VIDEO INTERVIEW TRANSCRIPT

Dubowitz, Victor: transcript of a video interview (27-Sep-2016)

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Dubowitz, Victor: transcript of a video interview (27-Sep-2016)*

**Biography:** Professor Victor Dubowitz BSc MB ChB MD PhD FRCP FRCPCH (b. 1931) graduated in medicine in Cape Town (1954), followed by residencies in medicine and surgery at Groote Schuur Hospital. He came to the UK in 1956 for 18 months to get broad clinical experience, exposure to culture, and planned to return to general practice in South Africa. A three-week locum at Queen Mary’s Hospital for Children (Carshalton, Surrey) exposed him to two wards with muscular dystrophy patients. Having come for three weeks he stayed for three years, initially as a Senior House Officer for a year, which he combined with doing muscle biopsies and then got interested in doing research and contacted Professor Everson (Tony) Pearse at Hammersmith Hospital, a pathologist with a special interest in enzyme histochemistry. He embarked on a study of enzyme histochemistry of normal and dystrophic muscle, completing an MD Thesis in 1960. He realized his heart was really in clinical medicine and paediatrics and successfully applied for a paediatric lectureship in Sheffield where he spent the next 13 years, becoming Reader in Child Health and Developmental Neurology, setting up a muscle unit and a basic research group and completing a PhD on the histochemistry of developing and diseased muscle. In 1973 he applied for the newly established Chair of Paediatrics and Neonatal Medicine at Hammersmith, and moved a large research group with him, ultimately creating the Jerry Lewis Muscle Research Labs, funded by the American MDA, on a hospital roof. He rapidly established an internationally recognized paediatric centre for Muscle Disease of clinicians and basic scientists, with a primary emphasis on the clinical management of patients and their long-term follow-up. In 1990 he established the multidisciplinary journal *Neuromuscular Disorders* of which he remains Editor-in-Chief. In 1995 he founded the World Muscle Society, which aimed primarily at providing a forum for young researchers to present their work. Elected foundation President, he was re-elected every three years until the present (2017). Professor Dubowitz published his autobiography (*Ramblings of a Peripatetic Paediatrician*) in 2005.

[1] **DECIDING ON A MEDICAL CAREER**

Well, it’s I think purely by chance in a sense, there was no preconceived sort of thought. I did not have any family background of medicine - in fact very little family background of anything academic - but I was conscientious at school, and I was always interested in science, so I knew I was veering somewhere in that direction. When it came to doing school-leaving senior certificate exams, I was toying with the idea of doing something related to chemistry, such as industrial chemistry. And then also the alternative of perhaps something medical. And, eventually, I got accepted for both at Cape Town University and had to sort of almost spin a coin. I was also fortunate in getting a scholarship to go to university, which in those days was a quite substantial amount of £50, but it at least helped with some of the expenses incurred. And also, two of us at our school - it was a small country school - got into the Top 10 of the whole Cape Province in South Africa, several thousand students. And this gave one a sort of lift up, so I was accepted for both medicine and chemical engineering, and then decided I would go for medicine. And from then on it just kept going basically, and I was always really interested in what I was doing, and really interested in the whole programme and so forth.

* Interview conducted by Professor Tilli Tansey, for the History of Modern Biomedicine Research Group, 27 September 2016, in the School of History, Queen Mary University of London. Transcribed by Mrs Debra Gee, and edited by Professor Tilli Tansey and Mr Alan Yabsley.
[2]. DEVELOPING A CAREER IN PAEDIATRICS

