## TRINON COLLEGIUM PRACTICUM MAGAZINE

[2010 edition]



# Q-Implant® Marathon

Practical implantology courses





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### Publisher

Trinon Collegium Practicum Augartenstraße 1 76137 Karlsruhe Tel.: +49 721 932 70-0

Fax: +49 721 24991 www.trinon.com

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#### **Editorial staff**

Miroslaw Pienkowski, Katja Lvova, Dagmar Kromer-Busch

## Typesetting, printing, processing

F&W Mediencenter GmbH 83361 Kienberg

Tel.: 08628 9884-0, www.fw-medien.de

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Dear Readers,

Q-Implant® Marathon celebrated its fifth anniversary in 2008. This is our opportunity to look back at the development of our courses and document our experiences in this brochure for all interested parties.

At its launch in December 2003, the Q-Implant® Marathon was something new to the mainly theory-oriented training landscape.

With our hands-on courses, budding implantologists receive compact practical experience to advance their theoretical training, giving them important confidence when performing their first independent implantations. Experienced professionals have the opportunity to perfect their practical skills and hone them on difficult indications. Our concept is to work direct at the dental chair under

the supervision of experienced implantologists. In the one-week courses, teams of two or three students work from Monday to Friday, often for eight hours a day. This direct method of teaching is inspired by surgeon training in hospitals: After all, setting implants is surgery and requires just such ability.

After its beginnings in Cuba, we introduced course locations in Cambodia, the Dominican Republic and, most recently, in Laos in 2008. Our motivation come from the high demand from dental practitioners. Meanwhile, 67 courses have been held, 866 dentists have participated, and 29,198 implants have been placed. From the beginning, patient cases were documented to be included in scientific studies providing valuable insight about the topic of, for example, immediate implants. Already in the works is a multicenter study in which 954 Cuban patients received follow-up examinations after treatment in 2004 during the Q-Implant® Marathon.

Of course, there were teething problems in different locations - and of course we first had to build a solid relationship with the doctors on location. The trust on both sides grew steadily at all course sites. We were able to convince ourselves of the abilities and reliability of our partners and together we made sure that all patients received quality comprehensive care.

Ultimately, our courses have the standard they do today only because of the work of our partners - some of whom became good friends during the intensive development period. I would especially like to mention Dr. Alfredo Valencia, scientific director of our courses and main supervisor in the Dominican Republic. It was he who had the crucial idea to transfer this direct teaching method from surgery to the Q-Implant Marathon® courses. Also, Dr. Valencia still determines the courses' direction. I would also like to thank all those who, through their effort, have advanced our courses and who are not specifically mentioned in this brochure.

To meet the demands of presenting our experiences during the complex five-year course development, we chose a particular form for this brochure. A specialized journalist accompanied a Q-Implant® Marathon in Cuba and the Dominican Republic and conducted interviews with all lecturers, the local medical team, and the participants. In addition, there are interviews with all the main lecturers from the other sites. From these different perspectives, a complex overall picture emerged. The photos for our brochure are, for the most part, from students, and thus provide a good feeling for the atmosphere present at the courses. We realize therefore that not every image is technically perfect.

For all dentists wishing to engage in a Q-Implant® Marathon course in the future, we have compiled practical information about the course schedule in the second part of our brochure. For we not only look back on the courses, but look to the future of our training programme with enthusiasm and confidence. With the work we do and present to you in this brochure, we hope to provide a contribution to improve implant treatment and help many patients improve their quality of life.

We wish you an enjoyable read

Miroslaw Pienkowski

"Learning is like rowing against the tide.
Once you stop doing it, you drift back."

(Benjamin Britten)



Miroslaw Pienkowski and Dr. Alfredo Valencia planning the first Q-Implant® Marathon in Cuba.

# The innovative concept of the Q-Implant® Marathon Courses Practical experience from the beginning

Q-Implant® Marathon courses are based on compact practical experience: The dentist performs surgery on a patient from day one guided by experienced supervisors. This method of teaching at the dental chair is borrowed from surgeon training.

Miroslaw Pienkowski compares the prospective implantologists to a learner driver. They must have an expert command of the theory so not to cause accidents. But actually driving a car must be learned independently.

Pienkowski explains: "I put the car in motion, I have to change gear, steer, etc., and do this quickly, because the time factor puts me under pressure." In the next stage, alternating practice sessions and breaks allows the technique to sink in. This outlines the typical process of learning a motor function. Movements must be internalized through practice.

The philosophy also speaks of "knowledge in the hands". Simultaneously, to automate these movements means the student understands and can correctly assess and act in this situation – whether in traffic or at the jaw of the patient.

Pienkowski is not an implantologist, but the owner of Trinon, a specialist in precision titanium products. The company manufactures the Q-Implant® system and this stirred the interest of the company's owner for implantology and the situation of dentists wanting to enter this field. In 2003, he

talked with his former scientific adviser to the Q-Implant® system, Dr. Alfredo Valencia Ph.D., about how dentists could work better and faster in implantology.

The situation then appeared to both to be problematic about the safety of patients: while the learner driver receives their licence only after a few practice hours and a test, every dentist – even with no experience on patients – can practice implantology. This "Implantology disaster" had to be addressed, and that was when the idea of hands-on training, the Q-Implant® Marathon, was born.

## Implantology education and training: mostly theory-based and time-consuming

Previously it was difficult for dentists to enter the field of implantology successfully. It is not a subject of university education. The international education and training for dentists is diverse, but most of the university degrees and courses take a long time and are mainly of theoretical orientation. Some avocational Master of Science implantology degrees last four or five semesters. Further education, often in cooperation with universities and scientific societies, usually take longer. For the dentist who has just set up his own practice, the duration of the courses can be an obstacle on the road to implantology, where gaining a solid theoretical basis essential.

In all education and training the dentist almost never works on patients. Also, in postgraduate study, proof of personal clinical cases is sufficient. Prof. Rainer Valentin, board member of the German Society for Dental Implantology (DGZI) and Supervisor of Q-Implant® Marathon courses, notes that Germany, in the last ten years, has increasingly placed emphasis on theoretical training. This means proof of practical experience is neglected. We have a big problem in essentially proving practical experience. We can only declare that "I have worked on so many cases, but it's never been proven", said Professor Valentin. And if experience is still lacking after training, graduates will have many inhibitions to put their mainly theoretical knowledge into practice.

"One is only confident doing what one knows", said Dr. Harald Glas from Vienna, bringing the situation of participants of a Q-Implant® Marathon in Cuba to the point. When confidence is missing, the dentist fears failure. He takes on only the simplest cases he feels confident performing, which he had perhaps performed once or twice in practice. More difficult cases will be passed on. This results in long pauses between individual implants and the experience gained is small. Dr. Glas has owned his private practice seven years ago and performs implants with a surgeon. He has only placed around 20 implants. During the course he wants to "try something new" – but under supervision. He also would

like to gain much experience quickly, something that was impossible before.

## The course concept: compacted work experience

The Q-Implant® Marathon courses are purely hands-on courses. A solid theoretical knowledge in implant dentistry is necessary. In exchange, international participants receive as much practical experience within a single week as possible. In clear terms this means the novice should place at least 30 implants during this time. Trinon thus guarantees extensive experience working on the patient. In the Q-Implant® Marathon, participants work in small groups. They are taken directly to the patient, who has been prepared by a resident team. Two to three participants treat a patient under supervision. One participant operates on a patient, another assists, while another may observe the procedure. The participants first discuss the case with the tutor, an experienced implant dentist or oral and maxillofacial surgeon, based on the indication and the x-rays, as well as the exact procedure, continuing then to treat the patient. In the surgery room, several operations are performed in parallel, and an instructor is always present, able to assist if needed. All questions about surgical treatment are directly addressed at the chair .\*



A typical course scenario: one participant operates, the second assists while the tutor observes the procedure.

Most patients are immediately provided with longterm temporary restorations so participants can see the result of treatment.

During surgery, photographs may be taken. The photographic documentation of their cases is also useful, allowing participants to discuss these cases later and take the experience gained back home in photographic form.

<sup>\*</sup> Generally the agenda is the same for all Q-Implant® Marathon courses, whether in Cuba, Cambodia, the Dominican Republic or in Laos. There are only small organizational differences, which we'll discuss hereafter.

## The teaching method is borrowed from medical surgery

The method of direct teaching at the dental chair was transferred from surgical training to dental implantology by Dr. Alfredo Valencia, now scientific director of the Trinon course programme.

"What we are doing here is exactly what we do in surgical training in Spain," explains Dr. Valencia. He is convinced of this method's effectiveness but knows from experience which hurdles face the participants here. The feeling of "being thrown in at the deep end" is what he felt after his basic training as a doctor, when he went to specialize in plastic surgery at a hospital in Seville. "On the first day, just as my bus had arrived, there was a call - Dr. Valencia, you must operate on a small boy's finger!'" he says, now amused.

"I said: I do not even know how to do that, I have no experience.' They just said, ' Go and do it!'"

From the first day, the emphasis is on practical surgical training of young doctors at the centre. The experienced surgeon guides the hand of the assistant physician and gives him the feeling for working on patients. The Q-Implant® Marathon courses also work in this way: The hands of the beginner are at first often guided, until he gains the confidence, step by step, to work independently. "Learning by doing is the most successful way to gain experience in implantology and that is why we do it that way," says Dr. Alfredo Valencia.

Dr. Eduardo Valencia Ph. D. also guides participants during the Q-Implant® Marathon courses. He shares the vision of his brother, Dr. Alfredo Valencia

Participants who came to the courses had profound theoretical knowledge and here they would gain the practical knowledge they lack. As a doctor, it had always been a challenge for him to train novices. "I have taught my whole life, and if a novice holds a scalpel in his hand for the first time, it is my responsibility the incisions he makes are clean." Trinon enables him to teach these classes in the same manner as in his professional life. "I train professional surgeons - in fact they are trained dentists but to me, they are like interns."

Miroslaw Pienkowski and Dr. Alfredo Valencia introduced the Q-Implant® Marathon courses in December 2003. Now the courses take place in Santa Clara (Cuba), Phnom Penh (Cambodia), Santo Domingo (Dominican Republic), and Vientiane (Laos). From the beginning, they decided on a phased approach with Beginners, Advanced level I and II. The situation of the beginner is similar to that of the dentist with some experience in simple cases, which is an argument for the staged set up of the advanced courses, allowing them to venture into the more complicated cases.



Miroslaw Pienkowski still accompanies many of the courses himself. Here he is shown in conversation with two students in Santo Domingo.

## Is the comparison with a marathon exaggerated?

Of course, the Q-Implant® Marathon courses are an intense practical experience. But is the comparison with a marathon not exaggerated? Maybe not, because the students have a very busy week. They are in surgery for five days, from half past nine in the morning to at least six o'clock at night. There are many patients to be treated in quick succession. There is no lunch break, only a lunch box that can be eaten when the opportunity arises. Besides, operating conditions are initially unfamiliar and the equipment in some countries is more basic than the participants are used to at home. Therefore, one can indeed speak of a marathon: a very intense experience, a struggle with one's self.

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**Dr. Rogelio Ibanez Ibanez,** Spain, Supervisor in Santo Domingo

The participants find the hands-on course good. From the very first moment I show them how to place implants. And every time, with every new operation, I do less and the participants more. Until they themselves carry out the procedure. Most dentists operate independently by Wednesday or Thursday.

## Comments from participants and tutors

**Dr. Serge Chausse,** Canada, initially attended two Q-Implant® Marathon courses (in late 2006 and early 2007, Level I and Level II) and now works as a supervisor in Santo Domingo.

I had attended so many surgery courses around the world but had never been on a course like with Trinon. I never developed the confidence to carry out implants myself, because no one else in the world shows the dentist how to put knowledge into practice. We have practical courses with corpses, we practice with artificial jaws, with animal bones, with wood, but we never treat the patients themselves.

In Canada, it is often taught that implantology is dangerous, and that it is only for the well-educated, as the course lecturers are themselves ... Thus, we attended their courses and eventually ended up sending the patient to them to take over the surgical part, and only providing the patients with their prosthetics. This is exactly what I have been doing for 25 years. Three years ago, this Q-Implant® Marathon course changed my life ... Back home, implantology is now an important part of my daily practice.

I see dentists in Quebec who came here and now place implants themselves. Like me, they had previously visited many courses, but they still feared practical implantology. Then they came here and lost this fear. This course demystifies implantology – one is anxious to drill into the jawbone until you actually do it with the tutor guiding your hand and you feel the bone yourself. On the second day he lets you go it alone and by the end of the week you are placing all the implants alone.

**Dr. Samuel Wong,** USA, participant of the Q-Implant® Marathon course in Santo Domingo (Dominican Republic) in February 2009

I found this course very good because we gained a lot of hands-on experience. Normally in such courses you work with phantom cases, even if hands-on experience is claimed. In this course we have been working on the patient and you can feel the difference. It was an intense experience ... We worked from nine o'clock in the morning to eight in the evening. But we enjoyed it and we wanted to work more. ... I would not object to spending a whole month there.

I feel more skilled now and I have a high level of confidence when I do implant procedures and I think the course gave me a really good opportunity to learn the implantation techniques.

I think the company makes a large contribution to implantology.

Dr. Lex van Turenhout, Netherlands, participant of the Q-Implant® Marathon course (Advanced I) at Santa Clara (Cuba) in February 2009 It was a big challenge to go into a surgery situation without much preparation and just get started... you see the substrate and act immediately. Seeing and doing - for me, that is an important issue. I have found this course to be very well designed and tutored. One wonders how much expertise is present here – I also mean the local oral surgeons [a team of European doctors is also at hand]. I find that they have an accurate feel for what they do. They give good tips and have seen many cases... It was an enormous pleasure to take part in this course. The collaboration of teams brings with it much enthusiasm.

# Almost 30,000 implants placed

The rapid development of the Q-Implant® Marathon courses is marked by the steady increase in courses, the number of implants placed, and the number of participants.

The Q-Implant® Marathon started in December 2003 in Cuba. The Cuban courses are still an important pillar of the programme, as the figures show (Chart 1): Most of the 29,198 implants placed in the past five years result from Cuban courses. The figures from Dominican Republic are close to numbers placed in Cuba. These courses have been available since 2006, running parallel with the Cuban courses. Lower implant numbers are found at the courses in Cambodia (since 2004) and in Laos (since 2008).

There tend to be fewer implants placed in the other two course sites, since the participant and patient numbers are slightly lower.

The total annual number of implants placed doubled between 2004 and 2008, from about 4,000 to about 8,000 units (Figure 1). The number of courses has quadrupled in this period. In the first full academic year of 2004, five courses were held in Cuba and Cambodia, whereas in 2008 it was 20 at four locations (Figure 1). A total of 67 Q-Implant® Marathons have been held so far. These were attended by 866 dentists in total; this lead to 8.756 patients treated with Q-Implants.

Participation rates have steadily risen since 2004 and have nearly tripled (figure 3). 2008 was the record year for the course programme so far with 20 courses, 236 participants, and 7.977 placed implants.

On average, 13 participants attended a course and each placed an average of 33.7 implants – even if there is no such thing as an "average" course (Figure 4).

## **Multicenter Study Cuba**

Trinon Collegium Practicum is conducting a study in Cuba on the Q-Implant® Marathon courses under the scientific direction of Dr. Eduardo Valencia. In the scope of this study in 2009/2010, all Cuban patients from the first intake

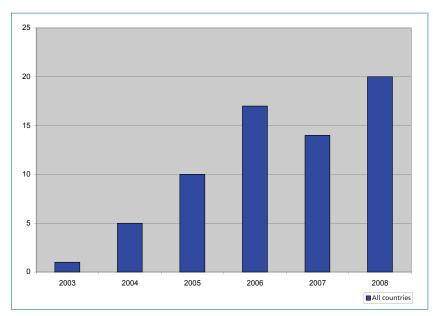


Figure 1: Compilation of the Q-Implant® Marathon courses for all countries from 2003-2008. In total 67 courses.

