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AUDIO INTERVIEW TRANSCRIPT

Moore-Gillon, John: transcript of an audio interview (29-Apr-2016)

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Biography: Dr John Moore-Gillon MA LLB MD FRCP (b. 1953) is Consultant Physician Emeritus at St Bartholomew's and The Royal London Hospitals, London. He was Lead Clinician for tuberculosis for the London Borough of Tower Hamlets, formerly Honorary Secretary of the British Thoracic Society, Chairman of the Joint Tuberculosis Committee, and formerly Chairman and then President of the British Lung Foundation. He served as Master of The Worshipful Society of Apothecaries of London (2014-2015).

TT: Tilli Tansey

JMG: John Moore-Gillon

TT: First of all, thank you very much for coming, John. To begin with, what it would be really useful to know is a little bit about your family background, where you come from and how you got interested in science.

JMG: Yes. I was born at the London Hospital before it was the Royal London, so I'm a local boy, and I spent the first few years of my life living in my grandparents' home in Stratford, just down the road from here, in the East End. My father was what would be described then, probably now, as just about "middle class". My mother's family were very definitely what's called "working class". My family are dockers rather than doctors. And I think my grandfather, for various family reasons, was a big influence on my life. He had left school when he was 11, but he thought that learning was quite important - he was clearly a very clever fellow and when I look back, I realise just how clever he was and what would have happened if he had had opportunities. And we'd lived in the East End until I was eight, and then went out to live in Surrey with my parents, and then, for various family reasons, came back to live in the East End for a year or so. Then I ended up from the age of 10 onwards living in Surbiton near Kingston-on-Thames. And, again, with the influence of my grandfather, whose view was that knowledge was important, learning was good, I got into a local grammar school, Tiffin Boys School in Kingston-on-Thames. And there was an inspirational headmaster there who said, you know, 'We are as good as anybody here. We can really, really do things.' Quite remarkably, I went to that school with - my year was 90 - so, 89 other 11-year-olds, and I went to Cambridge with 22 of them, which was a pretty spectacular achievement, and three more of them went to Oxford.

So from our year about 25 went to Oxbridge, and this was a non-fee paying school and, at that time, almost no professional parents. I mean there were some junior civil servants and a Labour politician - a Labour Cabinet Minister of course couldn't send her child to a public school, so he was bussed 10 miles to the grammar school, which was just about acceptable.

But this was not in any sense a socially smart school, and I think it's a mark of the power of the headmaster that he got 20-odd of us into Oxbridge, and everyone went onto higher education. When I was at school it was pretty much a toss-up whether I did arts subjects or science subjects, but the A level topics, or rather

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the mix of A levels you could do, were really very restrictive. You couldn't possibly do English, French and Biology for instance. So there were certain combinations you had to do. So you became a scientist or you became an artist, and we specialised very early. So, actually, 'Am I going down the science route or am I going down the arts route?' - that decision was made at 14.

My maths - I'm not innumerate, my maths is okay - but I don't find maths easy, so things like physics and engineering clearly weren't going to be an option for me. Biological sciences I just found interesting. I could read a biology textbook with my feet up in my bedroom for fun. And so I really found myself heading towards biological sciences. And the school was interesting: at that time it had separate zoology and botany A levels, and was probably one of the last schools to offer a separate botany A level. The result of that was, I think, I got through botany A level being able to recognize - you know dandelion, buttercup and daisy and that was all - but because the biology course was split up into two full A levels, there was lots and lots of time to do genetics, molecular biology, evolutionary biology in a way that simply wasn't available to people who did the single biology A level. And, again, inspirational teachers in zoology and in botany and in chemistry (which I was okay at, but not brilliant) led me to do all right. Then the headmaster, in his way, one day at the end of assembly said, 'The following boys are the Oxbridge candidates for this year.' And I was taken off and I was told, 'You play rugby, you want to do something biological, go to St Catharine's, Cambridge' and that's what happened.

It was actually only about three or four weeks before my A levels I thought, 'What am I going to do with this?' And I suddenly had an idea, 'Well, why don't I become a doctor?' At that time you had to have physics A level to get into Medical School, and I wasn't doing physics. So I did my A levels, took the Cambridge entrance the following term and I stayed on at school for two more terms just to cram for physics A level, which is not as difficult as it sounds because I wasn't doing anything else. I'd got my place at Cambridge to read natural sciences if I didn't have physics A level, or medicine if I did have physics A level.

So the decision was taken really pretty early: well, the decision about sciences was taken early on, the decision about medicine was very, very late. I certainly didn't grow up thinking, 'I'm going to be a doctor.' And I certainly had no family role models for being a doctor. I *think*, in fact, this is correct, my father's cousin's second husband was a GP [General Practitioner] in Bognor Regis, so that was my closest medical connection.

TT: How did your family react to having this very bright, academic child going through the school so well, and then deciding to be a doctor?

JMG: Well, my brother was two and a half years younger than me and was also doing well academically, and I had two cousins as well - my mother had a sister - and so there were four grandsons of the inspirational grandfather that I'm talking about. One of them had some health problems and died unfortunately fairly young. The other one was also doing very well academically. So it wasn't a surprise. They were very pleased. I think that I was in a family where learning was good, and doing well was cool. I was also lucky to be in a school where doing well academically was cool as well. You weren't laughed at for being a swot if you did well, and there were lots of other boys doing academically well there. So my family were really very pleased, and I think for my grandfather, who was a retired docker, to go into his GP in Stratford [East End] and say, you know, and be able to say, 'Oh yes, my grandson's doing medicine at Cambridge.' I think he felt pretty good about that.

TT: How far along your career did your inspirational grandfather see?

JMG: Oh, he saw me qualified, he saw me qualified. He came to Cambridge and saw me there, and he saw me qualify, but only just. I'd been qualified about four weeks when he died, so he knew that I was a doctor, but he never saw me practising after that.

TT: So you go to St Catharine's, you get your physics A level, so you go to Cambridge to read medicine. Did you do natural sciences as your tripos?

JMG: Well, it was the medical sciences tripos, but in those days it was very rigidly academic. The physiologists were there to teach physiology, not teach medical students, and we sat in our physiology lectures with natural sciences people reading physiology. The biochemists were there to train biochemists and we sat there with the biochemists. And for, I think for people who wanted to do medicine, it was a slightly sterile way of learning. On the other hand you do get the basics hammered into you in a way which sticks and is useful. If I have a criticism of the education at Cambridge it was that the physiology, particularly, was very historically orientated in that you were taught about nerve physiology and you grappled for a week or two thinking, what on earth is this about? Then when you finally think you've got it, you then go to the next lecture and they'd say, 'And then of course we discovered that was all wrong. Sherrington was wrong about that.' And you think, 'You know what, I could have done with being told that a couple of lectures ago, before I got my head intellectually around something I found really quite difficult.' But, so we did anatomy and physiology and biochemistry for a couple of years, then I did my Part 2 in pathology.

TT: I get a sense from what you say there is really a sort of marking time. You were a bit resentful of all this science, you really wanted to get to medicine?

JMG: No, I didn't feel frustrated, because I didn't know any different. I mean I wasn't in a Medical School and seeing the clinical students and saying, 'Gosh, I really want to be on the wards like them,' whereas if I'd been through a London Medical School or anywhere else, all the way through then you'd see the people and meet the people walking around in their short, white coats and think, 'I'm desperate to get there.' So I didn't know any different really.

TT: Do you think in hindsight that having a really high powered, intense, scientific education was beneficial to you as a doctor? There are so many debates nowadays about medical education, the role of the preclinical sciences. You had a very conventional second MB education.

JMG: I don't think it taught me academic rigour. I think there are probably other influences which do that. I don't think that 18-year-olds - in fact I was 17 when I went there - I don't think 17-year-olds, 18-year-olds, are really capable of being taught an academically rigorous approach. I think it's better taught now actually, than it was then.

TT: I was just asking about this very rigid system.

JMG: Oh yes. I think the benefits of the rigorous approach are that it does teach you that sometimes there's only one way to learn something, and that's just to plug away and learn it. And I think if there's a problem which current students have, and I have a daughter who is a second year medical student, it is that if it's not easy to remember it, she gets rather frustrated. And I say, 'Well, you know, that's just the way it is sometimes.' If you need to know enough about the brain to work out which bit controls what, well, there's only one way to learn that and that's to sit down and plug away at it. In general terms, though, I think that her education is better, better than mine in many ways. I think she's taught to think in an enquiring way, which I was not. I was not taught to think, at least at that stage. But clinical [training] was a bit different.

TT: Before we get onto your clinical, can I just ask you about here we have this bright boy going to Cambridge; you don't have a history of university in your family. What about Cambridge? How did Cambridge impact on you?

JMG: Well, I went when I was too young, that's the first thing. A real regret I have is that I went when I was too young, for various odd reasons. I first of all moved schools when I was 10 and moved from the East End to being educated in Surrey. I got put in "the wrong year", and then I went to Tiffins where they had a 4-year fast track course to O level and a 5-year standard course. I got in the 4-year fast track course. So I had finished my O levels when I was 14 and 4 months and my A levels when I was 16 and 4 months. I got into Cambridge, the term after A levels, when I was 16. I then had the year doing the physics; I still went to Cambridge when I was 17½. And I think I missed out on a lot. I think I was too immature to cope with

other people, not with Cambridge, to cope with other people really. I think I could have done better had I had a year of kicking around the place. So [at] Cambridge I had a great time, but my really lasting friends are not from there. My really lasting friends are from my time at St Thomas' doing my clinical course.

TT: It's amazingly common, the number of people I've interviewed who have been in that situation, being fast-tracked and practically all of them say, 'I was too young. I would never allow my young child to…'

JMG: Yes. I've had three children and each of them has had a year off to kick around and do some work and learn about the world, and learn how other people think, because I didn't know how other people of my age thought at all, apart from those who had been through a grammar school in the suburbs. I just didn't know. I think I knew quite a lot about how my Auntie Ida in the East End thought and how she ticked and how my grandparents and their friends ticked, people of an older generation, but how the sort of people I was going to meet in Cambridge ticked, I had no idea at all.

TT: So you get your Part 1.

JMG: Part 1 and Part 2, yes.

TT: And then you move to St Thomas'. That was in the traditional route, wasn't it, for Oxbridge to go to London?

JMG: Indeed. When I signed up at the Senate House two days after we arrived at Cambridge, we were in a queue to sign up and someone in the queue behind me said, 'Of course, by the time we get through our preclinical years, we'll get to stay in Cambridge to do our clinical.' And the other fellow said, 'Yes, they told my father that as well.' It really was quite a long while before people could stay. And I'm very pleased, very pleased indeed, that we couldn't, because I tend to rather like the *status quo* and take the easy way out and I would have said, 'I've had a great three years in Cambridge; I'll stay here.' And I left and I went to London, and had a better three years in London than I'd had in Cambridge.

TT: Did you have a choice? Did you specifically choose St Thomas' or was it a tradition?

JMG: No, no, I had chosen St Thomas' as my second choice after Cambridge when I applied through what was then UCCA, and is now UCAS. So my first choice was Cambridge, my second choice was St Thomas', my third choice was the Westminster. I got my first choice, which was Cambridge. I was offered places at Thomas' and Westminster and one or two others. And then halfway through your second year in Cambridge you then organise your clinical and so I wrote to St Thomas' and said, 'I'd quite like to come.' I thought they'd write back and say, 'Oh, yes of course, pleasure.' I was rather put out when they said, 'Come and have an interview.' [Laughs]. So I thought I'd hurriedly apply for the Westminster as well. I applied for St Thomas' only because it was the only hospital I knew, apart from the London - we used to drive past St Thomas' and the London on the way from where we lived in Surbiton to my grandparents in Stratford. And St Thomas' had a new building going up in the 1960s, whereas the London looked gloomy and grimy as it did for many, many, many years thereafter. I thought, 'I want to go to this new, thrusting place, St Thomas" So that was my first choice. And I went for an interview there on a Friday with an interview at the Westminster on a Monday and they said to me at St Thomas', in a very St Thomas' way, 'I suppose you haven't applied anywhere else?' And I said, 'Well, I have, as a matter of fact.' I got an offer in the days when the post arrived the next day; there was an offer the next day for St Thomas'. So that was fixed in the middle of my second year at Cambridge that I'd go to St Thomas'.

