilots, but it needs doctors just as much and I will make a deal with you. You come to medical school and if at the end of the first nine months - you can join the University Air Squadron if you wish - you still want to go and fly with the RAF, I will release you.' But by the time I got to medical school in 1941 I became so much immersed in the work, and there were so many people there in a like situation to myself that of course I decided that I wanted to go on with medicine, and of course spent some time during the war in the Senior Training Corps, fire-watching and doing things of that nature, and qualified at the end of the war, in the shortened wartime course in 1945.

GW And just as an aside almost, that shortened course, you don't feel that you were deprived of anything?

JW No, we had a tremendous amount of experience because there was one time when the teaching hospital, the Royal Victoria Infirmary, in Newcastle, towards the end of the war had only five resident qualified staff, and all the house jobs were being done by students. And before I qualified I'd done three months as a houseman in paediatrics and a certain amount of surgery, and had become really quite good at doing minor surgical procedures.

GW I think we ought to come back to that a little later on. I'd like to just follow one particular line because two years after you qualified you went into the RAMC and you did your National Service.

JW Yes, well it was actually not National Service, it was an emergency commission still, after the war, so that indeed I joined the Army in 1947, after doing one year of house jobs; six months medicine and six months paediatrics. And doing paediatrics I came very much under the influence of the late Sir James Spence, one of the great paediatricians of his generation. I'd been his houseman as a student, and although [Frederick] Natrass, the Professor of Medicine had interested me in neurology, I still went into the Army determined to come out... to become a paediatrician. I spent two and a half years in the Army at first in the UK. I was embarkation medical officer, Scottish Ports, and then Southampton, and then went as second in command of two hospital ships. The first the hospital ship *Oxfordshire* and then the *El Nil*, and we travelled the world, and saw a lot of the Middle East and East Africa and Mauritius and various other places. We carried, on one trip back from the Middle East, a large number of British sick and wounded and German POWs, including Field Marshall Field Marshal von Brauchitsch, who was the former Chief of the Imperial German Staff, and as 2 i/c [Second in Command] I looked after the orderly room and the impress account and also looked after the officers and the females and the 'mentals'. Those were the three most difficult groups of patients in that descending order, I think.

GW Some of these people were very badly affected by their war experience, were they?

JW Yes they were.

GW You were dealing with severely malnourished people.

JW Not so much, no, because these were people who had been wounded or who had been taken prisoner in the Middle East and there was much less...

GW Not from the Far East?

JW Not from the Far East, no. After I left the Army the hospital ship the *El Nil* did make one journey to the Far East, but we were mainly going to the Middle East and Africa and Mauritius.

GW Just to wrap up this little corner of your life, of course, you remained in the Territorial Army after you came out. You had that short service commission, but you really went on to become eventually a full Colonel, were you not, of the Victoria Hospital?

JW Yes, eventually. I was interested in the Army and often thought that if I hadn't become a doctor I might perhaps have been a barrister or even a Regular Army officer. And for this reason I joined the Territorial Army when I was a young registrar, after coming out of the Army itself, partly out of interest and partly, to be frank, because we were so impoverished that I needed the money from the Territorial Army, and greatly enjoyed it - served for sixteen years and eventually, as you say commanded the Number 1, Northern General Hospital.

GW I would say this was normally more of a surgical trail, to do this sort of thing. You never thought that you might have been a surgeon.

JW As a young medical student, again under the inspiration of a teacher, called Norman Hodgson in Newcastle, I thought I might become a surgeon, but then I realised that I hadn't got the manual dexterity, nor, I think, perhaps quite the patience to stand for long hours by an operating table. So, no, I decided paediatrics for me. But when I came out of the Army I was appointed immediately as a medical registrar, in Newcastle, to the teaching hospital, and there came under the influence of a Dr Alan Ogilvie - a great physician - and more particularly, Henry Miller, who was his assistant physician and of course an outstanding neurologist. My intention was to become a medical registrar, to get the Membership [of the Royal College of Physicians], and then go back to paediatrics, but the more I saw of neurology with Henry Miller and also with Nattrass, the more I realised that this was something that fascinated me. So by the time... at the end of that appointment neurology was the career upon which I had decided.

GW And if I remember rightly, you got your Membership in 1950, and your MD in 1952? You were really set then to become a consultant, which you eventually became in Newcastle. Those were days when neurology was beginning to change enormously were they not?

