



The next European Congress for Ceramic Implant Dentistry will take place in 2024.

# Second European Congress for Ceramic Implant Dentistry

## Ceramic implantology is on a par with titanium implantology

**At the second European Congress** for Ceramic Implant Dentistry, which was held from 20 to 22 October, more than 180 participants from over 25 countries and internationally known speakers engaged on the theme of “Facts of Ceramic Implants”. “We are very pleased to have succeeded in setting a milestone for dental implantology with ceramic implants with this event,” said Dr Jens Tartsch, President of the European Society for Ceramic Implantology (ESCI), which presented the congress. The historic Bocken Estate on Lake Zurich in Switzerland, offering a special ambience and state-of-the-art event technology, provided the perfect setting for the congress.

The goal of the ESCI as a European and worldwide network is to create an international bridge between scientific research and the clinical application of ceramic implants. Practical insights were therefore provided at the start of the fully booked workshops. Prof. Sebastian Kühn (Straumann), Dr Joseph Choukroun (Purgo Biologics), Dr Elisabeth Jacobi-Gresser (Zeramex) and Dr Frank-Michael Maier (Camlog) presented the respective implant systems and clinical concepts to the participants.

The main programme was divided into three sessions: biomaterial ceramics, biological aspects and clinical aspects. Top-class speakers answered current questions and provided background information on implantology with ceramic implants in exciting presentations. The congress was opened and moderated by Dr Tartsch.

### Biomaterial ceramics

The main topic on the Friday morning concentrated on the background on evidence, material and implant design.

The first speaker, Prof. Ronald Jung, explored the question of whether ceramic implants should be considered at all. Subsequently, Vice President of the ESCI Dr Stefan Röhling and Dr Michael Payer reported on long-term clinical studies and research results on ceramic implants—which, according to Dr Röhling, are unequivocally positive.

Other internationally recognised experts in biomaterials research, such as Profs Jérôme Chevalier and Ralf Kohal, focused their presentations on the transformation and ageing processes of zirconia and the development of new bioceramics and manufacturing processes. Prof. Bilal Al-Nawas presented the first important results of the German Association of Oral Implantology’s guideline conference on the topic of ceramic implants and answered questions about the implant surface and hardware. The first session was concluded by Prof. Tomas Albrektsson explaining the special importance of the roughness and purity of implant surfaces for all types of implants.

### Biological aspects

In the second session, Prof. Owen Addison and Dr Matthias Pettersson presented research results on the corrosion processes of titanium and titanium implants, metal accumulation in peri-implant tissue and the immunological response. Dr Jacobi-Gresser established the clinical connection with basic research and addressed the immunological diagnostic possibilities. Pathological findings regarding the maxillary sinus in CBCT and the differences between titanium and ceramic implants in 2D and 3D radiographic diagnostics were presented by Prof. Michael Bornstein. This session was concluded by the developer and inventor of advanced platelet-rich fibrin proce-



**Fig. 1:** ESCI President Dr Jens Tartsch giving his opening speech. **Fig. 2:** Prof. Bilal Al-Nawas presenting the first results of the German Association of Oral Implantology's guideline conference on the topic of ceramic implants to a full auditorium. **Fig. 3:** From left: Dr Jens Tartsch, Prof. Tomas Albrektsson, Prof. Jérôme Chevalier, Prof. Bilal Al Nawas and Prof. Ralf Kohal. **Fig. 4:** Prof. Ronald Jung giving his presentation answering the question "Why talking about ceramic dental implants" by comparing the advantages and disadvantages of titanium and ceramic implants. **Fig. 5:** Prof. Ralf Kohal presenting on the evidence in recent studies showing the stability of ceramic implants for clinical use. **Fig. 6:** Vice President of the ESCI Dr Stefan Röhlings (left) and member of the board Dr Frank-Michael Maier during the open stage forum closing the two-day event. **Fig. 7:** "Ceramic in Focus" was the subject of the open stage discussion with the speakers.

dures, Dr Choukroun, who discussed osteo-immunology, oxidative stress and the immunology of peri-implantitis.

### Clinical aspects

The third session was dedicated to the practical application of ceramic implants. Prof. Marc Quirynen explained the various applications and advantages of leucocyte- and platelet-rich fibrin in oral surgery as well as the correct application. With many practical examples, the new open healing method based on the use of platelet-rich fibrin was presented by none other than Prof. Shahram Ghanaati. Dr Maier concluded the topic of hard- and soft-tissue regeneration using many examples from his practice and showed that augmentative measures are also necessary for ceramic implants and which ones are promising. Prof. Michael Gahlert impressively demonstrated the many indications for ceramic implants and treatment approaches using ceramic implants, especially for restorations in the aesthetic region, based on his substantial experience. In his multimedia lecture, Dr André Chen explained the use of a digital workflow for ceramic implants.

Although the ESCI is a European professional society, it has global relevance. Its ESCI guests from North and South America, Drs Dan Hagi and Rodrigo Beltrão, presented on how complex restorations and full-arch restorations can be realised with ceramic implants.

The ESCI sees itself as a hub for outstanding scientific research and for clinical, practical experience in dental implantology with ceramic implants. At the congress, young researchers and all ESCI members were therefore given the opportunity to present their research results and clinical cases in short lecture sessions. The ESCI's scientific advisory board, acting as the award jury, selected the best presentations to receive the 2022 ESCI Award, which was presented by Prof. Mutlu Özcan and

Prof. Gahlert as representatives of the advisory board. The 2022 ESCI Award for best scientific short lecture was given to Dr Erica Roitero and for best clinical case presentation to Dr Konrad Borer.

A special moment at the end of the event was the open stage forum, when all congress speakers gathered on stage to address critical questions from the audience and discuss the future of ceramic implantology, led by Prof. Kohal. Although more data on ceramic implants is certainly needed, there was unanimous agreement that ceramic implants can be recommended for clinical use today—provided the right indications are chosen and the manufacturers' guidelines are followed.

The supporting programme had plenty to offer. At the welcome reception on the Friday, the participants mingled in the old, vaulted cellar of the country estate, enjoying the musical ambiance of the saxophone. The ESCI gala dinner brought Swiss tradition closer to the international participants with the sounds of the alphorn and Bündner roast beef. The singer Kelly Kaltsi, who was especially flown in from Mykonos for the congress, ensured an exuberant party mood.

In summary, valuable insights were provided for both the beginner and the experienced user. Ceramic implantology is on a par with titanium implantology, and scientifically sound evidence on ceramic implants was presented regarding their wide application. The congress was at the same high level of major events for titanium implantology, not least thanks to its renowned international speakers.

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