

“We are constantly trying to maintain our technological lead”

An interview with Audrey Stefani, Dr Stephan Gruner & Dr Khaled A. Balto



Audrey Stefani



Dr Stephan Gruner



Dr Khaled A. Balto

It all started with a nerve broach in 1907. MICRO-MEGA, whose headquarters are located in Besançon (France), has been manufacturing endodontic tools for over a hundred years and played a decisive role in endodontics through new developments. Internationally, the innovative company has a recognised reputation of being a specialist in dental instruments. At this year's Adviser Group for Endodontics (AGE) meeting, **roots** met with Audrey Stefani, MICRO-MEGA Marketing Manager; Dr Stephan Gruner, Country Manager MICRO-MEGA Germany; and Dr Khaled A. Balto (Saudi Arabia), Associate Professor and moderator of the AGE meeting.

roots: Mrs Stefani, for over a century MICRO-MEGA has been operating successfully in the dental market. Could you tell us anything in particular that stands out for you in the company's history?

Audrey Stefani: MICRO-MEGA is proud of having set international milestones with handpieces and contra-angle handpieces, micro-motors, endodontic files and NiTi files.

A fact that perhaps only a few people know is that MICRO-MEGA used to be the sole manufacturer of handpieces and contra-angle handpieces for the large brands in Germany and other countries.

The Citoject, for example, was a MICRO-MEGA product, manufactured under Heraeus' own brand for Heraeus. Today, it is still available as LigaJect from MICRO-MEGA, even after it was phased out of production. To a considerable degree, the company was characterised by being able to launch world-first innovations on the market regularly, and we are able to build on this expertise today.

Which MICRO-MEGA products have set standards on the international dental markets?

MICRO-MEGA inventions have set world standards; for example, in 1957 with the first dismountable handpieces with tungsten-carbide bearings; in 1963, Giromatic, the first contra-angle handpiece able to produce an alternating 90° rotation and specially made root-canal tools; in 1964, micro-motors with 40,000 rotations per minute, on the basis of which micro-motors are built today by all manufacturers; in 1974, the Masserann Kit for the removal of fractured endodontic tools from root canals; in 1996, HERO 642, a clear and simple system of rotary NiTi files; in 2002, HERO Shaper, a rotary NiTi file system. I could go on with this list indefinitely.

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All these experiences led to the development of the Revo-S file system, which was launched in 2009. This system enables a root-canal preparation with only three files. Revo-S is currently state-of-the-art technology; however, development is ongoing, which is why we hold the AGE symposium every year.

In autumn 2009, MICRO-MEGA joined a group of companies under the management of SycoTec. In March of this year, the Canadian SciCan joined the European duo. The group is now amongst the top ten manufacturers of dental equipment worldwide. What opportunities does such a strong group offer?

One great asset is that we are able to join forces and learn from one another. Our focus here in Europe naturally lies in Germany and France, but we are also going to enter new markets. If possible, we will use joint marketing, and joint research and development in order to consolidate our position on the market. An important part of the strategy is to maintain and further the SciCan and MICRO-MEGA brands.

Is the name of the group still under debate?

Indeed, we have debated this for a while but have finally agreed on a name. I am proud to announce that MICRO-MEGA, SciCan and SycoTec are members of the Sanavis Group.

MICRO-MEGA sells its products worldwide. Which countries are the most important in terms of turnover? And which regions hold the most potential in your opinion?

Europe has always played an important role in our corporate development. The most important importing countries are Germany and, in our domestic market, France. North and South America are in the process of development, particularly with the introduction of our rotary NiTi systems. We have also recorded good growth figures in the Asia-Pacific region. Moreover, we are keenly observing the Middle Eastern region. As you can see, MICRO-MEGA as an internationally known brand is in the process of exploiting current potential markets.

There is every chance of success, particularly since research and development in the group have now reached global player magnitude and we know how to take advantage of this.

Dr Gruner, are you currently working on the development of new products?

Dr Stephan Gruner: Thanks to the above-mentioned synergies, our newly created group is going to get things moving in the dental world. We are constantly trying to maintain our technological lead and thus work hard and intensively. An event like the AGE helps keep MICRO-MEGA's finger on the pulse of world trends.

