Loe Went



Personal D	Details
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Name	Loe Went
Dates	Born 1919
Place of Birth	Utrecht, Netherlands
Main work places	Leiden
Principal field of work	Human genetics; Huntington's disease

Short biography

Initial training in biochemistry, interrupted by World War 2, was followed by posts in Indonesia and at University of West Indies, where he studied haemoglobins. Returning to Netherlands he joined George Bruyn in the Leiden Neurology department, undertaking research on a series of neurogenetic disorders, notably Huntington's disease and Leber's optic neuropathy.

Interview

Recorded interview made	Yes
Interviewer	Peter Harper
Date of Interview	10/12/2010
Edited transcript available	See Below

I = Interviewer (Peter Harper)

W = Loe Went

Y = Yvette Went

I It's December 10th 2010 and I'm talking with Professor Loe Went at his and his wife, Yvette's, home in Leiden, Netherlands. Can I start at the beginning, Loe, and ask when you were born, and where?

W In 1919.

- l 1919
- W January, 1919.
- I And where?
- W Utrecht.
- I Utrecht.

W My father was Professor of Botany in Utrecht.

- I Did you grow up and spend your early years also in Utrecht?
- W Yes, the first 15 years. Then we went to Leiden.
- I So I was going, you have already answered my next question which was, was there anyone with a scientific or medical profession in your family?
- W There were 3 botanists in my family; my father and 2 of the children.
- Y And one physicist.
- W And a physicist also.

I And how about your mother?

- W My mother was the daughter of a lawyer who became governor of Suriname. She spent two years there. In Holland she had attended a girls' school and had learned mainly languages.
- I Well, so many women in those times, they had all the ability and everything but it was just not possible to have a career and a family.

W My father was a very, I would say it's not the right word -

- Y He was a feminist.
- W feminist, in certain terms, for example he was the first to nominate 2 women as university professors; one in Groningen and one in Amsterdam. All his students had to write a thesis, many were women.
- I So you had a really very talented family background.

W My brother the physicist was director of the Kema.

Y He built a nuclear reactor and has been heavily criticised for that.

I What was it that brought you into medicine rather than becoming another botanist?

W In 1940, the University of Leiden where I was studying closed its doors because a Jewish

professor had been released of his functions. The students were expected to report to the Germans, and work for them, and instead I went in hiding. After successive hiding places I eventually managed to find a hiding place in a laboratory in Amsterdam where people were doing research on nutrition. But I could spend a year at the laboratory of Professor BCP Jansen, a well known nutritionist.

After, in 1948 I wrote my thesis on aneurin in Utrecht, and then I could find a job. After the war, in 1945, I had spent a year in Bern, Switzerland, in the department of physiology of Professor van Muralt.

About my job in Indonesia...I started working in Indonesia in December of 1949; and that was just before the Declaration of its Independence. I was in Indonesian service there. I stayed 5 years and had good contacts, mainly with 5 well trained medical assistants.

- Y Then you had to find a second job because Loe came back from Indonesia. It was impossible to stay there during the struggle for independence.
- W And then I read an advertisement in an English newspaper for a position of senior lecturer in Jamaica, at the University College of the West Indies. I was interviewed in London and got the job. Consequently I went to Jamaica, at the University College of the West Indies.

I Now, may I ask, was Graham Sergeant there?

- W I know his name; I think he came just after my departure. You remember Sergeant?
- Y No, I don't.
- W I think he came later, but I know his name.

I Can I just ask you, Loe, when exactly during this period had you qualified in medicine?

W I never qualified in medicine; I qualified only in biochemistry.

I l always assumed you were qualified in medicine.

- Y More people assume that.
- W After Jamaica, it was 1960, I had to find a job and I got a position in the Department of Neurology in Leiden.
- I I see.
- W The leading figure was George Bruyn, who was a very well-known neurologist, as you know of course -

I Yes, I remember him well.

W Precisely, sure.

Y But before, Loe had started in Jamaica doing research on haemoglobins.

I Tell me a little bit about what your work was in Jamaica.

W It started when I was nominated in the Department of Pathology; there were 4 departments; there were 4 sections: anatomy, bacteriology, haematology and chemical pathology. John McIver was a haematologist. We were working on the same floor. Once he said: "Come and look under the microscope; let's look at what's going on there." This was in 1954/55 I think. I decided to build an instrument for electrophoresis. So that was the very beginning really. I remember now of course, Motulsky, Neel, Ingram - I met them all during the time we were there. But I met them in the States. It was a very interesting period.

