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**Sir Gordon Wolstenholme in interview with Max Blythe  
Oxford, 26 November 1985**

MB Sir Gordon, you've spent a career in medicine, with all kinds of offshoots and side branches, but was it always going to be medicine?

GW No, not at all. I, originally, that is to say, at school, was doing modern languages after the usual School Certificate of those days, and then was going up to Cambridge to do modern languages, with a view to entering the Diplomatic Service. And it was quite a sudden thing. It was the result, really, of a football injury, in which I had both eyes closed, not seriously, but, I mean, just a cut across my forehead, which gave me time to think. And I suddenly thought, "I don't want to go through this enormously long preparation for the Diplomatic Service, and perhaps it isn't what I want to do". So I changed to medicine, which was not very acceptable to my College, and which meant, when I got to Cambridge, that I had to do First MB, Second MB, and Tripos, all simultaneously, and everything was ... all my eggs were in the basket in the last fortnight at Cambridge, after three years. And the slightly amusing angle on that was that when I went up to Middlesex Hospital, to see if they would have me, Harold Boldero who interviewed me, as Dean, to my great surprise, not only accepted me immediately, but then made me write in the book, a beautiful big leather tome, not only my name and so on, but that I had passed these exams, when I hadn't even taken them! And I had nightmares during the exams, that this page would have to be expunged, or the ... or the ink covered over! But mercifully, of course, I did just make it! But the odd thing is that, having given up the idea of the Diplomatic Service, an enormous amount of my medical career took me, really, into a kind of Diplomatic Service – international work – and in a way, that's more exciting than if I'd ever been in the Diplomatic Service. And very successful in it. I think I wouldn't have done as much ...

MB No, because by the time you qualified, war clouds were right there above you. Things were going to change.

GW It was imminent. We were told that, six months after qualifying, we'd have to go into one of the services, and in my case, for domestic reasons and others, I really only did locums in that period, and then was called up into the RAMC, where I, of course, thought I was going in for a few months or a year. At that time, one really thought that this was going to be total war, and it was going to be the end of everything, and it would be extraordinary if one survived.

MB Everything was in the melting pot at that stage. I mean, you were just beginning to be a doctor, and soldier. When did it start to have some fabric? When did you know the direction? Because, surely, it came to have quite a substantial direction in it.

GW Well, again, it was ... it was pure chance. I never, I lost my battalion to which I was a Regimental Medical Officer, during the chaos of the breakdown of France.

Never found them again until after they got back. And found myself in the Cherbourg Peninsula, with large numbers of troops on my hands, all without any ammunition or arms and so on, but about 6,000, and we were taken down to Brittany, and I was suddenly totally alone, with the war miles away, on my birthday, walking along the sands ...

MB Can we have a birth date, please?

GW That was May 28<sup>th</sup>, 1940, I found me, with my shoes and socks off, paddling along that glorious beach at La Baule, and ... with no temptation to go anywhere near the War! But I saw, in the end, a Red Cross in the distance, and my conscience eventually won, and I went in and asked if I could be of any help. I was recognised as coming from the Middlesex, Middlesex Hospital, where we had ... “we”, not me personally, but Marriot and Keckwick had developed the drip blood transfusion, and where we, as students even, and housemen, were very familiar with setting up blood transfusions. And so I was immediately asked if I would do that work, at that hospital, and started immediately. The wounded were pouring in there, many of them burns, young pilots and people who were tragically destroyed. But at least I was doing something for them, and perhaps it helped a few of them. But the officer commanding the Surgical Division, whose name I, perhaps fortunately, have forgotten, he came along and told me that I was not to do any of this, this was ... that blood transfusion was useless, and that he needed his forms filling in, and that I should be doing that. Well, of course, I ... I said “Yes”, but then went on doing what I was doing! And eventually, was given another “top secret” mission, which turned out, as they thought ... everybody thought was going to be very dangerous, but really was only to find British wounded scattered around other parts of France, and I found about 14 or 16, and brought them back to ..... (INAUDIBLE – 051), and we came out. And we were lucky to come out, of course, then, successfully. And back in England, Sir Lionel Whitby, who was in charge of the Army Blood Transfusion Services, asked me, would I join him on ... but said, “Laddie, you know, it’s your choice”. I won’t go into the whole story, but I thought my duty was to go back to my regiment, who were in Scotland, which I did.

MB That Regiment was?

GW Well, this was a Cheshire Battalion, a machine gun battalion, and they’d come out through Dunkerque, and lost all their kit, and all their ammunition and all their weapons, but nevertheless, it was supposed to be a key part of the defence of the beaches of Perthshire against invasion by the Germans. And perhaps I might just mention that, one evening, when we were all rather the worse for drink, the code word came, “Cromwell”, and we all climbed on to our vehicles and made for the beach. We didn’t have one round of ammunition amongst us, but we confidently set off to repel the Germans, and, mercifully, it proved, half way, to be a false alarm, and we all came back again! (LAUGHS) And, meanwhile, Scottish Command had been told that I was overdue in Bristol, to rejoin Sir Lionel, and I told the Scottish Command that I didn’t like this, because I’d been given the free choice, and now I was being overruled, and the General at Scottish Command, I think he was a General, said, “Well, if you don’t want to do it, don’t do it. Just refuse”. And he had a form made in sextuplicate, he countersigned my refusal, and a few days later came a message that if I were not in Bristol within 48 hours, I would be court-martialled, and off I went!

MB A pretty powerful take-over!

