On challenges, excellence and embracing what once was



Leon Vanweersch at Cumbre Mundial de Laser 2019 in Puerto Vallarta, Mexico.

At its 2018 international congress in Aachen in Germany, members of the World Federation for Laser Dentistry (WFLD) left the expert society in order to revert to the original International Society for Laser Dentistry (ISLD). In this interview with *laser magazine*, Leon Vanweersch, a member of the ISLD organisation board and the Academic Coordinator of the Aachen Dental Laser Center (AALZ), talks about the current state of the new old expert society, the major challenges that laser dentistry is facing today, and the benefits for aspiring laser dentists of the reselection of RWTH Aachen University as a University of Excellence for the third time—the Excellence Initiative seeks to promote the German higher education sector.

Mr Vanweersch, in 2018 some members of the WFLD set out to reinvigorate the International Society for Laser Dentistry (ISLD). What are the key reasons behind this?

I don't want to go into too much detail here, since this is a rather sensitive topic. However, I can say that the main reason for some WFLD members leaving the executive board to form the new (and original) ISLD were internal conflicts which had been going on in terms of differing core philosophy and differing approaches to organising conferences. In addition, topics such as genuinely transparent structures in terms of clear membership forms, information availability and elections conform to by-laws became increasingly important to some WFLD members. As a direct consequence, the newly established ISLD took important steps towards creating greater transparency. For instance, it created simple and efficient ways for members to register online through its website. In addition, it developed the world Academic Map, on which ISLD members can look each other up online and see which laser wavelengths their peers use. The ISLD is very clear about its new goals as an expert society. It is now looking to organise its congresses in a more efficient and modern fashion. In this context, it is drawing from the congresses in Thessaloniki, Greece, in 2017 and Aachen, Germany, in 2018, which were appraised by laser manufacturers. As a result of hard work and the newly established transparency, the ISLD has come from only 40 yearly paid memberships in October 2018 during the late WFLD times to more than 750 registered ISLD members today, all of whom will receive membership certificates as proof of membership every year. This is in keeping with the original objective of the society back in 1988, when all processes were meant to be transparent to all members.

What are the overriding challenges laser dentistry is facing at the moment? Where are the technological developments headed?

I personally think that many dentists are concerned about investing in a technology that they cannot make use of without having the requisite education, in-depth knowledge and skills to operate the different wavelengths that are most commonly used in laser dentistry. For comparison, when a dentist buys an intra-oral scanner, he or she knows exactly what he or she is buying and how he or she is going to use it in a clinical setting and his or

her established workflow. I would argue that the learning process is steep and easy. With a laser, however, the dentist can be easily misled because it is a matter of correctly selecting different wavelengths for different treatment possibilities and indications. And once the dentist has found the correct wavelength, he or she still has to choose the correct power settings and so on. The treatment options given by many laser manufacturers often do not correspond correctly to the wavelengths of their laser devices. This, of course, leads to confusion for users, which in turn results in lasers having a bad reputation, and thus to a lower integration into dental care. This is in stark contrast to how it should be with this amazing technology. I think that there are two great barriers to successful use of this unique technology. Firstly, there is a lack of motivation of a lot of dentists to invest in profound evidence-based education and further training, which is exactly what we've been doing at the AALZ since 1992 under the direction of Prof. Norbert Gutknecht. Secondly, dentists probably struggle with finding a balanced financial relation between the high initial investment in a laser system and the number of daily clinical procedures that they are looking to carry out with it in order to recoup the investment.

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This year, RWTH Aachen University was named a University of Excellence again. What are the associated benefits for aspiring laser dentists looking to begin their studies there?
With the latest approval by the German Federal Ministry of Education and Research in June 2019, RWTH Aachen University ranks once again among the eleven German universities that comprise the Universities of Excellence. This means that it will now be funded again for a period of at least seven years, receiving some of the annual amount of more than €500 million. With these funds, RWTH Aachen University is able to invest an awful lot in its different clusters of excellence and stay on top of research rankings not only in Germany but in the whole world. For us at the AALZ, this means that we are able to offer both a two-year Master of Science course and a one-year Master of Science course, in cooperation with RWTH International Academy, which both follow the highest scientific and educational standards possible. Since the educational market for master's programmes is not a regulated one, it might be very difficult for some dentists to figure out which such programmes in laser dentistry offer true scientific value and are recognised on an international level. The AALZ Master of Science in Lasers in Dentistry course has been approved and facilitated by RWTH Aachen University since 2004, and we can confidently say that the AALZ has since become the first German institution to provide education and further training in laser dentistry which is internationally recognised by academic institutions for its high scientific and educational value.

You are professionally involved in many projects in Latin America. Could you please elaborate on these? What distinguishes the Latin American laser market from the European one?
The biggest difference is that, in Latin America, laser technology has only been used more extensively for four to five years compared with Europe, with the exception of some laser pioneers, of course. Only in Brazil have lasers been used for a longer period. However, the market there was initially rather limited to diode laser systems, and within that to single-diode low-level laser therapy in particular. About three years ago, the AALZ started to expand its educational offering to Latin America, and as a result, we are now seeing a rapid increase in the number of users of this amazing technology in the various countries of Latin America. However, the laser market of the Latin American countries there is still rather virgin in comparison and most of the laser manufacturers are not yet really present there. Dentists in Latin America are very open-minded regarding new technologies and they are particularly looking to invest in laser technology. However, the prices are still very high, even for diode lasers. This naturally creates a barrier to investing in laser technologies for dentists. The import regulations and tariffs create far higher prices than in Europe. The prices for erbium lasers, for example, are horrendous. However, it is obvious to me that dentists in Latin America see the potential of dental laser technologies and that they are becoming increasingly ready to invest in laser therapy. The ALAIO [Academia Latinoamericana de Innovaciones en Odontologia], which is the AALZ's representative academy in Latin America, is working very hard under my guidance to offer our unique AALZ laser education and training systems in the entire region of Latin America.

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