



Our Philosophy

Creating a warm & compassionate atmosphere for our patients

Dr. Tong Xi & Dr. Jeroen Liebrechts

Dr. Jeroen Liebrechts and Dr. Tong Xi are oral & maxillofacial (OMF) surgeons and implantologists at Radboud University Medical Centre Nijmegen, the Netherlands. Beside their focus on the treatment of complex dentofacial deformities, facial trauma and oral rehabilitation, they are pioneers in the development and implementation of digital workflow in orthognathic surgery and implantology. They are initiating and coordinating various national and international research projects on the clinical validation and implementation of innovative 3D imaging techniques, intra-operative navigation, augmented reality and artificial intelligence in OMF surgery.

Q. Please introduce your team. Can you describe the treatment philosophy of your team?

Achieving a high predictability in the treatment outcomes and providing an adequate treatment plan that is based on the needs of each individual patient are the key aspects of the treatment philosophy of our team. To obtain predictable treatment outcomes, a thorough understanding of the biological fundamentals of the treatment approach and the implementation of an evidence-based methodology are essential, besides surgical skills and exposure to a vast number of cases. Innovative digital techniques have the potential to aid us in achieving predictable and consistent results for all our patients. To achieve satisfactory results, the expectation of the patient should be well-understood and well-managed. In our philosophy, creating a warm and compassionate atmosphere for our patients is essential to establish a sustainable relationship with them. This is an element that is unique to us as practitioners and something that is intrinsic and should not be replaced in the era of digitalization. Although in many aspects, we are performers of dental and medical sciences, we believe that the artistic vision we possess enlightens us in the daily approaches of clinical problem-solving. We feel that we complement each other in the field of art and science, as well as in the balance between clinical protocols and creativity.

Q. Do you have a particular mentor in the dental world, and how have they influenced you?

At the time when we were dental students, we first came in contact with dental implantology through the inspiring lectures and case studies by dr. Gert Meijer, who later became the professor of Implantology at the Department of Dentistry and Oral & Maxillofacial Surgery (OMF) in Nijmegen. Later, during our residency in OMF surgery, we operated together and he took us on a dive into human psychology, which was fascinating. The many wise words of Professor Meijer enlightened us in the world of implantology; it is not only surgery, implantology also involves a great deal of compassion and an adequate understanding of the patients' needs. In addition, we would advise young implantologists and dentists to read the book entitled „Zero bone loss concepts“ that was recently published by Tomas Linkevicius. This well-illustrated book provides evidence-based clinical and scientific insights regarding the fundamentals of implant surgery and prosthodontics, as well as their interactions.

Q. During your career as implantologist, you have worked with various implant systems, so can you explain your journey and why you changed each time?

Tong : as many who started in the field of dental

implantology, I used Straumann implants in most of my first cases. The main indications for using Straumann standard implants are in edentulous patients who require implant-retained removable prosthesis. Until today, I regard these implants as a very predictable implant system for edentulous lower jaws. As I started to perform more and more implantology for single tooth replacements or multiple teeth replacements in partial dentate cases, I used bone- level implants to obtain more predictable, functional and esthetic results. The hospital in which I had my residency in OMF surgery adopted the Branemark and later Nobel Biocare implant systems, so it was logical that I performed single tooth replacements using Nobel Replace, Nobel Parallel and later Nobel Active implants, especially in cases of immediate tooth replacement. When I was in training, I evaluated the bone-level and soft tissue level changes of the implants I placed. I was often surprised by the presence of cervical bone loss around some of my implants, that sometimes occurred for no apparent reason. During EAO conferences, I visited many stands of different implant systems to compare the differences in the philosophy of their design and the implant morphology. This was when I first came across MegaGen implants. When I visited South Korea in 2014 to see my friend the OMF surgeon professor Tae-Geon Kwon in Daegu, MegaGen invited me to visit MIR dental hospital, which is where Dr. Kwang Bum Park works. Inspired by the philosophy „for dentists, by dentists“, and seeing Dr. Park use MegaGen AnyRidge implants for different indications, I became curious how AnyRidge implants would perform. I found the combination of a slim cervical implant design with different thread widths to achieve a good primary stability in different bone types convincing. So, after I returned to the Netherlands, I tried a few cases with AnyRidge implants myself. After one year of follow-up, I saw very little cervical bone loss. After that, I was convinced that MegaGen AnyRidge implants could demonstrate predictable results, and I started to use AnyRidge implants more and more. I don't believe that a single implant design can perform well in every case; however, in each specific case, a certain implant design will perform better than other implant designs.