GW And when I got down there, Whitby apologised and said that he had decided that I would be more use with him, and that he had a job for me, and so on. Well, just short-circuiting a little, I should say that the General who was in charge of all Pathology Services for the RAMC, came up about a year later, up into Lancashire, where I was living in an Army Hospital, and when he heard who I was, dragged me out on to the grass and said, “Are you happy?” And I said, “Happy?” He says, “I mean, in your work”. And he said, “Well ...” I said, “I think I’ve got, far and away, the best job of any kind in any Service in the world”. And he said, “You mean it?” And I said, “Yes”. He said, “Oh, thank God!” he said, “Because I was the man who had to overrule your refusal”, which is really rather an insight into the sensitivity, if you like, of a very senior military man. However, going back, Whitby certainly had a job for me. He made me Army Transfusion Officer for the whole of North-West England. This was ... I was stationed at Ormskirk, in Lancashire. We had a Parish which extended to Carlisle, and went right down to ... well, certainly to Birmingham, and parts of ... of nearly all of Wales. And I soon discovered, in touring around this huge area, that the Navy and the Air Force were very inadequately provided for, if at all, in regard to resuscitation, blood and plasma and so on, and the ability to ... to administer, or to collect blood. And also, I was struck by the fact that, in these small hospitals, which were, perhaps, 20-bedded, or something of that order, scattered around the whole area, that frequently there would be a surgeon without an anaesthetist, or an anaesthetist without a surgeon, depending on the Service. And there was no co-operation between them. So I made it my job, as far as I could, not only with the Services, but with the civilians as well, in Carlisle, Manchester, Birmingham and so on, to try to be a sort of cross-fertilising bee, and not stand on ceremony, and, in fact, provide plasma to most of these places. This brought me into marvellous contact with people like John Wilkinson, the haematologist at Manchester, with Halls, the pathologist in Carlisle, with S.C. Dyke, a most remarkable man at Wolverhampton, who all flattered me by treating me as a colleague, and really spoiling me, beyond words, in admitting me, if you like, to much higher ranks of medicine than I had any right to be.

MB May I just come in at that point, Gordon? Was this the first of your cross-fertilisation career, which was to become expanded in later years? Was this the first example, or had it happened at Cambridge, or at the Middlesex?

GW At the Middlesex, I ... I did force myself to ... to do something which went very much against the grain, but I was extremely shy, and ... and really paralytic about speaking in public, even to ... even to a sort of Squash Club Committee or something of that kind, and so I volunteered to be the Business Secretary of the so-called “Smoker”, the Annual Concert for raising money for the Cancer Wing. And by chance, because a particular top variety star was in hospital at the time of the first one, and was regretting it, and wishing to give his services in a second, I actually ran two in one year ... having my own private office with two other fellows looking after other aspects of it. But I was the General Business Secretary, and this gave me precocious entry, if you like, into hospital politics, in that one of the big consultants would come in and say, “By the way, I will take my private box as usual, but please make sure that X, this year, doesn’t get into it as well”. And then X would come along and say, “I’ll take my usual seats in Sir Somebody’s box”, and I was the man in between who had, somehow, to

find the solution to these awkward questions. So, in a sense, I began ... a little bit out of the run of the ordinary medical experience in a hospital. And it was then, because of doing that work that I was made an Honorary Life Governor, but it didn't really mean anything! I'm not sure it ...

MB It was important?

GW Well, it was nice, because while I was still a student, to get one bit of paper from the hospital.

MB And so this talent goes on, and is now in the North of England.

GW Well, then in ... this had odd ... repercussions, because on one occasion, I arrived ... I just toured around all the time, with my driver, and we arrived, one day, at an RAF Station, where, clearly, some big commotion was on hand, and it turned out that a Hudson had gone up about 500 feet, and then crashed. And they'd managed to drag, out of the burning wreckage, quite a number of people, and they were now doing what they could for them. Well, I had visited this station some ... probably weeks or months beforehand, and finding they had no plasma, I had left about two dozen bottles of wet plasma with them, and the appropriate sets for administering it and so on. And eventually, when the top man came into the mess, to greet me and apologise for being tied up, they were all exhausted, and he said, "I've got something to show you. Come to my office". And we went, and there was a cable from the Air Ministry, forbidding Wolstenholme, ever again, to enter an Air Ministry Hospital, because I was Army and they were Air Force. And he said, "I'm going to have the best afternoon of my life, concocting the reply, in view of the fact that the only thing we could do for these chaps this morning was, in fact, to use the plasma that you had, mercifully, left before". So, of course, I left a lot more! And we heard nothing more about that! But that was typical of the time, that there was this awful departmentalisation ... mentally as well as by convention. I mean, people didn't want to have this ... these contacts. And that struck me, then, as a bad thing, and I did my utmost to overcome it. This went on for two years, and then Whitby told me that he wished to have me promoted. I'd been a Captain through most of that time. I was to get a Majority, and to take a small base Transfusion Unit out to Py..... (INAUDIBLE – 141) in Persia. And, in due course, we set sail from the Clyde. We had an eleven and a half week journey to Bombay, and, of course, I thought I was going on up to the Persian Gulf, but there was a message in Bombay saying that I was, instead, to take my Unit and go to Cairo. I was pretty upset about this, because, apart from anything else, I was to be ... I was to inaugurate the whole service in Persia, and, of course, I knew already, that Buttle was running a superb service in Cairo. I hadn't realised, until I got there, just how really superb it was, but I knew he was doing a great job. And it looked as if I was, somehow, to come in under him, sort of thing, and I wouldn't be having the opportunity that I expected. Well, I was quite wrong. As soon as we got a little bit of acclimatisation in Egypt, it turned out that, of course, by this time the final sort of drive of the Germans right across was happening, and they were getting towards Tunisia, and it was thought that the distance between Cairo and the front was enormously too long, and it was necessary to have a base transfusion unit in Tripoli, and still be supplied with some basic stores from Cairo, but not on a daily basis, whereas on a daily basis, the Tripoli unit would do it. I went up by hospital ship, with my unit, and when we got to Tripoli, the war really had, essentially, come to an end in the whole of North Africa.

And it then became clear that we were immediately to prepare for landings in Sicily, Italy and beyond. It was, it was a remarkable thing really. I had this opportunity in Cairo, just a few weeks, to come to ... well, to love Buttle, but to admire him and gain from him, something which changed my whole life. Old Buttle, I don't suppose you ever met him, but he had a great underslung jaw, a voice which we all adored to imitate, and ... and he was absolutely unique. And really, I've said elsewhere that Buttle simply didn't know the meaning of the word "No". If anybody asked for help, however outrageous, however outside his walk of life and so on, he wouldn't dream of not doing it. I mean, he would find a way somehow.

MB So he was one of the great influences on your life's work?