TT: So moving to London were you able to live at home?

JMG: I was able to live at home, but of course I didn't want to live at home. My parents didn't want me to live at home, because they thought it was important that I be mixing in with all the other students. So I lived at home for about four or five months and came in on the train from Surbiton to Waterloo, but there were

very, very many nights when I either got in at two in the morning or didn't get home at all, and stayed on friends' floors and so on. And then I found a shared place to live, to live with friends, and spent two years living the usual sort of grimy student life, and then my last nine to 10 months, no, perhaps even a year, living in student accommodation above the bar at St Thomas' Hospital.

TT: How did you take to a London Medical School? Was it a shock? Was it as you expected? Was there something that really excited you?

JMG: It was great. I really, really loved it. I think that one of the things which astounded me after three years at Cambridge where, you know, if I wanted to take a woman to a ball, I had to import one. All of a sudden there were loads of ladies around of various kinds and that was a surprise and a shock. St Thomas' I thought was fantastic in that there was a huge amount of vertical integration. So if you were to ask me now, 'Which year were you in? Were you in his year or her year?' I don't think I'd really know. You know we were just all mixed up and down, including the junior staff and the Consultants as well. At the end of the day the Consultant Surgeon or the Professor of Medicine would go to the students' bar with the Registrar and with the Houseman and with the students on the firm, and just chat. And I think that was a fantastic strength of St Thomas'. We really felt part of a family. It was small as well. St Thomas' was the smallest Medical School, with its own preclinical course. Westminster was smaller and Kings' was smaller, but they were taught their preclinical at the Strand, yes? St Thomas' had 60 each year preclinically, and then 30 joined from Oxbridge. And the other thing which was good from my point of view about St Thomas' was the Oxbridge people were instantly integrated, whereas at lots of Medical Schools, they were slightly cold-shouldered. In part it was because there were so many of us, but it was also the St Thomas' students thought, 'Well, it's quite nice to have new faces around.' Whereas I think some other Medical Schools were a little bit sniffy about the Oxbridge people arriving. So I had a wonderful time, it was really great.

TT: Were you already thinking of a particular specialty or were you just interested in everything?

JMG: Certainly not at that time. The only thing I knew was that I didn't want to be a GP. And I didn't want to be a surgeon. In part it was because I would be a hopeless surgeon. People think surgeons are brilliant with their hands; actually most surgeons are good with their hands, but they are average to good. But at either end of the normal distribution, there are people who are brilliant with their hands and people who are lousy with their hands, and I'm at the bottom end, so I'm clumsy with my hands and I'm impatient. And I just knew that I'd be, having my hands inside someone's abdomen and say, 'To hell with this, I'm bored with this.' So I knew I could never be a surgeon. So I knew I wanted to be a physician very early on once I was at St Thomas' - probably before. But what the field was going to be, I had no idea at all.

TT: How did you decide to do your house jobs? By that stage had you already got an inkling?

JMG: No, well the house jobs, you're allocated the house jobs.

TT: You had no say in your house jobs?

JMG: No. You could sort of express an interest. The bright boys did the Medical Unit job; I didn't get one of the Medical Unit jobs. That was, they were allocated before finals, and it was a little bit embarrassing, because one of the people who got the Medical Unit house job actually failed his finals and had to rush off and do the Conjoint very quickly. And I, much to my surprise and astonishment, had done quite well in my MB. I got a starred distinction in Medicine, so I was in the top 2% of my year of 220 Cambridge students. It's like an acclamatory First. And there was a little bit of shuffling of feet, because I hadn't been given a Medical Unit job, well, but it suited me all right [laughs]. I did cardiology and it was great, a really good grounding. I had a really enjoyable time, if a tough time, but intellectually and academically it was interesting in the Cardiac Unit at St Thomas'.

TT: And who were you working for?

JMG: I was working for Michael Webb-Peploe and John Coltart. Mike Webb-Peploe has retired, probably just over 10 years ago. John Coltart has only recently retired, because I was a Houseman 40 years ago this year, and John had been appointed a Consultant at the age of 31, and he was a very bright academic cardiologist. And also a great chap called Chris Bartley, who was an old-style General Physician, and he'd been appointed to the Lambeth Hospital and then St Thomas' took over the Lambeth and he became a physician at St Thomas'. St Thomas' had an interesting ethos about medicine. There was a culture that you stood back and thought, as opposed to just going in guns blazing, doing dozens of tests and making snap decisions. And I suppose in terms of influences, the St Thomas' approach to doing things is something which has stuck with me.

In terms of my second house job, you know nowadays everything is organized years in advance; you all change over on the same day. I was about three or four months into my House Physician's job at St Thomas' and someone said, 'What are you doing for your second year?' I said, 'I don't really know.' And I was in St Thomas' bar with a chap called Charles Pither, who was a friend, and he said, 'Do you know my godfather, Bill Bradfield?' who was also standing there. Bill Bradfield was a surgeon in Kingston, and we had a beer together. He said, 'Where are you doing your second house job?' I said, 'I haven't got one yet.' And he said, 'Well, you know, do you fancy Kingston? Give my secretary a call on Monday.' And that was… I was going to say I'm afraid that's the way it was done, but actually it meant that people tended to end up roughly where the right place was for them and where they wanted to be.

The disadvantage of all the jobs changing on the same day, house jobs, SHO [Senior House Officer] jobs, is, if you miss a rotation or you miss a job, you can be out of the loop for a year now, once you're second or third year. Whereas then if you didn't get the job at X, you would apply for a job that started three weeks later, because there were jobs coming up all the time. So those are my house jobs. St Thomas' cardiology, then general surgery in Kingston for my house surgery job.

TT: And at this stage are you still open to…?

JMG: I'm still an undifferentiated stem cell at this stage.

TT: So where do you go next?

JMG: Well, then I applied for the St Thomas' ITU [Intensive Therapy Unit] job on a ward called Mead, the Mead job. And that was a very, very, very tough job indeed. That was academically competitive to get on and they tended to take people who'd done okay in their exams. And the regime was brutal. You had to stay on the ward when you were on call, so you'd walk through the door of the ITU at nine o'clock on a Friday morning and leave at three o'clock on a Monday afternoon. And eat on the ward and sleep on the ward. But I was taught physiology, clinical physiology, how the body works by Ron Bradley, who was the ITU Consultant there. And Geoffrey Spencer who was an anaesthetist, ran a Chronic Respiratory Failure Unit and you did four months on the Mead Unit and then two months on Phipps, which was at the Southwestern Hospital in those days, a Chronic Respiratory Failure Unit. Geoffrey had inherited a group of polio survivors essentially with chronic respiratory failure in iron lungs. He was absolutely brilliant at getting people out of this Unit and into their own homes on home ventilation, and he pioneered home ventilation. So people had iron lungs in their own home, and they were extraordinarily inspirational people. So there, on the Mead and Phipps Units, I got a feel for clinical physiology, and a feel for clinical physiology as it applied to respiratory medicine - as it applied to the lungs. And I began to be taught, of course, that the lungs are by far the most important thing - the heart just pumps blood around the body, and that's all very dull, but you know the lungs are the really important bit! So that was a steer.

TT: Can we just put a chronological marker on this?

JMG: So I qualify in '76. First job is August '76 to January '77. Second house job is from February '77 to August whatever it is, '77, and then straight into St Thomas', onto the Mead job.

TT: So you're on the Phipps ward around '78?

JMG: That's right. Late '77, early '78. And I did my Part 1 Membership [Membership of the Royal Colleges of Physicians] during that job; you could do it 18 months after qualifying and I don't know, I sort of thought, I'm not doing anything else other than work, I might as well work the rest of the time as well, and it was also quite close to finals, you know. I hadn't forgotten everything from finals at that stage and it seems to me that the Part 1 Membership was the knowledge you needed for finals and a bit more, and if I left it for another six months or a year I would have lost half the knowledge I'd got for finals, so it wasn't that difficult to top it up. So I did my Part 1 and then I applied for the professorial Unit at the Brompton as my second SHO job with, then Professor, now Dame Margaret Turner-Warwick, who was a hard but kindly task master, mistress, at least to the House Officers. I think she was pretty tough to her colleagues, but she was very supportive. So I found myself in my second house job, this is now February '78, just 18 months after qualifying, and there were 11 or 12 SHOs there and all of them were actually six months ahead of me, and they were all doing their Part 2 Membership. At that time you didn't have to wait: once you got your Part 1, which was after 18 months, you could do your Part 2 at any time. And so they were all really into Part 2 mode, lots of Part 2 Membership teaching going on. So I thought, 'What have you got to lose but your self-respect, the esteem of your friends and 400 quid?' [Laughs]. And so I had a go at the Part 2, which I was very pleased to pass, which was nice. So I then found myself with the MRCP [Member of the Royal College of Physicians].

TT: So you got both your Part 1 and your Part 2 first go?

JMG: Yes. And in fact the Part 2 writtens was only about 10 weeks after the Part 1 at that time. Lots of people did their Part 1 after the 18 months, the minimum, because, as I said, it seemed sensible if you still knew your Finals stuff. But it was just that I found myself with lots of other people doing the Part 2 and I, you know, looked at the regulations that said I could do it, so I did it.

TT: Yes, it made sense, yes. So you were certainly young when you got your MRCP.

JMG: I was 25, yes.

TT: You're already veering towards respiratory medicine?

JMG: Well, I was still at that stage undifferentiated and of course the system was very different in those days, because you didn't become a Specialist Trainee. And I went back to Kingston as a Medical Registrar in August/September '78, working for a fantastic chap called Bill Medd who was a General Physician with an interest in cardiology, and it was really a tough rota, general medicine, lots of responsibility. And, just as an aside, I think we took on responsibility in those days in a way which would be horrifying now, and probably rightly so. I mean, you really weren't expected to ring the boss. When I was on the ITU at St Thomas' there was no Consultant cover at weekends. Well, there was cover from the Consultant at home at weekends, but there was no Consultant ward round. As the SHO, 15 months' qualified, you had the ITU patients. And we had a fire at St Thomas' when I was on the ITU; someone had lit a fire in the laundry room and it was by the air intakes downstairs and so the whole of the East wing filled with smoke. And with the staff nurses I evacuated the ITU - 10 ventilated patients - and the smoke was really thick in there, it was really not at all nice. We evacuated the ITU at about two in the morning one Sunday morning, and at the end of it the Senior Staff Nurse said, 'Do you think we ought to tell Dr Jenkins?' who was the Consultant on call. I said, 'Yes, we probably ought to.' And I rang him and said, 'We've evacuated the ITU,' [laughs] and he said, '*What*?' We'd shipped them all across into the North wing theatres recovery room; about eight, nine, 10 ventilated patients.

TT: What an astonishing story.

JMG: And now I don't think it would happen, and rightly so.

TT: I'm just thinking of the responsibility a young SHO had.

JMG: Well, everyone had it, you know, that's just the way it was and you did it. And I think about when contemporaries of mine now say, 'Well, you know, the youth of today, they don't know what, they don't take responsibility, they don't take decisions.' - yet a lot of those decisions were made at the expense of other people's relatives. You know, you learnt by your mistakes, but unfortunately mistakes were made, and getting that balance right between making a decision because you've got to, and someone suffering because you've made the wrong one and you're only just on your learning curve, well, that's a difficult balance to strike. Naturally, I think that we've gone too far the other way now, but I would think that, wouldn't I?

