



THE OPTICAL FOUNDATION
IS MY MISSION IN LIFE:
TO CREATE OPPORTUNITIES
FOR OTHERS AND MAKE
EYECARE ACCESSIBLE

CAROLINA KUNNEN

INTERVIEW WITH CAROLINA KUNNEN

EVERYTHING I DID LED TO WHAT I DO NOW

CAROLINA KUNNEN: REGULAR NCC-VISITORS KNOW HER AS AN IMPORTANT MEMBER OF THE PROGRAM COMMITTEE. CAROLINA, A GIRL FROM RAALTE, A SMALL VILLAGE IN THE DUTCH REGION OVERIJSEL, WHO BECAUSE OF HER DYSLEXIA AND MILD ADHD WAS ADVISED TO DO MAVO (JUNIOR GENERAL SECONDARY EDUCATION), BUT WENT ON TO DO HAVO (SENIOR GENERAL SECONDARY EDUCATION) ANYWAY. SHE WENT FROM UTRECHT VIA NEW ZEALAND AND GHANA TO AUSTRALIA, GOT A PHD THERE, WAS PROMOTED IN AMERICA TO RESEARCH ASSISTANT PROFESSOR AT THE UNIVERSITY OF HOUSTON AND THEN MOVED TO FORT WORTH IN TEXAS, WHERE SHE HAS A JOB AT ALCON THAT SHE 'REALLY, REALLY LIKES'.

TEXT Riens Gort PHOTO'S Rens Bais

It all started with an open day at college. "My high school dean didn't think optometry was anything for me; radiology lab technician seemed a better fit." As a fourteen-year-old she believed him, now she can laugh about it. "At the open day in Utrecht, I had already decided in a few minutes: radiological laboratory technician was nothing for me. That day the door to the optometry department was also open and I heard Marc Veenstra telling from Marieb's book and I knew immediately: that's what I'm going to do".

Yes... I will!

We meet in the lobby of a hotel in Raalte: "This is where I come from, this is where I spent my youth and attended primary and secondary school". Carolina married Rens this weekend, at this location in the county of Salland, during a 100-years celebration party. She turned 40, Rens turned 50 and they have known each other for 10 years now. "For the guests it was a complete surprise, everyone was expecting a birthday party and suddenly a wedding ceremony took place. Guests besides our relatives and friends were also people who gave me the opportunity and inspired me to go so deeply into this beautiful profession". Rens, the brand new husband, also joined the interview. From his profession, he is used to taking pictures and accordingly he is doing so. The bride and groom are still 'in the mood', enthusiastic about the party with the many guests. That makes it a special and pleasant interview.

Love of lenses

Her training as an optometrist was followed by orthoptics. "I was twenty, felt too young to go to work, and orthoptics seemed like a good fit. I was living in a student residence

at the time and my roommates were all doing internships abroad. I wanted that too. When I was twenty-two I left for New Zealand; I definitely didn't want to choose a country close by. My mother said: 'You do know that they speak English there', because I barely spoke English. I did an internship there for two months and then traveled around for a couple of months. Back in the Netherlands, I tried to figure out what I wanted. I worked in different hospitals and besides that I always worked at Lens, an optical store in Deventer". The love for lenses started during her contact lens internship at Lens. "My internship supervisor Jan-Willem de Koning let me take over all his consulting hours due to circumstances and suddenly I was fitting scleral lenses. Fortunately, his guidance was fantastic. During the part-time period at Lens, I had a lot of contact with Jaap van Blitterswijk, a visionary and a wonderful man to work with if you have ambitions. At a certain point I stopped with the orthopedic consultations at the hospital, it didn't suit me anymore. It felt too much like working on an island, I preferred working in a team. At Lens I was then able to start an orthopedic consultation, fitting lenses and helping children put them in. I found that really super".

Off to Ghana

Carolina's grandmother's brother worked as a missionary in Ghana. As a little girl, she felt she wanted to go there too; the pictures she saw intrigued her. And in 2007 the time had come. "Sent out by a foundation, I contacted the existing optometry school in Cape Coast, Ghana. I initially went there for a few months, but it ended up being almost a year. Together we made the training there more hands-on. I taught binocular vision there and took optometry students

to elementary schools to provide eye care for children. Just before summer vacation, a few months later than I had hoped, the ordered equipment arrived. What I found was very special, was that the optometry students were willing to sacrifice their vacation so we could get started right away. I could offer them no more than lessons, guidance and a packed lunch, and yet 90% of the students decided to stay". Fifteen years later, and now president of The Optical Foundation, Carolina is still active in Ghana. Together with her team, she makes eye care accessible there and creates opportunities for Ghanaian optometry students. "We are now setting up an online platform: MOMO Board. That is a platform for Ghanaian optometry students to connect with students from other countries. There are many Ghanaian students who want to do a master's or PhD. That way they can get in touch with students from schools they want to go to, to get more information. Ultimately, our goal is that it's not just limited to Ghana".

