

ble of sending messages to another mobile phone”. Today, even our grandparents use WhatsApp; buy products on the internet via app, etc. This was naturally occurring because we saw the benefits, not because someone wanted to push the technology. Remember, technology cannot be forced or “pushed” down its throats. She has to be liked by the person.

Businesses and teachers, all involved in the dental trade (including myself, of course), sometimes lose the line in the urge to push the “digital flow” into the minds of very vulnerable dentists, especially those who have been struggling financially. . Behold, he sees the act of buying from a scanner / milling machine as a solution to get out of this situation, and turns into a cycle that resembles the “interest on interest” credit card or overdraft. Obviously, I always think of my father when I think of a common day-to-day generalist dentist. An emotional reference.

Today I see these benevolent advertisers of the future, often dressed as humble teachers concerned about the future of the profession. I am not sure if it is a concern for the average dentist or a craving to sell an innovative, single concept, “gourmet” course. Each creates a stage name for their own technique. It reminds me of my childhood days, when each group of friends gave a cool name to their “ball club”. Mine was called “Quicksilver” because we thought we were a surfer at the time, and we thought we were fashionable. If it had a digital stream, today I would call it “Quick Silver.”

“Ah, Hirata is against technology.” On the contrary: she delights me and falls in love with me. Much because it makes me have time for other things and facilitates me thousands of things. But I didn’t go into online banking because someone forced me by announcing that “banking applications will change the future.”

We have, in every period, the so-called “chaos speech”. People warning about the storm that is coming to sell the umbrellas. Dishonest? Really? But it depends on whether you are buying the umbrella because you want it or because the ad says “Storm Ahead.”

Best Regards,

# Ulrich Lohbauer

**ULRICH LOHBAUER** is the supervisor of the Dental Biomaterials Research Laboratory of Dental Clinic 1 (Operative Dentistry and Periodontics). The interests of the Laboratory are focused on the mechanical performance of dental materials such as multilayer ceramics, Nano particulate polymers or biocompatible and self-adhesive cements. The adhesive interface studied at the nanometer level for human tissue plays a central role in the microstructural evaluation of the tooth-restoration joint. An additional focus is based on modern prosthesis processing techniques such as CAD / CAM technology and its effect on long-term stability and restorative life. The laboratory has been recognized as an international center for study in clinical fractography. Based on the broad fractographic result, restoration design and clinical failure reasons are critically regarded as research interests. Research motivation is always supported and driven by a strong clinical history and focused on specific dental needs.

Marcelo Giannini – *interview coordinator*

**ULRICH LOHBAUER**

- ❖ Associate Professor, Institute of Biomaterials, Department of Materials Science and Engineering, University of Erlangen-Nuremberg (Erlangen, Germany).
- ❖ Vice President of and Member of the Board of the Academy of Dental Materials (San Diego / CA, USA).
- ❖ Founder and President of "Fracto Forum International".
- ❖ Visiting Researcher at the University of Athens (Athens, Greece).
- ❖ Visiting Researcher at Imperial College (London, UK).
- ❖ Graduation, Master and Doctorate at the University of Erlangen-Nuremberg (Erlangen, Germany).

**How important is fractography to scientists and clinicians? (Paulo Cesar)**

Fractography is an important (if not the only) tool, linking the science of the laboratory with clinical reality. Therefore it is of great importance for dental materials research. The scientist can learn how to develop relevant clinical tests, while clinicians can learn how to prevent failures and improve their clinical procedures.

**What is the current stage of using zirconia for dental implants? (Paulo Cesar)**

Zirconia implants are used in the field as an alternative to titanium implants. A matter of concern is still very thin implants, as they can be very fragile even in the anterior region. Also, the use of two-piece implant solutions is still a controversial issue. Long-term clinical confirmation for zirconia implants is still lacking.

**Can you comment on the current trend of clinicians choosing monolithic ceramic restorations over multilayer restorations? (Paulo Cesar)**

Clinicians may be afraid of the high incidence of covering ceramic chipping in multilayer prosthetic restorations and therefore tend to use monolithic materials. One trend is for high strength and hardness zirconia ceramics, while an opposite trend favors more resilient CAD / CAM composites, especially in patients with parafunctional habits.

**What is the state of the art of translucent zirconia today? (Paulo Cesar)**

White and opaque zirconia showed clinical stability in terms of strength, hardness and hardness. However, the aesthetic performance falls far short of modern glass ceramic materials. To overcome this deficiency, manufacturers have developed translucent zirconia. The problem I see is that zirconia is losing much of its mechanical stability because of its focus on aesthetics. Clinicians need to be aware of the reduced mechanical performance of these new zirconia materials and, as a result, need to be aware of clinical limitations.