So I found myself at Kingston and because I'd done this sort of quick short circuit, I found that I was the Registrar and my SHO had been the year above me at St Thomas', which was fine; she was very relaxed about that. But I arrived as a Medical Registrar, having never done an outpatient clinic and, for example, I'd never prescribed something simple like a diuretic for hypertension. I'd given someone intravenous nitroprusside on the ITU to drop their blood pressure, but I hadn't actually done the simple stuff - but what the Mead job did do, was it meant you weren't scared of medical emergencies. The thing about the Mead Ward was you weren't scared of medical emergencies because for instance you ran your own crash calls [cardiac arrest procedures] when you were an SHO and so on. So I turned up working for Bill Medd as the Medical Registrar, as a Medical Registrar at Kingston. And nothing was scary in A&E [Accident & Emergency], because you'd been dealing with acute emergencies in critically ill people before, so that was an advantage, but I was profoundly, profoundly inexperienced clinically in other ways.

TT: So you were still on quite a sharp learning curve?

JMG: Very much so. Oh gosh, yes. And I did that from summer '78 to summer '79, then went back to St Thomas', because it was a rotation between Kingston and St Thomas', and did a gastroenterology firm, because don't forget again we're still undifferentiated Medical Registrars.

TT: So you're just experiencing a very broad range of general medicine?

JMG: Yes, Kingston was general medicine and a bit of cardiology and a bit of diabetes, and St Thomas' was general medicine, but gastroenterology, working for Brian Creamer and Richard Thompson, now Sir Richard Thompson. During that time I think I decided that respiratory medicine was really, really what I want to do. And I did. I went onto the Medical Unit, I worked for Ian Cameron doing respiratory physiology, and my studies at that time were in hypoxia, particularly at night, and the investigation of sleep disordered breathing was just starting at that time. The question which was troubling people was, if people have got a low oxygen at night, what does that do to them? If you've got a permanently low oxygen, we know that the lungs change, and particularly the vasculature in the lungs changes, so the pulmonary blood vessels become constricted. You get a change in the pulmonary arteries and arterioles and the right ventricle gets bigger and so on. And the question was, well, how long do you have to be hypoxic for to get those sorts of changes? The conventional wisdom was, well, you had to be hypoxic all the time. I mean, why would you have a big heart if you weren't hypoxic all the time, why a big right ventricle? And I think if I've ever made one discovery or had one insight, it is to think to myself, 'Well, you don't have to be in the gym 24 hours a day to get big muscles.' You just need to have the stimulus to muscle growth switched on, every now and again and then they'll carry on growing.

I had a hypoxic chamber in which rats were subjected to intermittent hypoxia for varying periods of the day, 12 hours a day hypoxic, eight hours a day, four hours a day, two hours a day, and the question was: what's the minimum duration of hypoxia where you can detect changes in the pulmonary vasculature and in the right ventricle, and, interestingly, the carotid body as well? And we showed that you only really need to be hypoxic for two hours a day in order to switch on the muscular hypertrophy and the permanent changes. And we looked also at polycythaemia. We know that if you are short of oxygen then the blood count will go up. Of course, it's a mechanism rooted in our evolution - because the usual reason for lack of delivery of oxygen to the kidneys (which is where oxygenation is sensed, where erythropoiesis is turned on

in the juxtaglomerular apparatus) is haemorrhage. So, from an evolutionary point of view, if you have a drop in oxygen delivery, it's because you've lost blood. You've lost blood because of trauma, therefore you must make more blood. And that's where it had come from, from an evolutionary point of view. We also know that people up high mountains will get polycythaemia because they are chronically hypoxic and we know people with lung disease or COPD [chronic obstructive pulmonary disease] get polycythaemic. But how much hypoxia do you need to switch on polycythaemia?

And again we found that we could make the rats polycythaemic. I reflect ruefully that for the past 10 years I couldn't even get a Venflon™ drip into someone, but at that time I could cannulate the tail artery of a rat which was 0.5 mm in diameter. We got polycythaemia with two hours hypoxia per day. And we then used a very new piece of kit, the oximeter, the ear oximeter. I had the second oximeter in the UK. Now I've got one that I bang into my pocket and it's less than the size of a matchbox. Will posterity know what matchboxes are? They probably won't, will they? Anyway, it costs about £150 and the one I had then, weighed 40 kg and cost £20,000 in 1981. We looked at oxygenation overnight in people with unexplained polycythaemia, and these people had been turned inside out for causes of the polycythaemia, including measurements of their blood gases to make sure they weren't chronically hypoxic and they weren't. And we demonstrated that intermittent hypoxia, hypoxia occurring at night, could explain the polycythaemia in some people. So the animal work tied in really very nicely with the clinical work, with the human work.

TT: Could we talk a little bit about the animal work, because is this the first time you start doing animal work? Because of questions about licensing and regulation.

JMG: It is, yes. I mean, we'd done it, done some animal work in physiology practicals at Cambridge, which I'm sure they don't have them now. I was working with Ian Cameron in the labs in the Department of Medicine at St Thomas' and we had a small animal house there, which was fairly secure, but I think would not now be permitted.

TT: I don't think they exist now.

JMG: No, I'm sure it doesn't. I think that because it was separate from the main animal house, and didn't have the level of security that they have to have now; I'm sure it wouldn't be permitted. So we had a room, and within that room there were hypoxic chambers. And we were experimenting with rats.

TT: Where did the stimulus come from to do animal work? Was there already a tradition of animal work?

JMG: It was already going on, yes. And people had already done some work there looking at hypoxic models in rats. But it was then I sat down with Ian Cameron and I said, 'I'd quite like to come and work in your lab.' He said, 'What do you want to do?' I said, 'I don't know; what do you want me to do?' And we just chewed over the fact that things were just beginning to appear in the literature about sleep apnoea, and I'm not sure where it came from, but we sort of said, 'This is interesting, you know, what about intermittent hypoxia?' And my MD was on intermittent hypoxia.

TT: I wanted to ask you a further question about the animal work and your time at Thomas', particularly talking about the oximeter and the cost of it. Who paid for it? Were there MRC grants?

JMG: St Thomas' endowments. I mean, I went to become a Consultant at Bart's, and Bart's thought they were terribly wealthy, but it was dwarfed by St Thomas's endowments. And I was funded for a year in the first instance and then for six months more. I certainly didn't get, the funding was not there, for the amount of work that was needed for an MD. MDs are interesting: I was talking to a junior doctor a few years ago who was doing a PhD. I said, 'How is it going?' 'Oh, it's going all right,' he said, 'But, you know, if things don't work, then I'll downgrade it to an MD.' And I thought to myself, 'You're saying that to the wrong person.' But of course the different status of MDs to PhDs came about, and you'll know this better than me, because MDs are not taught degrees as far as the funding councils are concerned, as far as HEFCE [Higher

Education Funding Council for England] is concerned. It's a standalone solo degree and, although you *usually* have a supervisor, you don't *have* to have a supervisor for an MD. So an MD doesn't count on the Department's books as a postgraduate degree that they've taught. So people are unkeen to have people studying for MDs coming into their Departments now. Now, my MD was, you know, 70,000 words and a number of years of very hard work, and I didn't have the funding for that length of time. But what St Thomas' did have was a system whereby if you became a Lecturer on the Medical Unit you did - it was quite remarkable - six months on the wards and then six months in the laboratory. And so there was an opportunity if you got a Lecturer's job at St Thomas', which I didn't get, but that's another story.

If you got a Lecturer's job at St Thomas', you had time to go back to the wards and *also* carry on research, and I thought it was a very advanced model really because it meant that you had people who were going to become clinicians, but they still had the opportunity to do hands-on laboratory work right the way through their medical training. That doesn't exist now, I don't think.

TT: Was that unique to St Thomas'?

JMG: I don't know of any other examples; certainly in respiratory medicine there were no other examples, the idea that you'd be paid your salary to be in the lab. You had to leave the lab and go and do outpatients; you did two clinics per week or three clinics per week but you weren't on the wards. But my writing up of my MD: I then got to the end of my 18 months lab research and I was then unemployed. There was a terrible, terrible problem with career progression in respiratory medicine at that time, and I walked out of the laboratory unfunded with no job. I think it was when mortgage rates had just tipped 14% or 15%. This was in '81. And I spent about 10 months doing a GP Locum here and there, being the geriatric SHO at Tolworth Hospital for four days and so on, and then going and being Locum Resident Medical Officer at King Henry VII, one of the private hospitals. And then I got a job as the Locum Chest Registrar at St Thomas', which actually suited me pretty well. But it was for 10 months essentially, like many other people, hand to mouth.

TT: And can I just ask, your personal circumstances?

JMG: I was married at the time, married at that time but no family, no kids at that time. I married in 1980 and we had our first child was in 1984, so we're talking about mid-1981 to '82 now. Yes, it was challenging and uncertain at the time.

TT: And how about your own attitudes and career ideas during that period? Were you demoralized, were you thinking, 'Where am I going to go?'

JMG: I was certainly thinking, 'Where am I going to go?' and one of the things which I did, was begin to look at, to think about manpower and realise there was no planning whatsoever in respiratory medicine, and indeed in most other fields. I applied for lots of Senior Registrar [SR] jobs; I think I got the thirteenth SR post I applied for. And I was sort of working my way through the system because there were senior people ahead of me waiting for the SR jobs. And I got an SR job at the London Chest Hospital. Remarkably, at about the same time as I got the SR job at the London Chest Hospital - that had been a standalone 4-year SR post just in respiratory medicine and that had to change - they had to get some general medical training - so the London Chest SR had to rotate into a hospital where they got some medicine as well and the link was with St Thomas', which was fantastic. So I then found myself doing alternate six months at the London Chest and then six months at St Thomas': no - a year at the Chest and a year at St Thomas' as a lecturer on the medical unit. And each year at St Thomas' as a Lecturer on the Medical Unit, six months of that was back in the laboratory finishing my MD, so it was all really very fortuitous.

TT: It could hardly have worked out better apart from the 10 months.

JMG: Exactly - although the 10 months was just the really hand to mouth bit, before I got the Locum Registrar job back at St Thomas'. It was fully 18 months after leaving research, before I got the substantive post as SR.

TT: Your MD is a Cambridge MD.

JMG: It is, yes.

TT: You didn't do it at the University of London?

JMG: No. I went back to Cambridge and, like my finals, the MD was at Cambridge. At that time if you were from Oxford, the curriculum was so different in London that you couldn't do an Oxford degree. If you'd gone to St Thomas' or Guys or whatever, you had to do the London finals when you qualified. But at that time at least, we did go back to Cambridge and did our Cambridge exam finals, and then it was a Cambridge MD as well.

TT: So now you're back on track almost, in fact you're heading into respiratory medicine, to becoming a chest physician. You've got this great rotation and an MD so now you're really looking for Consultant posts?

JMG: Yes, but the difficulty was the career structure that I was talking about at the time. With three other people who'd got SR posts we said, 'Look, this is a complete shambles. There are people kicking around the place not knowing whether they've got a career progression or not.' And we decided to survey how many people were in research posts in respiratory medicine around the country, then see how many SR posts there were, and work out how many Consultant posts there were. And no one knew. The way we did it was we actually sent letters to everyone we knew who was doing research saying, 'How long have you been doing it? Are you applying for SR posts? Have you got your MD or your PhD and you're just hanging around trying to get an SR post?' And we asked them to pass letters on and we identified the fact there were over 60 people who had completed research and had an MD or a PhD or who were coming up to that, who were looking for SR posts, and that there was only one planned Consultant vacancy in England and Wales. So there was a ridiculous imbalance. So we put together a paper, the four of us, Andrew Peacock, Ashley Woodcock, Ian Johnston and myself, and we submitted it to the British Thoracic Society [BTS] saying we wanted to present this at the summer scientific meeting.

And they said, 'No, you can't. It's not, you know, it's not science.' So we said, 'This is really quite important.' And they said, 'All right you can do it, but the abstract won't be in the abstract book.' So we sort of drew lots as to who was going to present it and I was told I was going to present it from the four of us, so I went to present this at the summer BTS meeting. I'd been an SR for just a year. And a couple of senior people said to me beforehand, 'You're putting your head into the lion's mouth here. This is not what we do.' And the Chairman of the meeting, of the session, I gave my presentation, a packed room as you can imagine, and I finished and he said, 'We'll take no questions, but get back to the proper business of this society.'