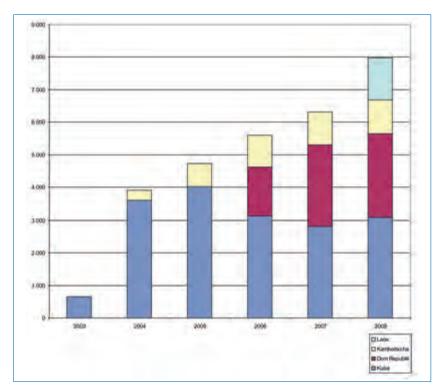


Figure 2: Placed implants in the Q-Implant® Marathon course of 2003-2008, divided by country. In total, 29.198.

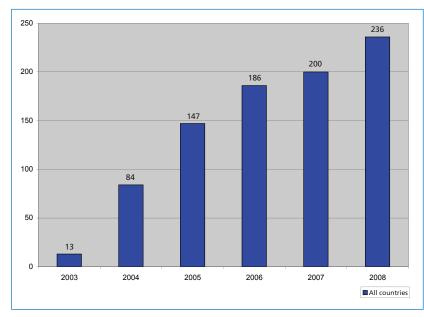


Figure 3: Number of students at the Q-Implant® Marathon in the years 2003-2008 (all countries). In total 866 students.

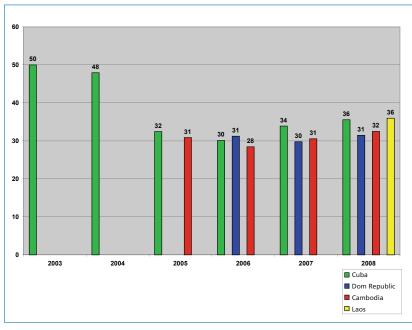


Figure 4: The number of implants placed by participants during each course.

(2003 and 2004) will be re-examined. All the cases are strictly documented with x-rays, clinical pictures and clinical checkups. The results of this five-year observation of more than 1.000 patients will be published in late 2010-2011.

In cooperation with local medical teams a good long-term trustful relationship with patients was successfully established. Trinon Collegium Practicum therefore expects to implement plans to expand the courses on offer soon. Preparations for the launch in more countries are already well underway. Another important project: All sites will introduce a uniform patient recall protocol that will enable the evaluation of overall results in a few years. The studies carried out by Trinon Collegium Practicum based on this data will have different leading themes. Since the onephase approach prevails in courses, immediate loading and immediate dentures will be important issues. In addition, different indications should be explored, such as single tooth implants, closing toothbounded gaps with several implants and restoring the edentulous upper and lower jaws. Other priorities for future studies will be evaluating the different prosthetic restorations and augmentation methods used in the Q-Implant® Marathon courses.

Among others, the following points were defined:

- 1a Immediate loading
- 1b Immediate restoration
- 2 Edentulous maxilla and mandible
- 3 Types of prosthetic care
- 4 Bone quality and augmentation
- 5 Pre-implantology
- 5a Augmentation
- 5b Survival of the implants in relation to the implant length

# Five years of Q-Implant® Marathon: Beginnings and development of courses in Cuba Pioneers in Cuba

The first Q-Implant® Marathon course was held in December 2003, in Santa Clara. Dr. Alfredo Valencia Ph.D., a pioneer of implant dentistry in Spain, built this course with Miroslaw Pienkowski. His extensive experience in implantology and advanced training abroad should benefit the course.

We are at the hotel restaurant Pelícano, not far from Santo Domingo. The restaurant is built on jetties into the sea, by day you look out on to the gentle, turquoise waves. Anyone who wants can just slip into the water – it's all very relaxed here. But it is already getting late. Dr. Alfredo Valencia sits relaxed opposite me, you would not think he just returned from a ten-hour day of surgery at a Q-Implant® Marathon course.



Dr. Alfredo Valencia.

Dr. Valencia is now the scientific director of the hole course programme and serves as the main course supervisor in the Dominican Republic. He tells me about the beginnings of

the Q-Implant® Marathon courses.

Dr. Valencia is one of the pioneers of implant dentistry in Spain.

Shortly after Professor Per-Ingvar Brånemark laid the foundations for a beginning in implant dentistry in the early 1980s, he started work in implantology. During this time, he also travelled to Sweden and America frequently to monitor the development on site. Towards the end of the 1980s, Dr. Valencia then worked as a consultant for Brånemark.

In 1991 he went to Cuba to give classes in implantology, including at the University of Havana.

Because of his experience in implantology on one hand, and courses in Cuba on the other, the cooperation with Miroslaw Pienkowski, owner of Trinon, came about. Pienkowski wanted to simplify the dentist's entry into implantology with a new, practice-oriented course system.

"I met Mr. Pienkowski at the end of 1999" says Dr. Valencia. "He was very open and we talked about what it is like to travel around the world. I also told him that I had experience with Cuba, a communist country, and he said, ,How about if you travelled to Cuba for me and once again look into this – maybe we can put something together?"

As a course site, Cuba's advantage was the large potential of patients who are themselves unable to pay for implant treatment. Thus, Trinon does not impede on the local implant market and the free implants in the clinics would not take away patients from resident dentists, whose patients are able to pay for treatment themselves – something of a problem within a higher income structure of some countries.

#### **First Steps**

Dr. Valencia was interested and prepared the joint journey that was to start in Havana. "Havana was not so great," says Dr. Valencia.

"I also had a bad experience in the late 1990s with another company in Havana. Therefore, we decided to go to the centre of Cuba where there was a clinic already working with implants." They visited the University Hospital of Santa Clara, in the



Doctors and participants of the first Q-Implant® Marathon in front of the University Clinic in Santa Clara, Cuba.

Villa Clara region, and presented the Trinon Q-Implant® system to them. "Because our system was new and had better opportunities for immediate loading, and local doctors so far only knew of two-phase implants, they were very impressed. So they said, ,We are very interested, but first, you must instruct us' ".

And this they did: Pienkowski and Dr. Valencia explained the system and the Cubans were soon ready to begin.

First, the contract with the Cuban Ministry of Health and the Hospital still had to be completed, since foreign doctors were to operate and insurance issues had to be clarified. This was, however, completed in a very uncomplicated manner. In November 2003, contracts were signed at a convention for implantology, and in December the first course took place. This was a trial run with friends, who had heard about Pienkowski's and Dr. Valencia's plans through word of mouth.

Also, Dr. Alfredo Valencia's brother, Dr. Eduardo Valencia, was one of the first to attend and subsequently assumed a major role in organization and as a supervisor.

From the beginning, the participants were informed of a new and direct method of teaching (see concept p. 5). It worked, and other courses were started.



Dr. Alfredo and Dr. Eduardo Valencia in talks. Both were significantly involved in developing of courses in Cuba.

## Tutors also have a learning curve

Naturally, the Q-Implant® Marathon courses did not run smoothly from the outset, especially at first as the international team had to adjust to Cuban conditions. The logistic problems of implant treatment had to be resolved. Trinon now runs a small warehouse in Cuba, allowing access to supplies at



Prof. Rainer Valentin explains the different instruments to a participant.

any time. Communication problems also hampered a flexible schedule, since European mobile phones could not connect with Cuban networks. We had to change to Cuban phones. Many problems both small and large arose with things like accommodating foreign guests, patient selection, and surgeries, for which solutions were found. Occasionally, Trinon helped out by investing in things such as equipping a prosthetic laboratory and providing the University Clinic with materials and tools.

The experience with course participants improved development. The supervisors paid attention to the needs of the dentists and adjusted to suit them. The pace was slowed down and the number of implants reduced slightly, we started to discuss the patient cases in more detail.

At participants' request, an evening meeting in Santa Clara was introduced.

#### Departure to other locations

Because of the huge international success of the Q-Implant® Marathon courses in 2004, Trinon began to look to set up more sites. The first decision fell to Cambodia. This site in Asia seemed particularly suited to meet both Arab and Asian expectations. One year later a course in the Dominican Republic was started which always runs parallel to the Cuban courses. In 2008, the most recent project, Laos, was added. Other locations are currently being planned.

### **Cuba today**

The courses still take place in Cuba today, at the University Hospital of Santa Clara. Besides the surgery room in Santa Clara with its four treatment chairs, there are also rooms at the Prosthetic Centre Centro de rehabilitación de la cara y prótesis maxila-buco-facial, with three more chairs for further treatment at our disposal. As main supervisor, Dr. Eduardo Valencia jointly manages the courses with the Cuban medical team. The other

international supervisors alternate. So far, Prof. Rainer Valentin Ph.D., Dr. Andreas Kurrek, Dr. Dr. Angelo Trödhan and Dr. Dr. Matthias Peuten have all taught in Cuba.

The international nature of the team is beneficial for the participants: The supervisors have slightly varying, country-specific approaches to implant dentistry. Students can adapt the methods best suited to them and create their own style. The collaboration with the local team headed by Dr. Ernesto Marquez Rancaño has strengthened over the past five years and is perceived by both sides to be very successful (see interview on p. 14).

A major innovation is in the pipeline for the University Hospital in Santa Clara. Three dental operating rooms, equipped with modern treatment units, are under construction in a new wing. The treatment rooms are divided into a hygiene room, a changing room and an office as well as a classroom for the students of the University Clinic, where they can watch live transmissions of operations. Trinon supported the project with a video player for the training room and a digital x-ray machine. The participants of the Q-Implant® Marathon courses will soon be able to share the new building, which stands out from the simple standard of the older operating rooms.



The training classrooms of the new dental wing of the University Hospital of Santa Clara.



Impressions of a surgical situation.

## The Q-Implant® Marathon from the perspective of the Cuban medical teams

## "When the students leave here, they are fully-fledged"

The local team of Cuban doctors can look back on five years of experience in Q-Implant® Marathon courses. They ensure the preparation and selection of patients, guide students during the operations, and take over the aftercare of patients.

## How have the Q-Implant® Marathon courses developed in five years?

Dr. María Gabriela Pérez Cuevas, a specialist in implant prosthetics:

To this day we have held 23 courses in this hospital. At first, we had doubts about treating patients [Especially with regard to immediate loading, which was not previously done - Editor's note] and about the courses. The courses have steadily developed and we have gained confidence and brought more specialists into the team.

These now include oral and maxillofacial surgeons, specialists in prosthetics and periodontal disease and dental technicians. There are more treatments carried out now, especially those with immediate loading.

The treatments are fast, easy, and have an equally good or better result than the previous conventional treatments. The patients are very satisfied.



Dr. María Gabriela Pérez Cuevas.

Dr. Juan Antonio Santisteban Rodrucénez, maxillofacial surgeon:

I think the Trinon team is very open and take suggestions from the students well. They are interested in their views, and strive to continuously improve the courses. For example: In the beginning there was no staff meeting at the end of the day. From feedback they found that participants would like to talk about what they had done during the day and saw it would be a good idea to meet again. For the past two and a half years this informal early evening meeting with the entire medical team and the participants has been taking place. Participants bring photographs of patient cases with them. Since patients are immediately provided with temporary restorations, this documentation can be used for discussing the procedures and results of treatment

## What specific medical developments were made?

Dr. Ruben Rodriguez Jimenez, maxillofacial surgeon:

We now perform more complex surgery with bone augmentation and sinus lifts in the courses.

We use instruments and materials brought by Trinon, too.

## You also use the Trinon Q-Implant® system. What experience have you had with this?

Dr. Rubén Bello Rodriguez, head of maxillofacial surgery at the José Luis Miranda Children's Hospital:

The Trinon implant system is especially suited to teaching. It is very straightforward and easy for the students [Or for participants - editor's note.] to deal with.

One has the option to change the position and orientation of the implant during placement. Basically, all Trinon implants are similar and one therefore does not need to learn as many different approaches.

Dr. José Concepción Guzmán, maxillofacial surgeon:

The Trinon implants enable us also to place implants into somewhat poorer bone quality [without extensive augmentation].



Dr. Rubén Bello Rodriguez.

## Were there initial problems with the course agenda?

Dr. María Gabriela Pérez Cuevas:

In the beginning there were difficulties. It was noted that patients had to be selected more accurately. [...] Both on the psychological side as well as the medical side, particularly the oral health status and oral hygiene must be considered if the treatment is to be successful.

Meanwhile, pretreatment of patients includes intensive oral rehabilitations and professional scaling.

#### At what professional level are courses now?

Dr. María Gabriela Pérez Cuevas:

All courses are now very professional. With experience, the courses get better and better. Treatment is more successful and we specialists continue to learn.

## What experience have you made with the participants?

Dr. Rubén Bello Rodriguez:

The participants show much interest and listen carefully to what is said. Of course, not all have the same skills, which has nothing to do with the University from which they come. The education levels of the universities are very similar.

## How much do participants learn in this one week?

Dr. Rubén Bello Rodriguez:

When the students leave here, they are fully-fledged.

### How do you achieve this?

Dr. Rubén Bello Rodriguez:

With trust. We give them confidence. On the second day, I tell each group: "You are at home here and we are your family." First, we talk a bit about theory and practice and look at the instruments. Then I do a small demonstration, following which, the participants take over.

I have been a university professor for 30 years and I learn something new with each new group. Through Trinon courses I've found that this method of direct learning is the only way to bring all participants to the same level.

#### What is the step-by-step procedure?

Dr. Ana Cecilia Valdés Borroto, maxillofacial surgeon:

I personally teach as follows: I introduce participants and patient to each other. I tell them if the patient has prior treatment, which prosthetic care is planned [...] and why. And I ask the opinion of the participants and explain, step-by-step, how they should proceed. I tell them, for example, what anaesthesia they should choose and why. And whether it is necessary to raise a flap. If bone condition is poor, we will attend to that before deciding. Some of the participants cannot do this and you have to show them how. Treatment can always be reviewed and if complications occur, they solve them with our help. That's the way it is during the first days ...

## How do you assess the learning process for the beginner?

Dr. Ana Cecilia Valdés Borroto, maxillofacial Surgeon:

At first everyone is afraid, afraid not to do well enough. But we give them security, they seek,



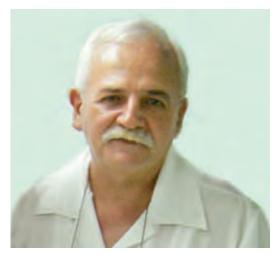
Dr. Ana Cecilia Valdés Borroto (left) and Dr. Ruben Rodriguez Jimenez (centre).

because we are always at their side. On the second and third day you can really see the progress and their self-esteem grows. I explain what to do, and let them work themselves. I no longer have to explain step-by-step what to do.

At the end of the week they can place an implant, and even cope with complications. They learn more than they should - that is to place an implant - they can also handle more complex cases, they can raise a flap, explant, and many other things.

## Are the courses of benefit for the University Hospital and its patients?

Dr. D. Ernesto Marquez Rancaño, senior physician oral and maxillofacial surgery, and team leader: The exchange between the foreign doctors, the students and our doctors is very important. Thus, we benefit from the international experience. In implantology, we work at a state-of-the-art level. Our patients have benefited greatly from these courses. We now have the option of offering new,



Dr. D. Ernesto Marquez Rancaño.

modern treatment to them. Trinon has always been seriously engaged and has placed quality of treatment first. I am grateful to Miroslaw Pienkowski for setting up this project.



The students and the medical team of the Q-Implant® Marathon in Cuba.