I Did you travel to mainland North America?

W A couple of times. I also spent 4 months at the MIT in Boston in 1958.

Y He started doing population genetics with John McIver

W Our first publication appeared in the British Medical Journal in 1956

- I 1956: The Investigation of abnormal haemoglobins in Jamaica. Yes, and you were the first author and I see you are listed as Utrecht.
- Y When you were in hiding, this professor was also in hiding, no? And that's how it developed and how Loe went to Utrecht.
- I And so, as a student, you were on some kind of undesirable list?
- W Yes, and at first I had no problem but then I had to work in 1943. The Germans said that the students didn't have any useful functions the university was closed so they thought that they had to go and work in the fields in Germany. And I refused. My sister and myself went together to look for a place to go in hiding. First I had an address for only 2 weeks because it was too risky, I was staying with a Jewish family. For one year I was farming and milking cows; that was 1944. At that point I managed to go to Amsterdam to the laboratory of Professor JBC Janson. The only thing I did there was some tests on rats. It was very limited but somehow I managed to pass my second exam after the war in biochemistry.

I But maybe I can just return to the West Indies; how many years were you there?

W Five years.

I Five years; that's quite a long time.

W From this period dates the first paper in Nature and other publications followed.

- I Yes.
- Y I will give you a table.

I Well, these are really important early papers; that's a lot.

W That's all from Jamaica, you see?

I Yes, I do. That's a lot of work.

W And then still there were other articles. When I moved back to Holland, I got in contact with biochemists who did other genetic work. I published with Wilfred De Jong - an important article: "Haemoglobin Leiden: Deletions of ?6 or 7 Glutamic Acid" November 1968.

I Yes, yes. So you came back: which year was it that you came back to the Netherlands?

W In 1960 George Bruyn found a job for me at the Neurology Department, like I said.

I Yes.

- W But I did not have a medical degree, he didn't mind at all. I also worked in dermatology and ophthalmology with people who liked non medical trained individuals to work with them.
- Y Somehow you were in a medical faculty and it was difficult if you had not studied medicine, no?
- I Yes. Often clinicians would not accept somebody.
- W In Jamaica I used to take part in ward rounds. The clinicians always asked my opinion, that was very common.
- I Yes, probably you knew quite a lot more than some of the clinicians, I'm sure.

W About some things, yes I think so. But it was a problem in Holland.

I Oh dear. Am I right, Loe, that one of the diseases that you started studying with neurology was Leber's optic atrophy?

W That was later, Leber's. I have the last paper; it dates from 1999.

- I saw that. So you had almost 40 years of research in medicine. I've actually, and I will pull it out, I've got a list from the computer of publications and we'll see if one of those actually fits.
- W I have all my articles, they are all together.
- Here we are. Yes, I can see: 1999.

W Yes, that's the last one. It was on..

I It's 'Leber's Hereditary Optic Neuropathy'.

W Yes, but it's about the fact that it's not a normal inherited disease.

I Yes, through mitochondrial.

- W Mitochondrial; that's the word I was looking for. Mitochondrial, yes. And it's funny that I was still able to arrange that paper at that time in 99.
- I That's wonderful. Now I've got a list here of your publications; it's wonderful actually how one can find these now on the computer, and there's a large number of the first ones on Sickle Cell, and then the , after that, the next one I can find goes to Leber's , and a sex linked
- W Sex linked inheritance. The work goes back to Race and Sanger in London. Race and Sanger had discovered Xg blood group, of course.
- Y And you had contact also with Bette Robson.
- I Can I ask, how did you start to become familiar with and learn genetics? Was this while you were still in America through Neel and Motulsky?
- W Yes and no. Human Genetics started in Jamaica, with McIver, and the first year when we worked on haemoglobins.
- I Yes
- Y But afterwards you went to India also, where Haldane, ... after Jamaica.
- I So, may I ask, did you meet Haldane at that time or not?
- W We met him a few times before, and he came here also to Holland for a congress once.

I Yes, there was a congress in The Hague.

W Yes.