TT: Who was the Chairman?

JMG: A chap called Dewi Davies, who died some time ago. And it wasn't long after that, since the BTS wouldn't publish it, we submitted to the *BMJ* [*British Medical Journal*] instead, and the *BMJ* published it as a letter. So we got it published, again sticking our heads into the lion's mouth.

TT: Who was the Editor?

JMG: Stephen Lock. And then I got a phone call. The secretary at the London Chest said, 'A chap called Batten telephoned.' [Laughs]. I said, 'What?' 'John Batten.' And I said, 'Oh, you mean Sir John Batten?' I rang him back and I sort of stood to attention, and I said, 'Sir John Batten? This is John Moore-Gillon.' He said, 'Yes'- and he was President of the BTS at the time. He said, 'This manpower business,' he said, 'It's a problem, isn't it?' I said, 'It is, Sir John'. 'It's very important, isn't it?' he said, 'Come along and let's just chat about it.' And he set up a Manpower Committee at the BTS and I was the SRs' Representative. And that actually, that Manpower Committee, is why respiratory medicine now for the last 15-20 years has had better

manpower planning than any other speciality, because we were in such a dire mess that we thought that we'd never get ourselves out of it. So this is a long answer to your question, which said, 'You're an SR, things are all right, you're on track for Consultant.' No, in fact I thought I probably wouldn't get a Consultant post.

We did a survey, the BTS Manpower Committee, and we discovered that in the next two years there were going to be nearly 30 retirements of single-handed respiratory physicians in DGHs [District General Hospitals] where they were not going to be replaced. They were going to be replaced by a Consultant in another speciality, perhaps a second gastroenterologist. The strategic plan for Southwest Thames for 1985 or 1986 said, 'It is envisaged that chest medicine will cease to exist as a separate speciality and that patients will be looked after by Consultants in other disciplines.' So respiratory medicine really was going to disappear. And when it came to Consultant posts, there were some extremely - how can I put this - some posts in parts of the country which would not be thought of as being terribly desirable, where the conditions were appalling, and where they were appointing just a single-handed person, and yet there would be 20, 30 applicants. There would be 20 people with MDs or PhDs being shown around the job in job lots, you know, a dozen in the morning and a dozen in the afternoon, because the competition for Consultant posts was so intensive. It really was a catastrophic state of affairs, and we lost a lot of people to the pharmaceutical industry, we lost a lot of people to Australia, to the USA, because they simply could not get posts.

My wife was an SR in ENT [ear, nose and throat] surgery at the time and she said - I remember this conversation very well - she said, 'Look, it's going to be very difficult for you to get a Consultant post. Since it's probably easier in ENT, we'll wait for you to get one and then I'll try to get one in the same area,' because we didn't know where I'd be. I said, 'Look, I may *never* get a Consultant post. You get one and then we'll work it out, and then at least we'll know that one of us has got a job.' You know people thought about retraining, lots of people went into radiology, for instance. Then radiology very properly said, 'Well, look, we quite like people who want to be radiologists in the first place, not people who are radiologists because they couldn't get a job in respiratory.' A lot went into care of the elderly and there was a huge attrition amongst SRs in chest respiratory medicine.

TT: Why had this happened? Why had there been the move to say, 'We don't need chest Consultants?'

JMG: Well, essentially it's something we're going to come onto, which is tuberculosis [TB]. We had TB, something which was perceived to have gone away because you could treat it with the tablets. People who had COPD; the view was, well, you couldn't do anything for them and it was their fault anyway. And pneumonia is easy, you give them antibiotics, and then you've got asthma, well, you have a puffer. So what's difficult about that? So we don't need chest physicians. There was also a certain amount of snobbishness about respiratory medicine which is historical because of the originally separate systems: chest clinics which dealt with TB, and the TB hospitals were run by TB officers, often people who had had TB themselves in an early stage of their medical career and then gone off into that because they took years out. And then the National Health Service [NHS] came along and said, 'No, you're all part of the same big happy family', but there was a lot of snobbishness towards people who had come up through the old TB service. I'm afraid we saw it at St Thomas' where there was a divide between the Chest Department and the Medical Unit, which did respiratory research. There were essentially two Chest Departments at St Thomas': there was the academic side of things and there was the non-academic side of things, and I think there were faults on both sides, I have to say.

TT: Can I come back to you on this fascinating story? So, manpower planning within the BTS, how influential could the BTS be on its own?

JMG: Well, I think what they did, and it took quite a few years, first of all they had to galvanize the people who were already doing respiratory medicine and say, 'Look, this specialty is dying. You've got to fight like crazy; it's your duty to fight like crazy if you are a single-handed Consultant and you're retiring and you're not being replaced, you've got to kick and scream.' It coincided with the beginning of the British Lung Foundation [BLF], which was really very important. The BLF was set up primarily by Malcolm Green with

a group of other individuals, to support respiratory research. But it was the BLF, that is the charity raising funds as opposed to the BTS, which is the professional body; the BLF was farsighted in that it got public relations [PR] on its side very early. And Malcolm interested someone who had their own PR company, and the BLF had PR very early on. So it began to be on the media saying, 'Lungs are important, chest disease is important.' And so the BTS benefitted from the BLF's pushing in the media that lungs were important.

TT: Did smoking, and concerns about smoking, interact at all with this?

JMG: It did, it did. I dare say, one of the first, one of the earlier things the BLF did was air pollution. Smoke-free areas needed to be dealt with because, of course, don't forget we're talking about a time when patients were still smoking on wards, doctors were still smoking in outpatients, a few of them. You'd certainly go to the cinema and theatre and you know everyone was smoking - so a very different culture. But you had to tread terribly carefully - you weren't allowed to say in those days that smokers were addicted, that was a very pejorative term. Whereas now you know we talk about nicotine addiction. So smoking was a downside for respiratory medicine because of the blame aspect. Why should we be funding members of staff just to look after people who have damaged themselves? So respiratory medicine was deeply unsexy - cardiology, terribly easy; paediatrics, suffering babies, whatever, there are lots of fields which are easy to raise money for. Raising money for respiratory medicine is very difficult, as was getting a decent career structure. Respiratory medicine is now under-resourced, but most DGHs have got four or five respiratory physicians as opposed to the one or even none that was being proposed just 30 years ago.

TT: But coming back to your own career. You are an SR, and you've been involved in this manpower survey for the BTS. Where are you going from here, John?

JMG: I'd got the MD by this time, but it didn't come until sort of three or four years into being an SR, because I was doing all sorts of things. There were very few jobs coming up and my wife, Vikki, applied for and got a Consultant ENT Surgeon job at St George's. She was due to start in October '87 and she took our then two children down to Devon where we'd rented a place for three weeks for a holiday, and I was going to join them for the last week. And I happened to see in the *BMJ* a job advertised; it was a Senior Lecturer post in Respiratory Medicine at Barts and Homerton, which was wholly unexpected. It wasn't on anyone's horizon and I thought, 'I'll apply for it.' Much to my delight and astonishment, I got it the following month. So in July 1987 neither of us had Consultant posts and I had no prospects of getting one. In October 1987 Vikki had started as a Consultant ENT Surgeon at St George's, and I had a Senior Lecturer and Honorary Consultant post at Barts and Homerton starting in February '88, so it sort of fell into place. We were within, you know, 15 miles of each other.

TT: Yes, so this is quite a staggering change, isn't it? Were you based at Homerton or Barts or both?

JMG: I was based at both. Barts and Homerton; it's very difficult to imagine now how closely integrated they were, much more so than Guys was linked with Lewisham and the London was linked with Newham. But Homerton was built as 'a wing of Barts'. The Homerton Hospital, the old Hackney Hospital, was partly mothballed, partly knocked down and partly some services stayed there, but the brand new Homerton Hospital was built as another wing of Barts. Every Consultant at Homerton was also on the staff at Barts. The Professor of Medicine at Barts had a professorial Unit firm at Homerton as well. The Professor of Surgery had a firm at Homerton as well. There was no separate management. There was no separate switchboard, there was no separate admin or human resources or whatever. It was Barts, but it was 3 miles down the road as opposed to 200 yards down the road like the QE [Queen Elizabeth] wing was at Barts. And it was a very far-sighted move, because it had been quite difficult to get people to apply for DGH jobs, particularly in inner cities, but what you were applying for was a teaching hospital job, which was in an inner city. So my clinical work was mainly at Homerton, but I had an office at Barts and I could admit patients to Barts. I, on the whole, chose not to do so, because you know you don't want to have sick patients in two places. So it was a terrific model, and when Tomlinson came along and destabilized Barts - essentially took the Homerton away from Barts - I think that was a great loss to both institutions.

TT: When you moved to Barts and Homerton, you had a Senior Lectureship and an Honorary Consultancy. Who were you responsible to and who were your colleagues?

JMG: My colleague was Dr (later Professor) Bob Davies, and there were only two of us at Barts doing respiratory medicine, and I was the only one at Homerton. Ultimately, my boss was the Professor of Medicine, John Dickinson. I got very involved in the College hierarchy very quickly, and that was not because of any ability on my part, but because there was always the thought, 'Well, we'd better have someone from the Homerton, and we'd better have someone young,' and I was the only young academic at Homerton at the time [laughs]. So I found myself on the Medical College Executive Committee, you know, the five-person great and the good at a very, very early stage. And Lesley Rees became the Dean, Ian Kelsey-Fry, having been the Dean shortly beforehand. Lesley Rees became the Dean and I think I'd been there about 3 years or so and said, 'Look, Lesley, I'm doing a bit of research, I'm turning out the odd paper, but I'm never going to build up a big basic science research base. I'm very, very busy clinically; I'm interested in clinical research; I'm interested in teaching; I'm interested in helping to run the Medical School; and I think I'd rather be a Consultant Physician and Honorary Senior Lecturer than Senior Lecturer and Honorary Consultant Physician, because I think it better reflects the way that I work.'

For odd historical reasons the funding for my Senior Lecturer post had actually come via the health service. So the finances were not a difficulty. There had been half a job and Bob Davies, to his credit, had said, 'Look, I will cobble together the other half of the money. I'll fund it for five years from my resources provided the NHS takes it on after five years,' and that's how they got my post together originally. The vacancy for the post was created by Malcolm Green, now Sir Malcolm Green, leaving and going full-time to the Brompton. He was half at the Brompton, half at Barts. He went full-time to the Brompton, leaving half a post at Barts and Bob Davies had said, 'I'll make it a full post.' So, after discussions with Lesley Rees, I became a Consultant Physician and Honorary Senior Lecturer, which I thought was a much fairer description of me.

TT: We are now coming into more your own independent career and where you're going with things like asbestosis, TB. And the beginning of your legal work?

JMG: Yes, well very much towards my time as an SR at the London Chest, Robin Rudd was a Consultant there and Robin was a phenomenon. He had been a direct contemporary of mine at Cambridge, qualifying in '76, and I think he was then appointed Consultant at Newham and the London Chest either in '82 or '83, I think six or seven years after qualifying. He'd done an MD in six months or so, written it up in the evenings, and he started doing medicolegal work and got involved in occupational lung disease. And, historically, asbestos has been a very important and tragically important part of the East End. There was a huge amount of asbestos-related disease at the London, by then probably the Royal London and the London Chest, because it was all imported through the London docks. London - and Southampton - docks was where asbestos came in through, and the dockers got horribly exposed to asbestos. Because it came in through the docks, lots of the asbestos processing firms, manufacturing firms, were East End originally and then moved out to places like Dagenham and Barking. And laggers, the insulation industry, this was a family business. If dad was a lagger, you became a lagger. And jobs were passed on from father to son and uncle to nephew and so on and so on. And so, lots of the major lagging companies, who did the lagging all around the country, they were Eastenders, the workforce, with a very heavy burden of asbestos. There was an awful lot of asbestos-related disease and lots of the early research on asbestos actually came out of the London and the London Chest.