JW Yes, very much so. Up to that day neurology had not existed in Newcastle as an independent specialty. All the neurology was done by general physicians, such as Nattrass, who was the Professor of Medicine, and Henry Miller, who was an assistant physician. There was a Department of Neurosurgery at the Newcastle General Hospital under [G W] Rowbotham, but there was no Department of Neurology. Neurology did of course exist in certain other centres in the UK, but not in Newcastle, and I think that both Henry Miller and I - and I was very much his registrar and influenced by him - began to feel that the time must come when we would have an independent neurological service, because the neurosurgical team really did not have the benefit of continuing advice from physicians. And the change was being brought about by developments in neuroradiology and other imaging techniques, which were beginning to transform neurological diagnosis. My MD thesis was written on the topic of subarachnoid haemorrhage. I reviewed some 312 cases and followed up the survivors of patients who had been admitted to the Newcastle hospitals and I was quite fascinated by cerebrovascular disease. But then Nattrass came to me, as my

medical registrarship was coming to an end, and said that he wondered whether I would be prepared to become his research assistant to do some research on muscle disease. I'd never thought of it at all. The background was interesting because the Department of Health received some information from a man on Tyneside who had tried to start a muscular dystrophy association and he'd got a lot of publicity in the press and as a consequence of this publicity, the Department of Health got some reports from patients, or parents of patients, who said my child had been diagnosed as suffering from muscular dystrophy but had recovered. And so they got the dossier of these cases, and Dr Albertine Winner as she then was, later Dame Albertine, took them to various senior physicians in London and said, 'What do you think about these reports?' And almost universally they said, 'If these children were diagnosed as suffering from muscular dystrophy then the diagnosis must have been wrong, if they recovered. Good morning.' But she still didn't think that was enough so she went to Natrass, and Natrass, I think, to his very great credit, decided that this is something that needed investigating. It may not have been totally unrelated to the fact that one of the cases had been diagnosed by him, but even so he got money from the Department of Health to appoint a research assistant to look into this problem, and that was myself. And so for the next seven years I held the appointment of research assistant in the Department of Medicine, working on the clinical genetics, genetic and other aspects of muscle diseases, and started to examine all the patients with muscle disease I could find in the North East, eventually doing a complete population survey, I believe, of the muscle dystrophies. And that resulted in a number of developments, first the finding that the patients who had recovered were almost certainly most of them suffering polymyositis, an inflammatory disease of muscle, and not from dystrophy at all. Secondly, we introduced a new classification of the muscular dystrophies, based on genetic information, and that was published in 1954 in *Brain* and also in the *Annals of Human Genetics*. And I remember very well Lionel Penrose as a marvellous adviser; when one took one's information and data to him he would sit down with you for several hours and would go over it in detail and make a great deal of useful suggestions. And then of course I got a Nuffield travelling fellowship.

GW And went to the MGH, I think?

JW I went to the Massachusetts General Hospital to work with Raymond Adams, quite deliberately because Ray Adams was then the world's leading figure in muscle disease and I learnt there a great deal of neuropathology and got a grounding in muscle pathology, which... I found it was a most exciting year. Then I came back from the States to London and spent a year working with [Arnold] Carmichael in the Neurological Research Unit at Queen Square on another travelling fellowship, living at the time in Dulwich, and I played a few games for Dulwich Cricket Club, which I remember, looking back on with great pleasure, with people like Jack Parker and various ex-Surrey stalwarts. And then I went back to Newcastle to my job as research assistant in the Department of Medicine, but from that was appointed in 1958, first assistant in the newly created Department of Neurology under Henry Miller. No, 1956, I beg your pardon. And then in 1958 I was appointed as a consultant neurologist with the responsibility for developing neurological services in the new regional neurological centre at the Newcastle General Hospital, then under construction. So I spent my first four years as a consultant really tearing around the North East Region, doing clinics in places as far afield as Middlesborough, Carlisle,

even Ashington in Northumberland, and certainly Sunderland and Durham, and I did something like 25,000 miles a year.

GW But drawing on a great wealth of cases.

JW Seeing an enormous number of patients and developing a very broad clinical experience. It is interesting, looking back; I was never a senior registrar in neurology. I didn't hold what anyone would call any formal training appointment in neurology: I did two years at the Mass General and at Queen Square. The rest of the time, I spent seven years in a research job, but did a lot of clinical work at the same time.

GW This is extremely unusual, isn't it.

JW It is, yes.

GW I wonder if it could happen now.