## The second course location:

## Q-Implant® Marathon courses in Cambodia

# A lightning start in difficult conditions

Nine months after the start of the Q-Implant® Marathon courses in Cuba, the second major course project started in Cambodia. First, some basic principles had to be established: The team of doctors at the University Hospital in Phnom Penh was introduced to implantology and general conditions in the clinic were improved. The main tutor, Dr. Dr. Matthias Peuten, committed himself to advancing the standard of dentistry and hygiene.

In the summer of 2004, Miroslaw Pienkowski met eight physicians in Cambodia who wanted to persuade him to carry out Q-Implant® Marathon courses at the University Hospital of Phnom Penh. They laid out a short time-frame: they wanted to be ready in three weeks. The team brought with them much enthusiasm - but no implantology experience. The owner of Trinon only ever reluctantly admit that things are impossible, certainly not when it concerns the visions of dedicated surgeons. Therefore, he agreed to support the project. He found an experienced Ukranian implantologist who was willing to tutor the Cambodian medical team for three months.

The first Q-Implant® Marathon course was held in Phnom Penh in mid August 2004. The medical team on site took no active role. Four European implantologists were invited to tutor. They worked with only eight participants to ensure good and safe mentoring in this new environment. One of these doctors, Dr. Dr. Matthias Peuten, an experienced oral and maxillofacial surgeon and scientific adviser to Trinon, subsequently committed to work as the main tutor for these courses.

During the early phase, different doctors returned several times for stints of one to three months on location, enabling the local team to gain continual experience in implantology. Soon, they were able to support tutors in supervising participants and in selection and preparation of patients.

The prosthetic treatment and aftercare for some patients is performed by the clinic team for free, as are the implants themselves. Some patients do consult their own dentist and decide to pay for

> higher-quality dentures themselves.



Dr. Dr. Peuten has lead and developed twelve of the 20 courses in Cambodia - sometimes using gentle pressure, as he remarks. The diagnosis, patient preparation, treatment techniques, and processes have subsequently improved as a result. Thus, not only x-rays, but also diagnostic models are made for patients, which Dr. Dr. Peuten studies for each case the day before the corresponding operation. He discusses his treatment



Dr. Dr. Peuten with students from Taiwan.



Dr. Dr. Peuten discusses the approach based on an x-ray.

proposal with the local team. Initially, there had been a great many changes, says Dr. Dr. Peuten, but now only 10-15 per cent of cases considered receive different therapy.

Dr. Dr. Peuten also sees clear progress in hygiene and surgical equipment. Before surgery, all patients receive professional tooth scaling. The clinic now has a sterilizer, an ultrasonic bath, sterile towels, digital x-ray equipment, and modern dental treatment chairs. The participants now have a surgery with four chairs available, again financed by Trinon. It caters for eight participants who are looked after by two European tutors and the clinic team. Some implants had already been carried out using stents. (Editor's note: In January 2010, Dr. Dr. Peuten carried out a week of control checkups of patients treated within the courses. The minutes will be included in future studies.)



Taiwanese physicians performing surgery.

## Just a little theory

The course and the teaching method are comparable to the approach in Cuba - there are, however, some small deviations. Here, the courses start Monday morning with a small theoretical introduction containing practical elements such as work on models and a demonstration by the supervisor. The first implantations are performed in the afternoon. In the evening, the cases are usually discussed during the meal and plans made for the next day. This



Hands-on exercise during the introduction.

process is similar by the courses in Cambodia and Laos. As Dr. Dr. Peuten stresses, both students and patients are very satisfied. Several participants have completed both, Beginner and Advanced levels. And many patients visit the doctor at the clinic with gifts. He knows them personally and they thank him for the caring treatment provided - some even remember his favourite fruit.

# Dominican Republic – the third course develops Visiting Dr. Cabral

The third course season was set up in Santo Domingo by Trinon dealer Pedro Cayuela and Dr. Alfredo Valencia, the scientific director of Q-Implant® Marathon. Trinon cooperates with a private clinic with some clear benefits for the participants.

Pedro Cayuela is a biologist and Trinon dealer for Spain, Portugal, and South America. We meet him in Dr. Eduardo Cabral's *Dentista Orthoimplante Centro dental* private clinic in Santo Domingo. The premises are well kept and it smells very clean. This is not accidental: Several employees are arduously at work with cleaning cloths. Cayuela gave us a friendly welcome – a tall Spaniard in dark pink, freshly ironed surgical clothing.



Trinon dealer and course organizer Pedro Cayuela.

Cayuela established contact with Santo Domingo after he had worked in Cuba two years earlier. He met a brother of the clinic owner, Dr. Cabral, in Spain. He encouraged Cayuela and Miroslaw Pienkowski, the owner of Trinon, to come and view Dr. Cabral's clinic and the local conditions. "After the discussion, Mr. Pienkowski, Dr. Alfredo Valencia and I came here and we looked at the clinic, explained our system, and gave a short training course for employees. We then stayed in touch with Dr. Cabral, "recalls Cayuela. Ultimately, it was casual business that became the impetus for the third course in Santo Domingo.

## Working in a private clinic: good quality, high flexibility

Cooperation with the private clinic has advantages for both sides. The Cabral family heads an entire chain of hospitals: Dr. Cabral has five brothers who each manage their own clinic. All the Cabral brothers refer their implant patients to Q-Implant® Marathon courses. Thus, they do not lose patients to other implant dentists. They complete the diagnosis, prepare the patient and, after implant placement, take over prosthetic restoration and aftercare. There are "more than enough patients" available for the courses, said Cayuela. And this is important when planning courses continually over a long period.

The private clinic has good medical standards. "In the Dominican Republic the clinic equipment is comparable to the European standard, similarly the infrastructure is more or less comparable to the situation in Europe", Cayuela reports. Another advantage is the flexibility of a private clinic



The private dental clinic Dentista Orthoimplante Centre in Santo Domingo provides tutors and students with good hygienic and medical standards.

compared with a state university hospital, as Dr. Alfredo Valencia, who advanced of the courses, emphasized. "It is pleasant to work in a proper hospital, but it is difficult working there after 5 or 6 o'clock because everyone wants to go home." He reports, it is no problem to be able to perform more than one or two sinus lifts a day here and has witnessed many participants do so.

A distinctive feature in Santo Domingo is the tutor team, which Dr. Alfredo Valencia gradually recruited himself, most have learned implantology from him. "So I know them well and it is easy for me to work with them," says Dr. Valencia. It seems the atmosphere here is very harmonious – even after 12 hours in surgery room, they still like to meet for the evening meal.

But even this team has not remained unchanged. The young Spanish physicians alternate and depending on the age and nationality of the participants, other international supervisors are also invited to attend, as Dr. Valencia said: "My own group is very motivated, young, they work hard and love to learn. "When many older dentists took part in a course, it was helpful to have experienced on-site tutors. In other cases, nationality plays a role. Canadian implantologist Dr. Serge Chausse mostly oversees his colleagues from Canada.

## Patient selection has been optimized

Naturally, courses in Santo Domingo have developed even further over time with regards to patients care and technical aspects of surgery. Even an own power supply has been acquired. Cayuela sees the most important improvement in patient selection. The local team is now able to assign patients to suit the ability and the needs of participants.

Ideally, beginners should receive only uncomplicated cases, advanced participants should not receive cases too simple in nature. The distribution of participants within the stages on the course must therefore be considered from the outset. During February 2009 course there were, for example, 15 participants, eight of them beginners and seven advanced. The participants work in twos or threes at six chairs, and are each guided by a tutor chair-side during treatment.

Changes can be noted regarding course composition: In the beginning, there were more beginners than advanced. Now the ratio is almost balanced, as many who completed the beginners' course returned for the advanced course, says Cayuela. "Which is good because it shows that they were satisfied with the course."







Participants operate under the guidance of Dr. Alfredo Valencia's Spanish-Canadian medical team (Dr. Valencia: first photo, left).

## Interview with Tutor Dr. Marc Pifarré Portella

Dr. Marc Pifarré Portella works as a dentist and implantologist in Barcelona and tutors at the Q-Implant® Marathon courses in Santo Domingo regularly.

#### Dr. Portella, how did you become a tutor at the Q-Implant® Marathon courses?

Dr. Marc Pifarré Portella: I've been through this course myself after a friend told me about it. [...] There are many courses in Spain, too, and I just was not sure whether I should participate at all, but it was worth it. That was in 2003, in the beginnings of the courses. So I was initially a student and am now a tutor. Trinon became aware of me because I performed a lot of implants and asked me if I would like to teach courses.

#### How much practical experience do students get?

In Spain it normally takes three years [in courses, Editor's note] to place 30 implants. Here, you have 30 implants in a week. But it also depends on the participants themselves. Because some participants have no surgical skills, you have to teach them to raise a flap and to suture, and they cannot engage in the course as much as people with previous surgical experience. [...] If experience is at hand, you can move faster, these participants will see more different clinical situations.

#### How can one prepare for the course?

The most obvious way is to gain surgical knowledge - possibly to do a course before and do suture work in their own practice when the opportunity arises.

#### Have the organizers of the courses responded to the lack of surgical knowledge?

We are just starting to give courses which include implantology and surgery. We provide participants with surgical skills first, then we start with implantology.

#### Has there been a similar response to other problems or needs of the students?

Advanced participants often want to learn a certain method of treatment. Since I can select patients at the beginning of the day, I try to get the most suitable cases for them. Some participants prefer edentulous patients, for example, as they are often confronted in their own practice with such patients and therefore want to know more about it. Others have many young patients in their practice and want to concentrate on single implants.

## Interview with Tutor Dr. Badi Haddu

Dr. Badi Haddu is a dentist with his own clinic in Malaga. He was introduced to implantology by Dr. Alfredo Valencia in a Q-Implant® Marathon course and is now working with Dr. Valencia's Spanish team in Santo Domingo. Since taking part in the course, he now places implants in his own clinic.

## Dr. Haddu, what is your method of teaching?

Dr. Badi Haddu: I have been teaching beginners for two years. I help them, explain them the things and direct them. The first two days I stand beside them, then they slowly begin to work more on their own - they want eventually to take over the responsibility themselves.

#### Do all tutors in the team use the same teaching method?

Basically, yes. Because we, Dr. Rogelio Ibañez Ibañez and Dr. Mounib Chehimi López work with Dr. Valencia in Malaga. He was also our teacher. [...] I support Dr. Valencia on interesting cases in his clinic - both to see more for myself and learn.

## Was it important for you to place implants yourself in your own clinic?

Yes. I understand the problems that we can have with implants better now and do not have to wait until the specialist comes to my clinic. Patients can often still be treated on the same day, not two or three weeks later. In very difficult cases, I also work with Dr. Valencia in my clinic.

## Why do you work as a tutor for the Q-Implant® Marathon courses?

Because we learn a lot there. We see many different cases. We place implants in our clinic, but not 30 implants a day, and we don't always have such complicated cases as we see here. We teach and we learn. It gives us some feedback.



Laos – the latest Q-Implant® Marathon Course Location

# A well-rehearsed team with an individual method

Dr. Andreas Kurrek and Dr. Dr. Angelo C. Trödhan are a strong team. They have worked together since the beginnings of the Q-Implant® Marathon courses and have jointly developed their own approach and added their own flair to the chair-side direct teaching method. Together, they now want to build up courses in Laos. A pilot course and the first regular course have already been held.

Dr. Kurrek certainly exercised some influence on his colleague Dr. Dr. Trödhan. First, he convinced him about the Q-Implant® system. Dr. Kurrek is the scientific developer of the Q-Implant® and Dr. Dr. Trödhan took part in one of his introductory courses for the system in 2001. Dr. Dr. Trödhan saw great potential in the new implant. He switched to Q-Implant® and was soon a speaker for introductory courses. When Dr. Kurrek entered the team of Q-Implant® Marathon tutors in October 2004, he invited his colleague Dr. Dr. Trödhan to join as well. So a fruitful cooperation came about – initially in Cuba.

As Miroslaw Pienkowski, the owner of Trinon, had the idea to open a fourth course location in Laos

in 2007, both colleagues, with Dr. Winston Tan from Singapore, visited the University Hospital in Vientiane, the capital of Laos, in December. They trained the team of local oral surgeons in implantology during an extensive four-day course on the Q-Implant® System. In this course, Dr. Kurrek placed the first dental implant in the history of the country - the Laotian doctors were very interested in the new treatment method. But the visiting medical team was also very impressed. "It was a great experience for me to see at first hand the precision and work moral of the doctors", said Dr. Dr. Trödhan. The Laos team was marked by an extraordinary desire to learn and a high level of discipline, which in addition made the cooperation very success-oriented and enjoyable.

## Pleasant working conditions in the clinic

From the first regular course in 2008 onwards, the team of doctors from Laos took over the selection and preparation of patients and the aftercare according to prescribed parameters. Dr. Kurrek and Dr. Dr. Trödhan were extremely satisfied with patient preparation, which was in accordance with European standards. The Laotian doctors paid attention to good hygiene of the patient's teeth, that they were inflammation-free and conducted dental scaling in advance. After a short introduction, they took over the prosthetic restorations and made aftercare appointments with patients every year. Further, the Laotian doctors assisted in surgery, while the visiting medical team supervised. For patients in Laos, the entire treatment is free-ofcharge.

Until now, four dental chairs were available to the Q-Implant® Marathon courses and one doctor was responsible for two chairs. Because of proximity, this was not a problem, assured Dr. Dr. Trödhan. In case more chairs arise in future, the team will be expanded. The medical standard in Laos is similar to the European standard, says Dr. Dr. Trödhan, and the doctors receive very good training. Currently, the dental wing of the hospital is being rebuilt, so the already good conditions should soon be ideal.

## The individual needs of participants are of chief importance

Dr. Kurrek and Dr. Dr. Trödhan have slightly adjusted the usual level classification for the Q-Implant® Marathon courses (see p. 59). Dr. Dr. Trödhan explains that he doesn't see such strict separation of

The Laotian team upholds exemplary hygiene standards.

beginners and advanced participants because a group of twelve is guite manageable.

Even more important than the degree of ability of an individual participant, are the specific needs of each working colleague. The emphasis for him was to learn what the colleague wanted and what practice is meaningful for each case, as in gaining experience in bone management, for example.

In the first one or two days, one must recognize by intensive observation who is already a professional. There then follows a successive regrouping. The advanced students work together and get assigned to relevant cases.

"The chemistry between the participants must be good" says Dr. Dr. Trödhan. In this respect, course administration is not easy. It is essential to find out quickly whether the composition of the groups promise to be successful - not only with regard to different personalities, but also the operating speed of the participants.

## Time for comprehensive instruction

In Vientiane, distances are short for participants: It is only ten minutes from the airport and ten minutes from the hotel to the clinic.

These short distances provide participants and the medical team a certain amount of luxury, namely a fairly large amount of time at their disposal. The team uses this extra time for a theoretical introduction. On Sundays, the theoretical aspects of implantology are discussed, the instruments for the Q-Implant® system are shown, and processes explained. Surgical films can also be shown.

On Monday, the first implant is placed by a tutor. In



Dr. Kurrek (seated) demonstrates the correct implant procedure

this case, there follows a simple explanation for all and then the approach is explained. Afterwards, three participants work together at the dental chair. As in the other Q-Implant® Marathon courses, one participant operates while the other assists. In this course, the third participant documents the



The tutors explain the clinical situation using the x-ray image.



An operating room under supervision.



There is almost always time for a brief explanation on the board.

operation with a digital camera. This has two advantages: In the evening, the full documentation of all cases provides a basis for discussion and allows participants to take home a DVD, including the digital x-rays. Such documentation is helpful to have at home, says Dr. Dr. Trödhan, because they remember what has already been done. This system was jointly developed in Cuba and the feedback from participants confirmed its significance.

