

Once you **see** it, you cannot **unsee** it!

In March, the CleanImplant Foundation was proud to welcome another manufacturer in the family of high-quality implant manufacturers, awarded the Trusted Quality seal. The AO Annual Meeting in Charlotte, NC, was the perfect venue to hand over the certificate of excellence to Ritter Implants.

The award was preceded by a thorough analysis of five randomly selected cross-batch implant samples from the manufacturer in the SEM (Fig. 1). In order to achieve the required quality level, a maximum of 10 foreign particles, all smaller than 50 µm, may be present on the surface of the test samples. An independent peer review process ensures compliance with the threshold values of the CleanImplant guideline and proof of clinical performance. At present, implants from the following manufacturers have been awarded the internationally widely recognised seal of quality:

- Biotech Dental
- bredent medical
- BTI Biotechnology Institute
- Champions-Implants
- Dentis
- Dentium
- Dentsply Sirona
- Global D
- medentis medical
- MegaGen
- NucleOSS
- Ritter Implants
- SDS Swiss Dental Solutions
- Southern Implants



Fig. 2: Prof. Jörg Neugebauer, President of the Academy of Osseointegration, and Dr Dirk Duddeck, Head of the CleanImplant Foundation, both Germany.



Fig. 1: SEM mapping with material contrast (BSE imaging).

The results of the CleanImplant Foundation's extensive quality assessment studies show that residue-free implants are still not a matter of course (see cover illustration of this issue). It is not only small particulate carbonaceous plastic residues that lead to uncontrolled foreign body reactions, peri-implantitis, and bone resorption. An additional potential threat to the healing (osseointegration) following implant placement is posed by thin-layered residues of highly aggressive cell-toxic cleaning agents such as dodecylbenzene sulfonic acid (DBSA) or quaternary ammonium compounds—known for their use as pesticide and biocide—on the surface of some brand-new implants utilised before manufacturer packaging. Even in low concentrations, these chemicals are cytotoxic to cells and do not promote implant healing.

At the AO meeting, the new President of the Academy of Osseointegration, Prof. Jörg Neugebauer of Germany, met up with his former student, now head of the CleanImplant Foundation, Dr Dirk Duddeck (Fig. 2).

It was the now AO President, Prof. Neugebauer, as Dr Duddeck's supervisor at the University of Cologne years ago, who suggested the idea of a quality assessment of dental implants as the substance of his doctoral thesis. To date, more than 160,000 dental professionals following the CleanImplant Foundation on social media show how crucial and urgent this topic was back then and how it has lost none of its relevance still today.

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