JW Well, I think it's rather more difficult, with the structured training programmes that are devised by the higher training committees. But, of course, since that time... I kept my research going and was fortunate in bringing back with me from the States a very substantial research grant from the Muscular Dystrophy Association of America, in order to continue with my research in muscle disease. And I think we were also fortunate in that I was appointed as a consultant at the Newcastle General Hospital when the Regional Neurological Centre was in the planning stage, and I was able to persuade the Regional Health Authority, or the Regional Board as it then was, and the Department of Health, to add on two floors to the rear wing of that building as research laboratories. It was the first time that a regional centre in a non-teaching hospital had had research laboratories built into a service unit. We then were able to persuade the regional research committee to provide us with a lot of equipment, biochemical equipment and other equipment, and we got an electron microscope from Action Research for the Crippled Child. And so by the time the new centre was opened in 1962, I was still carrying a very heavy clinical load and running the neurological service for the region, while Henry Miller and his staff were doing it at the teaching hospital, but I'd also, by that time, increased research grant from the Canadian Dystrophy Association, and the American, and was beginning to get, for the first time, a small grant from the newly established Muscular Dystrophy Group of Great Britain. So we were able in those research laboratories to develop research into neurophysiology, into biochemistry, and into the histochemistry and electron microscopy of muscle. So it was really the beginnings of a multi-disciplinary team. Then we were fortunate that after I had given a talk to a national meeting about the research programme, the muscle dystrophy group got a telephone call from some accountants in the city which said to them that an anonymous donor wished to give them a grant of £50,000 to be spent on muscle dystrophy research in Newcastle. Now that was in 1963, and with that we were able to build adjacent to and attached to the regional centre, the first block of muscle dystrophy research laboratories in Newcastle. And later I got a programme grant from the Medical Research Council, which went on for fifteen years, was renewed on two occasions, and eventually we had an income from all sources - USA, Canada, Dystrophy Group, MRC - which reached a peak, I think, of about £350,000 per year, to employ some eighteen staff in

various aspects of muscle research in the department, and that was the position in the late 1960s, and early '70s.

GW I mean, you were making considerable advances in knowledge of these conditions, but of course still remaining deeply frustrated by what one could then do about them.

JW Of course, of course. Though I think it is fair to say that if one takes muscular dystrophy of the Duchenne type, as being the most severe and crippling form of muscle dystrophy, when I first started, the way in which these children, once diagnosed, were neglected, was rather horrifying. They became grossly deformed. The longevity and quality of life has been tremendously improved by virtue of care and attention to posture, physiotherapy and other remedial measures, so that we now have some of those patients, who used to die mainly at fifteen or sixteen years of age, living into their twenties and even some of them, a few, getting university degrees. But, of course, the situation now has been transformed with the developments in molecular genetics, where we are now facing a totally different position and where the discovery and characterisation of the gene responsible for that disease is imminent.

GW Yes, and will be detected prenatally at an early stage of pregnancy perhaps.

JW Well...

GW I mean detected whether or not they are carrying a defect of that gene.

JW Yes, well, of course, that particular gene is an X linked gene. It lies on the X chromosome, which means it is transmitted by carrier females and is manifest in males. Now, we've had indirect methods of identifying the female carrier for many years, with serum enzyme estimations and so on, and we did a lot of the early work on that in my department in Newcastle, and on genetic characterisation. I mean we described for the first time, for example, a family in which there was a girl affected by Duchenne muscular dystrophy, but she had only a single X chromosome; she also had Turner's syndrome and had an XO chromosome constitution. But then, of course, from various other places there were discovered a number of other affected girls where the cause was different. What had happened in those cases was that a part of the X chromosome carrying the dystrophy gene has become detached and had attached itself to one of the autosomes, so these chromosomal translocation cases gave the lead to much of the work on molecular genetics, because it turned out that the break in the X chromosome almost invariably occurred at the Xp21 locus and this was very close to the Duchenne gene. And recently with the work of people like Ed Southern in Edinburgh, Kay Davies and John Edwards in Oxford, Ron Wharton in Toronto, Lou Kunkel, Peter Harper and many others, we've now got markers on the X chromosome which can be used and we believe, incidentally, the markers now, particularly the PERT87(?), and the J8(?) markers, these are within the gene, of that we're quite satisfied. And these markers can be used now; they're 98% informative in over 90% of families. So that there are techniques which are almost precise, first, of carrier detection, and secondly of antenatal diagnosis. So that in the past, when you thought that a girl was a carrier you would only recommend either that she didn't have children or that all male children should be aborted, now the position is with these markers, in the right families, you can tell her whether the foetus she is carrying,

if male, is affected or not. The prospects for the future are really remarkable. So that's rather a lot about dystrophy, but of course it has been one of my major research interests, though I've continued, of course, to practice neurology and have been like everyone else enormously impressed by the developments, not only in molecular genetics... if I was starting again I myself would certainly wish to get some training in molecular biology. I think it is so exciting, but of course, in the other fields of neurology: scanning, the CT [computerised tomography] scanner, now nuclear magnetic resonance, and all the new methods of imaging of the brain and of the spinal cord, combined with new developments in biochemistry, and in my own field, techniques of measuring nerve conduction and electromyography, measurement of the evoked potentials to study various processes in the spinal cord and brain, like multiple sclerosis, all of these have just transformed neurology. It's a different discipline.

GW And you, of course, have taken part in all this. You couldn't have entered it at a more - what can I say - promising time, although we didn't feel it was promising at that time.