The Government's Chief Factories Inspector, Merriweather, in the '30s, was looking at the East End when he said, 'This is dangerous stuff.' And it was a seminal paper in 1965 from the London Hospital by Newhouse and Thomson which demonstrated that there was, that this newly emerging tumour, mesothelioma, which people had realised was not lung cancer, but affected the pleura, could not only be caused by asbestos - that had been established a few years before - but by low doses of asbestos. And the way that they realised that was because they were getting women with mesothelioma. So where's the contact with asbestos? The answer is that her husband's a docker, he comes home, she shakes out his overalls and

so the asbestos fibres come from there. And so, there was a history of asbestos-related disease in the area, and Robin got involved in it. He supervised a Research Fellow, Andrew Gellert, who did an MD in asbestos-related disease. Robin then began to do some medicolegal work and said to me, 'There's too much of this, why don't you start doing it?' So as soon as I became a Consultant, I began to see the odd case and provide expert witness reports for the court, rather amateurishly, and learning on the job. And it helped pay the milk bill. And that's where the interest actually arose.

TT: And this was simply through asbestosis in the first place?

JMG: Yes, asbestosis and mesothelioma. Clinically, I think I was rather sort of floundering around to find out where my field of interest was going to be. I thought that I'd be able to continue doing the hypoxic physiology work when I was appointed Barts Senior Lecturer, but actually it just didn't work and it wasn't practical. And I suddenly realised I was seeing a lot of TB. And then when the Tomlinson report split Barts off from Homerton, I was working for two separate hospital trusts, and that was quite difficult. And there were some political difficulties between colleagues in respiratory medicine, and the then Medical Director, who was Duncan Empey, who was also a Respiratory Consultant, said, 'John, why don't you come full-time into what's now the Barts and the London and the London Chest Trust? And would you be the Clinical Director of the Department, because I think you can help be an honest broker?'

There were two colleagues who will freely admit they didn't get on terribly well together. They both got on all right with me and I managed to sit in the middle and things went fairly well. And so I was given that opportunity, and I left Homerton at that time and walked into David Hughes's shoes. David was just retiring, he was running the TB clinic, and I thought, 'My goodness me.' I'd done quite a bit at Homerton, but at the London and London Chest there was not only a tidal wave of TB, but an increasing tidal wave of TB. And that's really how I fell into TB as my major clinical work, and to some extent academic interest.

TT: Again can we just put a chronological marker on this?

JMG: Sure. I was appointed at Barts and the Homerton in '88. Tomlinson was probably '92-'93 and I think I moved full-time into what was then the Barts and the London - no then called the Royal Hospitals NHS Trust - in '96, and with reluctance I left Homerton, because I think Homerton was, and indeed is, a great place. It was with reluctance that I left there. So, then, I found myself shadowing David Hughes for a while and then taking over the TB service, which was based primarily at the London Chest.

TT: Was that an old TB service that had continued?

JMG: Yes, it was. It was, it had been there a long while. I of course had done a bit of it when I'd been a SR there, but they had taken in the peripheral chest clinics, which had been part of the old TB service. They had taken the chest clinic from the Metropolitan Hospital, the old Met had come into the London Chest. And there were some extremely experienced doctors - their title was Assistant Chest Physicians, I think it was at that stage, the title changed a few times - who had come from the old clinics and were fantastically knowledgeable about TB. Bill Wheeler, Freda Festenstein and Barbara Hanson, there were three of them. And they were all just still doing the work when I took over. I mean, I realised that we were seeing more and more and more TB, and I became aware that just as manpower planning in respiratory medicine had been ignored, so it was the case with TB. People thought 'That's dealt with, that's cracked!' - and it links to what I was talking about earlier on. And there were just a few people who were continuing to keep the flame burning, I mean senior people, so that an interest in TB just didn't completely disappear. And quite a few of those of course were at the Witness Seminar. I refer to the Witness Seminar run by the Wellcome now 10 years ago probably?

TT: I think it was about 10 years ago, yes - 2004/2005. Yes, published 2005, held 2004.

JMG: But quite a few of those had already actually retired themselves and there was a sort of intermediate generation like Ken Citron and Ian Campbell, who were bashing away saying, 'TB is an issue, it's still an issue, it's still an issue.' And then there were people closer to my generation, and I really joined up with

Peter Ormerod and Peter Davies who both were there at the Witness Seminar perhaps, yes? And we began to make noises about TB. I think I'd learnt a few PR tricks from my involvement with the BLF - they had sent me off for media training and all that sort of nonsense so that one didn't get completely kicked around by Jeremy Paxman or John Humphrys - and we began to make noises about TB. The need to make noise was internal within our Trusts - we really, really, really needed to get this sorted out - and externally.

The Government was *extremely* unreceptive. The Department of Health did not like it at all, and the reason it didn't like it was because of the stigma associated with TB. TB is a disease of the poor and it is a disease which primarily has affected historically, in recent years I should say, has affected the immigrant population. And the Government did not want any noise being made about a disease coming back which affected the poor, and which affected immigrants, and we hit an awful lot of resistance.

We published a paper in the *BMJ* which looked at TB rates and measures of social deprivation, and we used the Jarman index of social deprivation, and mapped TB notifications against the Jarman index for 407 health districts and showed that the correlation was absolutely extraordinary. TB rates in the highest, in the most deprived areas, were 10 times higher than in the least deprived. But, of course, that's just districts, and one of the things about Britain by comparison with, let's say the USA, is heterogeneity within a district. You know an English district would have very rich people and very poor people. Mayfair is in Westminster, and Westminster's very socially deprived on the Jarman index despite Mayfair being there. So if you look at the very poorest *people* and the very richest *people*, the difference in TB rates is 100-fold. A Health Minister came to visit Homerton when I was still there, when we were just doing this work, and he chatted to me about TB. And I said, 'Oh, we've just done some very interesting work showing that rates are going up and...' He said, 'Why is that?' And I said, 'Well, the poor are getting poorer, Minister.' I said, 'In fact, we're publishing something quite soon about deprivation.' And about two hours later there was a phone call came through from the Department of Health saying the Minister wanted a copy of the paper. I said, 'Well, it's not published yet. If the Minister wants to talk to me about deprivation and TB, I'm very happy to sit down over a sandwich and talk about deprivation and TB, but you aren't seeing a copy of the paper.' That was very, very unpopular.

TT: Who was the Minister?

JMG: Do you know, I can't remember, it wasn't the Secretary of State. It was one of the junior Ministers. But it also got to the stage where you weren't allowed, the Government, and the PHLS [Public Health Laboratory Service] as it then was, became the Health Protection Agency [HPA], wasn't allowed to comment on the fact that a high proportion of people with newly diagnosed TB had been born abroad. And I, in more than one interview, have been asked, 'Are you frightened of being called "racist" for discussing the fact that TB rates are highest in the immigrant population?' And I said, 'Well, it's the opposite of that, because you wouldn't be called "sexist" if you said that men are more at risk of heart disease than women. You wouldn't be called "ageist" if you said that cancer rates are higher in the old than they are in the young. What you're doing is identifying where you've got to put the resources to help people who are at most risk. So if you are saying you're not allowed to say that it's people in migrant groups who are at greatest risk and thereby you withhold from them the resources which are needed to sort out the problem, that's what's really racist.' But it was a very, very hot potato.

I got on very well with the people at the PHLS (who then became the HPA), who were in theory at arm's length from the Government. But the arms weren't quite long enough, and so they were under terrible difficulty about what they could actually say. And one year when the annual figures were announced for TB in England and Wales, I was invited to go along to the press briefing as an outsider, because the HPA people weren't allowed to say, 'Well, of course let us draw attention to the fact that TB rates are going up.' But I *could* say TB rates are going up, and it's due to inadequate resources and inappropriately targeted resources. But it was a very hot potato, and still is to some extent.

TT: How was your message being received and how has that changed?

JMG: Well, it's changed a lot. It was a mixture of discomfort at the top of the Department of Health, and particularly the politicians in the Department of Health. It was a message which was warmly received amongst the Medical Advisors to the Department of Health, because as an outsider I was able to say the things which they couldn't actually say. I also had an advantage, because I was in the fortunate position that I wasn't beholden to anyone. I'm not looking for research grants, I'm not looking for a Government post, I'm not looking to become Advisor for this or that, and so it's open to me to say what the problems were. So the message was received well by the doctors, but not politicians. Whether there was any action was another matter.

We eventually got there; after years of bashing away, a report came out called the "TB Action Plan" - and I've forgotten the exact headline title, but the subtitle was *A TB Action Plan for England*. And I did get my knuckles rapped, because I went to the launch of it and the thing which worried all of us was it was aspirational rather than target-setting. It was all a bit motherhood and apple-pie-ish. I had spotted that inside the front cover, like every Government publication it had the usual standard information: "origin" then "signed off by" then there's a reference number, and then an "action required" box. I spotted this inside the cover and it said, 'action required - not applicable; N/A.' And so at the public launch of this document I said, 'Well, this is very, very nice, we've been working jolly hard at this TB action plan, but I do see inside the front cover it says 'action required - not applicable,' and I hope that's not telling us what's going to happen to this.' And actually nothing did happen for another 10 years, but it's changing now.

I think that a group of people making a lot of noise perhaps did inspire - whether it was the cause of it, I don't know - perhaps it inspired a lot of people to come into respiratory medicine and do TB both clinically and academically. And there's now a powerful group of academics and clinicians working away at TB in a way which is gratifying, but there's still nothing like the research spend there should be. If we take the BTS, we had to work like crazy to get a TB session in the annual scientific meeting 20 years ago. Now there would be two days on TB, almost continuous sessions on TB. That reflects, of course, the fact that there is a terrible clinical problem now; you know, it reflects failure as well as success.

TT: So it actually touches many more clinicians' lives?

JMG: It does, absolutely. I mean I think, what I would find myself horrified by was having a ward of patients, having patients in the Royal London with spinal TB, TB meningitis, cerebral tuberculomas, renal TB. This was history when I was a medical student, but there they were again 30 years later. When Veronica White, a colleague who got interested in TB, she was my Registrar, SR, said she wanted to do an MD. I said, 'Well, you can go into a laboratory and tip leukotrienes from test tube to test tube or you can do something in TB.' Veronica did first of all, she did an MSc in medical anthropology which I got funding for, and then we got funding for her to do an MD on cultural barriers to effective treatment of TB in the Bangladeshi population of the East End. So Veronica then became a Consultant with an interest in TB. And we realised we needed a TB ward round every week. In the twenty-first century that's scandalous that we had to have a ward round where every Wednesday afternoon we'd go round the neurosurgical wards and the orthopaedic wards and the renal wards looking at people with cerebral TB and spinal TB - and in the twenty-first century in London. Those were cases which didn't exist in the 1970s. But we'd taken our eye off the ball.

TT: It's not the only thing where people had taken their eye off the ball. Air pollution is another one. Can I ask you from the sort of resurgence of interest in TB and the recognition of the problem, was there any direct association with concerns about AIDS and comorbidity?

JMG: Well, there was a lot of concern, but in the early days of the research into TB it was shown very convincingly that the big drive to the increase in TB in this country was not AIDS [acquired immune deficiency syndrome]-related, it was quite simply that we had lots of people developing TB and that methods of screening for TB were not effective, and that it was being inappropriately treated and that's what was causing the rise in TB. Now it is a significant issue and one of the things we did was to set up the very first joint HIV [human immunodeficiency virus]/TB clinics, because HIV drugs are very difficult, and the TB drugs are very difficult, and the TB and HIV drugs together are very, very, very difficult. And we were fortunate

at Barts and the London that we had respiratory physicians interested in TB, and HIV physicians that were receptive to our involvement. It doesn't always happen and there are - I don't know whether there still are - there were Units around the country where the respiratory physicians were treating the non-HIV-TB and the HIV doctors were treating the HIV-TB. Well, that seems to me bonkers. So we did set up this joint clinic, and it is of course the case now that a significant amount of TB is HIV-related. We now know, and it's now routine, that every patient who is diagnosed with TB gets an HIV test as well. But that took a lot of political battling as well.