Q. How do you continue your professional development in relation to new dental techniques and procedures?

To understand implantology, we believe that we should start by systematically evaluating the results of every single case we perform. One should not only seek for surgery-related factors in cases of peri-implant bone loss, the design of the abutment and implant crowns are just as important! We have implemented the Plan-Do-Check-Act (PDCA) cycle in our daily practice, to continuously monitor our quality of work. This allows us to identify any encountered shortcomings, to act to overcome such shortcomings, to check the results of our interventions and to evaluate whether further improvements need to be envisaged. Self-reflection and contemplation are elements that we recommend to all young professionals. Furthermore, many of us can benefit from the free online course and conferences in the field of implantology, despite facing continuous uncertainties during the long-lasting COVID pandemic. After the travel restrictions are lifted, travelling to other countries to see how they work and talking to different professionals of various proficiency will also provide insights on how to approach similar cases differently. Open-mindedness for this is a prerequisite.



Q. What do you think about teamwork? Are you good at working in a team as implantologist?

In the world in which we have been brought up as individualists, teamwork can be challenging. As one can never master all skills, to be able to deliver consistent, predictable, and satisfactory results, it is necessary to collaborate and work as a team. We complement each other in surgery and prosthodontics, in management and organization, as well as in art and science. We would have never achieved what we have reached today had we not been working closely as a team. Being open and transparent while maintaining a common mission are the essential elements that fuel our team.

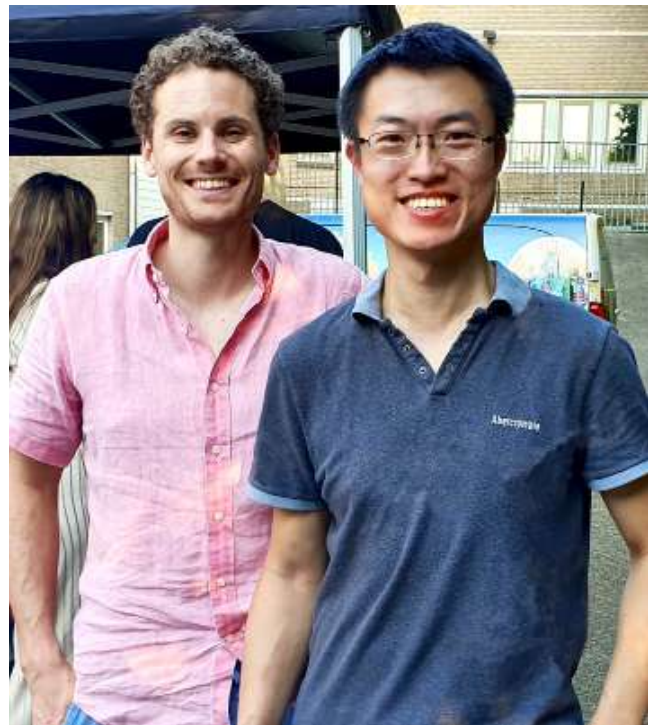
Q. Do you have any unforgettable memories as a dentist?

Jeroen : I have seen many challenging cases where trauma led to the destruction and loss of the front teeth, surrounding bone and peri-oral soft tissue. If you are a young patient who has suffered the loss of these esthetic pillars of the face, the psychological impact is enormous. Particularly, the moment when the front crowns and/or bridge is placed and the patient is able to look at themselves in the mirror and smile, this is a moment filled with emotion, for me as well as for my patients. I have insufficient words to describe such intense moments. It is such a blessing that my profession allows me to contribute to the patients' happiness in this way. Yes, even surgeons do get emotional!

