

The Foundation of the American Academy of Ophthalmology  
Museum of Vision & Ophthalmic Heritage

**Oral History of Claes H. Dohlman, MD**

Interviewed by Jules L. Baum, MD, February 8, 2004

Created for the Academy Archives of the Museum of Vision

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JULES L. BAUM, MD: Before you go back through the years, let me ask you, how old are you now?

CLAES H. DOHLMAN, MD: I am 81 years old, 81-1/2.

DR. BAUM: And how do you spend your time professionally during the week?

DR. DOHLMAN: Professionally, I still work fulltime, although with somewhat diminished intensity, and it involves seeing cornea patients, doing surgery, doing clinical research, particularly on developing medical and other therapeutic techniques, such as keratoprosthesis and glaucoma procedures in patients with end-stage corneal disease.

I also teach, formally by lectures a little bit, but particularly during my work with my patients, who are all being worked up by residents and fellows, followed, of course, by discussions. So there is a lot of interaction between my coworkers and me all the time in the clinic.

Anyway, that fills my time and stimulates my interest.

DR. BAUM: How many days a week do you go in?

DR. DOHLMAN: I go in six days a week. I often operate on Saturdays, for various administrative reasons.

DR. BAUM: And what time do you usually get there?

DR. DOHLMAN: It varies. If it is surgery, 7:30; and if it is not, I can be an hour later. I'm quick to point out that although I spend a lot of time at the Infirmary, I do not presently do any administration, not since I left my chairmanship 15 years ago. As I said, some of my old intensity is gone, and I'm taking things a bit more leisurely than in my younger days. I'm certainly fully aware of my diminishing powers.

DR. BAUM: Talking about your younger days, let's go back to your childhood years in Sweden.

Tell us how you believe they shaped you for your professional career and your life in general.

DR. DOHLMAN: Well, it is perhaps not too easy to analyze, but certainly my father was a great role model for me. He was Professor and Chairman of the Ear, Nose and Throat Department in Lund, Sweden. He was, in turn, a pupil of Robert Barany, the Nobel Prize winner for inner ear physiology. Then, for my father's younger-years, research interest was the balance mechanism and the semi-circular canals of the inner ear.

During his subsequent clinical and administrative years, he did not have much time for research. But on his retirement at the age of 65, he took up these physiological problems again, learned electron-microscopy, and continued for another 20 years in a fulltime salaried research position. These activities occurred in London, at Bethesda, and for the last 13 years, at the Banting Institute in Toronto.

Then, at the age of 85, he gave up his organized salaried position, but continued to write and analyze earlier data, until he died at the age of 92 from a stroke. At that time, he was blind from macular degeneration and hemianopia, but he was faithfully assisted by my mother, who was profoundly deaf but had good vision. And together, they made a formidable team.

I should also mention that I had a happy childhood in Lund, and my parents took good care of me. My mother Ebba, was a lovely woman, warm and nurturing.

DR. BAUM: You told me once of a story when your father told you to shape up your school grades to be able to get into medical school. What was that about?

DR. DOHLMAN: This is a little personal story of questionable interest. I was 13 or perhaps 15; my school report card fell into my father's hands. It was not planned that way; it just occurred. I did not feel that my grades were that bad, but this opinion was not shared by my father. So, in order to really scare me into better performance, he told me that continuing this way I was heading for a lifetime career as a mail clerk in the town of Lund. That was probably the worst example he could think of at the moment. So I answered, 'What is wrong with being a mail clerk?' Well, obviously, this was not the right answer and I had to spend an uncomfortable weekend with my father, during which he told me how one should structure a meaningful career- which to me sounded very much like his own.

Of course he won out at the end. He was my role model and I became an academic. Still, I don't think there is the slightest thing wrong with being a mail clerk, but, then again, I have never regretted my choice of profession.

DR. BAUM: I understand you breezed into medical school. What year was that?

DR. DOHLMAN: That was 1943.

DR. BAUM: Did you do any research during medical school in Lund?

DR. DOHLMAN: Yes, I drifted into biochemistry, and I served as a junior teaching assistant during that time. I started to do some amateur work on the corneal glycosaminoglycans (mucopolysaccharides) biochemistry. It was a very amateurish start, but it stimulated my future interests.

DR. BAUM: Let's switch direction for a moment. When did your wife, Carin, come into the picture?

DR. DOHLMAN: This was in 1946. Carin, my future wife, came down from the city of Halsingborg as a law student. So, after a short but intensive courtship, we decided to become a pair. We got formally engaged in the summer of 1947, and we were married in April 1948. We were still students at the time, and our lifestyle was very Spartan and very intensive due to the pressures of our professional schools.

I should say here that we have now been married 55 years, a long and happy marriage, and we have six children, and we have twelve grandchildren. Our children have turned out very well and they are well educated. They all have doctorates, two MD's and four Ph.D.'s among the four boys and two girls.