JW I've lived with it and can't claim to have been personally responsible for many of the developments, except for a few in my own field of muscle disease, but it certainly has transformed my practice. The only other point I would say, of course, is that neurology in my view is nevertheless, still, as I said in my Hughlings Jackson Lecture,¹ clinical neurology is still a science. You cannot make full use, nor can you fully exploit all of the developments that have resulted from these major technological advances if you don't still have a full and specialised grounding in the art and science of clinical neurology; the ability to take a good history, to take account of the patient's social and environmental background and the influences they may have upon the illness, and if you don't have the ability to carry out a full comprehensive neurological examination and follow this by a process of patho-physiological analysis, by which I mean the ability, on the basis of certain fundamental principles to analyse a clinical situation, and then decide, only when you've done that, what the appropriate tests and investigations are to help to elucidate the patient's disease.

GW Do you think the training now given to people entering neurology now is what it should be.

JW In general I think that it is, still. I think there is a sufficient understanding and recognition of the importance of clinical skills - certainly in the UK - for one to feel not too unhappy. I am a little less happy, to be frank, about the situation in the United States because I believe that there is an increased, and perhaps at times too slavish, dependence upon specialised tests and a tendency to ignore clinical clues which help to elucidate the nature of the patient's disease and which, if ignored, the situation can be misleading. Now, that's not to say that there are not some absolutely brilliant clinicians in the States, there are, but all too often, when I've visited there as a visiting professor, and have taught and lectured and examined patients and discussed the differential diagnosis, which I always insist on doing, without knowing any facts about what the results of the investigations are - and I think it so important that you should do that - I found that quite often, some of the younger doctors have not been

¹ Sir John Walton delivered the Hughlings Jackson Lecture in 1985 to the Section of Neurology at the Royal Society of Medicine.

fully trained. One young woman I recall particularly when I was in Miami as a visiting professor, I asked her some questions about pain and numbness in the arm, which were simple anatomical and physiological questions. 'Gee doc' she said 'it's no good asking me. I didn't do upper limb in anatomy.' Well, you see that's just not adequate if you want to practice good neurology.

GW What do you feel about the prospects for motor neurone disease?

JW That's one of the most difficult nuts to crack because one of the problems there is that in that disease, the motor neurones in the spinal cord and of course, in the brain stem gradually decay. Now, in a rather simplistic way, I've always regarded this as what William Gowers once described as abiotrophy, which simply is a term that has no scientific validity, which means almost a premature decay or premature ageing. And in a sense there is a comparability between motor neurone disease, as a premature ageing of motor neurones, and Alzheimer's disease or presenile and senile dementia of the brain, which is a premature ageing of cortical neurones in the brain, though there are significant differences. We know that there are various pathological changes in the neurones in the brain in Alzheimer's disease, and certain chemical abnormalities of acetylcholine precursors and the enzymes which are responsible for the synthesis of acetylcholine, which are beginning to lead us towards a clue in that situation. In motor neurone disease no such clue has yet arrived. When we are looking at muscle we have the great advantage in primary diseases of muscle, like metabolic myopathy, muscular dystrophy, poliomyositis, that we can without significant harm to the patient take a piece of muscle and study it, but you can't take the cells from the spinal cord and study them. So all of our approaches have got to be indirect. People have been looking assiduously for genetic influences, for biochemical changes, for animal models - and there now are animal models. There is a kind of motor neurone disease that occurs in the Brittany spaniel, for example, which is now a kind of animal model of motor neurone disease. And there is evidence that a toxin called BMAA [beta-methylamino-L-alanine] - nothing to do with the British Medical Association, but a derivative of the cycad nut, which is associated with a common form of motor neurone disease in the Mariana Islands in the Pacific - that there is evidence that this selectively damages motor neurones. So that may give us a clue. There is nothing to suggest that it is a viral infection.

GW It's very common in those Islands isn't it, but it is presumably a particular form.

JW It is different from the sporadic influence, the sporadic form that we see commonly here. But a lot can be done for patients with motor neurone disease to allay the worst effects of the disease, and management, here again, has improved with the recognition, as I have always told my medical students, that there are plenty of diseases in medicine which are still incurable, but there is no disease that is untreatable. You can always offer some treatment, even though it may be ineffectual in altering the course of the disease, it may help to overcome some of its worst effects. I'd love to see motor neurone disease... a break through in this disease because it is one of the most tragic diseases that any neurologist has to deal with.

GW As soon as you make the diagnosis...

JW Yes.

GW Are there other prospects in the autoimmune side of these problems?