I think that in a sense it was a groping around in various aspects of medical science and medical work and always doing things that I was particularly interested in doing at the time, but eventually channelling back into paediatrics and in the essence getting a lift-up from what was the Senior House Officer post in paediatrics at Queen Mary Hospital for Children to a lectureship in Sheffield with total responsibility for running a ward, and setting up my own sort of clinics and research interests in 1960. And then, of course, I gradually concentrated on a career in paediatrics, but also specifically in relation to neurology and in particular in relation to muscle disease. And, I think, the sort of combined experience of working in a lab and doing basic research in human and animal muscle, and then working in a clinic and having direct contact with the patients, which I always enjoyed, really gave me a very much broader perspective, in a sense, of the disease from both research and clinical points of view. And in fact it was my policy for many years, particularly over the period at the Hammersmith where we also had a very active research team, to tell the people from the lab that they were always welcome to come to the clinic, come and sit in with us and see the patients. And when they thought it was perhaps embarrassing for the patients, I told them not to worry, I would always introduce them and I would always ask the parent’s permission if it was okay for our research team to also come and join us. There was never an occasion that the parents didn’t welcome them in, in a sense. So this integration, I think, of the basic laboratory with the clinical and also the integration of the clinical with caring for the family, because this was a paediatric approach, the neurologists were saying in those days that there’s nothing much one can do, make the child comfortable and then they discharge them from any follow up care. Whereas my approach was the opposite: there’s always something you could do to help a family. However serious or however severe a problem is, and it’s more important to maintain contact and see the children on a regular basis than to just dismiss them. And, of course, that’s the way I was taught actually from the patients about the diseases, so it was also an educational process for me.

[3]. MUSCLE HISTOCHEMISTRY AT THE HAMMERSMITH

I think the other thing that really gave me a tremendous amount of pleasure and satisfaction was venturing into basic science, getting involved in histochemistry of muscle, meeting up with Toby Pearse who was the father of histochemistry, a pathologist at the Hammersmith. And him then taking me on board with no previous background or particular expertise in relation to histochemistry or pathology, and setting me off on what was essentially a research career. And it led to the discovery and definition of fibre types in human muscles comparable to what the physiologists and anatomists had already been discovering in animal muscle, but also enabled me to give some perspective in relation to disease, and to show, eventually, that these fibre types were in fact of significance and were selectively involved in certain diseases. Also the enzymology that one could show histologically in a sense, had relevance to some of the particular deficiency diseases and even the muscular dystrophies. So this was always exciting, having one foot in the lab and one foot in the clinic and doing things that had some relevance and some interesting fact, eventually, for the patients as well.

[4]. LILLY DUBOWITZ; NEWBORN BABIES; AND ‘HAS THE BABY BEEN DUBOWITZED?’

The other achievement, in a sense, was mainly that of my wife, Lilly. She was originally sent out to England from the Department of Obstetrics in Melbourne, where she graduated and did some residency jobs, to train in endocrinology and come back to Australia to open a new Unit of Obstetric Endocrinology. And when I first met her she was doing some basic research at the Hammersmith in relation to this and cannulating bile ducts in rats and various other basic animal work. And then after we got married I got offered a lectureship post in Sheffield, and she was waiting to transfer her MRC grant to the Endocrine Department, where she was accepted in Sheffield, and also her animal licence from the Home Office. Unfortunately we ended up in a sort of political cul-de-sac because the MRC said they couldn’t transfer the grant until she had an agreement on her animal licence, and the Home Office said they couldn’t give her the animal licence until the MRC had approved the transfer of her grant. And so while she was waiting in this no man’s land, one of the Senior Residents in paediatrics got a Consultant post, and she was asked if she
could just help out with a locum for a while until they appointed a new Senior Registrar. And in fact she was very happy to do this, as she'd done a small amount of paediatric residencies, and as she subsequently said, she was always an accidental paediatrician, because that in fact rapidly focused her whole new career.