From Masters to PhD

"In 2008 I came back to Lens and Jaap van Blitterswijk suggested then that I should do some myopia control. As always, he was quick off the mark and I immediately became interested. I tried to read some scientific articles, but didn't really know how to read them very well". That's when Carolina got the idea to do a master's degree, with the immediate motivation of being able to read and interpret scientific articles. Myopia management was still in its infancy, there

WHEN YOU THINK OF A CAREER YOU SHOULD NOT THINK OF A LADDER, NOT IN A STRAIGHT LINE GETTING HIGHER AND HIGHER. NO, EVERYTHING IS CONNECTED. EVERYTHING YOU DO, YOU TAKE BACK WITH YOU. YOU LEARN SOMETHING AND GAIN EXPERIENCE YOU CAN USE LATER ON

were some studies with atropine on animals, but otherwise it wasn't very much alive. "But where could and would I do my master's? On the advice of Eef van der Worp, I approached Eric Papas from Australia at BCLA. 'Yes you can' was his friendly response: 'If you can find money, you are welcome'. With a lot of effort and help from some people who wrote a letter I got a Dutch scholarship. That was very special, there are only 100 people in Holland a year who get that, and actually my prior education was not good enough. But I was able to go to Australia, to the famous Brien Holden Vision Institute. After six months, my mentor Eric Papas said to me, 'Why don't you change from Master to PhD? It's all going so well. That would mean it would take longer, but



then I would be a doctor. One problem was just that funding would stop if I switched from Master's to PhD. But I got lucky. Brien Holden spoke to me after seeing me giving a presentation on Ghana. He was impressed and also wanted to be my mentor. He arranged funding from his organization and I was able to continue my studies. Brien Holden, like Jaap van Blitterswijk, was a visionary. It is a privilege to have been able to work with these people. During that time in Australia, by the way, I met my husband Rens, whom I married yesterday".

From Australia to America

"After my PhD, I got in conversation with Kelly and Jason Nichols. They had a postdoc position for me in Birmingham Alabama. I had never been to America before and was curious about academic life there. We were supposed to go there for two years and now we are seven and a half years down the road. After six months we went to the University of Houston. There I did my postdoc in a year and a half and was promoted to research assistant professor. My work there was clinical research, including lab research on mice, but that part wasn't really my thing. I enjoyed the other studies with seeing patients much more. Because of my position, I led the studies. But does academia really suit me, I wondered. Against those little islands".

Early development

"Then Alcon had me flown in for a job interview and right away I knew: this is it, this job is totally it. I had done non-profit work, worked in stores and hospitals and academia, and now I was going into industry. At Alcon, I design our clinical trials. All new products I design from the first moment of development, that very early stage. It starts with the chemistry of the lens and the shape. We then put the lens on an eye for the first time at our clinic in Atlanta. How does it feel? How is the comfort? The vision? Are we going

to change something? A different radius? Then we go for registration – registration studies for FDA and CE approval – and then we do the 'claim studies'. Every claim you put on the packaging and everything we mention in commercials and advertisements, we have to be able to prove. Everything has to be true. All those studies I design with my team. I create the protocols, consult on how many people we are going to test and hear from the marketing department what they want to say about this product. We document that in studies. What I'm particularly focused on right now is 'early development', but I'm not allowed to say anything about that yet in this interview", she says with a laugh. "We do three studies a month in the clinic, which are often very short studies where we get results quickly, so it can go straight to R&D for possible modifications. I am present in the clinic a lot and can often quickly translate the results from my experience into further optimization. Because of my background I can react immediately to, for example, a lens that is too loose".

To my question of whether the ideal lens is not already there by now and my comment that there are really no big steps left to make anyway, she chooses her words carefully. "I can't say too much about that, of course, but we really are working on an extraordinary innovation. There is plenty more to come", she says with a telling smile.

Teamwork

"This work I really enjoy immensely, I get to collaborate as part of a team to design new lenses. Of course, I'm still a very small piece of the puzzle in the big Alcon. But working with a team, being a leader without authority, I'm learning all that here. I have been able to develop myself enormously, I get so many opportunities here and I'm gaining a wealth of experience. I get to work and think in all kinds of departments. Sometimes it seems like a dream that I get to be there and also get to manage the clinic in Atlanta these days. We live in Fort Worth, Texas. From there to my work is about a twenty-minute drive. To the clinic in Atlanta I go one week every month, which is a two-hour flight".

Proud of the Netherlands

"I am also incredibly proud of the Netherlands and often mention that at Alcon. Optically and technically, the Netherlands is very strong and I am extremely happy that I did my training there. We can still fit form-stable lenses, almost all of us have a keratometer on hand, we also dare to tackle scleral lenses and other specials. We know what happens when a radius or sagitta height changes. So I regularly mention in the clinic that I learned 'this or that' from Jaap or Jan-Willem. And I am very proud that I can be involved in the NCC, in my opinion the best but also the most fun contact lens congress in the world".