GW Yes, because it really ... it taught me, in Cairo, that when people sent a message wanting ... we'll say two boxes of blood and five boxes of plasma, and some whisky, and some ... medicament of some special kind for somebody, or ... I don't know, writing paper or pens, or anything that could be useful to somebody up at the sharp end, Buttle never slightly got uppish about this. I mean, his whole effort was to ... how to pack it, and the best way to get it forward and make sure it reached the man that wanted it, and so on. He collected everything that ever came in sight – every bit of equipment – and he would put it in a shed. It's true it became a chaotic mess, but, nevertheless, it taught me, also, that you never know when ... you should always pick up anything that might be useful! And I must just tell you that my lesson started the first morning. He told me that he had seen a steam roller on its side, well, not quite on its side, but tipped up in a ditch, on the outskirts of Cairo, and he hadn't got enough sterilising facilities for the huge amount of materials he was putting through, so would I go and collect this steam roller, and bring it, and park it outside the hospital, so that he could use it as a sterilising machine. So, off I went, and there it was. I climbed up on the box, and found that I could put my fingers through the rusted firebox. I mean ... so I, I just gave up and went back to the mess. And at lunch Buttle said to me, "Did you get that ... did it actually run?" And I said, "No", and I told him how it was quite hopeless. "Oh dear! Oh dear! Oh dear! I don't know what I'm going to do", he said. Well, at five o'clock ... he'd told me to go off and spend the afternoon amusing myself at the club, and when I came back, about five o'clock, there was the steam roller, leaking steam from every pore, but sterilising equipment. And when I commented on it, Buttle said, "Well, if only it lasts three days, but three days is three days". And this ... you can imagine, this was quite an object lesson. When I got up to Tripoli, I entered into ... among a group of people, his advanced Field Transfusion Unit officers, who were a remarkably fine bunch, and were, had as the sort of key figure, Keith Lucas, who was distributing ... had taken on to himself, really, not only to be a transfusion officer, but to be a sort of forward distributing one, so that it was much more efficient that he knew exactly where to distribute the thing, where it was most needed. Well, all of these people were absolutely devoted to Buttle, and here was this interloper from England, who came from the land of plasma, and here they were, all finding it necessary to use whole blood, and so they ... they were ... and they were agin me ... but I walked in, pouring out enthusiasm for Buttle, and after the first few gulps, they all thought, "Well, after all, he's one of us!" And almost immediately, Whitby came out, and we had a tremendous battle with him, because he thought plasma, alone, was safe to use in forward areas, and that it was adequate, whereas experience at Alamein and beyond had shown that if you were going to do any reasonably good operation on a wounded man in the forward areas, and give him an anaesthetic, he must have the whole blood that he's lost. Crush

injuries in civil life were quite different from battle injuries, when your limbs were torn off and so on. But Whitby wouldn't listen. And I remember seeing him off on the plane, and hastily scribbling a note to Boyd, the top pathologist, to Buttle and to Boyd, in Cairo, saying that, "He's incorrigible, and he really will have to do something about it", and sending that down by the same plane, so that when they came to meet him, they got him and my letter at the same time. But Whitby still, officially, advised the War Office that we were wrong and that plasma should be the answer. And we had to ignore that for, really for the rest of the War.

MB Sir Gordon, can I just come in here? Blood transfusion has obviously gone a long way since that time. I know that you're interested in the total history of its arrival from the 17<sup>th</sup> century. What was the state of the art at the time you were there, in the early forties, and the time you were in Egypt? Was it fairly advanced by then? A fairly safe process?

GW I have to be a bit careful how I answer this question, I think. The development of drip blood transfusion, at the Middlesex particularly, and the equipment to go with it, simple giving sets, and cannulated tie ins (?? – 225) and so on, was ... was being acknowledged and followed very quickly, I would think, in most areas, but the philosophy that went with it, that you were doing a replacement of what had been lost, was a long time in following after. And I found that many of the surgeons really still couldn't get away from the idea that, you know, "a couple of pints will buck this person up", or ... "just a pint, let's help him along" or something. Well, of course, it usually wouldn't do any harm, though in burns cases, of course, when there was a great concentration of the red cells, it could be decidedly harmful. And occasionally ... people did rather foolish things. I remember, particularly, one of the women officers in Bristol, at the time when Bath was being air-raided and so on, and there were casualties, and she was asked to go and collect blood, and she found a patient who, in her view, a donor, who was already in need of blood, and she was still ordered to collect from this person. So she bled from one arm, and then surreptitiously put it back in the other! (LAUGHS) And ... but this idea that you were actually doing a mathematical exercise, really, not ... to a certain extent the quality, I mean, you were putting in ... if red cells were needed, or volume was needed, or white cells were needed, or whatever, but you were prescribing for what the person had lost, or needed for one reason or another. And that idea was extremely difficult to get over, but there was no magic about it. And, of course, the idea that blood was of greater significance still hung on. I mean, there was, for example, Buttle told me that in, I think it was in Tobruk, that a German prisoner, finding he was receiving British blood, dashed his head against a wall and killed himself. And there was an American Colonel who was mad with me when he thought that I was providing blood from black Americans to whites. And we always quietly said, "Oh yes, yes, yes", but, of course, we went ahead and did ... just what we thought was proper.

MB So those really were quite early days.

GW Then the other great excitement in Tripoli was that, and quite ... again, a change in my life ... was that a small group of people came out from Oxford, to use the ... experimentally, the new penicillin. This was the small British tablets to begin with. And they had the idea that the penicillin, if it was reconstituted in distilled water that had come from copper stills, that the traces of copper would inactivate it, and also that