JW Well, I think the autoimmune concept has been tremendously helpful to us in understanding the causes of diseases like polymyositis, one of the muscle diseases in which I'm interested. We now know that although there are certain circulating antibodies in the blood, that principally this disease is due to the fact that lymphocytes, the circulating white cells become sensitised to muscle for reasons which are not entirely obscure, perhaps viruses may trigger this process, and perhaps there's a genetic susceptibility. The lymphocytes become sensitised and invade muscle and destroy it. But that disease, fortunately, is treatable in the great majority of cases. And of course there's been an enormous break through in the last twenty years in relation to myasthenia gravis. Iain Simpson first suggested in 1960 that it was an autoimmune disease. We now know that the acetylcholine receptor on the surface of the muscle cell, which combines with the acetylcholine released at the nerve terminals when the nerve impulse arrives at the muscle, that that acetylcholine receptor has antibodies formed against it which circulate in the blood and coat the receptor. The result of this is that the acetylcholine loses its effect and the muscle fatigues unduly easily. Now myasthenia gravis is a disease which can be transformed, either by removing the thymus gland, which is largely the factory leading to the production of the antibodies, or by giving steroid drugs and immunosuppressive agents which reverse the effects of the condition. So there's another development. And even in multiple sclerosis, which still has not yet been a disease in which there is a breakthrough, we are now pretty clear that there is (a) a very powerful genetic susceptibility related to certain HLA [human leucocyte] antigens that the individual carries from birth. That probably is the major reason why the geographic incidence is so striking in different latitudes. Secondly, that the disease process may be precipitated by several different viruses, but that thirdly, it does appear to be an autoimmune disorder. There are three complex factors that appear to lead to a development of the disease, but there are still a large number of unanswered questions.

GW But it moves.

JW It moves, it moves. Twenty years ago, gene identification and chromosomal mapping were science fiction. Ten years ago it began to look as though it might become feasible, and now it's a reality. So, goodness knows, in twenty years from now we may be able to replace defective human genes. Genetic engineering, which has always been looked upon with rather horror by members of the lay public and with scepticism by members of the medical profession, is I think beginning to become a reality.

GW Yes and not only in medicine.

JW Not only in medicine. No, of course, it's being used extensively in the production of various hormones and animal foodstuffs and so on.

GW And plants.

JW And plants.

GW Well, I don't know whether there's anything further you'd like to say. That was absolutely fascinating to have this review, under some pressure if I may say so, for saying so much in so short a time. Shall we turn for a moment to another major aspect of your life which was at Newcastle; you became Dean of the Medical School and, I think, probably at the same time you became a member of the General Medical Council and that led to you becoming chairman of the Education Committee of the Council. I remember very well your strong leadership of that Committee and then of course that eventually led to your Presidency [of the General Medical Council], which you still hold. The changes in medical education... Newcastle at the time you were Dean, and perhaps under Henry Miller and so on, was making a reputation in this country, wasn't it, for reforms, or at least for changes, which most of us thought were reforms, in medical education, and on the whole it's kept that momentum I would think ever since, as a School.

JW I would hope so. I think that the earliest initiative in relation to curricular form came from Sir George Smart when he was Professor of Medicine. Now, Henry Miller preceded him as Dean of the Medical School, but then Henry of course became Vice-Chancellor of the University, one of the most colourful and loveable, but at the same time one of the most infuriating characters that one could meet. He had that sharp and incisive wit and in relation to curricular reform he was a bit of a sceptic. He once said that curricular reform is an occupational disease of Deans, which results in the same subjects being taught in a different order. Well, we didn't believe that. George Smart introduced the 1962 revision, where the principles were a greater degree of integration between preclinical science on the one hand, and clinical teaching and the pathological disciplines on the other. And secondly, the feeling of relevance: that the students wished to see more of the relevance of the science they were being taught to the clinical situations with which they would eventually have to deal. This was not a new idea, it had been introduced by Hale Ham and others at Case Western Reserve University in the States, and the 1962 revision of the curriculum followed very much along those lines in Newcastle. Now, I had no intention, I must confess, of becoming Dean in Newcastle, it had not crossed my mind until George Smart announced that he was resigning to go to London as Director of the British Postgraduate Medical Federation. And then, somewhat to my surprise - I had no University appointment apart from that of clinical lecturer at first, but then I got a personal chair in 1968 while still holding a whole-time consultant neurologist appointment in the Health Service; I wasn't paid by the University - and suddenly there was almost a puff of white smoke, because in Newcastle the Dean of Medicine has a great deal of power. Under the statutes of the University... there are two interesting old statutes - because the Medical School is 152 years old and is the oldest part of the University of Durham, as it was then, and then Newcastle - and there were two statutes, one of which said that the spending authority of the faculty of Medicine should be the Dean, and the second which says that the planning committee for the Faculty of Medicine should be the Dean, and that was rather nice. And suddenly David Kerr, who was the Chairman of the Committee established by Senate and Council to sound opinion in the Faculty, came to me and said, 'They all want you to be Dean.' And I thought about it, and I was not anxious at that time to give up my clinical responsibility and my research, but eventually I did accept on the basis that the University would pay me for six sessions as Professor of Neurology and Dean of Medicine, I would retain five sessions as an NHS consultant in neurology and I would retain the headship of the

