new surgical discipline based on the advantage of Piezosurgery’s unique features was developed. This new discipline, known as Piezoelectric Bone Surgery (PBS), has notably simplified a variety of clinical applications and has allowed surgeons across the world to perform procedures that would have been almost impossible with any other instruments.

Thanks to the intense clinical research, many surgical techniques have been radically simplified and predictability has increased, with dramatic reduction of patient morbidity.4,5 As an example, the use of Piezosurgery is changing evidence-based medicine in the surgical studies of the maxillary sinus, where membrane perforation rates have been decreased from 30 percent to 7 percent.6

What is the best and least indicated use of the Piezosurgery?

Piezosurgery is extremely versatile and can be used in a great variety of surgical applications. Indeed, through the sapient use of osteotomy, osteoplasty and drilling techniques, the device allows one to perform bone surgery even in the most difficult anatomical situations. Examples of procedures that can be performed with Piezosurgery include extractions, sinus lifts, ridge expansion, bone block harvesting, bone chips harvesting, accelerated surgical orthodontics, nerve lateralization, retrograde endodontics, crown lengthening and implant site preparation in delicate anatomical situations. In general, Piezosurgery is ideal for all surgeries that require fast, precise and safe bone cutting. Our device is not indicated for procedures that involve cutting soft tissues, poorly mineralized bone structures and dental enamel.

Are there other units in the dental industry, and what is the difference between the technologies?

Following the invention of Piezosurgery by Tomaso Vercellotti and Mectron Medical Technology, several companies, recognizing the great potential of our technology, seized the opportunity to enter the market with imitations of our device. Despite other companies’ claim that all devices are equal, that is simply not the case. In my opinion, while this may be a commercially sound strategy, it is a true disservice to the clinical community. Unfortunately, equating all devices creates confusion and leads clinicians exposed to inferior devices to conclude that the technology per se is not valid. However, it is important for clinicians to be aware that Piezosurgery is not a generic term and does not refer to any technology or application. Piezosurgery refers to the only patented, evidence-based piezoelectric technology for bone surgery. When clinicians try and use our technology, they realize that imitations do not compare to it at all. As a testimony to this fact, all major opinion leaders in the United States employ and endorse only the real Piezosurgery technology.

There are experiences and insights in the technology that only the original developer can have, and that cannot be simply retro-engineered. The imitation units utilize different ultrasonic frequencies, different power levels and inferior insert tip designs. In this latter regard, for instance, no other device has saws that are as thin and fast as ours. Indeed, Mectron Medical Technology developed a proprietary manufacturing process that takes months to complete, and the resulting insert tips are unrivalled in terms of precision and performance. Because no other company could replicate this process, the performance of imitation devices in cutting bone thicker than a few millimeters is unsatisfactory for most clinicians who perform heavy-duty bone surgery. A major difference between our technology and its imitations is that only Piezosurgery is clearly and unequivocally proven and supported by scientific research. To my knowledge,