And so she was doing part-time work with clinics, welfare clinics, and some part-time research on the Department, and then we subsequently had four children in the course of a few years in the 1960s, and then she wanted to do further research, but found the only time that would fit in with feeding the kids and taking them to school and collecting them and so on, would be something at night. And the only patients that she said didn't object to her coming at night were newborn babies. So she then started going regularly at night to assess newborn babies. Subsequently she developed a system to assess their maturity and then compared it very meticulously with a whole series of babies with the dates as per the mother, and found that a combination of these superficial signs and neurological signs gave a very close correlation. Subsequently adding the two together gave an almost perfect fit with gestation and this was published in the *Journal of Paediatrics* in the States and instantly got a lot of attention, and in no time was called the “Dubowitz Score”. And, typical Americans, they also converted the name into a verb, and we were visiting in fact at one time in Portland, Oregon, and the Professor there said he just had an experience that morning, he was going around the Newborn Unit and one of the Residents said, ‘Have you Dubowitzed the baby?’ So they’d actually converted our name into a verb, which I suppose could only happen in America. But that, I think, was an achievement mainly for my wife, but certainly I gave a little input from the side-lines as well.

[5]. **DIRECTOR OF CLINICAL SERVICES AND ADMINISTRATORS**

Well, now, there’s one other aspect, I think, to anyone’s job as a Director of Clinical Services, or Director of a Department, and that is you’ve got to cope with the administration. And, of course, that’s snowballed in recent year and mushroomed beyond recognition. In the early days at Queen Mary’s Carshalton there was one senior physician, who was actually my boss there, the paediatrician; there was one senior nurse, who was the matron in charge; and there was one hospital secretary who did all the rest of the work. And that’s it, and the hospital ran very efficiently. And then they had a Board of Governors who were mainly retired Generals and so on from the War, knew how to discipline things, and it seemed to work very well. Now, of course, you have a whole hierarchy of different levels, and one of the joys of being Head of a Department in a hospital is that you meet up with your administrative chief every week and we go through all the things that need doing, and he makes some very nice notes in his leather-bound book that he had before the days of computers and iPhones and things, and then you’d get together the following week and you’d go through exactly the same, and nothing had been done. And it was quite an interesting sort of experience. And then it just comes back to mind, every year at Christmas, the administrators used to lay on a sort of luncheon get-together in the nurses home area, and you then met all the administrative staff, and so I always used to make sure that I put it in my diary and popped in.

And I met this particular administrator over lunch and before long he was complaining to me that the doctors weren’t pulling their weight and he was getting very disappointed with the doctors. And so I said, ‘Well, tell me, what’s the hang up?’ He said, ‘Well, the problem is they’re working too hard. We’ve tried to save money, we’ve closed theatres, we’ve closed wards, and so on and we’re still not reducing the number of patients. We’ve got to make some savings and the doctors are not playing ball.’ I said, ‘Well, you’ve got it absolutely wrong.’ I won’t mention his name ‘I mean, the way to get around this is quite simple, you’ve tackled it from the wrong end. I mean what you’ve got to do actually is to get rid of all the doctors, then you get rid of all the nurses, then you’ll save a tremendous amount of money and you won’t have any patients and you’ll save even more money and then you’ll achieve your aims.’ And he looked at me and he said, ‘Goodness, yes, that’s a good idea! So is there any service we don’t need?’ So I said, ‘Yes, of course. I’m sure there are many services you don’t need.’ He said, ‘For instance, do we need orthopaedics? I mean that’s not an academic subject here in a Postgraduate School.’ I said, ‘No, you don’t need orthopaedics. But do you think I should continue with my muscle clinic?’ He said, ‘Oh yes, that’s alright.’ And I said, ‘What if these children need rehabilitating with callipers to get them walking and we need the orthopaedic people just to do a tenotomy of the ankle, which they now routinely do for us?’ He said, ‘Oh, that is a problem.’ ‘Yes,
okay.’ Anyway, but it gave me some idea of the sort of mindset of administrators, and I don’t think things have changed really very much over the years, perhaps just a little more of it.