Carin has not only been a perfect homemaker, but she was also my invaluable partner for my work because she has essentially taken care of so much of the day to day activities, which allowed me to pursue my career with little distraction. Of course, I spent considerable time with the children throughout their childhood and student years. We almost always had dinner together. And Sundays were for play. Otherwise, all the homework and the social activities was taken care of by Carin. And I have her to thank for whatever I've accomplished in ophthalmology.

DR. BAUM: You say all six of your children have doctorate degrees. If I may ask, how many years of college and post-graduate tuition did you and Carin subsidize?

DR. DOHLMAN: Altogether, 70 years, 7-zero years. And...

I should say that the children have been very unpretentious. They have gone to inexpensive schools; they have helped out themselves. So it was not such a financial burden.

DR. BAUM: Back to medicine. When did you graduate from medical school?

DR. DOHLMAN: This was in 1950. Carin graduated from law school about the same time.

DR. BAUM: And why did you choose ophthalmology?

DR. DOHLMAN: That is an interesting question. Like with so many career choices, it was very much by chance. My father suggested that I start in his training program in ENT, but I felt that it would have been awkward in that setting and I decided to try something else. I had good friends in the Department of Ophthalmology, and the course, the ophthalmology course during medical school was stimulating, with its blend of theory and practice. So I went up to the Chief,

Professor Sven Larsson, and asked if I could start as a junior resident. He didn't know me very well, in fact not at all, but he kindly agreed. We eventually became good friends, and he treated me very generously, almost like a son.

When I look back on those days, I just hope that we did not make too many mistakes. We were poorly supervised by today's standards, because there were only the Professor and four permanent staff members in the whole eye hospital, and we were very much left alone in the clinic. I did not have a real position, but I filled in for staff when they were away for research or travel. But these were very happy and interesting days, professionally, and felt that my learning curve was reasonably steep.

DR. BAUM: I understand that you went to Johns Hopkins University, the Wilmer Institute, for a research fellowship in the early 1950's. Why was that?

DR. DOHLMAN: I was interested in research. I tried to continue with my interest in corneal proteoglycans, particularly the glycosaminoglycans, but the time available to research was limited during residency.

After 18 months of rather uninterrupted resident-level clinical work, I had no prospect of getting another clinical slot for maybe a year. I had to take my place in the line of juniors. Therefore, because of this prospect of a long and clinically dry period, I decided to go abroad and try to learn some serious research techniques and broaden my vistas, so to speak. I discussed this with Ernst Barany in Uppsala, who was a great Professor of Pharmacology, and a leading light for many ophthalmologists with glaucoma interests. He spoke very highly of Jonas Friedenwald at the Wilmer Institute in Baltimore. And, therefore, I wrote to him and asked if I could come for a year, and he wrote back, 'By all means.'

DR. BAUM: What year was that?

DR. DOHLMAN: That was 1952. This became a very exciting time for me, to interact with Friedenwald and observe all the new things at Wilmer. It really became a very formative part of my career. Of course, we did not live enormously comfortably on \$250 a month with two children, but that did not matter to any of us. Both the professional and personal experience we got from that time was overwhelming.

DR. BAUM: Did Friedenwald know about your research work back in Sweden?

DR. DOHLMAN: No. No, not at all. The work I had done was too insignificant. When I arrived at Wilmer, Friedenwald suggested that we try to do some histochemistry and demonstrate the existence of the enzyme sulfatase acting on sulfated glycosaminoglycans in the cornea. I learned some histochemistry and tried to demonstrate the release of sulfate ions in the tissues by precipitating it with lead in the usual Gomori style. We seemed to get wonderfully positive results, but on exploration further, it turned out that what we thought was sulfate was, in fact, phosphate from compounds that were trapped in the tissue by the heparin that we used as a sulfate source, but not in the controls. To make a very long story short, we could demonstrate a

somewhat serious error in this basic well-accepted histochemical technique. This was published by me and Friedenwald, and I feel somewhat proud to have clarified that issue.

DR. BAUM: What was your impression of Friedenwald?

DR. DOHLMAN: Friedenwald was an intellectual giant. He was very shy. He was a very kind man, who read enormously, and had multiple interests in science, ranging from pathology, histochemistry, to glaucoma, aqueous humor physiology, and so on. He was very inspiring. He lived a very Spartan life, trying to make a living from an office practice in town in the mornings, and being at Wilmer in the afternoons. He had a salary of only \$4,000 a year for his work at Wilmer, and he was only an Associate Professor, not even made a full Professor. The laboratories were small and dirty. There were five technicians working for Dr. Friedenwald, and an occasional fellow like me. Frank Winter was a contemporary and also Bernie Becker. I admired Friedenwald enormously.

DR. BAUM: Did you do any clinical work at Wilmer at that time?

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