- I Can I ask, at this stage: you were in neurology, but did there already exist some department of human genetics in Leiden?
- W Yes, that started in 1963, with Siniscalco.
- I With Siniscalco.
- W I was offered directly to go and take a place in his department. Well, you knew him probably?
- I net him; I don't really think I knew him well.
- Y Was it not, after India that Marcello Siniscalco became a professor here?
- W He was already a professor here in 1963.
- Y He came with Mario Rattazi and Luigi Bernini.
- W Bernini is still going strong. Meera Khan came too a bit later.

I Not to worry. May I ask: was the haemoglobin Leiden, was that the haemoglobin you discovered?

W Yes. That was with Wilfried de Jong like I said.

- I Yes. So how long did you stay based in neurology before you became part of human genetics?
- W I joined the department of human genetics as soon as Siniscalco was nominated professor.
- Y After Siniscalco came George Fraser.

W And then Peter Pearson.

I Oh, Peter Pearson.

W And directly in the beginning Peter Pearson became head of the department of Cytogenetics.

- I Yes. Now after your time with neurology, you began to do a lot of work with colour vision; how did that start?
- W That started with the project of Siniscalco on population genetics among a group of outcasts in Andhra Pradesh.
- I I'm wondering whether we ought to have a 5 or 10 minute break, so I don't tire you too much.

W Oh, I'm not tired.

I No, I know, but it does get tiring, especially, you know when there are words to find. And it would also give me a chance to look at one or two of these papers. So if we leave the machines exactly as they are for one or two minutes, is that all right? So this is a break in the recording.

We've started recording again from the last minute or two. To see these papers, it's very interesting indeed and when you began to work in the human genetics department, was there any kind of medical genetics service existing at that time?

W No.

I Or was it purely -

W I was the only person with George Bruyn working on Huntington. Again this has created a problem because the whole file of all the families in Holland was put together with a neurologist in Amsterdam, Mrs Mackenzie.

I Okay, was that -

W I was assisted by Dr Vegter van der Vlis and Dr Venema, both general practitioners.

I

I When did you begin work on Huntington's?

- W Well, with George Bruyn of course in 1960 and after with Andre Barbeau who had organised a congress in Montreal in 1967, maybe 1968. Andre was a Canadian. At that congress I also met Henri Petit, a Frenchman who had a research group on Huntington in Lille.
- I That's good. So had George Bruyn also, had he already worked for some years on Huntington's from the point of view of its neurology?

W Yes.

I I remember, it must be around the end of the 1960s that you were probably the first person to do a genetic linkage study in Huntington's.

- W I thought it was later than that. I don't remember exactly.
- I And at that same time, we were doing the same, and of course, we didn't have enough markers. [laughs]
- W Quite, because I remember now looking at the different papers, there was nothing you could do because you didn't have any as yet, until of course the gene was found.
- I Yes. So when in Leiden did there begin to be a full medical genetics service?
- W The counselling really started with Siniscalco.
- I Yes.
- W That was the point.
- I Yes. Had that already begun at the time that Siniscalco was here, or it only when Peter Pearson came?
- W It had already started with Siniscalco because Peter Pearson arrived in Leiden later.
- I Yes, he did his Duchenne work. I've been seeing Gert-Jan van Ommen this morning and so I've heard about that. Which other close links did you have, apart from Race and Sanger and Bette Robson; did you have any other close, international links that you developed during this time?
- W Not any further. I stayed at the Galton Laboratories for, how long have I been at the Galton Laboratories?
- Y Three months, I think.
- W Yes, so that's how I met Bette Robson, obviously.
- I Yes.
- Y But Race and Sanger came here also a few times, I think.
- W Yes, well we were really friends. They were more senior, obviously.
- **I** No, they were lovely people.
- W Wonderful, yes.
- I Now may I ask you a little bit about human genetics and medical genetics in other parts of the Netherlands, because I've got an idea about Leiden and I've got an idea from Hans Galjaard about Rotterdam; but who were the first human geneticists in The Netherlands, would you say?
- W Well, there was George Anders; he was not the first one, or was he? Anyway he was the first person to be nominated in Groningen as Professor of Human Genetics. I can name for so far I know the different professors who worked in Holland in human genetics. The names are not in chronological order:
 - Marcello Siniscalco (Leiden);
 - George Fraser (Leiden);
 - Bobrow (one year, Leiden);
 - Geerts (one year, Nijmegen);
 - Ropers (Amsterdam);
 - G Buis (Groningen);
 - R Frants (Univ of Amsterdam);

Erikson (VU Amsterdam);

Geraets (Maastrict);

Ter Haar (Nijmegen)

I Just to complete my picture of human genetics across the country: now Anders was in Groningen. Am I right that his field was mainly cytogenetics? Now was it radiation also?