[6]. MY GREATEST ACHIEVEMENT: MARRYING MY WIFE

Trying to look back and see what one considers one’s greatest achievement, I suppose I would have to put first the essential capture of my wife, if one looks at it that way, because it was a rather unexpected and unusual situation. A very close friend of mine from Medical School days, who was also in London at the time, phoned me one weekend and said, ‘I’ve got an emergency problem, can you help? I’ve asked a very interesting young, Australian girl that I’ve just met to come for a picnic on Sunday, but my vintage Riley car has sprung a leak in the radiator. Would you be prepared to chauffeur us?’ So being a Good Samaritan, I said, ‘Fine, absolutely.’ And so we went out for a very nice picnic and one of the most striking things, apart from the vivacity of this young, ex-Hungarian, Australian lady, was the most incredible salami sandwiches that she gave us, Hungarian salami. And it seemed to have gone straight from my stomach right through to my heart, because 10 days later we actually announced our engagement and then we got married about two months after that, and we had a subsequent 55 years together. So, I think, that would certainly be an achievement, and also, of course, it steered me in many ways directly into my career.

[7]. RELAXATION: SCULPTURE AND ART

You were asking me about some of my diversions or what I call “diversionary therapy”. In fact, I always had some sort of side interest in art, and when I was a medical student in my third and fourth year, I painted a number of water colours of the Cape peninsula, which I liked, and also in my home town of Beaufort West, the Karoo scenes, and so forth. And then things were pretty dormant until Sheffield days, and when we had three sons already in the late 1960s, I got interested in trying to do some sculptures of them, and in fact the first and the third one were very good sitters, and we were playing with games in the garage and so on - I was able to get them to stay quiet. I went to these evening classes and learnt about clay modelling and head modelling, and in fact did sculptures of both of them, which I then cast in plaster, and I’ve still got them to this day. And one amazing thing is that there’s a very striking resemblance, particularly with my oldest son and his son, of the appearance of their heads and faces and structure. You can see the relationship very closely. And similarly with the number three son and his son, where they’ve got a similar shape of head and appearance.

And while on the subject of art actually, I had a very unexpected experience in 2002. We had a meeting in Rotterdam and there was a guy who kept coming and sitting in on our meetings and I was told by the local organisers that he was just sort of taking minutes of something or other. And then when we usually had an evening of some special entertainment and they took us around to the local museum/art gallery, which had a lot of old masters and various things. And then this chap appeared as well with a painting, nicely boxed up, and opened it or handed it over to me, and in fact he’d done a portrait of me from his various observations and got quite a good likeness actually, together with my usual posture of sitting with my hands crossed over, and it captured the spirit - I think - in a good way.

[8]. DYSLEXIA IN THE FAMILY

I had a sudden divergent thought, which happens to me from time to time, and that is that my wife Lilly, who was originally Hungarian and from a Viennese mother and eventually went to Australia, and she had to learn English almost from scratch, and she had a good command of the language, but she had various particular idiosyncrasies in a way, and she had a particular ability to mix idioms or mix metaphors and mix things. She went to one of these school evenings where we met the teachers and our third son, Gerald, was not really performing, and she was getting a bit worried about him. And it turned out that he was probably just a bit bored with the teaching and had turned off. But, anyway, she came to this parents meeting, Gerald was sitting there, and she said to the teachers, ‘I’m very worried about Gerald. He’s not really progressing very well and I want you to tell me everything about it, and I don’t want you to go mincing about the bush.’ And so Gerald not only was he told about this, but at assembly the following day apparently this
Headteacher or somebody said, ‘You know there are some of the parents really destroying our English language,’ and she was actually also dyslexic and they always said, ‘It’s because you’re Hungarian and you’re English, and of course you’re German speaking.’ And she said, ‘No, no, I’m dyslexic in three languages.’