Q. What is the most challenging procedure you've performed? What was the outcome?

Jeroen: Last summer, a Dutch professional cyclist crashed right before the finish in a race in Poland. At the time of the crash, he was going over 80 km/ h (50 mph). After emergency care was administered, he was repatriated to the Netherlands for reconstructive care. Because of the excellent reputation of professor Meijer and our team, we had the pleasure to work together on this particular case. The trauma led to the loss of all the maxillary anterior teeth, and most of the alveolar and maxillary bone. To reconstruct such a case in a predictable, functional and esthetic way, a staged approach was chosen, in the sequence of bone augmentation, implant placements and

prosthodontics, embedded in a 3D digital workflow. Due to the extent of the bone loss, autologous bone augmentation with soft tissue corrections was performed. The decision was made to use the iliac crest as a graft, instead of a calvarial bone graft since the latter could lead to complications in a possible future trauma. After a healing period of 4 months, the implants were placed according to the previously made 3D simulation, using a 3D printed drilling guide. After another 4 months of osseointegration, a ceramic front bridge was made by Michiel Wouters dental lab in conjunction with smile design, after which the bridge was screw-retained. The patient has been eating his favorite spareribs ever since, and as cyclist on the winning path once again. This feels like winning a race for me and our team.



Q, How do you handle the stress from work?

Tong : Having Asian roots, I perform a type of meditation and stretch exercise, called Ba Duan Jin (a type of health Qigong) to round up one of my long working days. By performing a series of eight stretch and meditation exercises, my muscles and joints get settled as well as my brain. This is probably the reason why I hardly experience a sore neck or shoulder. Also, my greatest hobby, train photography, empties and revitalizes my mind. I travel and walk

to unique places to take photographs of trains in all types of environments. As there are many factors that I have no control of in railway photography, such as sudden changes in the weather conditions, or an abrupt disruption of the railway line, I have learnt to make compromises and to be satisfied with what I have.

Jeroen: I love being in nature. To relax and unwind I often take walks in the forest with my girlfriend or go cycling with my friends. The city of Nijmegen has such beautiful surroundings for these activities.

Q. As a clinician, what advice would you like to give implant companies?

- 1. Listen** to the challenges that clinicians face, come up with solutions that are suited to the clinician and their environment.
- 2. Support** the education of young and enthusiastic doctors and dentists according to the phase of professional career they are in.
- 3. Focus** primarily on patient care, including patient education. Their needs are what dentistry and implantology are all about.

Q. As NVOI-certified implantologists, what advantages you can give to the patients? Tell us about NVOI certification.

Jeroen: as any dentist in the Netherlands can use the title “implantologist”, it is often unclear to patients whether the dentist ‘implantologist’ has actually had a well-structured training and continuous post-graduate education, and whether the dentist has been exposed to a wide variety of cases. NVOI has made up a list of minimal requirements for registration and this demands a certain level of quality, experience and training for the implantologists. Each NVOI certified implantologist needs to be recertified once every five years to maintain their level of expertise. As an official certification officer for NVOI, I visit the implantology clinics of my peers regularly. Together with my peers, we strive to maintain excellence in our field as implantologists, to keep ourselves motivated and perform on a high level. In this way, patients can trust the treatment outcomes to be consistent and sustainable.



Q. For education in the dental field, what do you suggest for your fellow colleagues to pursue?

Although it is essential to obtain knowledge concerning the smallest details of a certain treatment to achieve an outstanding result, it is as important to put the treatment plan into a broader perspective. To gain an additional one or two millimeters of gingiva at the implant neck may reflect the technical excellency of a treatment. However, if this occurs in a patient with little or no gingiva show, this aspect may be irrelevant to the patient and their perception of treatment quality. It is good to keep a holistic view in the field of implantology.

Q. You have written lots of articles on various subjects about implants. What do you think would be a good topic for our IJFD journal?

In the education of implantology, the focus is mainly on how to manage different cases with implantology, with additional and auxiliary surgical and prosthodontics techniques. It is relatively easy to indicate implantology, yet, it is way harder to decline a request for implantology. In daily practice, many requests for implantology should be reconsidered for the sake of the patient's well-being. A rubric on when not to implant would be unique and interesting for the readers of IJFD.

Q. What are the current challenges facing the implant market and dental industry in your opinion?

As clinicians and patients are becoming more and more critical of treatment results and the products that they use or receive, national healthcare budgets have also come under increasing pressure through the years. Despite striving for excellence in the field of implantology, the implant industry should foresee these challenges on a macroscopic scale. It is in the interest of the dental industry to act to unburden healthcare professionals as well as society in a sustainable way. Also, environmental issues such as efficient management of packing materials and waste is an increasing challenge that the dental industry will face in the coming decade.

Q. What are the long-term goals for you and your team?

To keep on collaborating with an inspiring team, to share our clinical and scientific expertise with our peers, and to have the joy of seeing satisfied patients every day.



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