TT: Political battling by whom?

JMG: Well, a lot of the resistance came from the very first generation of HIV doctors who, because HIV was a death sentence, having a diagnosis of HIV was something which was incredibly important. It's like being told you've got terminal cancer. And therefore the implications for your life of having a positive HIV test were really quite extraordinary - lots of anxieties, talking about life insurance and health insurance, and so on and so on. So the act of doing an HIV test was shrouded in formality and mystery, a combination of the two. You couldn't have an HIV test until you'd been formally counselled. You couldn't have an HIV test having been formally counselled, unless your formal counsellor had been formally trained in formally counselling for HIV tests. And so the idea that you should have an HIV test was really quite a difficult one. I think newer people came along in HIV, and again we were really very fortunate at Barts and the London with my HIV colleagues, whose idea was, 'Look, we need to destigmatize HIV. Particularly now we've got some treatments for it, it's important that we do identify people, as opposed to there being no point identifying them, because you can't do anything for them.' The fact they might give HIV to someone else was swept under the carpet unfortunately.

So destigmatizing HIV testing has been much, much easier and now it's the expectation that if you have TB, you have an HIV test: as opposed to the completely absurd 'You've got TB, you look a bit 'dodgy' one way or the other, should we do an HIV test?' It's become everyday. It's changing times, it's a bit like, again talking about smoking earlier on, the expectation you could smoke in a theatre; times change. The expectation that you will get an HIV test, yes, well, times change.

TT: You've spoken quite warmly and enthusiastically about Barts and the London and how unique it was in some of the work you've been doing; you've been involved with TB, TB-HIV. When you became a full-time Consultant and Head of the TB service, was that more administrative, was it still very hands-on?

JMG: Oh no, very hands on. Absolutely no one else to do it [laughs]. Very hands on indeed. In fact we were overwhelmed with work for the number of doctors there were and I was very lucky that we appointed Malcolm Cocksedge as our Lead TB Nurse. Malcolm had been a Nursing Manager at St Mary's and had done HIV. And he was appointed as the Lead TB Nurse. I'm pleased to say that I had a big hand in appointing him. There were a couple of internal candidates who were jolly good; I just thought not as good as Malcolm's going to be. And Malcolm had a philosophy, which was that doctors and nurses needed to work together, and I was of the same philosophy. He had a philosophy that the nurse should have an extended role, but that was not to completely usurp the doctor, and I had a philosophy that the nurse had an extended role as well, but so as not to completely usurp the doctor. And I needed the nurse to have an extended role because I simply didn't have enough pairs of hands to look after the tidal wave of TB. And Malcolm was superb. He, and I'm trivializing it now, he'd say, 'Oh can you sign here, Dr Moore-Gillon?' I tried to get him to call me John, but it failed. 'Sign here, Dr Moore-Gillon.' And I'd say, 'What's this?' And he'd say, 'Oh, just some admin stuff.' I'd read it and sign it and about four weeks' later a new face would appear and I'd say, 'Hello, who are you?' 'I'm the new Band 6 TB nurse.' And I'd say, 'Well, how did we get you?' and Malcolm would say, 'Well, remember, that's what you signed for the other week.' And so we really built up the skills of the nurses.

Malcolm was the crucial way into the HIV Department, because he had street cred. Having been an HIV Specialist Nurse himself, he had street cred with the HIV Specialist Nurses, and so really the links were

forged at nurse to nurse level administratively. But I was very hands on seeing huge numbers of patients in the clinics, seeing patients on the ward rounds, and so on. And we developed, I think, what was a fantastic, seamless nursing service, where a patient would see - if they were an inpatient - they would see a TB nurse. Then when they were an outpatient, they'd see a TB nurse, and then in their own home they would see a TB nurse - and they'd all be the same person, the same nurse. Most other units either didn't do domiciliary visiting, or it was the district nurses that did it. Or it was the community TB nurses who did it, who also did the community paediatrics and various other things. So the seamless model we had was that the same nursing group would look after the patients right the way through their illness - I think it was a really, really good model. There'd be three nurse-led clinics a week; we set up nurse-led clinics, where the tuberculin testing was done. We set up nurse-prescribing and nurse-dispensing as well, because we managed to get the funding to get the drug budget into the hospital. Because TB drugs come in funny shapes and sizes and funny dose combinations; high street pharmacists are going to get it wrong and GPs are certainly going to get it wrong. That's not a criticism - it's just an observation because, you know, why should they get it right? They're only doing it twice a year.

So we had the nurse-led clinics, three of those a week, and then consultant clinics but with nurse-led clinics running side by side with them, so the nurses could bring in the difficult problems.

TT: Could we just develop a little bit about the drugs and the impact of the development of drug therapies over your career?

JMG: Right, well, my career started before I became a Consultant, looking after TB as an SR, and rifampicin, which was the real game-changing drug, was already introduced. So short course chemotherapy had come in and we were just moving to the time where we realised that pyrazinamide, which had been around for a good long while but gave terrible liver damage, it gave terrible liver damage because we were using too high a dose. The trials were done by the BTS showing that if you used pyrazinamide along with three other drugs for the first two months, and you used it in the appropriate dose, then you could treat and cure TB in six months. So we were using short course, what became known as ultra-short course chemotherapy. That was one of the things I used to say when lecturing about where we got it wrong with TB and why 'Here's an illustration of how little research has been done in TB, that we still call *six months* 'ultra-short course' chemotherapy.' There were remarkably few changes unfortunately because there's no money in developing drugs for TB. So we were playing around with drugs which had been around for, pretty much for decades, and using them in different combinations - and we began to use other drugs, particularly in drug-resistant disease, the quinolones, ciprofloxacin and so on, and ofloxacin, moxifloxacin. But these were drugs which had been developed for other reasons.

We also found ourselves going back in history and looking at drugs which had been confined to the waste paper bin because they're toxic, cycloserine and things like that. We were finding we were needing to use some of them for our drug-resistant TB, which was beginning to emerge. So we had a few new drugs which had been developed for other purposes and we were getting old drugs out from the back of the metaphorical medicine cabinet, for use in the increasing numbers of drug-resistant TB that we were seeing. And because we began to get a bit of expertise in drug-resistant TB and they were concentrated in London anyway, we found that at Barts and the London we were at one time looking after a third of all the MDRTB, multidrug-resistant TB, in England and Wales. We're still talking about 25 patients or so a year, 20-25 a year. But also because we had a Neurosurgical Unit, and because we had very good spinal surgery, we were getting complex MDRTB, with cerebral MDRTB and spinal TB. Finally, because we had a negative pressure isolation unit on site at Barts, we could take the infectious pulmonary MDRTB.

TT: Why did you have a negative pressure room?

JMG: Do you know, I don't really know. There was an infection and immunity ward built at Barts and there were 10 negative pressure rooms down one side and 10 non-negative pressure rooms down the other side. I say negative pressure – it was discovered, actually, no, it was St Thomas' discovered with some embarrassment their negative pressure rooms were positive pressure and they had a bad outbreak of hospital-acquired

MDRTB at St Thomas' because they were shutting patients up in negative pressure rooms and the bugs were being blown out of there onto the ward. It wasn't there at Barts for TB reasons. I think that probably somebody took a strategic decision, let's try and build up an Infectious Diseases Department. There was a directorate of infection and immunity. It was largely HIV money funded. I think the money was there to do it.

But one of the great advantages of having it there, and the ability to handle such patients regularly, was that people are scared of things they're unfamiliar with. There were so many stories we heard, of people with ordinary TB not getting fed over the weekend in other hospitals, because the usual staff weren't there and no one would go into the room to hand them their meal tray, or the room not being cleaned for three months, that sort of thing. At Barts we were very lucky in that the nursing staff were used to and comfortable with dealing with MDRTB. The cleaning staff were used to and comfortable with it. So you would have a cleaner who would happily put on the high efficiency mask and all the space suit kit and go in and hoover the room and go in and chat to the person with the MDRTB who was in there, and that was something which, I think, really wasn't around in other Units. In consequence we got more referred to us. It's changed quite a lot, there are now other places, Homerton has got negative pressure rooms, St Mary's has got negative pressure rooms, of course the Royal Free has got the specialist Unit, and St Thomas' has got decent negative pressure rooms, and so on and so on. So it's not such an unusual facility now as it was then. But the consequence was we got a lot of complicated MDRTB.

TT: Have you ever been scared yourself?

JMG: No, I never have been, and I think I'm not, or haven't been, because I understand TB. It's quite hard to catch TB. I also reflect when people talk about MDRTB and XDRTB, extensively drug-resistant TB, and totally drug-resistant TB, that all they're describing is what *all* TB was until 1946, when streptomycin came along. There were no drugs for TB so everything was completely drug-resistant. And our senior colleagues, doctors and nurses of the past, managed to look after these people in a perfectly civilized way, and a humane way, yet all of a sudden now that we *have* got drugs to treat it, we've become hysterical about infection risks. That's not to say that I haven't had a cough which has lasted more than a couple of weeks every now and again, and I've gone in for a chest X-ray thinking, 'Oh dear, do I really want all these ghastly drugs, because if I get TB it might be, you know, it might be MDRTB.' But the risks are pretty low.

I have lectured on a number of occasions about the irrationality with which we treat TB, MDRTB, and on more than one occasion I've talked about management of infectious MDRTB patients and said, 'Okay, this patient's in negative pressure isolation. At what point will you de-isolate them? Will you de-isolate them when their risk of infecting someone else is 10%, 5%, 1%, less than 1%?' And I ask for a show of hands. A surprising number of people say, 'I would only de-isolate them when a risk of infecting someone else was less than 1%.' And the usual is 1% and some people are 5%, and not many 10%.

I say, 'Okay, right. Now you've got an HIV-positive patient. Are you going to lock them up in a room until you think their risk of infecting someone with HIV is 10%, 5%, 1% or less than 1%?' And they all say, 'Well, that's quite different.' I say, 'Why? The only difference is that HIV is incurable and TB is not incurable, so it seems to me you've got it the wrong way round.' And then I say, you know, 'I do not want this quoted in the newspapers tomorrow: *Lock up AIDS victims, says top doc in lecture shock*.' I'm saying the opposite of that, but I'm also saying we've just not got a balanced view about this'.

HIV doctors particularly would say, 'Ah, but that's different, you make the choice to undertake an activity which puts you at risk of catching HIV.' And I say, 'So are you telling me that you are absolutely convinced that every single one of your HIV patients has disclosed their status to their partner, or will disclose their status to a casual partner, or will never have casual sex?' And they say, 'Whoa…' So it's complete hypocrisy about TB. You know that the risk of catching HIV is for someone who, let's say, is sexually active in London, say a student who is sexually active in London, the risk of becoming HIV-positive is immensely higher than the risk of me catching MDRTB.

TT: We haven't really talked much about your legal work, which, if you would like to talk about, would be great, because that's a very different aspect.

JMG: Of course, one is talking about a very fascinating subject. I do expert witness work and, essentially, most of the medicolegal work the doctors do is alleged professional negligence. I've done a bit of that. But the sort of thing that I'm doing is different: here is someone who alleges he has occupational lung disease. Has he got it? Was it caused in the way that it was thought? How damaged is he? And what are his prospects for the future? And that's what the court really wants to know. I've done that primarily in asbestos-related disease, but also in occupational asthma, and silicosis and coal mining-associated diseases and so on. I was doing more and more individual cases and I've always been very rigid about doing 50% claimant, 50% defendant, because what most people don't realise is that the doctor's job is not to fight one side of the case or the other. The doctor's job is to assist the court in coming to its decision. And you can be terribly badly criticized, indeed publicly by a judge, if there's any hint that you've tried to put a positive spin on the case for your side. So I've always wanted to see it from both sides, 50% claimant, 50% defendant work. Then about, I'm trying to think when this would be, probably now 15, 16 years ago, I was asked if I would go to the Department of Trade and Industry [DTI], because they had a bit of a problem. There had been a legal case, or a set of 10 test cases which established that coal mining didn't just cause coal workers pneumoconiosis, but caused COPD, that is, chronic bronchitis and emphysema.