As cooperation develops, colleagues also adjusted some procedures. Individual cases are discussed in more detail and fewer implants are placed, explains Dr. Kurrek. The technique using stents is now only used in individual cases. In most cases, soft tissue is lifted because it was an important part of the learning process to deal with the bone and mucous membrane.

## **Breathtakingly good food**

Accommodation and a small supporting programme in Laos promises pleasant compensation for a tiring day of surgery. We have found a "nice hotel" in Vientiane and Dr. Dr. Trödhan says the Asian food is "breathtakingly good". After a discussion of the day's work, students can sit in the evening at the hotel pool, go swimming, or engage in conversation. Three evenings a week, something special is provided. For example, Trinon organized a social gathering and a joint celebration with the Laos hospital personnel. At the end of the week, the Laotian doctors invite their guests for an official reception ceremony and present the certificates. Then Marathon participants have completed the challenges of the Q-Implant® course and for the doctors, a very busy week of experiences is over.

# The chief supervisors of the Q-Implant® Marathon courses



#### Dr. Alfredo Valencia Laseca, PhD

1972–1978 Studied human medicine, Oviedo University, Spain

1978–1980 Resident doctor, plastic surgery, Macarena Hospital in Seville, Spain

1980–1984 Resident doctor, oromaxillofacial surgery, Astu-

rias University Hospital

1981 Specialist in stomatology (Asturias University) 1984 Specialist in oromaxillofacial surgery

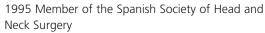
1984 PhD in implantology, Granada University

1984–1987 Lecturer in oromaxillofacial surgery at the Dental College, Granada

1984–2007 Oromaxillofacial surgeon in Virgen de las Nieves University Hospital, Granada

Director of the Dr Valencia Titanium Clinic private clinic for implantology and oromaxillofacial surgery, international speaker at implantology conferences, since 1999 tutor on implantology courses, over 20 publications

Member of the European Board of Maxillofacial Surgery, Zurich, 1996

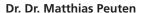


1996 Member of the European Board of Maxillofacial Surgery, Zurich

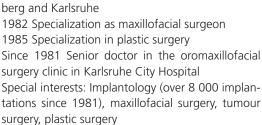
1999 Member of the Spanish Society for Aesthetic Surgery

2002 Founder of the Spanish Society for Skull Base Surgery

Dr. Valencia is the author of numerous scientific publications and also works as a speaker and moderator.



1969 Graduated study of dentistry and medicine, Erlangen University, Germany 1976 Registration as dentist 1976 Doctorate in medicine 1981 Doctorate in dentistry 1976–1978 Resident doctor and specialist training at Erlangen University, in hospitals in Nurem-



Author of numerous international publications



## Dr. Eduardo Valencia Laseca, PhD

1970 Human medicine studies, Seville, Spain

1974 Completed study of dentistry, Madrid

1974–1980 Resident doctor, department of oromaxillofacial surgery of La Paz University Hospital, Madrid

1977 Specialist in oromaxillofacial surgery, Madrid 1980–2006 Chief of the department of oromaxillofacial surgery of Virgen de las Nieves University Hospital, Granada

Since 1980 Private practice (part-time)

1984 PhD, Granada

1984 President of the Andalusian Society for Oromaxillofacial Surgery

1991 Member of the Real Academia de Medicina de Granada



#### **Dr. Andreas Kurrek**

1990–1995 Studied dentistry at Heinrich Heine University, Düsseldorf, Germany

1996 Final examination and doctorate

Since 1999 Private practice and day hospital in Ratingen

1999 Medical codeveloper of Trinon's Q-Implant®

2005 Main interest is implantology (DGZI)

2005 Appointment as "Specialist in Implantology of the DGZI" in Würzburg

2006 Foundation and management of the mundart® implantology day clinic in Ratingen

2006 Introduction of telemedicine as a permanent structure at mundart®

2007 Guest lecturer at Heinrich Heine University, Düsseldorf in Anatomy Institute 1 (Prof. JK Mai)

2007 1st Vice-president of the International Academy for Ultrasonic Surgery and Implantology

2007 Medical developer of the "hydrodynamic sinus lift" (Intralift from Acteon)

2007 Founding member of the Implantology Quality Circle, Vienna

2008 Acquisition of 3D volume tomography expertise, Prof. Dr. Dr. Rother, Hamburg

Guest speaker and guest surgeon at numerous international universities, congresses and private cli-

Live operations, implantology guest visits, seminars and workshops mainly on implantology (including in his own practice)

Author of numerous special articles

Membership of the DGI, DGZI, DGZMK, ICOI and honorary membership of the PSI, Polish Society of Implantology, vice-president of the IAUSI, International Academy for Ultrasonic Surgery and Implantology

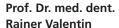
surgery and oromaxillofacial surgery, St. Pölten Hospital

1994–1999 Private clinic in St. Pölten

Since 1995 Own medical centre in Vienna (special interests: implantology, periodontal surgery, laser surgery, cosmetic facial surgery, preservative den-

Numerous publications, lectures and memberships of working groups

Since 2008 President of the International Academy for Ultrasonic Surgery and Implantology



Visiting professor, Cairo University

1971-1975 Studied medicine at the Free University Berlin 1975 Registration as dentist 1977 Own practice; specialising in jaw surgery and periodonto-



1978 Started to work in implantology

1979 Implantology training courses for the DGZI

1991 Scientific collaboration on an implant system

1994 ICOI diplomat status, active member of the DGZI, specialist in implantology (DGZI)

1997 Member of the board of the DGZI, director of the organisation, director of the DGZI's continuing and further education programme

2001 Teaching qualification of the "Consensus Conference"

2002 Honorary member of the ISC, Implantology Society of Cologne

2003 Member of the board of the German Board of Implantology

2004 Cofounder and lecturer of the postgraduate education programme DGZI International

2007 Lecturer in the postgraduate master's programme of Krems University, Austria

2008 Visiting professor, Cairo University, Faculty of Oral and Dental Medicine Organisation of courses and work as international tutor in the area of implantology, jaw surgery and periodontology, work as international speaker

About 40 publications on implantology

Various patents in the field of implantology and coating technology

Cofounder of the Cologne Colloquium of dentists working in implantology

Membership of the BdiZ, DGP, DGZI, AO, AAID



Dr. Dr. Angelo Christian Trödhan

1982-1988 Study of medicine, doctorate

1988–1990 Research assistant at the university maxillofacial surgery clinic, Vienna University

1990-1992 University researcher there

1992–1994 Completed dental training (specialist training in dental and maxillofacial surgery), state examination in dental and maxillofacial surgery, Vienna University Hospital

1994 Specialist in dental and maxillofacial surgery and oromaxillofacial surgery in the department of oromaxillofacial surgery, Vienna University

1988 Appointment as university lecturer in the medical faculty of Vienna University

1989–1990 Various training courses (internal fixation techniques, combination laser systems and implantology)

1992–1994 Part-time employment as senior doctor in the outpatient clinic for dental and maxillofacial

## Single gap in the upper posterior region.



Fig. 1: Initial situation with good bone and soft tissue supply.



Fig. 2a and b: Gingival punch.



Fig. 2b



Fig. 3: The position of the implant is determined with the trocar drill.



Fig. 4a-d: Cavity preparation.



Fig. 4b



Fig. 4c



Fig. 4d



Fig. 5a and b: Repeated check of position with the locator.



Fig. 5b



Fig. 6a and b: Insertion of the implant.



Fig. 6b



Fig. 7a and b: Implant in situ and immediate restoration with a silicone cap.

## Situation after placement of 4 QK-Implants and jaw augmentation. Vestibule now narrowed. Vestibuloplasty with split skin graft.

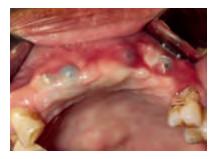


Fig. 1: Initial situation after single-stage jaw augmentation and placement of four QK-Implants; submucosal healing of the implants. Vestibuloplasty planned.



Fig. 2: Using a split flap technique, the mucosa is stripped and fixed in the fornix with absorbable sutures.

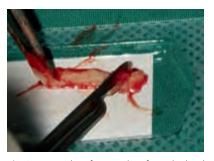


Fig. 3: Mucosal grafts are taken from the hard palate and trimmed.



Fig. 4: The gingiva formers are threaded onto the implants, the mucosal grafts are then fitted and fixed with absorbable sutures.

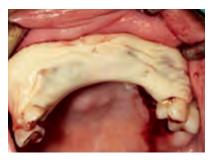


Fig. 5: The grafts and donors sites are fixed and covered with cold-curing acrylic. This "dressing" remains in place for 8 days.

## Situation after loss of tooth 41 and shaping of the papillae with an adhesive bridge.



Fig. 1: Initial situation from the lingual aspect with papilla shaping



Fig. 2: Situation after papilla shaping.



Fig. 3: Check of the insertion direction after pilot drilling.



Fig. 4: Situation after insertion of the implant.



Fig. 5: Immediate crown for immediate restoration.

## Situation after extraction of three anterior teeth. Implantation and bone augmentation took place six weeks later.



Fig. 1: Operative site after reflecting a flap with vertical relieving incisions.



Fig. 2: With the round bur the sockets are widened in the palatal direction to obtain enough space buccally for bone augmentation.



Fig. 3: After insertion of the implants, the buccal bone defect at the implants in positions 11 and 21 can be seen clearly.



Fig. 4: Same site seen from above.



Fig. 5: Filling the defect with bone and bone augmentation material.



Fig. 6: Two-layer covering of the graft with an absorbable collagen membrane.



Fig. 7: Deep periosteal slit and placement of a relieving suture that passes through the cranial part of the periosteum. This suture fixes the membrane to the graft and reduces the tension on the closing suture.



Fig. 8: Suture closure. The relieving suture in the vestibule can be seen.

## Immediate implantation post extraction in the posterior region.





Fig. 1a and b: Situation after root extraction and root fragment.



Fig. 2: Weakening of the palatal bone wall with the round bur.



Fig. 3: Insertion of the implant moved slightly in palatal direction.



Fig. 4: Q-Implant in situ. The implant shoulder is 0.5 mm above the bone level.



Fig. 5: Using the prefabricated acrylic abutments, the temporary crown can be built up directly.

## Immediate implantation after extraction in the anterior region.



Fig. 1: Initial situation.



Fig. 2a and b: Situation after extraction and root fragments.



Fig. 3: Weakening of the palatal bone wall with the round bur.



Fig. 4: Situation after cavity preparation.



Fig. 5: Partial filling of the cavity with bone augmentation material prior to implantation.



Fig. 6: Insertion of the implant. The bone augmentation material is pushed into the buccal



Fig. 7: Using the prefabricated acrylic abutments, the temporary crown can be built up directly. Excess bone augmentation material can still be seen at implant 22.

## External sinus lift and lateral augmentation.



Fig. 1: Initial situation. The transverse atrophy can be clearly identified.



Fig. 2: Making the lateral window.



Fig. 3: Elevation of the Schneiderian membra-

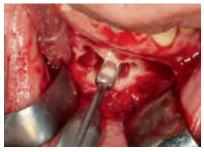


Fig. 4a and b: Harvesting bone from the chin region.

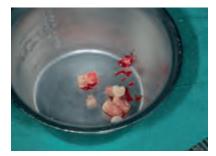




Fig. 5: Filling the sinus with bone and bone augmentation material and fixation of a micromesh.

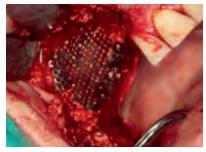


Fig. 6: Finished augmentation and fixation of the mesh with microscrews.

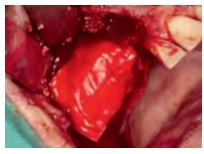


Fig. 7: Cover with a collagen membrane.



Fig. 8: Compared with Fig. 1, compensation of the atrophy is clearly apparent.

## Edentulous mandible with atrophy in the posterior region.



Fig. 1: Preoperative situation.



Fig. 2: Immediately post implantation.

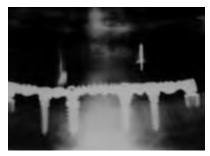


Fig. 3: Repeat radiography after prosthetic restoration 3 months postoperatively.



Fig. 4a: View of clinical situation postoperatively.



Fig. 4b: View of clinical situation 12 months later.

## Single gap with atrophy.



Fig. 1: Situation after bone augmentation with chips.



Fig. 2: Implantation of a maxillary implant.



Fig. 3: Exposure of the implant.



Fig. 4: Preparation for taking the impression.



Fig. 5: Final clinical situation.

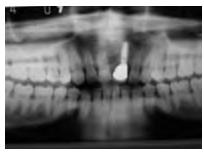


Fig. 5b: Radiograph after restoration.

## Edentulous maxilla and mandible.

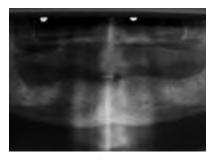


Fig. 1: Radiograph of the initial situation.



Fig. 2a and 2b: Clinical situation and radiograph after implantation in the mandible.



Fig. 4a and b: Clinical situation and radiograph after implantation in the maxilla and mandible.



Fig. 3: Operation site during implantation in the maxilla.



Fig. 5a and b: Framework try-in in maxilla and mandible.





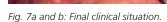








Fig. 6b: Laboratory work mandible.



Fig. 8: Radiograph of the final situation 10 months later.

## Congenital absence of teeth 12 and 22.



Fig. 1: Preoperative radiograph.



Fig. 2: Situation after implantation of two Q-implants 3.5 mm.



Fig. 3: Clinical appearance after fitting the individual crowns (metal-ceramic).

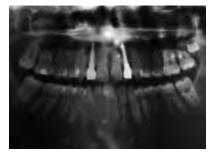


Fig. 4: Check radiograph.

## Free end gap in mandible left side.

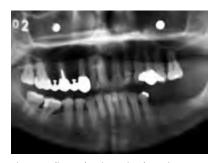


Fig. 1: Radiograph prior to implantation.



Fig. 2: Model and prosthetic work.



Fig. 3: Clinical situation after insertion of the prosthetic work.

## Single gap in mandible right side, tooth 46.





Fig. 1a and b: Clinical situation before and after implantation.

Fig. 2: Radiograph.



Fig. 3: Laboratory stage.



Fig. 4: Framework try-in.



Fig. 5a: Finished work in situ.



Fig. 5b: Radiograph.

## Single gap in anterior maxilla, tooth 21.



Fig. 1: Situation after implantation.



Fig. 2: Framework try-in.



Fig. 3a: Finished work in situ.



Fig. 3b: Radiograph.

## Free end gap in mandible right side and single gap in mandible left side, region 34.

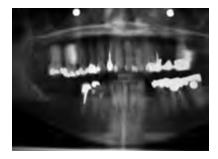






Fig. 2a and b: Clinical appearance after insertion of the implants.



Fig. 3: Radiograph.



Fig. 4: Temporary restoration.



Fig. 5a-e: Models and laboratory stages.



Fig. 5b



Fig. 5c

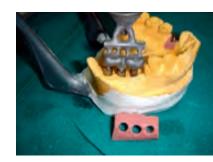


Fig. 5d



Fig. 5e



Fig. 6a and b: Framework try-in.



Fig. 6b



Fig. 7: Finished work in the mouth.

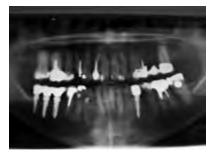


Fig. 8: Radiograph after fitting the final work.

#### Edentulous maxilla and mandible.

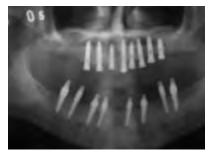


Fig. 1: Initial radiographic situation.



Fig. 2: Taking the impression with the aid of resin pattern.



Fig. 3a and b: Working models of maxilla and mandible.