the heat of the ... it was about 125° in the shade, when we were collecting blood in Tripoli, that that would denature it, or whatever the appropriate expression was. So they came to my unit, and to me, firstly for glass ... could we provide glass distilled water, which, of course, we could. And secondly, they wanted to refrigerate the supplies of penicillin. Well, I had given orders, as soon as I got in Tripoli, that anyone who found a refrigerator, anywhere – this was the Buttle influence – was to steal it, and ... even if it would only work for a few hours, it was better than nothing. So there were no refrigerators available for the penicillin people. And so, of course, I said, yes, we would also store the penicillin. We then ... well, we went to Sicily, and ... I don't know what really happened in the early stages of the penicillin, but I know that, that when we reached Bari (?? – 271) in Southern Italy, that a Colonel Jeffries arrived, who was the advisor in the use of ... instructor in the use of penicillin in war wounds, it was all very experimental, and he told me he'd come to collect some of the penicillin from me. And I said, "I haven't got any". And he said, "Oh, this is terrible! We've sent a vast crateful ... all that we've got has been sent to you". It was still very hot. This would be September, I suppose, of '43, and we went out with my sergeant major, into our ... we had taken over a TB clinic and the next door match factory, and the match factory yard was ... just was piled with all our different crates. And amongst all these crates was one we didn't recognise, one ... like having a cuckoo's egg in the nest. And on the charts, my sergeant major said he'd never seen it, he didn't know where it had come from. And we dug it out, it was quite a big thing. And it turned out to contain all the penicillin, which had been out in the sun for ... as it turned out, probably for ten days or more. Somebody had just dumped it there, and gone away without attempting to ... to contact anybody about it. We transferred it all to the big house fridge that we had, a really big ... like a ship's fridge, almost. And from then on, I was asked if I would distribute it, and I would be the person who would say where it was appropriate that it should be used. Not how it would be used, that was Jeffries, and later, Bentley's business. But it meant that the ... the regulation, that the idea was to get people back into the fighting line, was absolutely predominant, and it couldn't be used for other purposes, and it couldn't be used for civilians, unless the then ... Archbishop of Milan, I think it was, could overrule me, or say it was desirable. And this, of course, was proved to be a dramatic and tremendous business, because Italian parents would come and plead for ... usually for something quite useless like tuberculous meningitis or something where penicillin wouldn't have helped in any way, but they'd been told it was the wonder drug of all time. And, of course, I couldn't give it. And occasionally it was political, one of Tito's people had got gonorrhoea, and I refused to supply it on the grounds that he was a non-combatant, he was a political commissar, and that caused repercussions that went on for some time!

MB So penicillin brought a whole new experience into your life, new responsibilities. People were wanting it. You couldn't give it everywhere it was wanted.

GW I couldn't do that. Of course, our main job was still the supply of transfusion facilities of all kinds, but as we had to distribute these to all fronts, not necessarily in Italy, but to the partisans and people like that, the same channels were suitable for penicillin and for many other medical stores which we sent up forward every day. But, of course, penicillin was open to great abuse, it was of such enormous value. We were never conscious of ... I never became aware that anything went astray through our channels, but we became aware that a group of American deserters, near Florence, at

one time had collected a lot of empty vials from the rubbish dumps, had put curry powder or pepper in these, and were selling them at the equivalent of about £500 a go to distraught Italian parents. And whenever anybody talks about capital punishment, I always feel that this ... that ... if I could have shot those people, I would gladly have done it myself. There was another group of people who abused it, in a sense, but for very different reasons ... not strictly financial. One of the Polish hospitals suddenly began to ask for large quantities of penicillin because they had many cases of syphilis. And I went up to visit them, and they had all the records – three-hourly injections – and that patients were in the wards and so on, and it looked a true bill. I didn't feel it was true, but, nevertheless, I couldn't ... I couldn't puncture their defences. And so I went on supplying it. At that time, you supplied about 2,400,000 units of penicillin for syphilis, whereas gonorrhoea would, perhaps, be 100,000. I mean, there was a very big difference, so it didn't require many cases of syphilis to absorb a great deal of penicillin. I did get hold of the command venereologist, and suggest that he drop in, and he told me, afterwards that he did, and that he couldn't find the weak link in their story, that they did appear to have the cases of syphilis in large numbers, and one could only assume that the Poles had been singularly unfortunate in their ... in their love-making. But when the war was over, and I stayed on because ... well, partly for my personal reasons, but partly because I was given command of the General Hospital in Udany (?? – 337) and then Trieste, because it was thought that war might break out. There was tremendous tension there, and it was thought that there could be hostilities again, and I would be in the right place to restore the transfusion service if necessary. But I went on holiday for a short time, down to Lake Como, and at a party in one of the local houses there, I met two men in mufti, who looked vaguely familiar, and who eventually, sheepishly introduced themselves to me as two of the medical majors of this particular general hospital. And I then said to them, "Well, come on, it's all over now, and I can't do anything and won't do anything. What's the story?" And they thought that, for patriotic reasons, that they would need to launch an attack against the Soviet Union as soon as the war in Europe finished. And the whole Polish Corps, I think, was being organised in this direction. I remember being asked, in Trieste, by Polish officers, if the British would come in on this, and I said that it would take 20 years to persuade the British to take up arms against the Soviet Union, in view of their great losses, and I must say that many of the Russians, locally, behaved so badly, that it was only a few weeks before one would have taken a very different view. However, of course, it was never on, fortunately. But this hospital had been deliberately selling penicillin on the black market, for big sums, in order to equip themselves, medically, as the one hospital that would go with the Polish Corps against, against Russia. And I said, "Well, what happened when you couldn't have the campaign?" And then they became really very embarrassed, but eventually, one of them said, "Well, we had a share out, according to rank", and they were majors. And I said, "What does that mean?" And one of them said, "Well, we were both able to buy two villas in Rome". So we'd always thought that somewhere, there was a big leak, I mean, that the black market was getting it. Americans often cut themselves in the barber's shop in Italy, and the barber would slap some penicillin locally on the cut, or something, at the time when it was as precious as gold dust. Anyhow, the bad side of penicillin should really be put in perspective. The good side was so overwhelmingly important and exciting. There were tests, of course, very serious scientific tests. Penicillin, intramuscularly, penicillin locally, that's penicillin powder, or sulphonamides applied in different combinations to, particularly to wounds in the extremities, and all done very much by a Penicillin Research Unit, in which my future wife assisted for some time. And it was interesting,