Department of Neurology and the Directorship of the Dystrophy Labs. So I went on doing both of those jobs. Admittedly it was difficult and it made me less able to be doing any research at the bench, as it were, and less involved in clinical teaching, but... not so much clinical teaching - which I always went on doing and still enjoy and it was something that is so much part of my life - less involved in clinical practice. I cut down my clinical practice, but continued to see patients by consultant reference only. Now, I thought it would be right to look again at our curriculum, and which we did, and we introduced in 1976 the present curriculum, which had certain principles. First, early clinical exposure with the students from the day they arrived in Medical School, seeing patients, being attached to families through GPs in the community, while still studying their anatomy, physiology, biochemistry and learning how to relate to, talk to, and examine patients while learning their science. Secondly, an integration, whereby we had a vertical organisation of the curriculum on a system based arrangement, whereby, for instance, there would be a committee on the nervous system which would deal with nervous system structure, function, pathology, clinical aspects, from day one to the day they qualified. And, of course, the final year of the curriculum where all formal lecturing had stopped and students were attached in groups of no more than one or two to units in Newcastle or throughout the region to learn their clinical experience. Now, of course, as you say, the University appointed me as the representative on the General Medical Council and it was, I think, in 1979 or 1978 that Sir John Brotherston intimated that he wished to give up the chairmanship of the Education Committee and I was fortunate to be elected as chairman and was therefore much involved in the revision of the recommendations on basic medical education, which were published in 1980 and are still in force. Now, of course, again, it may sound trite to say this, somebody once said: 'Never seek office, but never refuse office.' I had not ever anticipated really becoming President of the GMC until there was, of course, as you know, an election at which I and Sir Robert Wright competed against one another and he was successful, and I am very, very glad indeed that he was, because as you know, sadly after only eighteen months in office he died. He reached the office and I think greatly enjoyed it. But being elected as I was in 1982, and I have now been President for four years, has been to me a very great privilege and responsibility, because the work has increased out of all recognition.

GW I mean, John Richardson had the job, post-Merrison² and the 1978 act³ and so on, of making this huge and unwieldy body into some kind of functioning organisation, and on the whole, succeeded very well.

JW Very well.

GW But you then took over this enormous unwieldy committee and you really have had a hard ride ever since, don't you think.

JW Well it's been a hard ride but it's been an enjoyable one. There have been a number of difficulties, and of course as you know, the new Council took office just two years ago after the 1984 elections, and whenever you get a large number of new

² A W Merrison (later Sir Alec) in 1975 chaired the Committee of Inquiry into the Regulation of the Medical Profession, set up to review the regulation of medical education, fitness to practice, professional conduct and the structure and function of the General Medical Council.

³ The Medical Act of 1978 reconstituted the General Medical Council.

members in an organisation of over ninety there are bound to be problems in the new members finding their feet and in the organisation redeveloping the kind of cohesive spirit which is so essential. But it has been an exciting time. We've gone through a large number of new developments in relation to the medical education scene and of course we are now labouring, as you know, through the Education Committee, chaired by Arthur Crisp, over the recommendations on postgraduate medical education, and those I think are going to be very exciting. And we've had all the issues relating to confidentiality brought to our attention and of course, too, the increasing public interest in and concern for the responsibilities of the medical profession. I believe that we are moving fast towards accepting a greater degree of openness, a greater willingness to deal, as we did not do in the GMC in the past, with issues of medical negligence, and even incompetence. These were outside our remit. Since the new Medical Act of 1983 they are firmly within our remit, under certain conditions, and I think that the council is moving to a greater public awareness of public expectations of its role.

GW You've mentioned this major change, really, in this interest in postgraduate education. You, of course, began to get into that when you were the UK representative on the EEC Advisory Committee, which was on medical education and further training, wasn't it? So, that in a way, we all thought it was natural that that should be taken as an entity, that you took it from the first day of entering medical school until you've ceased to practice.

JW And I think you'll find that the new draft recommendations that are now being prepared are beginning to look at the phases of medical education: the basic phase up to graduation; the general clinical training of the pre-registration year and the year that follows; then the basic specialist training, leading into higher specialist training; and then we must not forget continuing education, combined with peer review and scrutiny of one's medical procedures, all of which are important. Now, of course, one of the other things that you haven't mentioned, which has been a great privilege - and I know that in certain quarters of the medical profession I recently have been given a new nickname, 'rent-a-president' they say - I had the fortunate responsibility of being the President of the BMA [British Medical Profession] for two years, at the same time as I was elected President of the General Medical Council. At first I worried about incompatibility, but it didn't prove that there was any serious difference, because the BMA, I believe - although it is the doctors' trade union and the organisation concerned with negotiating terms and conditions of service - the BMA President, as you know, is more of a figurehead and not an individual concerned with policy-making matters, though of course you give advice and hope that it will be accepted. And indeed, under the responsible leadership at the time I was President, of people like Tony Grabham as Chairman of Council and many of the others, for whom I had a very high regard, I think the BMA has changed its image greatly, and certainly the recruitment of members of the profession to the BMA has increased very much.