There were going to be a huge number of cases coming along in the wake of that, and they realised that if they were pursued in a conventional adversarial way - the solicitor puts in a claim, the defence answers it, it gets chewed over by medical experts, it might or might not go to court - it was going to clog up the whole court process for years on end. It had been a very bitterly fought legal dispute and the Unions who had funded the claimants were very, very suspicious of the medical experts, some from abroad, who had been brought in by the DTI as successors to British Coal, the nationalized industry, to advise on the defendant's side of the case. So I was asked if I would come in and advise the DTI on setting up the compensation scheme and on various medical aspects of handling it. The Chief Medical Advisor to the other side was Robin Rudd, an old colleague of course whom I knew very well. And we sort of took a view which was that rather than him being asked questions by the Unions for the claimants and him pronouncing, and then "my side" asking me to comment, we'd pretty much sit together and say, 'Look, we want the two sides to ask us the questions that you want answering.'

We were faced with assessing both living and deceased claimants to find out whether they were damaged, how badly damaged they were, and what harm they'd come to: in terms of what hadn't they been able to do that they should have been able to do, how disabled were they? And what is their life expectancy and has it been impacted upon by the coal mining? Or, if they were dead, was their length of life impacted upon by coal mining? So we set up the medical aspects of a compensation scheme which eventually processed 600,000 claimants, and we were quite pleased with the way that it worked. It got a very bad press, the process as a whole, not the medical aspects, got a very bad press because some solicitors were being really very naughty indeed. The claimant's solicitor's costs were being paid by the taxpayer, but then some firms of solicitors were saying to the people who got the damages, 'We want our costs, by the way' and taking them out of the damages, so they were double-dipping. Some solicitors got into very serious trouble for that, and the whole scheme did cost a great deal more than it ought to have done, but that wasn't because of the medical aspects.

But having done that, I've continued to advise that Government Department on various things which have spun off from the original litigation, and I've done a number of other large class actions, including ones in different parts of the world. I'm involved in an American one at the moment; and I'm involved in one in a south-east Asian country and one in a southern hemisphere country… and I'm being slightly circumspect about it.

But I found that at about the same time as the coal miners' cases I was being asked to look at cases which had really quite important legal implications as well. I'd long had an interest in studying the law, but every course I'd ever seen involved going to South Bank Poly or whatever every Thursday evening for three hours

and doing coursework and essays, and I simply didn't have the time to do it. Then I found the University of London external degree programme and the University of London LLB [Bachelor of Law]. Essentially, you turn up on the same day as the full-time undergraduates and you take pretty much the same exam and it's marked by the same people. If you pass you pass, if you fail you fail, and the way you study for it is entirely up to you. But you do have up to six years to do it if you want them, as opposed to three. You can do it in three years, first year exams, second year exams, finals. You have to do three subjects for each set of exams. But since you can do it in six years, I did a few sums and I thought, 'How many hours a day does a law student work? And how many weeks a year do they work?' And I've got twice as many years as they have - so it came out as about an hour a day or a bit less. And I thought, 'Well, it might be quite fun to do this.' So I signed up in 1997; I took my first year exams in '99, my second year exams in '01 and my finals in '03, and got an LLB in 2003. Interestingly the Vice-Chancellor at that time was Sir Graeme Davies, and the Chancellor, Princess Anne, was dishing out the degrees. So I went up on the stage and I got my degree and then afterwards Graeme Davies gave a little speech thanking Her Royal Highness and so on. Now, I knew Graeme Davies, because he'd been a junior engineering don at St Catharine's when I was a student there. Then he said, 'The wonderful thing about the University of London LLB external degree programme is that it enables people from all walks of life, all parts of the world, all backgrounds, to get a University of London LLB. Today for instance I've seen someone who I last really spoke to 25 years ago when he was a struggling medical student and now at long last he's achieved academic respectability.' [Laughter]. In fact, I'd met him a few months before, because I wrote to him saying I'd like to take him to dinner at the Apothecaries Hall and he said, 'I'd love to, great to see you again, but why?' And I said, 'Well, I want it to be the first time in the history of the University of London that an undergraduate has treated his Vice-Chancellor to dinner.'

So I got the law degree, which I don't discuss or put on my reports because judges want expert doctors and not amateur lawyers, and I have no professional qualification. You know, I'm like someone with a basic medical science degree who is not a doctor. I've got a law degree, but I've got no professional expertise, I haven't done professional training. But it did give me an insight into the way that lawyers think, and it gave me an insight into the difference between legal and medical reasoning.

I then found myself being asked to do some quite interesting cases where legal issues impact upon medical ones, and a good example is where someone gets mesothelioma, the cancer caused by asbestos. They probably inhaled the responsible fibres 40 years ago. They should be compensated by the employer's liability insurance of the company that was employing them but which insurance company is it? Is it the company whose policy was in force when they inhaled the fibres? Then you look at the policy and it says, 'We will pay out for damage or injury caused during the period of this policy.' Well, that's easy enough if someone falls off a ladder at work. But if someone inhales asbestos, is the damage or injury caused when they inhaled the asbestos? Well, if legal "damage or injury" is caused at the time you inhale the asbestos, then what you're saying is the act of engulfment by macrophages in the lungs of these asbestos fibres constitutes legal "damage or injury". By that definition, the entire population is damaged or injured, because we all inhale asbestos fibres, they're all around us all the time, so a definition of "damage or injury" which is defined in terms of those processes, is of doubtful utility.

Well then, is it perhaps when the person becomes ill with mesothelioma? Well, they're certainly damaged or injured then, aren't they? But probably there's no insurance policy in force at that time: maybe they retired 15 years ago. So, this poor person who has been damaged by the negligent action of exposure to asbestos 40 years ago, where does his compensation come from? Then should it perhaps be the time that their cancer began growing, unknown to them? If so, when was that? Well, medically you can look at the length of time from someone becoming ill with mesothelioma and the time they die from mesothelioma and you can say, 'Well, it can't possibly have been enlarging at that exponential rate since they were first exposed, because the tumour would now be the size of the solar system.' And you can do fancy sums and inferences from tumour doubling times, and say, 'It's probably about 10 or 12 years ago on the average that the single malignant cell emerged that was going to become this mesothelioma.' So when *is* the *legal* damage which will trigger the payment of damages? At inhalation? Is it when the malignant cell arises? Is it when the person becomes ill? Is it when they die?

So that's an example of the sort of legal question which is thrown up; pleural plaques is another one. They lie there, they're benign, they don't turn malignant, they're inside the rib cage, they are painless. You only find you've got them when you have a chest X-ray done for some other reason. They were always compensatable for in common law. They weren't compensatable in terms of Industrial Injuries Disablement Benefit, because they don't cause any disability, but the civil law was, 'Well, you've got these things inside you, we're going to compensate you.' So someone then said, 'So where's the harm caused to this person? Are they in pain? No. Are they breathless? No. Are they going to get worse? Well, they'll get a big bigger, but they still won't be breathless or in pain. So where's the harm? Do they look ugly? Well, no, you can't see them, they're inside - so why should their employer compensate them?' Well, the answer might be, the person's worried now that they know they've got them. But under English law, there's no compensation for anxiety about future risks. That's just a legal principle. There is only compensation if you've got a recognizable psychiatric injury, if you are clinically depressed in consequence, then that's potentially compensatable. So should pleural plaques be eligible for compensation at common law? Well, it's a very difficult one, isn't it?

And another one: someone gets mesothelioma. You have two employers who say, 'Yes, we exposed him to huge quantities of asbestos. We admit it.' We'll call them Employer A and Employer B. The medical experts are asked, 'What happens in the genesis of a mesothelioma?' Well, what we know is, in any cancer, a cell acquires a mutation - potentially during its lifetime - but usually when it's replicating, and its daughter cells carry the mutation. One of those daughter cells acquires another mutation, so all *its* daughter cells have got two mutations and so on and so on. And there are probably five or six critical mutations which are necessary for a cell to begin to behave in a malignant fashion and become, let's say, mesothelioma. So, medical experts are asked, 'Right, consider that final stage. You've got perhaps five mutations, but you've not yet got the final one to give it the full house, which is necessary for it to become a fully-fledged malignant cell. Can you say that it is one fibre or more than one asbestos fibre which causes that?' Well, you can't say with confidence that it's more than one asbestos fibre - that was the feeling at the time of this famous case. Now the law assumes the *status quo* unless you can prove it's different. You can't prove it's more than one fibre that causes that final step.

So the next question is: 'Can you tell which employer the fibre came from?' No, of course you can't. Fine. So there you are up in court, you've got someone with mesothelioma, they've been negligently exposed by two employers. The QC for Employer A jumps up and says, 'You cannot prove on the balance of probabilities it was a fibre from my client which caused that final step which leads to the mesothelioma therefore you fail against me.' Counsel for Employer B bounces up and says, 'And you can't prove it was me either - so you fail against both of us.' So there you have someone who is dying from mesothelioma, who has been negligently exposed by two employers, and both of them say, 'Yes, yes, we exposed you to asbestos,' but you fail in you claim against both of them.

The judge in the High Court says, 'I don't like this, you know. This smells bad to me; I'm going to give him compensation.' It goes to the Court of Appeal, but the Court of Appeal says of the Judge, 'Actually, you've applied the law wrongly.' The Appeal Courts don't hear new medical evidence, they only look at the law, and the Court of Appeal said, 'The way the law stands, you fail against both of them.' And I think, actually, that is the answer; that is the way that the law does stand. The House of Lords, now the Supreme Court, in one of the most naked examples of judicial law-making ever seen, said, 'We don't like where this is taking us. Essentially we're going to make up a new law. You succeed against both employers.'

There have been all sorts of cases which have really moved the law along, and it's been asbestos which has created these legal conundrums. It's surprising that the legal journals have written endless articles agonising over asbestos, and it's quite fun to see cases which I've been involved in in the legal textbooks.

TT: You quite clearly find considerable intellectual stimulation?

JMG: I do, I get a buzz out of thinking through things which most of us don't have to think through.

TT: The other thing I wanted to ask you about was international aspects, particularly with the TB work.

JMG: Okay, internationally it's been quite interesting talking to colleagues who are managing TB in other countries, and that's not just colleagues from other countries, but colleagues in this country whose role has been international. They've gone out and dealt with TB in other countries. I was talking to a South African colleague where they have huge numbers of cases of MDRTB, and I said to him, 'Well, I'm lucky because I've got small numbers and I've got resources. You've got huge numbers and scarce resources.' He said, 'Yes, but the bar's set at different heights for the two of us, isn't it?' And I reflected on it and I thought, 'He's actually right.' If he has a 20% mortality, then he's doing pretty well. If he gets transmission within the hospital - well it's a pity but, you know, it happens. If I lose a single MDRTB case it's a disaster. And if there's a case-to-case transmission, the *Daily Mail*'s saying 'Killer Bugs Stalking our Streets,' yes? So the bar is set higher for those people who are fortunate enough to have the resources. And I think that it's true of all medicine that you have to perform at a level appropriate to the resources you have. People who say, 'It's easy for neurologists now, they have CT [computed tomography] scans and MRI [magnetic resonance imaging] scans, whereas in the old day they had to do it all with physical signs' miss the point that the standard of care expected of neurologists now with CT scans and MRI scans is far higher than the standard that was expected then, and is a lot less forgiving of mistakes than it was then. So I don't think, that medicine's got any easier.

TT: But it's not just resources, is it? It's also expectation, both the professional and patient expectation.