Fig. 3b



Fig. 4: Wax-up.



Fig. 5: Framework try-in mandible.



Fig. 6a-e: Laboratory stages.



Fig. 6b



Fig. 6c



Fig. 6d



Fig. 6e



Fig. 7: Framework try-in maxilla.



JULIUM.

Fig. 8a and b: Work in situ, rinsing below bar is possible, radiograph 12 months later.

#### Single gap in posterior region of maxilla. Situation after extending the gap.



Fig. 1a: Initial situation.

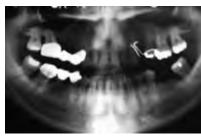


Fig. 1b: Radiograph with extension spring in region 24.



Fig. 2: Situation after removal of the extension spring.



Fig. 3: Implant in situ.



Fig. 4a and b: Impression.



Fig. 4b



Fig. 5: Framework try-in.



Fig. 6: Finished crown on the model.



Fig. 7a and b: Clinical appearance...

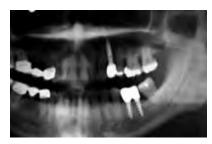


Fig. 7b: ...and radiograph after fitting the crown.



Fig. 8: Satisfied patient.



# The Q-Implant® Marathon in Cuba in February 2009

# Intensive experience in implantology and a touch of the Caribbean

A Q-Implant® Marathon means a big effort for every participant. The dentist stands in the operating room for at least eight hours a day for a week implanting with the greatest concentration. At the start, the tension is high. Then the participants gradually relax. Along with comprehensive practical knowledge of implantology, the participants also bring home an impression of Cuba, a very charming and friendly host country. Journalist Dagmar Kromer-Busch accompanied the Q-Implant® Marathon in February 2009 and describes her impressions.

#### 14.02.2009, 7.40 p.m., Havana

After the ten-hour flight from Madrid to Cuba, most of the participants of the Q-Implant® Marathon course make their way to the arrival area of Havana airport. A few are flying a different route and will join the group tomorrow. Most of the new arrivals are a bit exhausted. Now we are still waiting for our luggage and have to be patient at customs before the package from Trinon containing utensils for the course is allowed to pass. Finally, as

the doors to the outside open, warm tropical air hits us. It's a pleasant shock as snow is still on the ground in large parts of Europe.

#### Arrived

We walk through the mild night under palm trees to our bus, where Mileidy Hernandez, the Cuban travel guide, welcomes us. Her wide smile and her brisk English, with the Spanish intonation breaking through, will accompany us for the week. During



Monument to the national hero Jose Marti.

the 45-minute journey to the hotel, she provides us with the most important practical information about the country. For instance, that we should never exchange dollars or use credit cards but should always exchange Euro cash for the *peso convertible* tourist currency if we want to save the ten percent tax on dollar exchange. The Melia Cohiba Hotel in the centre of Havana receives us with muted music in its enormous hall. We then have the option of a snack or to go dancing in the club next door, which is said to be highly recommended. But our troops are much too worn out and everyone heads for their room. My room on

the 14th floor offers an impressive view of Havana at night. The streets are lined with lots of coloured lights and soft music wafts up to the rather chic hotel room. I am a bit sorry that I didn't risk going out to explore.

### Dr. Eduardo Valencia puts the participants in marathon mood

On the Sunday morning after breakfast, the course participants meet Dr. Eduardo Valencia, the chief supervisor of the course, and Miroslaw Pienkowski, the head of Trinon, in a meeting room in the hotel. The course language is now English because not only the team of tutors but also the participants come from different countries. The 14 dentists come from the Netherlands, Germany, Austria, England and Russia. Dr. Valencia gives them a brief account of the success story of the Q-Implant® Marathon courses and describes the course schedule. He explains the practical work at the University Clinic in Santa Clara, where we will go today. A university lecturer with 30 years of experience, Dr. Valencia attaches great importance to concentration and dedication in treating patients and to punctuality. He puts the participants in the mood for the marathon: this is the right way to describe it since "a really tough experience" and "a fight with themselves" await the participants. A major input will be required in order to last through the rapid sequence of operations. The participants will have to take the bull by the horns - an image that Dr. Valencia showed in his photo collage during the opening of the meeting. However, for the rest of the day the course participants have some leisure time. A small supporting programme is arranged for today.



Setting off on a tour of the city.

#### City tour in Havana: colonial history and revolutionary heir

Mileidy takes the group on a tour through Havana. Everyone looks like they're travelling for pleasure, in light clothes, sunglasses and armed with cameras. The first destination is the Plaza de la Revolucion in the government district, where we pay tribute to the monument to Jose Marti, the national hero. Around a few corners, we encounter the Cubans' second great revolutionary hero: from the Finance Ministry, Ernesto Che Guevara looks into the

distance in characteristic manner. He was responsible for the finances of socialist Cuba in the early days, explains Mileidy, hence his portrait here. The picture here consists mainly of functional concrete buildings. From the government district, we drive to the old centre of Havana, Habana Vieja. Soon the streets are lined with venerable colonial buildings with pillars and arches. Old American road cruisers drive leisurely through the area. Slowly, a Buena Vista Social Club feeling takes hold – Wim Wenders' film of that name about Ry Cooder's music project with Cuban musicians obviously reflects a bit of Cuban reality. This impression is intensified when we get out of the bus in the centre of Havana.

Beforehand, however, we see the Capitolio Nacional, which looks extraordinarily like its American namesake and with which a political embassy against the American attempts at dominance is connected. We also cast a look at the National Theatre, where the famous Cuban National Ballet appears, the stroller's Paseo del Prado and the city's two forts, which, like many other monuments, reflect the country's colonial history. The massive statue of Christ marks the end of Cuba's colonial history to a certain extent: it was commissioned by the wife of the dictator Fulgencio Batista shortly before the revolution, who was probably already fearful for her husband's welfare. "People say that it has fulfilled its purpose", says our guide laconically about the statue - Batista got away in time before Havana was conquered by revolutionary troops in 1959, allegedly with the government coffers.

#### Havana – a street party

After a stop in the rum museum, where we are given an illustrated explanation of how the national drink is produced and get a chance to taste it, our exploration continues on foot. We are now in La Habana Vieja, which has been declared a UNESCO World Heritage Site. In fact, many of the

magnificent colonial buildings have been very well restored, and many museums and sites of interest vie for the favour of the numerous visitors. But we are most impressed by the mood in the streets. It is good to drift through the narrow alleys between the plazas. Here there is plenty to see: lots of bars where bands are often playing typical rhythms that you fall into step with involuntarily. There is hardly a street without new rhythms to be heard. The mu-



In the rum museum

sic seems to pursue us. At one point, a colourful troupe of acrobats on stilts with drums and trumpets comes towards us - a Cuban carnival procession. A woman dances in the street. At the corners, street sellers recommend drinks and packets of peanuts. But finally we have heard and seen enough and sit down in one of the plazas for our first mojito. We have lunch together in the shady courtyard of El Patio, a typical Cuban restaurant, with piano accompaniment. After that, we take

our bus to Santa Clara. Luckily, we know we will have another half day in Havana before we depart.

#### 16.02.2009, Santa Clara, La Granjita Hotel

#### **Caribbean surroundings**

We are accommodated in the extensive hotel complex of La Granjita. It is designed a bit like a farm with reddish brown two-storey cottages with palm-covered roofs. Small suspension bridges lead from the main complex with reception, central catering pavilion and swim-

View from the steps of the Capitolio Nacional.





Lively street activity.

ming pool with bar to the accommodation. On the way there you can admire the subtropical flora – metres-high palms and brightly coloured flowers all around. The fauna makes an impression especially in the evening, when whole flocks of birds strike up a concert.

On the Monday morning, the mood of the participants is somewhat tense. People don't talk much. All are given a packed lunch by the friendly service staff, the bus is ready at a quarter past eight and the journey sets off to the Santa Clara University Clinic. First, the participants' visas have to be rewritten as they need a working visa to be allowed to operate here. At the same time, the legal questions are settled: the university enters the course

participants as students and the dentists are insured through the university for the duration of their working residence. Fortunately, all of them thought about the necessary documentation: a copy of their licence to

practice, a health certificate and an entry visa must be presented. They are then classified into the course levels of "Beginners" and "Advanced" I and II. A quick group photo of all the dentists and tutors is taken.

#### The first operating day

The paths now separate: one group works directly in the clinic and the other travels to the former prosthetics centre, which is about a quarter of an hour away. The participants of the university hospital group put on their surgical attire and disappear into the operating theatre with Dr. Valencia and Prof. Rainer Valentin, the German supervisor, along with the Cuban team's maxillofacial surgeons. The patients are already waiting. When I look in an hour later, highly concentrated work is



The smart hotel complex of La Granjita.



Tropical impressions.

already underway at the four treatment chairs. Most of the participants in this group already have implantological experience so the supervisors limit themselves to comments, while one participant implants and another assists.

After that, Dr. Ernesto Marquez Rancaño proudly shows Miroslaw Pienkowski and me the new dental wing. He leads us through the three new operating theatres, in which modern treatment units are already installed, past the changing rooms, through his future office and into a small hall. Here the university students and course participants will be able to experience operations live. The technology for this, like the digital x-rays machine, was donated by Trinon. Thus, course participants will soon be able to operate in new and slightly more modern premises.

The first operating day.

We then visit the second group in the *Centro de Rehabilitación de la Cara y Protesis Buco-Maxila-Facial.* Here, operations are performed in somewhat smaller rooms. Some tutors have chosen a somewhat slower start with the beginners. But now, in the afternoon, all are inserting here themselves, though under detailed instruction. In the small inner courtyard we meet two participants who are taking a short break. They use the time between two treatments for a picnic with their packed lunch.

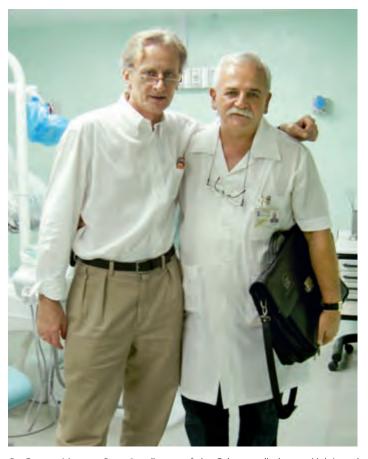
#### The tension diminishes

When the participants come back to the hotel in the bus between 5 and 6 p.m., their relief can be seen. All are very satisfied and appear to have overcome a psychological barrier in particular. The nervousness has worn off, lots of them say, and everyone has already placed several implants on only the first day. They chat and relax now sitting in small groups at the bar tables beside the pool. At 7.00 p.m. we meet with the entire team in a plain room of the hotel complex, including the Cuban doctors. Pictures of the day's patients are projected onto the wall by an overhead projector and anyone can comment on them. Not that many photos were taken today, probably because the participants had to devote their full attention to the operations and used the breaks only to have a





Prosthetic restoration in the St. Clara clinic



Dr. Ernesto Marquez Rancaño, director of the Cuban medical team (right), and Miroslaw Pienkowski, owner of the Trinon company.

breather. Still, a few cases can already be seen and are commented on especially by the supervisors. In one case, the implant placement is not optimal but this could be compensated by bevelling the abutment. Overall, the medical team is very pleased with the results, some of which already show the prosthetic restoration with long-term temporaries in situ.



A fortifying break with a packed lunch.

After the meeting we go to a small pavilion to have dinner together. There is a self-service buffet with a choice of a meat and fish dish – typical Cuban food, which is perhaps not particularly exciting but is tasty and freshly prepared. After dinner, few participants meet again in the bar, which is the complex's central meeting point, to look at the evening entertainment programme.

#### **Further schedule**

The schedule remains the same: the bus leaves at 8.15 a.m. and the participants come back at about 6.00 p.m., though there is a tendency to ever longer working times. After that, people resort to the bar, then the evening meeting and dinner at about 8.00 p.m. The conversations in the bar very often revolve around dental topics. People share experiences on an international level. They discuss equipping a practice, approve the photo documentation for the meeting and come back again and again to the cases treated that day. Already on the second day nearly

all the participants have taken photos for the meeting. The comments are very positiv – Dr. Eduardo Valencia is very happy with the group.

On Friday, the group breathes with relief – we've done it! The participants of the Q-Implant® Marathon have reached the finishing line. All of the doctors and course participants meet in the hotel for a final celebration. The course diploma is pre-

sented ceremonially. Everyone can relax a bit now and also tomorrow on the final day in Havana, before finally setting off for home on Sunday. Most will be back in their own practice again on Monday morning and will at least soon be placing implants in their own patients.

# Participant feedback on the Q-Implant® Marathon in February

### "The nervousness has worn off!"

During the course, the participants were interviewed several times and a few dentists were asked again for feedback after the conclusion of the course. You can read the selected comments of two dentists below.

#### The expectations ...



#### ... are confirmed

**Dr. med.dent. Harald Glas,** Austria, already placed 20 implants in advance of the course. He has had his own practice for seven years. He has so far carried out implantations there jointly with a surgeon.

"You only dare what you can. I would like to try something new but under supervision. And I find it of benefit that one can obtain a lot of experience compressed in this course. [...] I would like to be able to offer patients something "solid".

Dr. med.dent. Harald Glas at the end of the first day: "It has now been worthwhile. The nervousness has worn off and I have already placed nine implants."

Dr. Glas placed 47 implants during this week. His comment at the end of the course:

"The course was very impressive. My expectations were exceeded and I could have stayed another week. Everyone was enthusiastic."

Asked whether he would now implant independently in his own practice:

"At first I was nervous – now I will implant without a surgeon. It is easier for me now. An implantation is scheduled tomorrow, which I prepared in Cuba. The surgeon will come by for the sinus lift but will only watch."



**Dr. Sonja Kromer** has had her own practice in Berlin-Marzahn since 1991.

"I used to have something of a prosthetic orientation – that dates back to polyclinic times in East Germany – there is always the consideration that the surgeon takes over the prosthetics and the dentist builds up, but the dentist always has the ultimate responsibility [...] I therefore started to

push the implantology side in 2000. But the continuing education did not provide me with this certainty in handling it. I said to myself that there really must be a course where I can implant under supervision and this Trinon further education course perhaps provides it".

Dr. Sonja Kromer in the evening of the first day:

"I would already be more confident, for instance about implanting in less thick bone. In any case, I already have a better feeling today. The course is good but strenuous as you have to stand for a long time. My expectations have been met: I can work on patients under supervision. I was not able to do that in any of the continuing education courses that I did in Germany."

Her feedback after the end of the course:

"Up to now I didn't "go for it" as much. The good feeling was missing but the course helped. Especially with drilling and placing sutures. Everything went as expected: I did everything that I planned. I can recommend the course to anyone who is not yet sufficiently confident."



The participants of a Q-Implant® Marathon course in Cuba.



Operating situation, Cuba.



Operating situation, Cambodia.



The Q-Implant® Marathon is welcomed to Cuba.



Emperor's palace in Phnom Penh, Cambodia.



Operating situation, Dominican Republic.



Operating situation, Cuba.



Course participants during a city tour of Santa Clara, Cuba.





Dr. Eduardo Valencia, chief supervisor of the Cuban courses (R.) with a few course participants: preparation for the evening discussion.



Dr. Winston Tan (standing, centre) with local team in Laos.



Operating situation, Dominican Republic.



Dr. Dr. Matthias Peuten during the awarding of certificates in Cambodia.



Tutor Dr. Andreas Kurrek (in front on left) with participants and the local medical team in Laos.