GW And, of course, people - cynical remark - but they do tend to behave slightly differently when they're in the GMC from what they do in BMA House - the same people.

JW Well I think it is fair to say that the people in the BMA who are officers and who have been elected to the GMC have, every one of them, acted as members of the

GMC when they come to the Council and have not slavishly followed what might be thought of as a BMA line.

GW We feared that it might, but it didn't happen.

JW No, it didn't happen. We haven't caucused or too much in the way of lobbies within the GMC, and one of the other things that impressed me coming to the GMC is the highly responsible and very able way in which the originally seven, and now nine, lay members have represented the public interest. As you are aware, no disciplinary decision affecting a doctor can ever be taken without the participation of at least one lay member in the Committee concerned and I believe that this is not widely understood by the public. We've discovered often enough that when it comes to a question in the Conduct Committee as to whether a doctor's registration should be suspended or whether he should be erased, that the doctor's tend to be fiercer than the lay members, having heard all the evidence. I don't think the lay public easily understand that.

GW I think this has also influenced the Professional Conduct Committee to move towards these problems of competence and...

JW Much more, much more.

GW And even courtesy, I mean even the manner of the doctor.

JW Indeed.

GW At times one really wanted to get at the doctor on those grounds.

JW Indeed, and of course you had the responsibility of chairing the Conduct Committee for a number of years and were very familiar with its procedures. I think the thing that does sadden us a little is the fact that when the press reports the proceedings, they tend to report the case for the prosecution, as it were, but they do not report, very often, what has been said in the doctor's favour, which in many instances gives very powerful evidence rebutting the allegations.

GW And I can remember getting letters from doctors and the public saying that we had been too lenient, on the basis, of course, of a prosecution account prosecution only.

JW That's right.

GW That was very upsetting.

JW That's right and that continues to happen. So we are proposing, and I am going to arrange to meet a number of Members of Parliament in the near future, to discuss with them some of these concerns and to indicate how we're moving. And incidentally, the Standards Committee Report from the Standards Committee of the GMC will be looked at in two weeks time and is going to, I think, introduce a much more lenient series of recommendations on such issues as advertising and so on. We're moving much more in line with the government green paper towards making

factual information freely available to the public about medicine and medical practice. Of course, the other interesting responsibility which you and I have shared...

GW I was just going to ask you - 'rent-a-president'. But certainly we had to bully you into taking on the RSM [Royal Society of Medicine]. You don't regret it I hope?

JW I don't regret it. I have enjoyed the Royal Society of Medicine presidency very much and, of course, we will be going out... when I say we, I think part of the bullying was because my dear wife Betty at one stage said to me, you know, in the way that wives do: 'If you take on anything more, I'll kill you!' she said, you know.

GW My wife certainly threatened to name the RSM as corespondent.

JW That's right! Well, we've all had this experience. I regarded the approach as being a very great honour and a delightful responsibility. Like the presidency of the GMC, it is however, as you know, an executive office and you carry a great deal of responsibility...

GW There's hardly a day that you're not called on for some decision.

JW Absolutely, absolutely. And of course, it came at a most exciting time when the new building was being built and opened and the old building refurbished. And, as you know, I shall hand over, with some regret, but with great pleasure to Sir Gordon Robson on the 15th July, just two weeks after Her Majesty comes to open the completely redeveloped premises.

GW It's a tremendously high-spot in the Society's history.

JW It is, it is. And the RSM, of course, is the nearest thing that we have in medicine to an academy of medicine. What I haven't mentioned, perhaps, and might just comment upon, is that one of the other things that I did and greatly enjoyed, while I was a consultant and Professor of Neurology at Newcastle and then Dean, was I was involved in the Medical Research Council for over twelve years. I was a member of a Grants Committee, then chairman of a Grants Committee, then a member of two boards, and then eventually served on Council for four years. So that I've been immensely fortunate in my professional life in having a foot in clinical practice, in teaching and in medical research, and in administration and so on. It's been a great joy.

GW I think to an unparalleled extent... I mean, we always take it for granted that you are doing at least three full-time jobs. But in addition, you know, you've taken on such a tremendous amount of writing and editing, which none of us can remotely imagine where you find the time.