JMG: It's expectation, yes. I qualified in '76, so at a time when neurosurgeons were going into the head and cracking the skull open, and going into the brain on the basis, pretty much, of what the neurologist had predicted where they would find a tumour.

TT: To go back to your international…

JMG: Yes, yes. I've really not done it. I've lectured abroad a fair amount, and the lecturing I've done has been, I think, explaining TB to audiences that didn't really understand TB, rather than talking about my own great new developments in TB. I think that I've discovered nothing. I mean, you always get Nobel Prize winners saying, 'I've discovered nothing, it was all teamwork,' but I've *really* discovered nothing! But I think that explaining how TB ticks is something that I became reasonably good at, teaching students and postgraduates in this country and elsewhere about TB, which is actually quite complicated when you try and learn it from books. You know most infections, most bacteria, you get sick and you die or you get sick and you get better, with or without treatment. But if you take things like TB and leprosy and parasitic infestations, it's really pretty tricky to understand the natural history of the disease. So any lecturing I've done abroad has tended to be to audiences where I've been talking actually in a similar sort of way as I talk in this country: 'Do you understand TB? Let's talk about how it works and how it ticks.' So, I've not had a big international role at all.

TT: You haven't been involved in, say, WHO [World Health Organization]?

JMG: No, I haven't no. I know all the people in the WHO in the field, because we've shared platforms lecturing around the place on many, many occasions. But unlike colleagues like Peter Davies in Liverpool who have been very active in taking high quality TB care out to other parts of the world, and Francis Drobniewski who is accredited in both microbiology and clinical medicine, taking high quality TB care out to Russia, in particular, I haven't done anything like that and I take my hats off to those who have done it.

TT: Involvement with international societies brings me to the other question about the role of professional societies. You've mentioned at least two. And I'd like to ask you first about the BTS and the role it plays in professional development. As a young trainee was that the place you went to? Were you a member? You gave Communications?

JMG: First of all I think that my training in respiratory medicine was nothing like as good as the training that people now get in respiratory medicine. I think the more structured training is fantastic - I learnt very much by what I saw. I reflected at the time I was being badly trained in it, because my wife was doing ENT. She did her general surgical fellowship and then the ENT fellowship, so she was sweating buckets to take her postgraduate ENT exam and I was not sweating buckets to take a postgraduate respiratory exam, because there weren't any. You know, I did my MRCP two years after qualifying. That's the last medical exam I did. We went to the BTS to present the research, also to the Medical Research Society, the MRS, because the stuff I was doing was fairly physiological. But the BTS was not then active in training, and I think since then it's been an absolute model and trail blazer, the BTS, for the way it has taken on training and development, postgraduate education, curriculum development in respiratory medicine - it has been really fantastic; a really busy education department.

TT: Was that related to your manpower survey?

JMG: I think that the manpower survey was indeed the first thing which got the BTS really thinking about trainees - and, as I said earlier on, much against the will of some of them. It really was Sir John Batten who was president and then Ken Citron was president the year after, or the year after that, who said, 'This is really important. We've got to get this sorted out' and I think it was at that time they began to get interested in education as well. Of course I've got more knowledge of the BTS than of other societies, but the sense I get is that at least until recent years organizations like the British Society for Gastroenterology and the British Cardiac Society have been much less advanced than the BTS have been in saying, 'We need high quality, well trained junior staff.'

My continued involvement with the BTS - I was Secretary of the BTS - was as Chair of something called the "Joint Tuberculosis Committee", a venerable body, which was "joint" because it had representatives from the Department of Health and various other organizations. Then it changed into the TB Specialist Advisory Group, when the BTS probably 10 years ago set up speciality advisory groups in all sorts of fields in respiratory medicine. Then there was standard setting, guideline development and so on, and the BTS National Tuberculosis Guidelines were really the first guidelines for anything. I mean, we're full of guidelines now. But these ante-dated NICE [The National Institute for Health and Care Excellence] by at least 20 years. Yes, preceded all of those: the BTS TB guidelines really were one of the models that NICE took for guideline development, because they were evidence-based as well; that was the other thing.

TT: And the BTS was a society you had to be a Member of?

JMG: Yes.

TT: That was your tribal initiation?

JMG: Yes, it was. You don't *have* to be a Member, but most people are, the BTS. You join as, well, most people join when they're a Specialty Trainee now.

The BLF is really something quite different, but their paths converged. The funding for respiratory research is still pitiful, was truly pitiful, and Malcolm Green set this up in the 1980s with a group of like-minded colleagues. I got involved at an early stage and, interestingly, I think John Batten was the first President of the BLF. So when Malcolm Green was looking for a youngish person who was still an SR, to get involved, John Batten said, 'We've got someone on the Manpower Committee at the BTS.' So I got onto the Executive Committee of the BLF when I was an SR, and our role was to bang the drum for respiratory medicine initially with the aim of making funds, gaining funds for lung research. But latterly I've been involved in patient education, patient support, and talking to the media and getting decent publications out, decent public education, patient education booklets out. We were very proud that we produced a series of educational material for people with lung disease which won a Plain English Campaign award, a rubber stamp; good stuff. We were pleased with that. And the BLF, I became Chairman of the Executive Committee, and then I became President against my wishes. I didn't think I'd be a very effective President,

and I don't think I was very effective; I think I'd done too many years of day-to-day involvement with the BLF. You know it was an everyday thing; I was really, really very busy being Chairman of the Executive Committee, I'd had 10 or more years of every time I met someone socially the subtext in my head was, 'How do I get inside this person's wallet or purse?' And it's wearing actually.

Malcolm Green is a remarkable man and managed to maintain enthusiasm, although he's stepped out of the BLF now. He's been an enthusiast for the whole of his life, decades, and I was just tired, I think, when I became President. I took over because Malcolm had actually said, 'I really need to move on' and I was not as hands-on, as involved a President as I should have been. Presidents aren't really meant to be hands-on, but I wasn't as involved a President as I should have been. And I'm now, I'm one of the Medical Advisors, so I get rung up - you know, will I talk to this journalist or answer a query from this patient group or do a radio interview, whatever.

TT: What about other societies, because you say you've been a member of a number of governmental committees - have these always been as a consequence of your role in the BTS?

JMG: In TB essentially. I mean, I sat on various committees for originally the PHLS, the TB committee of the PHLS, which then became the HPA. It's now Public Health England. It's now probably something else. So it's mainly TB that I was doing, and, in particular, via the BTS really. And the legal side of things I'm still quite involved with, it changes its name every five minutes, the Department for Energy and Climate Change - "for climate change" - it sounds as if climate change is a good thing. I'm still quite involved with them, but I've tried again to keep myself slightly at arm's length in that I'm very keen to be seen as someone who also takes on instructions and advises the Unions and the claimants, not just governmental stuff.

TT: And the final thing, John, I want to ask you about is of course the Society of Apothecaries, because I think you are the only person I've interviewed so far who is an Apothecary. And you're certainly the only one who is a former Master. Could you say something about your involvement?

JMG: First of all, a very brief background about what the livery companies are: they started out in the twelfth and thirteenth century as trade guilds and they were meant to be providing training, maintaining standards and providing support for members of the guild who had fallen on hard times, and orphans and widows and so on and so on. It was of course also protectionism, let's be honest about it. And they covered most of the trades that we were familiar with; fishmongers and ironmongers and grocers and everything else, and lots of trades that we would not now be familiar with like cordwainers. They existed in every city in Europe, but now London is the place where there's still most of them, and that's in part because of the strength of the City of London. And there are new livery companies still being formed like international traders and world bankers. The Apothecaries grew out of the pepperers and spicers, first mentioned in the twelfth century, who then began to deal *en grosse* as wholesalers, hence grocers. Then grocer-apothecaries emerged and the goods they were dealing with, were using, they were compounded by the apothecaries to make medicines. Originally apothecaries were only allowed to compound and dispense the medicine upon the order of a physician, but when the physicians all fled London in the Great Plague, the only people left behind were the apothecaries.

So what actually happened was the Apothecaries became the doctor for the poorer person, but the College of Physicians took out a series of legal cases until 1703/4 when the Rose case reached the House of Lords. We then had Apothecaries accepted as being doctors, allowed to make diagnoses and to prescribe as well as to dispense. And then with the Apothecaries Act of 1815 they got the regulation of the entire medical profession. I got involved in the Apothecaries in 1983 via an old friend at St Thomas', and her father had been Master of the Apothecaries and she said, 'This is good fun. You pay a big whack of money, but once you've paid it all off you get a free dinner every year for the rest of your life,' as you did in those days. I mean a crowd of us joined when we were, you know, in our 20s, early 30s, and I went to a few dinners, but then I didn't really become very involved; I was very busy professionally. Then shortly after I became a Consultant at St Thomas' that William Shand, a surgeon there, who was senior in the Apothecaries, asked me if I would read a lesson at the carol service. Five lessons and carols, rather than the nine, and you start

off with the youngest person, the most junior person, a Yeoman, reading a lesson finishing up with the Master reading a lesson. So I went and read a lesson as a Yeoman.

Then I went to a couple more things and I was asked whether I'd like my name to go forward to join the Court, which is the governing body, subject to election. I don't think I was elected the first time, and maybe not the second time, eventually I got onto the Court in about 1999. At the Apothecaries, if you're on the Court then, provided you contribute and really get involved, the expectation is you'll become Master in due course, and in fact the oath that you swear, on joining the Court, says, you know, 'I will, if elected, proceed to the private court and become Master.' I stepped back a few years, because professionally I wasn't able to take on the commitment; it's a big commitment. Eventually, my turn had come around three times, but fortunately there were people senior to me, junior to me on the Court, but senior to me in terms of years, who'd leapfrogged over me. So I took a deep breath and was elected Master. I put myself forward for election and was Master from 2014-2015, August '14 to August '15.

It was very hard work but terrific. It's hard work. I mean there's lots of eating and drinking to be done, but there's lots of committee work, and the Apothecaries, I think, are important because they still do have a professional role. We are still involved in training and educating and particularly examining. We have seven postgraduate diplomas, but we no longer award our registrable qualification which enabled you to register with the GMC [General Medical Council] as a doctor. When I qualified lots of people taking their finals would take the Apothecaries exam as well, because if they failed one or other of them, you still had a registrable qualification. If you passed one of them, say you failed your University of London finals but you passed the Apothecaries, you could wave your Apothecaries certificate at the GMC and start on your house jobs. But that changed.

But we have postgraduate exams, some of which are purely for people medically-qualified and some of which from people who don't necessarily have a medical qualification. And we are flourishing academically. So that's very busy as well, keeping an eye on all of that, and all of the responsibilities which now go with it; corporate governance, financial probity and everything else.

TT: I think we should stop there. This has been a fascinating interview - thank you so much John.

[END OF TRANSCRIPT]

Further related resources:

1. Christie D A, Tansey E M (eds) (2005) *Short-Course Chemotherapy for Tuberculosis*. Wellcome Witnesses to Twentieth Century Medicine, vol. 24. London: Wellcome Trust Centre for the History of Medicine at UCL.
2. Jones E M, Overy C, Tansey E M (eds) (2016) *Air Pollution Research in Britain c.1955-c.2000*. Wellcome Witnesses to Contemporary Medicine, vol. 58. London: Queen Mary University of London.
3. Reynolds L A, Tansey E M (eds) (2008) *Superbugs and Superdrugs: A history of MRSA*. Wellcome Witnesses to Twentieth Century Medicine, vol. 32. London: Wellcome Trust Centre for the History of Medicine at UCL.
4. Reynolds L A, Tansey E M (eds) (2011) *History of British intensive care, c.1950-c.2000*. Wellcome Witnesses to Twentieth Century Medicine, vol. 42. London: Queen Mary, University of London.
5. Tansey E M (intvr); Tansey E M, Beanland S (eds) (2016) *Moore-Gillon, John: transcript of a video interview (29-Apr-2016)*. History of Modern Biomedicine Interviews (Digital Collection), item e2016127. London: Queen Mary University of London.