Have your expectations of this year's AGE meeting been met?

The AGE meeting has once again helped us progress scientifically thanks to top-notch research results presented by the speakers. During our internal MICRO-MEGA sessions, we were able to discuss international market demands further, which were then tested for feasibility and formed into projects.

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Prof Shimon Friedman lectured on The endodontic treatment outcome: The impact of the new technologies. Would you please summarise the most important points for us?

Prof Friedman is world-renowned in the field of endodontics. Together with co-authors Dr Thuan Dao

et al., he authored the world famous *Toronto Study*, a series of articles in the *Journal of Endodontics*. This is an extensive piece of work that illustrates and analyses the status of endodontics, starting with the publication of the first results in the year 2000 up to and including 2010.

In his excellent lecture, Prof Friedman made clear that differences in the evaluation and success or failure of an endodontic treatment greatly depend on the methods and structure of the evaluating studies themselves. If the correct evaluation criteria are applied, the success rate of endodontic treatments over the last ten years is around 88 to 95%. Amongst the various authors, a high consistency of results is noticeable. These studies are encouraging.

“The new product Revo-S was a part of further presentations. Dr Balto, in connection with the innovative Revo-S concept you also spoke about the ‘third dimension’ of endodontic treatment. Would you please illustrate the main points of the system?”

“Revo-S is the result of 17 years of critical performance analysis.”

Dr Khaled A. Balto

Dr Khaled A. Balto: In general, endodontic rotary systems are evaluated with regard to the parameters of geometric features, taper, tip size, etc. Therefore, the equation for efficiency of a given file has long been considered to be inner core size and symmetric design (which means perfect geometry), which results in stronger files. After 17 years of using Rotary NiTi files, we have learned that the equation for efficiency is rather the asymmetric design and efficient clearing of dentinal debris. This understanding was applied in the conception of the Revo-S system.

Revo-S is the result of 17 years of critical performance analysis, which for the first time addressed the concept of dynamic asymmetry. As a result, we now have files with better penetration and a better clearing effect. Moreover, it is efficient, with only three files for initial treatment and much less likelihood of separation. To perceive the bio-mechanics of the file in the ‘third dimension’, the canal depth, the kinetics of Revo-S—the way it rotates inside the root canal—are analysed.

“What is your view of endodontics in the Arabic region compared to the Western world?”

Endodontics is a rapidly growing speciality in the Arab world in general, particularly in Saudi Arabia. Rotary endodontics, micro-training, warm obturation techniques as well as modern *retro-dontics* are all an integral part of teaching curricula at many universities. However, as in many other countries in the world, there is a wide range of performance results depending on the experience of the dentists and the difficulty of the cases. Individual variation plays a significant role in the treatment standards. For example, being an associate in a practice limited to micro-endodontics in Jeddah, I treat patients from all over the world as well as locals. I have managed failures for treatments rendered domestically and from other countries. All in all, I do not see substantial differences between the different countries in regards to the standard of treatment however, there might be a difference in the number of well qualified individuals.

“Your comprehensive publications illustrate the wide range of your work. What are you working on at the moment?”

Being an academic, clinician and researcher at the same time is rather difficult but not impossible. As Deputy Director of the Center of Excellence for Osteoporosis Research in Jeddah, my current research focuses on osteoporosis as it relates to oral health. Since I returned from Harvard Dental School, where I received my D.M.Sc., the essence of my research interest has remained the same, which is in brief: cellular and molecular mediators of infection-induced bone destruction, evidence-based dentistry and other clinical endodontic research.

“Apart from publishing, how do you exchange information with international colleagues?”

The world has become a small village thanks to the recent developments in information and communication technology. The Internet is the driving force for today's information exchange. Online publishing, discussion forums, YouTube, etc. make it easy to stay in touch and remain updated on new developments. In my opinion, postgraduate training programmes in endodontics constitute the most important cornerstone. As Director of the Saudi Board of Endodontics, I have the privilege of reviewing articles and thus am constantly kept up to date on what's new. Additionally, I value the international interaction that is possible through conferences and meetings like the AGE meeting.

We would like to thank you for this interview and wish you continuing success.

Editorial note: The interview was led by Jeannette Enders and Steffi Goldmann.

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