in the course of that, that Professor Scott ... well, became later Professor Scott-Thompson, who was a Major in the RAMC, a bacteriologist, was in charge of this trial, and when it had been going for some time, he was at a captured German hospital in Abenau (?? – 380), and after dinner one night, when I was there, the Germans said to him, “Sir, would you be willing to tell us, how is the experiment going?” The Germans, incidentally, were pouring pus, I mean, something we’d never seen, let alone demonstrated how enormously valuable penicillin had been. But still, you couldn’t do ... say that it was the thing to use, unless you had really tested it in proper circumstances. And Scott, who was a very very honest man, said, “Oh, I couldn’t tell you anything about it. It’s too early. Too early”. “But, sir, how is it going now? I mean, couldn’t you just have a ... how does it look?” And he said, “Well, as a matter of fact, at this moment, it looks as though local sulphonamide is better than anything”. And the Germans expressed surprised, and went into a huddle. And he said, “Well, of course, this is very early in the trial. We haven’t yet seen anything like the number of cases that we need”, and so on. But the Germans went on mumbling to themselves, and finally he said, “What is the trouble?” And they said, “Well, we can’t understand how it can be that you are the chief of a Penicillin Research Unit, and yet you are saying that local sulphonamide may be even better”. And only then did we realise that, under the sort of Nazi system, it was inconceivable, even to doctors, that you were going to objectively report on what you found. You obviously were going to report on what would materially assist your own career and so on. So there was quite a ... quite a lesson in that. But, you see, then, of course, it was used mostly for war wounds, but there was one exciting occasion when the unit ... a hospital down in ... almost at the bottom of Italy, sent a message that they had got smallpox, and did I think that penicillin would be of any value in the treatment? And I immediately sent them a supply, saying that, in my view, the secondary infection would be a lot more the killing things in the disease, and that, therefore, it was worth trying it. And the next I heard, I never got any acknowledgement, was an article in *The Lancet*, in which they had used it effectively in that way. So the possibilities for penicillin, of course, were still only being dreamed of, but what ... the experience we got was fantastic. And one of the astonishing things, looking back, really both in regard to blood and penicillin, was the extraordinary absence of ill-effects or side-effects. We never had, as far as I know, a single case of allergy to penicillin. We had incredibly few occasions when blood caused any trouble. There was one case where it seemed that the malaria had been transmitted, in a hospital which should never have been using stored blood, but should have been getting fresh. But, of course, there were many cases of malaria in Sicily, and a lot of them were still carrying it when they came to Italy. We tried to avoid them when we were collecting blood, but it was not always possible. I think that hepatitis which, of course, we always feared, and always asked anyone who’d ever had it, not to give blood. But I really can’t remember, there were some cases in the Middle East, but I don’t remember it being a problem with us at all. And in the Anzio (?? – 427) Landing, when we were supplying blood to the Americans, as well as to the British contingent, our general went ashore and sort of said, “Well, you know, you Americans, how are you getting on with the British blood?” And he was told by an American pathologist that, “Oh, it’s awful stuff. There are reactions with every bottle”. And he said, “Oh, this is very bad news. How many cases have you seen?” And this American said, “Well, I’ve only been here a few hours, but this is the story I’ve heard”. And the general said, “Don’t you think it’s a bit wrong for a doctor to be making such an assertion without any evidence of his own?” And the chap said, “Well, yes, I suppose it is”. He said, “Will you do something for me? Will you just follow the next 100

bottles of blood which are given, and keep a close record of any rise in temperature of people, or any other untoward event?" And by some miracle, there was almost nothing in the hundred, and the American became one of our closest supporters, rather than antagonist! But it was typical of the time that there was a lot of old local pride, and, of course, the Americans, after Anzio, began to bring in their own whole blood service, in addition to plasma. And we used to go to their salvage dumps to rescue the tubing and so on, because we had to re-service all ours, whereas they threw everything away immediately after use, and we re-serviced every bottle and every needle, and every piece of rubber tubing, and everything again.

MB That was early trading with bottles. Yes. Gordon, at the end of this period, 1947 ...

GW Oh well, it's not '47 now. We're still ... well, the end of the whole ...

MB The end of your period in ...

GW I came out of the Army at the end of '46 ... I mean, not officially, but I had three months of leave and so on still due to me, so it carried me to March '47. But already, at the beginning of '47, I started clinical work at the Middlesex Hospital again.

MB You're returning to civilian life, after having incredible responsibilities, having worked with amazing developments, seen something of the beginning of penicillin taking hold and making impact, and you come back, and you start ...

GW I start as the lowest houseman at supernumerary level, and also, of course, was immediately asked by one of the chief surgeons to look at the Transfusion Service in the Middlesex. And I can only say that if a field ambulance in the war had tried to run a service on the lines of the Middlesex Hospital, I would have had the colonel's blood! It was absolutely ... it was awful! Yet I was still, of course, a very junior man. I was terribly teased by the other young housemen who, of course, called me "Colonel" every hour of the, every minute of the day! And after doing six months with Dr. Marriot, which was marvellous rehabilitation, because he was a rather military type of consultant, he had, himself, been a very distinguished brigadier in India, especially in the anti-malarial control work, but he was the sort of man who almost computerised his treatment of a case. He simply decided what tests were required, did all the conceivable ones, and then saw what the significance of those results ... and then did a further series, and really not a very clinically orientated man, but a very good education for me. And then there came a chance of becoming a registrar in dermatology. I really couldn't have been more ignorant about dermatology! But I went to work with Dr. Ray Mettley (?? – 478), who was a very quiet scholarly man, very patient, and who gave me trust far beyond what, perhaps, he should have done ... but really left me with big responsibility, and again, I learnt a lot. This went on until the end of '48, and ... and then ... it really seemed that the National Health Service was not going to develop rapidly enough for me to really have much hope of a career in dermatology, and we were running out of money, and I must say that there came a night when we took the *BMJ*, and looked through the advertisements, and of the two important ones, which I then applied for that night, I doubt if I would have gone for either without the pressure of my wife, and certainly not the second one! One of them was a medical advisor to a drug firm, which they, after interviewing me, they offered to me. And meanwhile, I'd

been asked to be interviewed for a new Foundation, that was called the CIBA Foundation. It was put up by the CIBA Company in Basle, who thought that they would have been overrun by the Germans in the war, and had made provision for this, had done all sorts of things in the belief that they would have a very bad time, and then, of course, had never had a bad time, and they felt it necessary to do something to show their gratitude for their escape from trouble. And they had the idea of establishing a foundation, really just for get-togethers, if you like, in medical research. Not even that was well-defined. The title became The CIBA Foundation for International Co-Operation in Medical and Chemical Research, but it wasn't defined in any way. And it was to have been in Switzerland, and then they thought of putting it in France, and then a particular English lawyer, Mr. Needham, said that "Charitable Law in England means that if you set it up in England, you have to put it in the hands of independent trustees. You can't influence what happens to it after that. It will be seen to be a genuine philanthropic gesture, whereas if you keep your fingers in on the controls, it never will be, it will just be window-dressing and advertising for the company". And he persuaded them to put it in London. And the advertisement asked for somebody very experienced in research and pharmacology, and administration. Well, I qualified slightly under administration, but under no other heading at all. But my wife said, "Go on! Nothing to lose! Go for it". And eventually I was interviewed. I was interviewed over six months, some of the interviews in White's Club, over very large gins, and pink gins in the bar there. And slowly, it worked in my direction, and eventually I was appointed from the 1<sup>st</sup> May, 1949, as the first director. My friends and my chief all said that this was an idealistic, hopeless ... institution. It might survive a year, and possibly two years at the most, and by that time I'd be off the ladder, I wouldn't be able to get back on, I was crazy to take it on, etc.. But, of course, all through the war, I'd been working with as many as twelve different nationalities, and actually had officers from most of these under my own supervision, and I got a great liking for international work. And this was absolutely ... seemed to be made for me. And so, of course, I was tremendously thrilled when I got it. And we opened, Sir Henry Dale opened the Foundation on June 22<sup>nd</sup>, 1949. We had a tiny staff, about four or five others in addition to myself. We did have some nine or ten bedrooms in the house, some doubles, and it seemed obvious from the beginning that, you know, one should invite people to stay in the house, preferably with some interest in common.