W Anders was in cytogenetics and Professor Sobels worked in radiation genetics.

- I And Sobels, he was here in Leiden?
- Y Yes.
- I So after Anders in Groningen, was there anybody in between Anders and Charles Buis, or did Buis take -
- W No, there was nobody.
- I Nijmegen then, to begin.
- W And Utrecht. It's a funny thing to think -
- W After Leiden Pearson went to America. He came back here but he finally went back to the States.
- I I know.
- W The work on Huntington's was concentrated in Leiden.

I Am I right that the beginning in Maastricht was Joop Geraets

- W Joop Geraets. That's right, yes.
- I And, as far as I know, he's still there.
- W Quite right, yes.
- I Good. So now I'm beginning to get a picture, because I can only get it from people of your generation, that in Leiden, really, Marcello Siniscalco was the first; and am I right he had come directly from the Galton lab and Penrose?
- W Where he started, that I don't know really.
- I I think he came from Italy and worked with Busatti Traverso. Paul Polani told me that.
- Y Polani, yes.
- I Yes. So were there any other very early people in human genetics in The Netherlands ?
- W Not really, no. if I think back, that was not human genetics but there were people before the war who -
- I Yes, what about them?

W They were anthropologists.

- Y In England you talk now about Huxley and that period?
- I mean there was in England a long tradition in human genetics done by more general geneticists like Haldane and Huxley and Hogben, and others. One person who made a big contribution from Netherlands of course was Waardenburg.
- W Waardenburg, ophthalmologist. His book was an absolute standard work.
- I Did you have links at all with him through your own work on eye disease?

W

I I've asked some people, and they've not been able to answer me: were all his records preserved in some proper archive? Because that really would be very important.

W No, it's a pity!

- Y But I suppose all those things are kept.
- I One hopes, but I've learned through my own work trying to identify records that very often they are not kept; or maybe they are kept and afterwards they get lost if they're not in some proper university library. So at some point, and that would be interesting.
- I Shall we first, Loe, shall we first finish the recording...and I've been asking everyone I've seen two questions, and the first is: Is there a special person that you feel has been of greatest influence in your career, your professional life, who stands out as being important to that, more than others?
- W George Bruyn, because he made it possible for me to do work in human genetics with other people.
- I That's important. That's really important.
- Y Apart from that he was a good friend.
- W And then of course through him also I came in contact with dermatology and ophthalmology.
- I That's very helpful; very helpful. The other question I've been asking to everyone is: If you just had to choose one piece or one area of the work that you've done, which would you feel has been your greatest contribution, or the one you feel is most important to you?
- W I think my research on Huntington, also because I have been all the time working with the patients who were involved and had formed a lay organisation which counted many patients. In collaboration with organisations we have formulated the guidelines for tests etc. They are still being used. Henri Petit and Audrey Tyler have also been very helpful in this.
- I We've talked about a lot of things but before I finish: are there any areas which we've not talked about, Loe, that you'd like to mention? Anything which I've left uncovered at all?
- W The three fields in which I have been really involved apart from Huntington, are ophthalmology and dermatology. I didn't mention the fact that I have invited people for their sabbatical; it was Arno Motulsky for a year, and then two Americans, J Parkony and VC Smith, from Chicago. They were working on colour vision.
- I And Motulsky, he came for a sabbatical here to Leiden? Is that when he was writing his book?
- Y It's quite possible.

W I don't know.

- I Anything else, Yvette, that you'd like to add to what we've gone over?
- Y [laughs] I think it is very nice of you to ask. No, I feel an intruder really because I don't know anything about medicine or about genetics.
- No, no, but you, in terms of the general framework and time and things; it's very important.
- Y It was always, I had also my own work and my study and everything alongside Loe, but I realised how very exciting it was because sometimes you were completely enthusiastic about some phenomena and it's always a good sign, no?
- I It was a wonderful time to be in the field of human genetics. So much has happened during this time.

- W And so early because it was 1945, no 1950, when it really started; and you met the people who were important at the time; Huxley and Haldane for example.
- I Well, there we are. I'm going to turn the machine off now and you can relax and you can say anything else you want. But many thanks.