No bel Biocare is commemorating the 10th year of using a specially developed, high-performance titanium in its entire dental implant offering, which includes small diameters (<0.35 mm). Since being introduced to the market, following extensive material and pre-clinical testing, No bel Biocare’s proprietary cold-worked, commercially pure Grade 4 (CP4) titanium and patented TiUnite® surface have been documented as exceptionally strong and clinically proven to enhance osseointegration.

Due to its unique biocompatibility and corrosion resistance, standard titanium has become the gold standard for dental implants, and its efficacy has been proven in millions of patients. Commercially pure (c.p.) titanium is one of the most documented and preferred bio-compatible materials used in implant treatment procedures today because it has been shown to be extremely well tolerated in the human body with a very low incidence rate of adverse biological reactions. No bel Biocare has used c.p. titanium in the manufacturing of its implants for more than 20 years since Prof. PI Brånemark discovered that c.p. titanium integrates with living bone (“osseointegration”).

To solve the functional material limitations of standard titanium — especially in small implant diameter use — No bel Biocare worked closely with titanium manufacturers to create a high performance variant of c.p. titanium with enhanced material properties. In ongoing, extensive external and internal material testing, proprietary No bel Biocare cold-worked CP4 titanium continues to demonstrate substantial gains in yield, tensile and fatigue strengths over those of standard titanium.

This year also marks the ninth successful year for Nobel Biocare in offering successful, highly aesthetic and less invasive dental implant solutions for patients with narrow bone ridges and limited space between teeth, using its proprietary cold-worked CP4 titanium. The journey began in 2000 when Nobel Biocare introduced a two-piece, 3.3 mm diameter, external hex connection implant.

Building on the success of its two-piece implant, Nobel Biocare expanded its small diameter portfolio in 2004 with a one-piece, 3.5 mm diameter implant that offered significant advantages when restoring teeth with restricted in-between space — so called mesiodistal clearance. The one-piece implant was designed for restorations with exceptionally steep emergence angles, for excellent final esthetics in narrow spaces.

Currently, Nobel Biocare is evaluating new modular implant concepts for its extra short- and small-diameter products, with the intention of creating more versatile and less invasive treatment possibilities.