MB And the house was well chosen.

GW And the house was beautifully chosen, in the middle of Portland Place, a really historically fine house, nearly 200 years old, and at that time, there were great restrictions on redecoration, but, nevertheless, with the help of a famous Swiss man, Dr. Manouli (?? – 546), it really was beautifully refurnished slowly, over the first year or two.

MB Can I just come in at that particular point? You go to the CIBA Foundation to take it on its way. We've mentioned your wife, but can't really keep her out. We've mentioned her in passing, but she really believed that you would get that job. It was really her. Can we say something about your wife at this stage, because ...

GW My wife qualified in medicine in Belgrade, at a very early age, I think ... I'm not sure if she was 21 or something of that kind, and hoped to become a paediatrician. But when the war broke out, she first of all was ... left Belgrade and went down to

Albania, where she practised for a time, in very crude circumstances. She tried to rescue her mother, but, unfortunately, failed. Her father had already been ... well, we don't know when he was killed, but he'd been ... he was killed, and the mother was taken and killed before ... before ... about a fortnight before a corrupt German sergeant was prepared to go in and try and bring her out. And my wife then crossed the sea to the Adriatic, in a small boat with others, and was, I must say, very very suspiciously received, all of them, by the British, who just clapped them into a sort of concentration camp and treated them like ... not just enemies, but ... hostile elements. And altogether, I mean, they thought they'd come to freedom, but it was a very rude shock for them. However, after a time, she got an appointment at the local Anglo-Yugoslav Hospital near Bari (?? – 569), a place called Rumo (?? – 572), and it was from there that she and some other doctors and nurses were sent to me, to my unit, for training, and when ... one morning in ... it must have been April, '44, that this group of people in British battle-dress, and no ... of course, no signs of rank or anything, came into my office, and my first stupid question was, "Who is your officer?" Because I couldn't see how to speak to a group. And they eventually excluded Dushanka, my wife-to-be, as she was to be the interpreter. Up to two weeks before, she had never spoken a word of English, but somehow, from the beginning, the chemistry was right, and she was able to interpret for me. And she stayed a week, and at the end of the week, we had already decided that there was something very special about each other. She was, we saw each other a little in that summer, but eventually, she went back into Yugoslavia. We had great difficulties, in fact almost impossibilities, in communicating. I did manage to get a friend posted to Belgrade, who passed a few notes. And eventually she, most unexpectedly, escaped, or came out really, on an excuse ... in July of '45, and really ... one way or another we stayed in touch, until we could marry after the War. But she certainly influenced me enormously, partly because of this international aspect, and really strengthening me to feel I could do it, but I think enormously more on the human level. I was still a Yorkshireman, don't forget, and I didn't find it easy to communicate with all the famous doctors and scientists who came to the Foundation, but ... but she was direct and human and friendly, and if she liked somebody, liked them limitlessly. And this, over the years, undoubtedly, was the major influence on the Foundation, through me, in that, you know, we built up a circle ... we had ... incredible numbers of people came. I mean, altogether, in my time, that was about 30 years, certainly 30,000 medical scientists, separate ones, I mean, some of them many times, came to the Foundation. And about 10,000 we knew pretty well, and I would say that two or three thousand we were on first name terms and really came to care for very deeply.

MB So together, in this partnership, you actually produced quite a colossal cross-fertilisation agency really. But back to where we started, in a way. And this was to grow. But I'm taking you right back to the beginning now, because in the early fifties it had to grow, it had make its way. I'd like to hear more about ... the early years.

GW Yes. I think the, the great astonishment to me ... when I decided to hold house parties, unbelievably in June of '49, I thought I could run eight separate house parties for three or four days each, at the Foundation, in 1950, and began to send invitations to all the people in ... mostly in America, whom I thought to be the leaders in medical research – America, Sweden, France to some extent, and Britain, of course, but very very strongly American. And did this very fearfully, I wasn't at all sure that ... I had to explain, of course, at the very beginning of the letter, I had to say, "This is a new Foundation. It is independent of the firm in its operation. Anybody who accepts an

invitation is not putting themselves under an obligation to the firm. I want people to come here, talk off the record with each other. It may be that this would accelerate the overall process, imperceptibly, of medical research and so on, if you're willing to co-operate". And the letters poured back immediately. All of them, practically, I mean one or two were sent without my knowledge, but others all said, "Yes, yes. Where do you want us and when?" And "We'll come", and so on. It was ... it was as if the world had been waiting, the medical world, had been waiting for this place to come into existence. And then when I'd already plotted quite a number of them, in that first month or two, Alan Parkes from Mill Hill came to me and said there was a big argument going on between human biologists and animal biologists, in regard to toxae-mias of pregnancy. The vets all thought that they knew all about it, the doctors were sure they didn't. What about bringing the groups together? Well, we'd already plotted for February, March, and all the way through '50, but we could just squeeze one in for January. So the very first one was this rather too large one, I mean, we learnt a great many lessons from it, on toxae-mias of pregnancy. And, of course, it soon came out that the vets really did know what ... what they described as toxae-mia of pregnancy in animals, but it bore no relation to the same terminology in humans. And although it was a useful exercise, and one that I would have liked to have done much more about in the following years than I could, to bring veterinary science much more closely in with human, that was almost a one-off occasion. We had great Naval, ex-Naval wire recorders, very fine sort of piano wire on vast reels. If ever you ... one slipped, the whole room would be full of coils of fine wire, terrible things! And the thing itself, only two people could carry it, it was a tremendous thing to have around. But we did record what went on at that meeting, and at the subsequent two, and we were begged to publish, as each one ended. And I was, I thought this was only reasonable. I mean, it was just, because I was having the very difficult job, and it was me myself, I wasn't interfered with by anybody, I was inviting people ... at the first one I think as many as 40 may have come, but after that we settled to about 25, to 30 occasionally, but 25 was about, really, the maximum we should have had. And I was inviting these. Now, this meant that many people of high scientific worth in London even, never mind elsewhere, couldn't come in to the meetings. I would invite them to the social functions so that they could make contacts, but they couldn't come into the room without destroying this intimacy. And so it seemed reasonable that these things should be reported in full. I met with some considerable opposition, which turned out to be a misunderstanding. It was just ... the man who most opposed it, turned out to be thinking only of my welfare, and thought that it was asking me too much to edit these. But in April of '50, I engaged a Margaret Cameron, a Canadian chemist, partly biochemist, to help me with editing, and we went back to the beginning. We'd already done three, in fact, the fourth was in progress, I think. And we eventually did all of them. We didn't do the discussions of toxae-mias, that was beyond us. But we did do these terrible coils of the other ones, and edited them, and eventually, whilst going forward with the subsequent conferences, slowly built back the other ones into the story. And in those early days, we concentrated very largely on endocrinology, and particularly steroid hormone endocrinology.