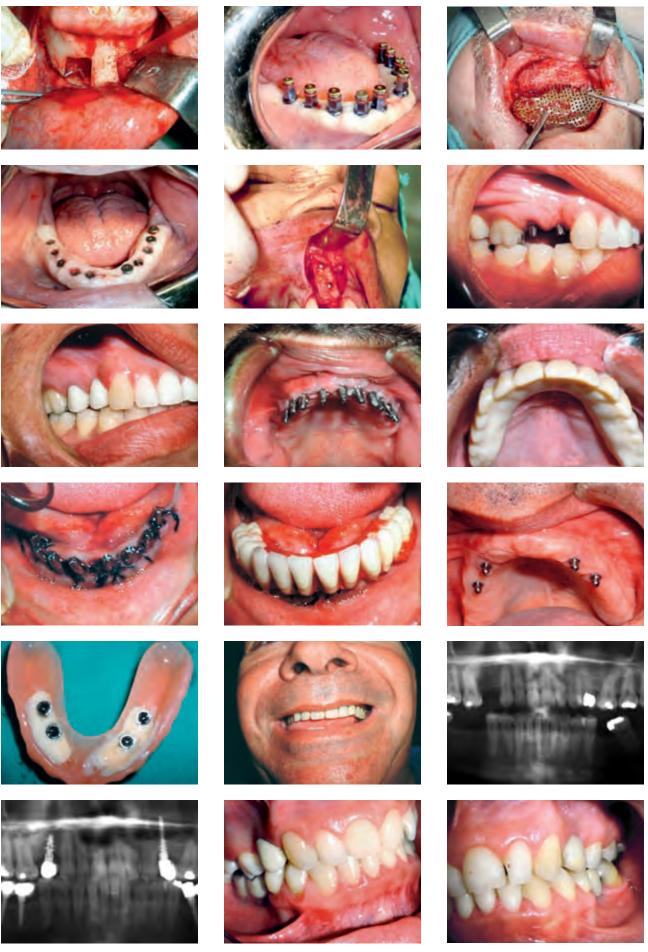
Operating situation, Cambodia.



Dr. Eduardo Valencia chairside (Cuba).



Road cruiser in Havana (Cuba).





Prof. Rainer Valentin explains the instruments to a participant (Cuba).



Working together successfully for five years: Dr. D. Ernesto Marquez Rancaño, director of the Cuban medical team, and Dr. Alfredo Valencia (R.), medical director of the Q-Implant®



Dr. Dr. Matthias Peuten (right) presenting a certificate.



Operating situation, Dominican Republic.



Dr. Alfredo Valencia visiting a dental laboratory at Santi Spiritu.



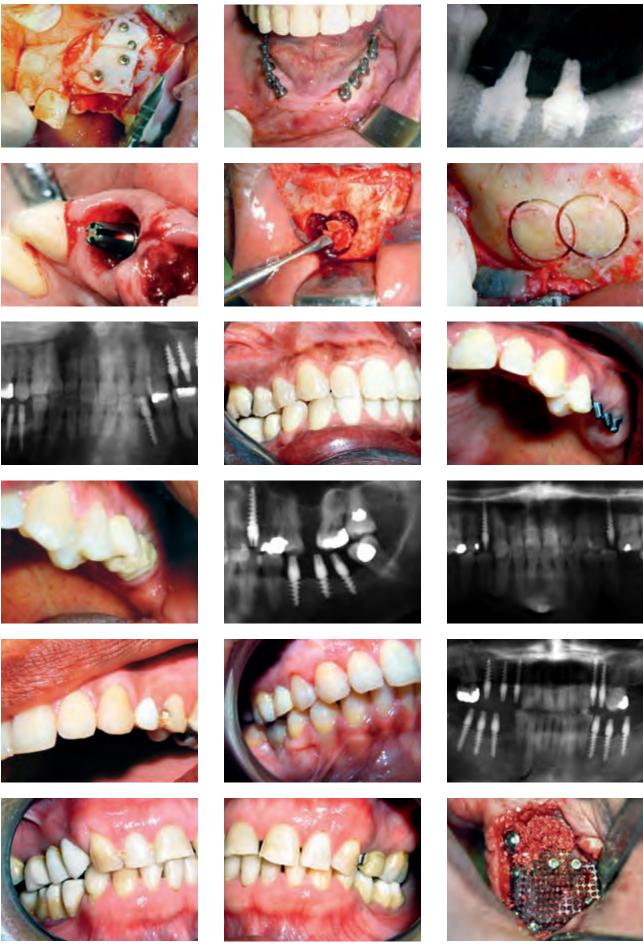
Dr. Alfredo Valencia amidst the Cuban medical team.



Dr. Andreas Kurrek (right) and Dr. Dr. Angelo C. Trödhan (left) discuss the clinical procedure with the course participants (Laos).



Evening mood in Santo Domingo, Dominican Republic.





The Cuban medical team with course participants.



Operating situation, Cuba (in front on left: Dr. Eduardo Valencia).



Dr. Dr. Matthias Peuten presenting a certificate in Cambodia.



Miroslaw Pienkowski (left) accompanies a Cuban Q-Implant® Marathon. Here with Dr. Eduardo Valencia, chief supervisor, Cuba.



Sightseeing in Havana, Cuba.



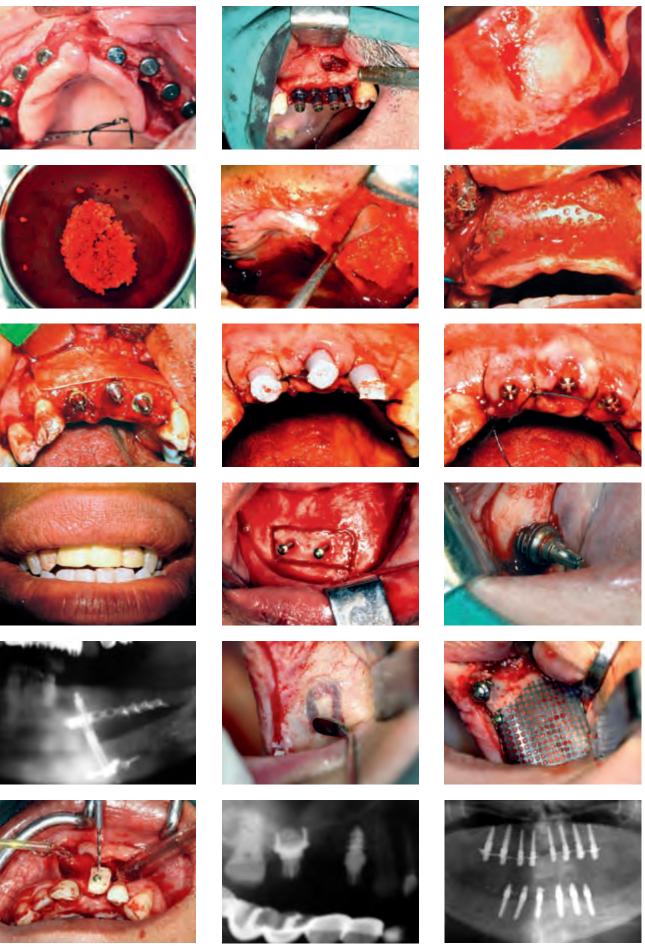
Operating situation, Cuba.



Operating situation, Cuba.



Tutor Dr. Dr. Matthias Peuten (centre) with the local medical team in Cambodia.





Operating situation, Dominican Republic.



Operating situation, Cambodia.



The participants of a Q-Implant® Marathon course in the Dominican Republic.



Operating situation, Cuba.



Operating situation, Cuba.



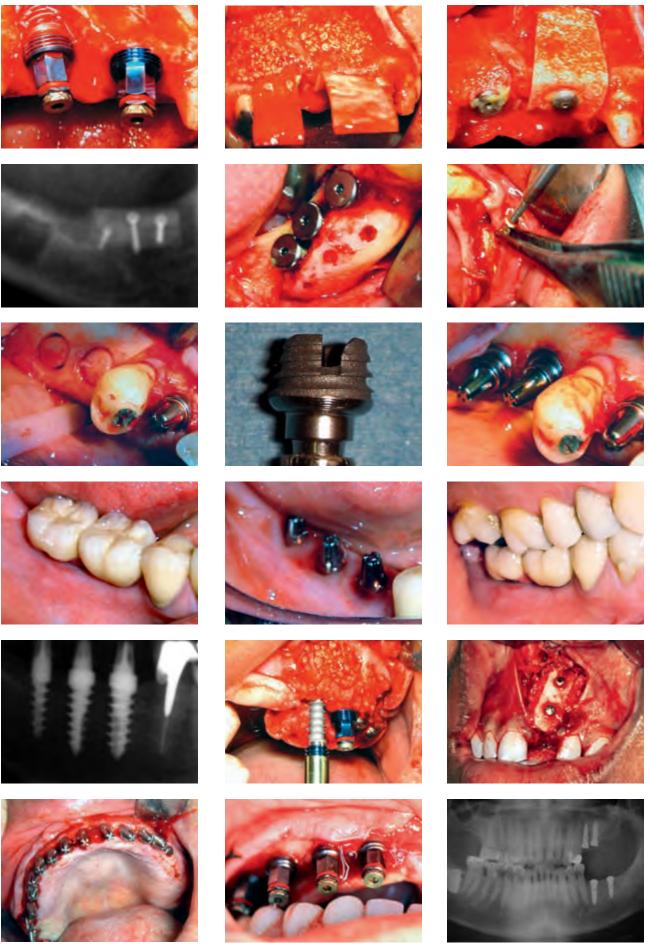
Operating situation, Dominican Republic.



Discussion in operating theatre, Cuba.



A Q-Implant® Marathon course in Laos under the direction of Dr. Andreas Kurrek (4th from left) and Dr. Dr. A. Trödhan (right).





Operating situation, Dominican Republic.



Discussion in operating theatre: Dr. Eduardo Valencia (centre) and two colleagues.



Operating situation, Cuba.



Sea view, Santo Domingo (Dominican Republic).



Catering for the course participants in Havana (Cuba).



Operating situation, Dominican Republic.



Temple sightseeing in Cambodia.



Operating situation, Dominican Republic.



# The Q-Implant® Marathon – a short description



of his/her knowledge. The courses take place in Cuba, the Dominican Republic, Cambodia and Laos.

The participants work in state clinics or in a private clinic in teams of two or three under the supervision of a tutor (for the teaching method, see p. 5ff). They operate from Monday to Friday, for about eight hours daily. The

patients are prepared by local medical teams and are provided with their prostheses immediately after the operation. In some course locations, evening meetings take place to discuss the patients' cases. Photography during the operations is permitted and encouraged.

The Q-Implant® Marathon course is offered on three different course levels. In practical terms, this means that the participant decides on a course date and register for a course level (see further) in accordance with their requirements. Trinon's team of tutors checks the requirements and determines the classification of the participants on site. Beginners and advanced participants therefore work together on a course but on different patients. Usually, between 10 and 20 dentists take part in the courses; the capacities in Cuba and in the Dominican Republic even allow up to 30 persons to take part. At the conclusion of the course, the participants receive a course certificate from TCP, which states the number of inserted implants. The state clinics in Cuba, Cambodia and Laos also award their own certificates. The course counts for 45 dental CME points.

Q-Implant® Marathon courses have been organized jointly by Trinon Collegium Practicum (TCP) and Trinon for five years. The one-week implantology courses are directed towards practical experience on patients. They therefore guarantee the beginner an effective start in implantology and provide the advanced participant with intensive development

### Classification of course levels

#### **Beginners**

Requirements for participants:

- Basic surgical knowledge (practical implantological experience is not expected)
- Basic theoretic knowledge of implantology
- At least two years practical experience as a general dentist

#### Course content:

The participants acquire practical experience in implantology by means of relatively uncomplicated cases. In Cuba and the Dominican Republic, the participants insert at least 30 implants and in Laos and Cambodia at least 25. Should, in Cambiodia and Laos, the target quantity of 30 implants not be reached the participant will receive the difference of implants after completion of the course. The participants take turns operating and assisting under the supervision of experienced Implantologists (see CVs on p. 25ff). In addition, the dentists are introduced to augmentation procedures and interested participants can follow the implant prosthetic restoration of the patients if desired (this is not possible in the Dominican Republic for logistical reasons).

#### Advanced I

Requirements for participants:

- Basic surgical knowledge
- The participant has himself placed at least 50 implants in the last three years
- At least one year of oral surgery practice or participation in a Q-Implant \* Marathon beginners' course

#### Course content:

The participants in this group extend their practical experience in implantology by operating on or assisting with complicated cases under supervision. They learn various treatment techniques such as sinus lift and perform various augmentation procedures. They are introduced to effective management of complications, in the framework of which they treat cases of implantological complications.

#### Advanced II

Requirements for participants:

- The participant has himself placed at least 200 implants in the last three years
- At least two years of oral surgery practice or participation in a Q-Implant \* Marathon advanced I course

#### Course content:

The participants in this group extend their implantological experience by treating very demanding cases under supervision. They perform implantations in highly atrophic bone with sinus lift and comprehen sive bone augmentation. Among other things, they learn extraoral harvesting of autologous bone, the use of titanium mesh and performance of onlay grafting.

Apart from the aforementioned criteria, it is also helpful to assess one's own surgical spectrum in rou tine practice, for instance asking oneself: with which teeth would I be confident about performing an apicectomy? Practical surgical knowledge greatly facilitates getting started in implantology.









# The four course locations: Course schedule, medical teams and country information

The Q-Implant® Marathon courses in the different locations, Cuba, Dominican Republic, Cambodia and Laos, all differ a little from one another. The schedules depend on local conditions and the atmosphere naturally is also influenced by the conditions offered by the host country.

To give an impression of the different schedules, the plans of the courses in Cuba, Dominican Republic, Cambodia and Laos are presented in detail below\*. In addition, the local medical teams will be introduced under the respective country heading and some general information about the country is provided.

\* Small changes are of course possible at any time.

To begin with: the participants on all courses stay in four- or five-star hotels (country category), half-board or all-inclusive. The flights to Cuba and the Dominican Republic are included in the course package while the flights to Laos or Cambodia are not included in the price and must either be organized by the participants themselves or an appropriate additional payment must be made. All courses include accommodation, all transfers, the implants and surgical and prosthetic materials.

Sources of country information: http://www.wikipedia.org http://www.wikitravel.org http://www.wetter.net Fischer Weltalmanach 2009, published by Fischer Taschenbuch Verlag











# The Q-Implant® Marathon course in Santa Clara

#### Schedule

Saturday

11.00 a.m. Meeting place for participants:

Madrid-Barajas airport, Terminal 1 at the Air Europa check-in

desk

3.05 p.m. Flight to Havana with Air Europa

(flight No. UX 051)

7.20 p.m. Arrival in Havana and transfer to

hotel (Melia Cohiba Hotel; http://www.solmelia.com) Dinner is not included.

Sunday

7.00-9.00 a.m. Breakfast in the hotel
9.45 a.m. Course introduction
10.15 a.m. City tour through Havana
2.30 p.m. Lunch at a typical restaurant

(El Patio)

Followed by departure by bus

for Santa Clara

Arrival at accommodation and

dinner in Santa Clara (La Granjita Hotel)

Monday-Friday

Accommodation in La Granjita Hotel with half-board and packed lunch

8.15 a.m. Transfer to University Clinic

8.30 a.m.- Treatments

approx. 5.00 p.m.

approx. 5.00 p.m. Transfer to hotel

7.00 p.m. Meeting with the entire medical

team to discuss the day

On Friday evening there is a farewell party with awarding of certificates.

#### Saturday

Breakfast in the hotel

10.00 a.m. Transfer to Havana and free

time (packed lunch included)

5.00 p.m. Transfer to the airport

9.10 p.m. Flight to Madrid with Air

Europe (UX 052) Dinner on board

Sunday

12.45 p.m. Arrival at Madrid airport



A typical meal in "El Patio" after the city tour.