And it turned out she had a famous uncle, who was an architect, working with Gropius. She one day had some difficulty with his designs, understanding the German annotations, and she went to the archivist at the Bauhaus, which we were visiting regularly at the time. So, basically, we were at the Bauhaus on one occasion and there was a particular drawing that her uncle had done of the Total Theatre, which he did most of the design and the drawings for, which is one of the iconic structures of Gropius, and she asked the archivist whether she could try and decipher what the German detail was in the relation of this drawing. And so the archivist took this with her and sort of had a deep look at it and then came back and said, ‘Well, I can’t quite make it out. You know he may have been in Germany for quite a time, but he used a very funny, strange German.’ She said, ‘Oh, that’s my uncle. He’s obviously dyslexic as well, just like me.’ And this turned out to be the case actually, and so she picked up a lot of these sort of idiosyncrasies of grammar.

[9]. LOSING FROZEN MUSCULAR DYSTROPHY SAMPLES

As regards the question of what went wrong at any time, there are two particular things that I can recollect, the one being in relation to my research. I was at Queen Mary’s Hospital for Children doing a paediatric job there, and I was also taking biopsies from the muscular dystrophy children, there were two wardfuls of them. And then I would take the specimens to the Hammersmith Hospital. I would freeze them and then cut them in a cryostat and then do various histochemical studies on then. And I also stored all my specimens in the cryostat, which was a constant refrigerating system. And one day when I came in I found that my specimens had thawed out and I had to refreeze them, which caused a lot of artefact and really made things very difficult. And I then had a confession from a very close colleague, Niwelinski from Poland, who was actually a zoologist working with newts, but he told me that he’d been working at night in the lab, that he had a phone call from abroad. He’d been chatting away on the phone and as the machine, which we called ‘Wheezy’, made quite a lot of noise he had to switch it off in order to speak on the phone, and of course he forgot to switch it on again. And so he kept on apologising for destroying what he called my “meats”, and that he was very sorry about it. Whenever I used to meet him subsequently he used to still have nightmares about the “meats” that he disabled. Anyway, we remained very good friends in subsequent years.

[10]. DIAGNOSING: MISSING THE OBVIOUS AND NOTICING THE UNUSUAL

At a clinical level one experience that stood out from my houseman days, we admitted patients usually overnight and in the morning had a ward round with the Consultant. And I was talking about this young African boy, he was about in his teens, and he’d come in and I said he was extremely uncooperative, he wouldn’t open his mouth, I couldn’t see what his throat looked like, and I couldn’t examine his abdomen because he was very uncooperative, and wouldn’t relax and so on. And then the Consultant looked at me and said, ‘I think you’d better put him in the side ward; he’s got tetanus.’ And I completely missed a classical case of tetanus with rigid mouth and unable to open his jaw, rigid abdomen. But it adds to one’s life experience. The other case that’s just come back to mind actually, when we admitted patients overnight, we usually had five or six new admissions and we’d sort of clock them up and so on. And the following day, actually I was going to be away because of my sister getting married or some such important family affair, so I finished all these cases, and the last one I had had come in for a gastrectomy. In those days they were removing the whole stomach to treat peptic ulcers, and our Professor of Surgery was actually a very great enthusiast of these removals and operations. And so I took a history from this patient, examined him very carefully, and then it must have been about four in the morning, I was just about finishing off and then I felt what I thought was a lump in the abdomen and I very carefully palpated it and then I wrote in big letters at the bottom, ‘QUERY CANCER OF THE PANCREAS’ and left it at that. And then, when I came back after the weekend, the Registrar told me how pleased they were that I had noted that, because, in fact, the patient was found to have a cancer of the pancreas and he still had his stomach intact, which he would have lost otherwise, if they just went ahead with the operation. So it’s always important to do a full clinical
examined under all circumstances. The other dictum is if you don’t notice things when they don’t matter, you won’t notice them when they do matter. So it’s important to be a little bit sort of perfectionist.