JW Well, late at night and early morning. When people ask me - young medical students, and I've said little about teaching - when people ask me, really, what is one of the most important things to learn in medicine, what are the most important things, I say that it is terribly important if you're going to be a doctor, whatever the field in which you propose to practice, is that you've got to learn to establish certain principles which relate to the clinical assessment, as I said, of situations and the

clinical analysis of facts, symptoms and findings in order to be able to deal, not only in a scientific, but in a humane and compassionate and caring sense, with a patient's problems, realising that disease is an abstraction. It is the patient who suffers from the disease that is real and may show a very individual reaction to the disease. So that's the first cornerstone of clinical medicine. The next and most important thing is to learn to organise your time and that's one of the reasons why some people find it exceptionally difficult to handle the pressures of clinical responsibility. Of course, things intrude: emergency calls and telephone calls come along at a time when you've got a sort of organised schedule for the day. But organisation of time and not wasting time is crucially important. Now, that doesn't mean that all work and no play is my...

GW No, far from it for you. Everybody knows of your golfing exploits.

JW Well, I used to play cricket for the University as well and soccer for the meds in Newcastle and, of course, have enjoyed golf and tennis. I think to have time to get away for exercise... though I must confess the tennis, the last time I played with Max Blythe, was very unsuccessful, but it has been rather better the last couple of times.

GW But you now have, of course, reached this sort of plateau of life as Warden of Green College [Oxford]. You took it over as only the second Warden, so there must be still major constructive measures to be taken with the College, literally.

JW It's developing fast. We are growing to the extent that we now have 142 students towards our ultimate target of 150. It was a great privilege to follow Richard Doll in this exciting development. I confess that I had some feeling of guilt. And I had some feeling of guilt in taking it, if only because I'm a committed North-Easterner. I'm a Geordie born and bred and will always love the North East. It is an area to which I've got a great attachment. I've still got a house there; we go back whenever we can to North Northumberland. It's a most beautiful area of the country, near Banburgh and Holy Island, and I felt a little guilty about leaving Newcastle. But the attractions of Green College were enormous, not only the atmosphere of the College and the immensely likeable people, the Fellows and the students, and just to correct one misconception, of the 142 students, only 62 are clinical medical students.

GW I was going to ask you that because I think that isn't generally understood at all

JW No. No, and of our 40 Fellows, 26 are medical and 14 non-medical: scientists or social scientists covering a field as wide as forestry, psychology... And the students, all the others are reading for higher degrees in a wide range. So we are a multi-disciplinary College.

GW It's a wonderful experiment in itself.

JW It is, it is. And, of course, we have the great advantage of the benefactions of Dr Cecil Green, who, I am glad to say, is getting an honorary DSc from Oxford at Encaenia in June. One of my colleagues said to me - David Kerr, whom you know - when he knew of my appointment, he said, as I left Newcastle in a wave of emotion, he said to me, 'What a splendid way to spend your declining years, in an Oxford College.' Rather nicely put.

GW Well, I'm not so sure. Listening to you today, I'm, of course, enormously impressed by the achievements that you have made in medicine and the zest and the energy and the drive you've put into everything you've done, to enormous benefit of British medicine in my opinion. But I would like to say that... I mean, in my view you are still a young man and I can't begin to believe that these are declining years, and I would imagine it will be at least another ten before you start down the slope.

JW Well, it's very kind of you to say so. It's been sometimes, I confess, at a cost in relation to one's family life in that there have been times when one has seen rather less of the family than I would have wished. There have been times when the opportunity for leisure has been very limited. There have been times when the timetable has crowded in in such an extraordinary way that you really begin to wonder just how you can continue to cope. But by and large it's been immensely enjoyable and I must say that Betty, my wife, and all of our family have been tremendously supportive throughout, and I've had the advantage of working throughout the whole of my career, whatever I've done, with superb colleagues, superb secretarial help and support and superb administrative support. Without this none of these things would have been made possible.

GW Obviously, you've gained the enthusiasm of people who have been supporting you and that's very important.

JW Whatever I do when I retire I shall certainly go on, I hope with my writing, I think I might manage one more edition of *Brain's Disease of the Nervous System*.⁴ But, of course, the very exciting one of late, in which you kindly were involved and contributed, is the *Oxford Companion to Medicine*.⁵

GW And it's proving very, very useful indeed, I must say.

JW I'm glad you find that.

GW I would just like to say, and I think we should now wind this up, that I'm hoping that one of my successors will still be interviewing you here in another ten or twelve years time and bringing the record up to date. I can't think of anyone else of whom it's more likely to happen than you.

JW How very kind.

GW Thank you very much indeed.

JW Thank you Gordon.

⁴ Walton, J.N., ed., 1985. *Brain's Diseases of the Nervous System*. Oxford: Oxford University Press.

⁵ Walton, J.N., Beeson, P.B., Scott, R.B., ed., 1986. *Oxford Companion to Medicine*. Oxford: Oxford University Press.