MB Was that your choice?

GW It was a choice thrust on me, not by any outsiders, but by the fact that, at that time, you couldn't open any journal anywhere, without some new and exciting development. It was ... almost every month there was a major advance. It was

absolutely red hot, and, in fact, we held meetings in those early days, and we would have a meeting on virtually the same subject ...

End of Tape 1 – Side A

Tape 1 – Side B

GW ... a year later, and it would have advanced so much, it was worth ... it was worth doing. We had a feeling that we were riding the crest of a wave on this. But after I'd done a few steroid ones, and, of course, always planning at least a year to two years ahead, I remember announcing that I was going to have one on pituitary hormones – at that time, barely thought about ... at the time that I plotted it. And I got a letter from one of the big steroid chemists, say, "Have you gone mad? There'll never be anything in protein hormones, and it's absolutely a waste of time and money and everything". Well, even by the time we held the meeting, ACDH was coming along and so on, and once again, it was the crest of a wave, and ... with all the other hormones too.

[BREAK IN RECORDING]

MB You had, from very early on, this central strand in endocrinology research, of interest. Did that branch out? Was that a strong line that was going to be followed all the way through your 30 years there?

GW Oh, I think I have to say that the ... you know, I was a pretty ignorant doctor still, and I felt I could just about cope with endocrinology. And, of course, I'd heard so much that eventually I did, a lot of it did brush off on to me. But as soon as I felt the confidence to go beyond endocrinology, we did, and we went into all kinds of cardiovascular physiology, and the sky was the limit. And eventually got on to the social sciences and ... oh, very many other ... there's a huge list. I mean, I organised well over 200 international meetings. But could I just say that, I said "international meetings", I think the greatest surprise to me, really, was in the very first few months at the Foundation, was to discover how local people, in London, whom ... many of whom I'd known of before, were incredibly ignorant of each others' work, and of ... never mind the work internationally. And it became clear, in the very first few months, that it was really more important to bring people together in different disciplines, bearing on a common target subject, than really the international mix. For me, the taste was for international, but, in fact, I think the great value of the CIBA Foundation, over all those years, insofar as it did help medical and biological research, was through this multi-disciplinary approach.

MB So you were cross-fertilising, not only at the international level, but also across the disciplines.

GW Both. And I think this was enormously important. This went on, as you say, for 30 years. One of the things that, of course, I regretted, I really did love clinical work. I mean to say, my wife did too, and she got no chance to continue it. But because I had no clinical responsibilities, I did feel that I ought to play ... do a lot of the dirty work, that's probably how you should describe it, in other Societies and administratively in medicine. For example, at the Royal Society of Medicine, I very willingly took on all kinds of jobs, becoming Honorary Secretary in, I think in ... around '60 or thereabouts, 1960, because I, of course, could always count on getting to a meeting, and being there for the time, and I didn't have the clinical responsibilities which nearly all my other colleagues had. And, of course, although I did this quite deliberately, because I felt I should play more than my fair share of this, feeling a bit guilty about not having clinical responsibilities, but I think, also, I ... I wanted the CIBA Foundation to be seen to be respectable in other Societies and so on.

MB And surely it was.

GW It was important to me that it was not some little ... semi-attached to some pharmaceutical firm, it was a completely independent body of ... of considerable stature. And, of course, the great joy for me, the crowning achievement, in a sense, was when I was asked to go to Tokyo, and I discovered that ... on a conference on philanthropy, that I was the opening speaker, and the second one was George Bundy, President of the Ford Foundation! I thought the CIBA Foundation had arrived!

MB Taking you right there to the CIBA Foundation, a lot of you was poured into that over those years. Taking you back there, and it would be impossible to say all the good things that happened in that time, but would you like to pick out three or four of the major developments, to really crystallise out that history? Not an easy thing to do!

GW I don't think I want to do it on a ..... (INAUDIBLE – 058) basis, although some of the stuff was very ... but one of the ... the CIBA Foundation, of course, it came to be known to most of the world, because of the books containing the Proceedings of the Symposia. But, in fact, of course, we had meetings nearly every day of the week. We had an enormous number. I didn't like to have guest meetings in the place unless I, myself, or one of my senior assistants, was playing a role in it. It wasn't just a house in which meetings could be held. But this meant that, I think, something like 20 national and international Societies were born at the CIBA Foundation, with me as midwife, playing sometimes quite a major role, other times merely being Honorary Treasurer or something of that kind. That was very exciting. The other, in a way, the most exciting occasion, happened off the record. We used to get some visitor coming through from any part of the world, with an interesting story to tell, to do this at what we called a "Discussion Meeting" in the evening, usually with food and drink beforehand or in the middle of it. I invited some 20, 25 people, who would come from Aberdeen for these few hours of unrecorded discussion. The paper would be presented, and then there would be an absolute free-for-all discussion, until we got tired. It could go on till 10, 11, 12. These sometimes totally destroyed a piece of research forever. I mean, they killed it then and there. Other occasions, it ... of course, obviously, people just couldn't wait to get back to their departments and their laboratories, to follow up what they had learnt. These ... it was exciting ... only very rarely was it really a damp squib, because really always people were surprised, and people eagerly competed, I

think, to get invitations to these meetings. And I would think that, in fact, these must have done more to push medical research along, than really, perhaps, the major meetings. But we had to guarantee, of course, that it was confidential, and that people were not going to be reported and so on. It was between the group, the members of the group. It may have been very elitist, and it may have been not the right thing to do, but I think it was ...