## The Cuban medical team at the University Clinic in Santa Clara

All of the doctors on the team completed their eight-year university medical studies in Cuba and are experienced specialists in their field.

**Dr. D. Ernesto Marquez Rancaño,** leader of the Cuban medical team and senior oromaxillofacial surgeon at "Arnaldo Milian Castro" University Clinic, Santa Clara University, Cuba

- Specialist in oromaxillofacial surgery
- 29 years of professional experience

**Dr. Ana Cecilia Valdés Borroto,** oromaxillofacial surgeon at "Arnaldo Milian Castro" University Clinic, see above

- Works in stomatology education
- 7 years of professional experience

**Dr. María Gabriela Pérez Cuevas,** senior doctor in the department of implant prosthetics and director of the "Implant prosthetics" programme at "Arnaldo Milian Castro" University Clinic, see above

- University lecturer in dental prosthetics
- Special interest: dental prosthetics
- 25 years of professional experience

**Dr. José Concepción Guzmán,** oromaxillofacial surgeon at "Arnaldo Milian Castro" University Clinic, see above

- Lecturer in the faculty of oromaxillofacial surgery
- 28 years of professional experience

**Dr. Ruben Rodriguez Jimenez,** oromaxillofacial surgeon at "Arnaldo Milian Castro" University Clinic, see above

- Lecturer in the faculty of oromaxillofacial surgery
- 28 years of professional experience

**Dr. Ruben Bello Rodriguez,** chief of oromaxillofacial surgery at "José Luis Miranda" children's hospital

**Dr. Juan Antonio Santisteban Rodrucénez,** oromaxillofacial surgeon at the hospital in Santi Spiritus, Cuba

#### Information about the country

Cuba, the biggest island in the Caribbean, is one of the Greater Antilles group of islands and is situated between the Atlantic Ocean and the Caribbean Sea. The country's climate is tropical, which means it is pleasantly warm to hot and sunny all year round. The period from November to April is dryer, while more rain falls from May to October. Between July and October, one must be prepared for hurricanes. The months between November and April are regarded as the best time to travel.

About 11 million people live in Cuba, over two million of them in the capital Havana, which is the biggest city on the island and its cultural centre. The old city of Havana has been extensively restored and is a UNESCO World Heritage Site.

Cuba has had a varied history with over 300 years of colonial rule by Spain and a still persistent American influence. The 1959 revolution represents the most well-known chapter in Cuban history, when the Cuban revolutionaries led by Fidel and Raul Castro, Camilo Cienfuegos and the Argentinean Ernesto Che Guevara toppled the Cuban dictator Fulgencio Batista and set up a socialist state after 1961



Capitolio Nacional

Some of Cuba's social achievements are regarded as exemplary for the region. The educational standard is very good (literacy in 2005 was 100%) and healthcare also has a high standard (infant mortality in 2006: 5/1,000 live births).

The state president and prime minister of the socialist country is currently Raul Castro. Cuba is regarded as a safe country for travelling. The majority of Cubans belong to Catholicism and the mixed religion of Santería. Spanish is the official language.



# The Q-Implant® Marathon course in Phnom Penh

#### **Dates**

Monday, 21.03.2011 to Friday, 25.03.2011 Monday, 14.11.2011 to Friday, 18.11.2011 Further dates upon request

#### Schedule

Independent arrival

#### Sunday

Individual transfer, meeting up in Hotel Phnom Penh. The participants are accommodated there until the following Saturday (half-board)

#### Monday

١							
	8.15 a.m.	Transfer	to	Unive	rsity	Clir	nic
		Phnom P	enh				
	8.30-9.15 a.m.	Introduct	ion	and	getti	ing	to
		know the	loc	al med	lical t	eam	
	9.15-12.00 a.m.	Presentation of the Q-Implant					
		system ar	nd d	lemo c	perat	tion	
	12.00-4.30 p.m.	Treatmen	ts				
	5.00-6.00 p.m.	Case disc	ussi	ons			

#### **Tuesday-Friday**

8.15 a.m.	Transfer to the University Clinic
8.30-9.15 a.m.	Discussion and preparation for
	treatments
9.15-4.30 p.m.	Treatments
5.00-6.00 p.m.	Case discussions

On Friday evening there is a farewell party with awarding of certificates.

#### Saturday

Transfer to the airport Departure

# The following are the Cambodian medical team of Phnom Penh University Clinic

#### **Prof. Suon Phany**

President of the Faculty of Odonto-Stomatology, University of Health Sciences, Cambodia Professor of pharmacology and periodontology Research and teaching at the University of Health Sciences

Director of the Strategic Working Group for Oral Health in Cambodia

#### Prof. Tuy Thel

1982 Study of maxillofacial surgery and doctorate, Faculty of Odonto-Stomatology, University of Health Sciences, Phnom Penh, Cambodia

1983 Training in oromaxillofacial surgery, Ho Chi Minh City, Vietnam

1992, 1994, 2000 Various further education courses in Vietnam, Thailand and France in different areas including cytology and maxillofacial surgery

2004 Postdoctoral qualification

1982–1999 Chief of the department of odontostomatology, Railway Hospital

1983–1989 Lecturer in dental chemistry

1985–2001 Lecturer in dentistry

1999–2001 Chief of the department of maxillofacial surgery, Kossamak Clinic

2000–2009 Institute director, Faculty of Dentistry 2001–2009 Vice-president of the Faculty of Odonto-Stomatology, University of Health Sciences, Cambodia

Prof. Tuy Thel is active in the Dental Association in Cambodia.



#### Dr. Vorn Vutha

1987–1994 Study of maxillofacial surgery and doctorate, Faculty of Odonto-Stomatology, University of Health Sciences, Phnom Penh (Cambodia)

1994–2009 Lecturer in the Faculty of Odonto-Stomatology, University of Health Sciences, Phnom Penh 1996–1997 Training in Personal Health Education

1998–1999 Further education in Health Service Management 2000–2004 Bachelor of Education (B.Ed, TEFL)

2001–2003 Training in paediatric dentistry 2007–2009 Master of Health Sciences (National Health Institute, Cambodia)

Experience as lecturer and trainer in different further education courses



#### Dr. Seng Rosamith

1987–1993 Study of maxillofacial surgery and doctorate, Faculty of Odonto-Stomatology, University of Health Sciences, Phnom Penh (Cambodia)

1994, 2001–2005 Administrative positions in the Faculty of Odonto-Stomatology

1996 Further education in general and aesthetic dentistry in Thailand and Japan

1997–2009 Lecturer in endodontics

2002–2005 Diploma in Health Sciences, dentistry (Phnom Penh)

2005–2009 Vice-president of the Faculty of Odon-to-Stomatology



The South-East Asian state of Cambodia is located on the Indochinese peninsula between Thailand, Laos and Vietnam. In the south, it is bounded by the Gulf of Thailand. Cambodia is about half the size of Germany and has about 14.5 million inhabitants. The capital, Phnom Penh (ca. 1.4 million inhabitants) is in the south of the country. Cambodia is a popular holiday destination, especially because of its numerous temple complexes, the most important of which is Angkor Wat.

Cambodia has a tropical monsoon climate. The average annual temperature is about 27 degrees. The rainy season is from the middle of April to the middle of October. The most pleasant time to travel



Emperor's palace, Phnom Penh

in the country is the dry season from November to March. At this time, the average temperatures are between 30 and 32 °C. The country is characterised by very attractive flora and fauna, even though the rain forests were felled to a large extent by the end of the 1990s.

Cambodia emerged from the early medieval kingdom of Angkor. Its ruins in Angkor, Roluos, Banteay Srei and Preah Vihear are UNESCO world heritage sites. Independence from French colonial power in 1954 was followed by civil wars for many decades, which claimed many victims among the population and resulted in severe damage to the economy. The Vietnam War and the Khmer Rouge dictatorship from 1975 to 1979 caused the country great suffering and misery. The country has been developing independently only in the last ten years. There is again a king and a democratically elected government. The current head of state is King Norodom Sihanouk and the head of government is Hun Sen.



A group on a sightseeing tour in Phnom Penh

However, Cambodia is still a very poor country, and the rural areas in particular lack the barest necessities. Health care (infant mortality in 2006: 65/1,000 live births) and the educational situation (literacy rate in 2005: 75%) are relatively poor.

About 93% of the population of Cambodia are Theravada Buddhists. The official language is Khmer. Cambodia is a safe holiday destination.



# The Q-Implant® Marathon course in Santo Domingo

#### **Dates**

Monday, 07.02.2011 to Friday, 11.02.2011 Monday, 02.05.2011 to Friday, 06.05.2011 Monday, 19.09.2011 to Friday, 23.09.2011 Monday, 05.12.2011 to Friday, 09.12.2011

#### Schedule

#### Saturday

10.30 a.m. Meeting place for participants:

Madrid-Barajas airport, Terminal 1 at the Air Europa check-in desk Flight to Santo Domingo with Air

3.00 p.m. Flight to Santo Domingo with A Europa (flight no. UX 089)

5.55 p.m. Arrival in Santo Domingo and transfer to hotel (Be Live Hamaca Hotel; http://www.belivehotels.com). The participants are accommodated there until the fol-

lowing Saturday (all-inclusive)

#### Sunday

Day at leisure 7.00 p.m.

course introduction



The hotel restaurant; you can't eat any closer to the water.

#### **Monday-Friday**

Tue-Fr: 8.15 a.m. Transfer to Private Clinic

8.30 a.m.- Treatments

approx. 7.00 p.m.

approx. 7.00 p.m. Transfer to hotel

On Friday evening there is an awarding of certificates.

#### Saturday

Time at leisure

5.00 p.m. Transfer to the airport 7.55 p.m. Flight to Madrid with Air

> Europe (UX 088) Dinner on board

Sunday

10.20 a.m. Arrival at Madrid airport

In the Dominican Republic, the participants are looked after by a Spanish-Canadian medical team under the direction of Dr. Alfredo Valencia.

#### Serge Chaussé, D.M.D

1980 Completed study of chemistry, University of Montreal

1984 Completed study of maxillofacial surgery, University of Montreal

1984 Set up own practice

Since 1984 Numerous further education courses in the field of orthodontics and implant prosthetics Since 2006 Work as lecturer and speaker in the area of implantology

As a dentist, support of humanitarian projects in Iquitos, Peru and in Baja California, Mexico.

Memberships of various scientific societies: Association des Chirurgiens Dentistes du Quebec (certified expert of this association), Ordres des Dentistes de Quebec, International Orthodontic Society and American Association of Implant Dentistry.

#### Dr. Badí Haddú

Studied dentistry at Granada University, Spain Private practice in Torremolinos and Marbella, Spain

Special interest: dental implantology

#### Dr. Mounib Chehimi López

1994–1999 Studied dentistry at Granada University, Spain

2006–2007 Master studies, dental implantology (Straumann)

In private practice with special interest in prosthetics, implantology and surgery

Since 2007 Working in the Dr. Valencia Titanium Clinic, private clinic for implantology and oromaxillofacial surgery

Since 2009 Director of the Titanium Nerja Clinic

#### Dr. Marc Pifarré Portella

1997–2002 Studied dentistry at Barcelona University, Spain

Doctorate at Barcelona University

2001–2005 Participation in international projects (Nicaragua, Honduras, Cuba)

2002–2004 Master studies, oral surgery and implantology

Since 2006, assistant doctor in the oromaxillofacial clinic Corachan/Princep d'Asturias Hospital working in own private practice

#### Information about the country

The Dominican Republic is located south-west of Cuba, between the Atlantic and the Caribbean and also belongs to the Greater Antilles. Its capital is Santo Domingo (1.9 million inhabitants).

The Dominican Republic is known particularly as a tourist destination with guaranteed sunshine and palm-fringed beaches extending for kilometres. Since the end of the 1970s, the island state has been opening up for tourism. The sins of the early period – concrete hotel complexes that did not fit into the landscape – have largely been overcome. Here, too, the visitor will find a hot tropical climate with average temperatures of around 28 °C. The rainy season lasts from May to September. Hurricanes can also occur during this period. In the dryer winter months, it is somewhat cooler than in summer but never less than 21 °C, except in the mountain regions. The period from December to April is regarded as the best travel time.

Like Cuba, the Dominican Republic was a Spanish colony until the colonial region was first conquered by Haiti in 1805 and then achieved independence in 1844. The republic had great difficulties in establishing itself; the democratic efforts were interrupted by a dictatorship phase, two coups, one civil war and two military interventions by the USA until presidential elections, withdrawal of the American intervention troops and more stable political conditions were regained in 1966. The current president of the republic is Leonel Fernández Reyna.

In the areas of health (infant mortality in 2006: 25/1,000 live births) and education (literacy rate in 2005: 87%), the inhabitants of the Dominican Republic are basically satisfactorily provided for. However, state and private institutions exist side by side and only the obviously better off can benefit from private schools and hospitals. Basic health care in the cities is ensured by cheap state hospitals. People's incomes are very low and the country is struggling with high unemployment and underemployment. Many Dominicans live on transferred payments provided by their relatives living abroad. The Dominican Republic is a relatively safe holiday destination, even if the contrary is occasionally asserted. Catholicism is the state religion and Spanish is the national language.



View over Santo Domingo.



# The Q-Implant® Marathon course in Vientiane

#### **Dates**

Monday, 14.02.2011 to Friday, 18.02.2011 Monday, 04.04.2011 to Friday, 08.04.2011 Monday, 26.09.2011 to Friday, 30.09.2011

#### Schedule

Independent arrival

#### Sunday

Individual transfer, meeting up in hotel in Vientiane. The participants are accommodated there until the following Saturday.

Introductory meeting in the hotel

#### Monday

8.15 a.m. Transfer to University Clinic 8.30-9.15 a.m. Introduction and getting to know the local medical

team

9.15 a.m.-12.00 p.m. Presentation of the Q-Imp-

lant® system and demo

operation

12.00-13.00 p.m. Lunch and preparation for

treatments

1.00-4.30 p.m. Treatments 5.00-6.00 p.m. Case discussions





Preparation and operation in the University Clinic, Vientiane

#### **Tuesday-Friday**

8.15 a.m. Transfer to the University

Clinic

8.30-9.15 a.m. Discussion and preparation

for treatments

9.15 a.m.-12.00 p.m. Treatments

12.00-13.00 p.m. Lunch and preparation for

treatments

1.00-4.30 p.m. Treatments 5.00-6.00 p.m. Case discussions

On Friday evening there is a farewell party with awarding of certificates.