[11]. MUSCULAR DYSTROPHY: PREVENTING DEFORMITIES 60 YEARS AGO

Changes over my career, well of course it now spans 60 years almost, that will be next year, since I first came into contact with muscular dystrophy of course, which changed my career, changed my whole direction, changed practically everything. And I think the main change, just looking overall, when I came into the area, I knew nothing about the disease, I’d never seen it before, and that stimulated me to go and look around the wards the following day at Queen Mary’s Hospital for Children, where there were two wards with these boys with muscular dystrophy on long stay, because they had their schooling there as well. So I was absolutely fascinated and then I also noted that they had the most tremendous deformities; many of them had a sort of S-shaped scoliosis of the spine, and it soon transpired that they’d only seen the doctor at one clinic, usually a neurologist who’d tell the parents, ‘I’m sorry, he’s got muscular dystrophy, there’s nothing we can do. Just make him comfortable.’ So these children were just left sitting in the corner and they got total twisting of their feet and ankles that they couldn’t even get into shoes. They had muffins to put over in the winter to prevent the cold sores and then they got the most terrible curvature of the spine. And so I felt sure there was something one could do, and it was fortunate at Queen Mary’s actually that there had been an epidemic of polio in 1956 - fortunate not for the patients, but fortunate for supportive treatment because they had a number of children on ventilators, and they also had a very active Rehabilitation Department, and they also had a very active programme of preventing deformities.

One of the nursing staff actually was in charge of running a Unit for making jackets for these children to prevent curvature of the spine, and she had a brilliant idea of getting celluloid from a factory nearby Queen Mary’s that had a lot of off-cuts of celluloid they were using for other purposes, and this was then dissolved in acetone, painted onto muslin bandages which were wrapped about the child’s chest, for example, and then it dried very hard and formed a nice lightweight jacket with very little cost. And in fact it proved very effective when these children stopped walking the back was still straight, you could put them into this and prevent it. And so the prevention of deformities was, I think, something very therapeutic for the children and although it might have not been curative in a sense of the disease, it made a big difference to their wellbeing. And, I think, the sort of attitude that there’s no disease that’s so bad you can’t do something for the child or for the family, is a very important paediatric principle, which I think the neurologists after about 50 years are gradually starting to accept as well. And it’s a big contrast now how much more positive people are, and particularly now that we are on the cusp possibly of therapeutic breakthrough in the muscle field.

[12]. MUSCULAR DYSTROPHY: TOWARDS A CURE

Looking to the future, actually I think sometimes to get perspective on the future one also has to look back into the past and one of the most vivid memories that I still have to this day is that when I was a medical student, there was a 16-year-old girl who came to the clinic and her only problem was some menorrhagia - some increased bleeding with her periods - and she was admitted for investigation, and was found to have acute lymphoblastic leukaemia for which there was no treatment in those days apart from blood transfusion. And six weeks later she passed away and that made a tremendous impact on me and I was very pleased, in a sense, that I saw the dawn of treatment of leukaemia, and when I was at Queen Mary’s Carshalton I saw a boy in fact with acute leukaemia, we gave him steroids and then we gave him some methotrexate and some other drugs, and he actually survived at least three or four years. So that was a really big change. Now, of course, we talk about 100% almost of cure in leukaemia.

Well, my biggest wish now for the future would be to see something similar in muscular dystrophy, and it’s already a great satisfaction to me after just on 60 years in the field, since my first exposure at Queen Mary’s Carshalton in 1957, that we now seem to be on the cusp of potential treatment of muscle diseases with genetic manipulation and various efforts at gene therapy, and we’re just starting to get reports on early success in relation to spinal muscular atrophy, which is a very severe neonatal form of disease, and hopefully also some advances in the muscular dystrophy field. And I would certainly hope that one or other of my
successors in the next 10 years is going to be able to say it’s wonderful seeing the complete cure for these very disabling, very traumatic diseases, not only affecting the child, but of course affecting their whole family.

[END OF TRANSCRIPT]

Further related resources: