

Prof. Dr Norbert Gutknecht

ISLD President and Scientific Chairman



A brief history of dental lasers

Dear friends of dental laser technology,

Exactly thirty years ago the first German users of dental lasers met for a “Laser Study Club” in order to find out what the first Nd:YAG laser of the company “American Dental Laser”, which was especially developed for dental applications, was capable of. It was a free-running pulsed Nd:YAG laser with a power of 0.5–3.0W and 10–30Hz. The extraordinary thing was that, for the first time ever, the power could be transmitted to the tissue via a quartz fibre.

Even more “extraordinary” was the fact that the official brochure promoted the laser as being suitable for more than 30 indications, including hard-tissue applications. Unfortunately, this originated from the marketing concept that had been pursued by the company, rather than from actual research findings. Naturally, people had different feelings about this: on the one hand, universities and conservative opinion leaders were not just sceptical, but for the most part they downright rejected the approach, even though they were not able to present any reasonable arguments to the contrary at that point. On the opposite, it triggered a wave of euphoria among dentists, who were willing to spend as much as 115,000 Deutsche Mark on the new laser, which translates to roughly the same amount in Euro or US-Dollar today. In Germany alone, more than 3,000 of these laser systems were sold over the course of about five years, most of which were not used properly, however, since no further training on how to use the devices on patients existed back then. In the US, the number of laser units sold even exceeded 5,000.

Fortunately, the advertised applications of this laser type have since been thoroughly investigated and today, they are not only an integral part of laser-supported endodontics, periodontics and minor oral surgery, but they were also the basis for the establishment of the various diode and erbium lasers used in dentistry. These days, we have access to a large number of different wavelengths from the most diverse laser manufacturers from all over the world and we are able to treat a wide variety of dental indications with them. The once small study clubs in North America, Europe, South America and Asia have evolved into recognised scientific societies, which today are all united in one global organisation—the ISLD (International Society for Laser Dentistry). Our upcoming ISLD World Congress, held in October 2020 in Cairo, Egypt, will certainly be a highlight that we—laser researchers, users and manufacturers alike—can already look forward to with great anticipation.

With this in mind, I would like to wish you dear readers of our *laser—international magazine of laser dentistry* all the very best for the approaching holidays together with your loved ones and a happy and healthy start into the new year 2020.

Yours

A handwritten signature in black ink, appearing to read 'N. Gutknecht', written in a cursive style.

Prof. Dr Norbert Gutknecht