MB Enormously catalytic.

GW Yes.

MB Enormously catalytic. And look at the publications that poured out of that.

GW Well, of course, the publications, there were ... I forget how many! I think I edited something, I mean, as general editor, with great, most marvellous assistants, and different people over the years, who really were superb, and I think something like 230 volumes came out in my time.

MB And now you've gone to work where there are a great many more volumes, looking to your follow-up years, in which you've not only worked with the Royal Society of Medicine, but also with the Royal College of Physicians.

GW I was incredibly fortunate, because as I came in, in spite of retirement at 65, at the CIBA Foundation, and was to be succeeded by David Everitt, that Douglas Black, then President of the Royal College of Physicians, invited me to succeed Dr. Charles Newman as Harveian Librarian. I must say I rather thought that this was a rather pleasant little retirement position, with a pleasant little office in the College, extremely nice staff and so on, it would be a base for the rest of my active days. But when I got there, I discovered that there were big arrears of the publications of Monks Roll of the biographies of Fellows, and administratively, there really had to be a pretty big overhaul, and really have spent nearly seven years, I would say ... I've published two volumes of Monks Roll, a third is on the way. But it really has expanded the field all the time, and I had previously published two catalogues of the illustrators, with biographical notes of the portraits in the College, and I'm now, officially, sort of in charge of all the portrait collection and the medals and the miniatures, and all the rest that goes with it. But, of course, when I got to the office, and the task at the College, which was so appealing, to my big surprise, I went on ... going on ... going on travelling abroad and doing all sorts of things. I think I would pick out, particularly, my pleasure in being invited by the EEC in Brussels, to do an inquiry for them. I had been asked by a group of ... an international, a European group, to become President of a European Institute of Medicine in Paris. But when I looked into this, whilst the ... by-laws of every conceivable kind had been drawn up, the purpose of the Institute was unknown, and I, personally, felt that we shouldn't start any such Institute until we knew, really, what was already going on. My previous career in the Foundation, had led me to know of scores of European Societies which were active. If you were to ask any one scientist to name them, he wouldn't be able to name more than four or five. And I once tried this at the Medical Research Council, and they came up with, I think, five or six or seven. And yet, when I really got down to it, it wasn't easy. It wasn't difficult to find at least 75 active European Biomedical Associations, all working hard and co-operatively. And, of course, there were European journals as well. So I put this



to the EEC Commissioners, and they asked me to do a one-man inquiry into what they called "Post University Medical Training in Europe". This meant I went not only to the Community countries, but to Yugoslavia and Sweden and so on, and Switzerland, because, of course, to look at medical research without those countries in, it would have been stupid. I wrote a report on that, and then got caught up in ... trapped, really, into doing an evaluation of the concerted action programmes of medical research. And I chaired the first, and wrote the first report, and I've recently been a member of a second evaluation team on the same countries. This has been exciting. And then, of course, other odd things have come my way, such as that I was invited to a conference with Linus Pauling and a few other distinguished people, on telecommunications and health in Grenada, in '78, and when there, discovered to my surprise, that there was a Medical School there, founded by Americans, with a mixed group of teachers. And again, I was asked if I would join an advisory board, and then found myself elected chairman of it. And this has been an exciting, and to me, a potentially very exciting school. I'm not interested in it as a back door to American medicine, which, I'm afraid, it has been largely up to now. We do have about 20 different nationalities among the students, but I would like to see this be, I mean, the majority of students, be from many different countries. I would love to see, before my days are over, an international medical school, where the people, having gone through medical school together, will know that in Indonesia and in Kuwait and Saudi Arabia, or in Argentina, "That was a chap who went through school with me", when it comes to world health collaboration or understanding the network, it might prove to be very valuable. The school is in Grenada, I would like it to be of great value to the Caribbean, that's proving, for local reasons, very difficult, but I'm convinced that the school, potentially, could be very very valuable to the Caribbean, and the Caribbean population. And this is part of my ... this has come to be, in a way, symbolic of something I've longed for for many years, which is really to see ... at least the medical profession, behave far more internationally than they do, in collaborative work for the relief of suffering from unnecessary diseases all over the world. I have spoken about this a great many times. There was a time when I was a sort of Pied Piper, when the students of medicine and of nursing would be sort of jumping in their seats and saying, "Where can we go, and when?" But, in fact, I've never been able to mobilise this great spirit, and I suppose I'm getting so old now that I haven't much chance of seeing it happen. But the world does look, with people like Bob Geldof and others, it's beginning to look as though it is possible to break out of intense nationalism and selfish sovereignty issues, into looking at the whole of humanity as one humankind, and a huge number of whom are unnecessarily suffering from the effects of either malnutrition, or parasitic and other diseases. And I would so dearly love, before I go, to ... before I finish, to see some steps taken, altruistically, by the profession as such, not on a ... not on a sort of British Medical, or World Medical Association basis, not interested in ... so much even in ethical issues, but in practical steps to alleviate suffering that need not exist. And whether there's any chance of this ... but there's undoubtedly, at the moment, the climate is getting, I think, nearer to the possibility. The French have *Médecin Sans Frontières* (INAUDIBLE – 161) have really got hold of a practical service in Afghanistan and in Ethiopia and other places, irrespective of the nationality thing. But I would like to see the service itself be irrespective of nationality.

MB So your work will go on, as it started, about cross-fertilisation, with this hope of helping, wherever possible, to forge an international link, which you think has the key to the future.

GW I think it's almost a disgrace to the medical profession that anyone, anywhere in the world, should unnecessarily be suffering from disease. It's an affront to one's whole medical training, and we can't do anything as individuals, but as a huge medical profession, sharing the same motivation and ethics, we really ought to be able to do something effective about it.

MB So we should look forward to increased internationalisation. Sir Gordon, we ..... (INAUDIBLE – 172)

GW Thank you very much.

End of Tape 1 – Side B

END OF INTERVIEW