#### Saturday

Transfer to the airport and departure

#### The Laotian medical team of Vientiane University Clinic

#### Dr. Alounnhadeth Sitthiphanh

1972-1977 Assistant dentist (five-year curriculum), Ecole Royale de Medecine, Sisavang University, Vientiane, Laos

Since 1977 Lecturer in Restorative Dentistry

1977–1980 Deputy director of the school for assistant dentists, Medical University

1984-1991 Director of the Finance Department, University of Health Sciences

1991–1996 DDS Doctor of Dental Surgery, University of Health Sciences

1996–1997 Finance Department, Medical Faculty, University of Laos

1997-2004 Director of dental education at the Medical Faculty, University of Laos

Since 2006, vice-president for student and special affairs, University of Health Sciences, Vientiane, Laos

#### Assoc. Prof. Dr. Dr. Sengphouvanh Ngonephady

1974–1979 Assistant dentist (five-year curriculum), Ecole Royale de Medecine, Sisavang University, Vientiane, Laos

Since 1979 Lecturer in Restorative Dentistry 1980–1983 Assistant dentist and lecturer in dental education

1983–1989 Further studies at the Faculty of Odonto-Stomatology, Volgograd, Russia

1990-1994 Deputy dean of the Dental Faculty, Medical University, Vientiane, Laos

1994–1999 Graduate studies, Faculty of Dentistry, Mahidol University, Thailand

1999–2003 Director of the Department of oral health and dental restoration, Dental Faculty, University of Laos

2003–2004 Deputy dean, Dental Faculty, University

Since 2004 Dean, Dental Faculty of the University of Health Sciences, Vientiane, Laos

#### Dr. Bounnhong Sidaphone

1976-1980 Assistant dentist (four-year curriculum), Ecole Royale de Medecine, Sisavang University, Vientiane, Laos

1981–2004 Lecturer in maxillofacial surgery

1991–1996 DDS, University of Health Sciences

1997-2004 Deputy director of dental education, Medical Faculty, University of Laos

2004–2006 Master in Public Health, research and management, lecturer in restorative dentistry 2007–2009 Vice-dean of the dental department of the University of Health Sciences, Vientiane, Laos, lecturer in maxillofacial surgery

#### Dr. Akao Lyvongsa

1981–1987 Working in the Faculty of Stomatology, University of Tashkent, Russia

1987-1993 DDS, Doctor of Dental Surgery, working at Hospital no. 1, Km6; PDR

1993–2001 PhD, Medical University Hanoi, Faculty of Odonto-Stomatology

2007-2009 Vice-dean, lecturer in maxillofacial surgery, at the Dental Faculty of the University of Health Sciences, Vientiane, Laos Lecturer in maxillofacial surgery

#### **Dr. Somphone Phanthavong**

1982-1988 Studied stomatology in the USSR (DDS

1988–1997 Dentist at Mahasoth Hospital

1997-2002 Research period in Japan at the Medical and Dental University in Tokyo (PhD)

2002–2005 Doctor at Mahasoth Hospital, lecturer in restorative dentistry at the Dental Faculty of the University of Health Sciences, Vientiane, Laos Since 2006, chief of the Department of Dentistry of

Setthathirath Hospital and lecturer at the Dental Faculty of the University of Health Sciences, Vientiane. Laos

#### Dr. Vatsana Chanthamalinh

1995-2000 Studied at the Dental Faculty of the University of Health Sciences, Vientiane, Laos, qualification: DDS, Lao PDR

2000–2004 Department of prosthetics and orthodontics, lecturer in prosthetics

2005–2008 Further education to Master of Science in maxillofacial prosthetics and dental oncology, Mahidol University, Thailand

Since 2008, lecturer at the Dental Faculty of the University of Health Sciences (Department of Prosthetics), Vientiane, Laos

#### Dr. Douangsavanh Pengmanivong

1995–2000 DDS, Dental Faculty of the University of Health Sciences, Vientiane, Laos

2000-2005 Department of prosthetics and orthodontics, lecturer in prosthetics

2005-2008 Master's in maxillofacial prosthetics and dental oncology, Mahidol University, Thailand 2009 Deputy director of the department of prosthetics and orthodontics, lecturer in prosthetics, Dental Faculty of the University of Health Sciences, Vientiane, Laos

There are further members of the local medical team who are not mentioned by name.

#### Information about the country

Laos is located between Thailand and Vietnam and borders China and Myanmar in the north and Cambodia in the south. The capital, Vientiane, has 695,473 inhabitants.

Laos has a tropical climate with high temperatures, though there can be major regional temperature fluctuations due to the great differences in elevation. From May to October, the monsoon brings deep depressions and high humidity, while it is dryer and cooler between November and February and most pleasant for visitors. In March and April the climate is warm and damp. About 50 percent of the country is covered with forest. There are both rain forests with tropical plants and a rich animal world and also monsoon forests. Apart from the sights such as Luang Prabang, the old royal capital, which is a UNESCO world heritage site, and



Golden Buddhas in Laos.

innumerable temples, it is the peaceful lifestyle of its inhabitants, its originality and naturalness that attracts many visitors. Tourism in Laos is only starting to develop, especially in the form of eco- and cultural tourism.

Laos too has a colonial past. It belonged to French Indochina, was occupied by the Japanese in the Second World War and obtained independence in 1945 after the Japanese capitulated. However, the French influence only ended de facto on 21 July 1954 with the Indochina conference. During the Vietnam War, neutral Laos sustained massive bombing. After the end of the Vietnam War, communist forces took over power in 1975 and proclaimed the Democratic People's Republic of Laos. The Laotian Revolutionary People's Party was elected as the country's ruling party, and the head of government today is Bouasone Bouphavanh. However, the country is gradually opening up to

the West and the market economy.

The standard of living is low and there are large deficits in education and health care. Laos has a literacy rate of 69% (2005), and just over 80% start school (2006 figure). The infant mortality rate is 59 per 1,000 live births (2006).

The official language is Laotian, and the most widespread religion is Buddhism. As a traveller, one is safe in the large cities and in tourist areas.

### Registration

Course dates: You can find out current course dates from TCP/Trinon

by phone or email:

TCP

Trinon GmbH Augartenstrasse 1

D-76137 Karlsruhe/Germany Tel.: +49 (0)721 93270-0 Fax: +49 (0)721 24991

Email: trinon@trinon.com, Q-Implant-Marathon@trinon.com

Internet: www.trinon.com

Course fee: Dominican Republic (without flight) 9,350.00 Euro

Cambodia (without flight) 9,350.00 Euro Laos (without flight) 9,350.00 Euro

This amount includes a credit of 3,000 Euro, for products of the Trinon me dical program. It is available from the day of payment and expires 90 days

after the end of the course.

Fee includes: - Transfers

- Implants, surgical materials

- All overnight stays (single room, shower, WC, half-board or all-inclusive)

Important when applying: Please complete the application form (p. 71) in full and send it to TCP/Trinon

at the above address. When deciding on the course level, please note the criteria on page 59. The course fee must be paid at least eight weeks before

the start of the course to the following bank account:

Volksbank Karlsruhe Ludwig-Erhard-Allee 1 76131 Karlsruhe

Account number: 100 541 17 SWIFT: GENO DE 61 KA1

IBAN CODE: DE40 6619 0000 0010 0541 17

Recipient: TRINON GmbH

Reason for payment: Q-Implant \* Marathon location, month, year

A copy of the following documents must be enclosed with the application and presented on site (as a copy)

- license to practice medicine
- Curriculum vitae (postgraduate higher and continuing education and knowledge of English; please describe practical dental and/or surgical skills in detail)
- Health certificate (evidence that the participant is not a carrier of infectious diseases such as hepatitis A or B or HIV)
- Copy of passport (this should be valid for six months beyond the end of the course)

Unfortunately, participants cannot be admitted to the course without these documents. The local authorities do not allow any exceptions.

You can obtain our general terms and conditions from TCP (address above).

### Application form





Please send the form with the necessary documents (see p. 70) to the following address:

TRINON Titanium GmbH **High Quality Titanium Products** Augartenstrasse 1 D-76137 Karlsruhe/Germany Fax: +49 (0)721 24991 Email: Q-Implant-Marathon@trinon.com or Trinon@trinon.com I hereby make a binding application for the following course: Course date: \_ Course location: O Cambodia Dominican Republic Laos Course fee: 9.350,- Euro 9.350,- Euro Dominican Republic (without flight) Cambodia (without flight) 9.350,- Euro Laos (without flight) According to the criteria for classification level for the Q-Implant Marathon courses (p. 59), I would like to take part in a course for: Beginners O Advanced I O Advanced II The final classification will be made locally by the medical course directors. My Data: Title: Fax: Email: First name: Last name: T-shirt size: Street, house number: I agree to Trinon's terms and conditions. These can be obtained from TCP. Post code, town: Place, date: Country: Signature, practice stamp: Telephone: Mobile:

## Organizational hints

#### Useful hints for ...

#### ... the flight

- Please bring as little luggage as possible (max. 20 kg)
- An exit fee must be paid on departure from Cuba, the Dominican Republic, Laos and Cambodia.
   Please remember to have enough cash with you
- Don't forget your passport.

#### ... the clinic

- If you have preferences, it is advisable to bring your own anaesthetic, suture material, instruments etc. with you.
- Please bring your own surgical clothing with you along with comfortable clean shoes.
- Digital photography makes sense so that case documentation can be viewed and discussed together and for applying later for dental CME points.

#### ... the countries visited

- You will find up-to-date country and travel information on the web-site of your country's Foreign Office.
- Don't forget your medical travel kit.

#### **FAOs**

#### What language is used for the courses?

 The course language is English. Depending on the composition of the courses, the supervisors also speak German and Spanish with the participants. Enquire if you would like to know more details in advance of your course.

#### What are the formalities on arrival?

 You need a passport (valid for six months beyond your stay) and a visa. TCP/Trinon will organize the visa for Cuba and visas for the Dominican Republic, Cambodia and Laos are issued on arrival.

#### Are vaccinations necessary?

– No vaccinations are stipulated currently for direct flights from Europe. However, it is advisable to obtain personal travel advice from a doctor or pharmacist experienced in travel medicine in good time (about 4 to 6 weeks) before the journey. You can find current vaccination and prophylaxis recommendations on the websites of the Centre for Travel Medicine (www.crm.de) and the Foreign Office of your country.

### How safe are the countries where the courses are held?

 You can move around safely during the day in all course locations but you should be careful going out at night in Cambodia (Phnom Penh) and in the Dominican Republic (Santo Domingo) and not visit certain areas. Our travel guides and the course directors will be happy to provide information.

#### Are the courses really purely practical?

 These are hand-on courses which provide the participants with the maximum practical experience. Nevertheless, a short practical and theoretical introduction is offered in addition in the courses in Cambodia and Laos.

#### Are the patients treated adequately before and after the operation? And who meets the costs?

- We take the welfare of our patients closely to heart and strive for treatment in accordance with Western standards. They are first prepared for implantation by a local medical team. Professional dental cleaning is performed and comprehensive rehabilitation also, if necessary. Followup is provided either by the state clinics or, if desired by the patients, by outside dentists. All patients are invited for follow-up once a year. The implantation is free of charge for all patients. Prosthetic restoration is likewise free of charge in the state clinics.

#### How can I prepare for the course?

- To prepare for getting started in implantology, it is useful initially to (further) develop general surgical skills. For example, incision and suture techniques are practised in pre-Marathon courses (further information about these courses from TCP). Theoretical knowledge of implantology is assumed in the Q-Implant® Marathon courses. Moreover, the participants should familiarize themselves with the Q-Implant® system beforehand.

# The company creed: Flexibility and creativity

Trinon Titanium GmbH was founded in 1993 by its owner Miroslaw Pienkowski. The company specializes in the fabrication of titanium products and, over the course of the company's development, it has successively covered all the areas in which titanium is used. These include, in particular, medical devices, aerospace, the motor and electroplating industries and consumer design.

## Manufacture to customer specification

Manufacture to the customer's specification is a Trinon speciality. Titanium products are made from a sketch, technical drawing or pattern. The company also assists its customers by means of computeraided design (CAD). For instance, titanium anode cages, racks, hooks, flanges, pumps, vats and cooling coils, along with DIN and ISO standard parts can be produced. Trinon supplies many famous and prestigious companies worldwide in the fields of industry and medical devices.

# The Q-Implant® and other medical devices developed by the company

Among the range of services provided by the company, many products developed by it were added in the last ten years, especially in the medical devices area. Trinon introduced the Q-Implant® system to the market in 1998. The idea was to design an implant system that is very clear and easy to use. Each system component was chosen to provide the user with maximum clarity and at the same time ensure safety through its simplicity.

The Q-Implant® is a single-phase endosteal threaded implant made of titanium, which is particularly suitable for immediate loading. The implant's self-tapping thread enables the implant to be inserted gently in the bone of the jaw with little force. Because of its capacity for compression, it guarantees outstanding primary stability even in highly cancellous bone. The progression thread with longitudinal milling acts as a stress breaker and distributes masticatory pressure to the bone evenly. The longitudinal milling also protects the implant against rotational movements. The implant head has a 7° cone angle and is designed to be ground by the user.



Four symmetrical grooves on the head of the implant stabilize the abutment against rotation and guide the insertion key. For optimal osseointegration, the endosteal part of the threaded surface was acid etched and also blasted with aluminium oxide. The Q-Implant® is available in diameters 2.5, 3.5, 3.9, 4.5 and 5.6 millimetres and in lengths 8, 10, 12 and 14 millimetres. The Q-Implant® family is completed by two two-phase implants, Q2- and QK-implant, and by the Q3-Implant, a single-phase implant with a spherical head attachment for stabilising full prostheses. GIP, the latest member of the implant family, is an innovative single-phase implant for highly atrophied wide jaws. Since the introduction of the Q-Implant®, Trinon has been regularly involved worldwide in multicentre studies and takes part in a number of congresses and events.

Other products for dentistry and medicine include:

– The Q-MultiTractor, a modular vertical distractor made of titanium for pre-implantation augmen-

tation of the mandible and maxilla

- The Q-Bone Grafting Set for onlay grafts and mesh-supported abutments
- The Q-Mesh, a three-dimensional pre-formed titanium mesh for pre-implantation augmentation of the maxilla
- The BPS Bone-Pin System for fixing titanium mesh, film and membranes and for bone reconstruction
- Multi-F, an external ortho fixator made of titanium
- Scalpel blades and disposable scalpel made of carbon steel

Apart from these products, Trinon also manufactures other medical devices to customer specifications, such as myringotomy tubes and ear implants.

#### An international company

Trinon employs about 250 people and now has a substantial customer base throughout the EU, in Ukraine, Russia, Kazakhstan, Latin and South America and also in Asia (including South Korea, Indonesia, Singapore, Taiwan, Vietnam) and USA. A branch was opened in Singapore in 2005. The company is certified in accordance with European directives.

A special feature of Trinon Titanium is the great flexibility in reacting to customers' wishes. Despite its now almost corporation-like structure, the company has maintained a creative and innovative nature. Extraordinary commissions are carried out quickly and precisely. For instance, the façade of the Titanium Clinic in Marbella (Spain) was covered with 100 two-millimetre titanium plates in 2005. In October 2007, a sculpture was produced from titanium according to the College of Design and Art in Zurich and erected in the Korean-German Institute of Technologies in Seoul (Korea). This commission required a marathon performance by the company: the sculpture, which is 17 metres long and weighs 358 kilograms, was created in only eight weeks and installed on site in only five days.

## Trinon Collegium Practicum for science and further education

Trinon Collegium Practicum (TCP) is a non-profit organisation. The main aims of TCP are research, development and further education in the areas of dental implantology, traumatology etc. In collaboration with doctors and universities, Trinon products are optimized and new developments are started. TCP also organizes the further education



The façade of the Titanium Clinic in Marbella is covered with 100 two-millimetre titanium plates.

and science area around the company's products. For instance, further education courses such as the Q-Implant® Marathon are conducted, multi-centre studies are initiated together with partners and clubs are set up for scientific exchanges between dentists. In the dental field, recent scientific research is followed closely to that confirmed results can be translated consistently into product development.



A sculpture can be seen in the Korean-German Institute of Technologies in Seoul, which was made by Trinon according to a project by the College of Design and Art (Zurich).

opment. The aim for implantology is to provide clinicians with a modern implant that is equally outstanding in function and aesthetics to provide their patients with high quality of life.



### In any case Q-IMPLANT®

The Q-Implant® product range suits all indications. Including single tooth treatment and bridges, increasement of pillars in reduced set of teeth and in edentulous jaws. It can be loaded immediately after tooth extraction and serves perfectly for immediate suprastructure due to the high primary stability achieved by its unique thread design.

Q-Implant®, the implant system of the present and future!

# Q-MultiTractor - innovative modular distraction system



Pin-base plate neutralises lingualisation and allows for minimally invasive surgery





