Bringing innovation back:
Introducing a complete posterior solution

Large extraction sockets, limited accessibility, excess cement that is difficult to remove and high occlusal forces—these are just some of the challenges a clinician faces when restoring a single tooth in the posterior region. With molar replacement being among the most common indications, these challenges are encountered repeatedly. A solution that addresses all these problems in an efficient and predictable way would be beneficial to both dental professionals and patients. That is precisely why Nobel Biocare is bringing innovation back to the posterior region with its new complete posterior solution: an original combination of new wide-platform implants and restorative options, all specially designed for molar sites.

An implant like no other

Multiple Nobel Biocare innovations have been combined to offer a complete solution, and the foundation for treatment success is the implant itself. Nobel Biocare offers several implant options, each engineered to the specific demands of the posterior region. All are intended to shorten time to teeth for the patient by enabling immediate loading whenever possible.

One option is NobelActive. Many clinicians are already familiar with this award-winning implant. Its distinctive design and the surgical protocol form a unique combination that can enable Immediate Function in cases in which it might otherwise not be achievable.\textsuperscript{1,3}

In order to condense bone gradually, its tapered body features threads that narrow towards the apex, while the apex itself features drilling blades to preserve bone by allowing a smaller osteotomy. These features are all designed for high primary stability, even in soft bone and extraction sockets.

Now, a new variant offers the benefits of the NobelActive family but with dimensions ideal for the molar region. NobelActive wide platform (WP) possesses a wider diameter implant body (5.5 mm) to better fit the large extraction sites in the molar region and a wider implant platform for an optimal emergence profile. NobelActive WP also comes in a shorter body (7 mm) to avoid critical anatomical structures such as nerves.

Stability and flexibility in parallel

Alternatively, clinicians can opt for NobelParallel Conical Connection (CC). Combining a parallel-walled implant body that is well documented with an advanced internal connection, NobelParallel CC offers extraordinary flexibility. It is engineered for use in all bone qualities and for a wide range of indications. The 5.5 mm WP option is designed for an optimized emergence profile for large molar sites.

Both experienced clinicians and those new to implantology will appreciate NobelParallel CC’s straightforward surgical protocol. It offers flexibility and shortens treatment time, benefitting the patient too.

Together, the surgical protocol and implant design form a unique combination that is intended to allow Immediate Function in more cases by providing high primary stability. The thread design and tapered apex
of NobelParallel CC are designed for under-preparation of the surgical site and bicortical anchorage—techniques that support immediate loading.\textsuperscript{4,5} High stability during the initial healing phase is then maintained by Nobel Biocare’s unique TiUnite surface.\textsuperscript{6} In addition, patented grooves enhance osseointegration\textsuperscript{7} for a predictable end-result.

\textbf{Connecting strength and flexibility}

Both new implants benefit from Nobel Biocare’s internal conical connection. This advanced connection’s conical seal and hexagonal interlocking mechanism provide high mechanical strength.\textsuperscript{8} The connection offers restorative flexibility too, being compatible with Nobel Biocare’s most innovative restorative solutions, including those designed specifically for the posterior region.

These include the new PEEK Healing and PEEK Temporary Abutments, which are anatomically shaped to match the molar contours. As the PEEK Abutments come ready-shaped for an optimized emergence profile, fewer adjustments are needed. This can simplify treatment and reduce costly chair time.

\textbf{The crown that rules them all}

When it comes to the final restoration, the FCZ (full-contour zirconia) Implant Crown is designed for strength and predictability even under the high occlusal forces of the posterior region. There is no worrying about chipping either, as the full contour of the NobelProcera FCZ Implant Crown removes the need for veneering.

The biocompatibility of the materials used contributes to biological stability in the areas in which it matters most. Plus, being screw retained, the FCZ Implant Crown is completely cement free, avoiding the risks associated with cement excess entirely. Even the titanium adapter is mechanically retained.

The ability to use an angulated screw channel allows the screw access hole on the FCZ Implant Crown to be placed anywhere between 0 degrees and 25 degrees in a 360-degree radius. This means it can be angled towards the front of the mouth for easy access, even in the posterior region. It also helps avoid placing the access channel on the cusp of a tooth, where it could affect occlusion. The associated Omnigrip Screwdriver further simplifies work on the restoration. Its effective pick-up function and secure grip on the screw help the clinician to work safely and efficiently.

Natural-looking tooth colour is another benefit offered by the FCZ Implant Crown. Whichever of the eight available shades is used, the colour is applied throughout the material. This means discoloration is not a concern when making adjustments. Cut-backs and staining can also be used to achieve the desired aesthetic effect.

\textbf{Several components; one complete solution}

While each product within Nobel Biocare’s complete posterior solution stands out on its own, together they are a powerful combination. Like all Nobel Biocare innovations, they are tested as one system in the patient’s mouth.

Combining Nobel Biocare components means all elements are designed to work in synergy for the optimal treatment outcome. Restoring single molars represents a clinical challenge for many reasons, but now, by uniting new and proven innovations, Nobel Biocare has the answer.\textsuperscript{*}

\textit{*Details of awards can be found at www.nobelbiocare.com.}

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Planmeca PlanScan is the world’s first dental unit integrated intraoral scanner

Planmeca’s full range of open CAD/CAM solutions for dentists and dental technicians includes the world’s first dental unit integrated intraoral scanner—Planmeca PlanScan. The scanner’s unique integration with Planmeca dental units guarantees a smooth workflow, as real-time scanning data is now immediately available from the chairside tablet device. Scanning can also be controlled from the dental unit’s wireless foot control for hands-free operation.

A smooth scanning workflow

The ultra-fast and accurate Planmeca PlanScan can now be easily integrated with any digital Planmeca dental unit. Thanks to the dental unit’s Full HD tablet device, the dental team has constant and optimal access to live scanning data. This allows them to focus on the treatment area without any distractions. The scanner also provides practical sound guidance to ensure optimal data capture.

Unique foot controlled scanning

What also sets Planmeca PlanScan apart from other scanners is that it can be conveniently controlled from the dental unit’s wireless foot control, leaving the user’s hands free for scanning and patient treatment at all times. The foot control allows easy toggling between prep, opposing and buccal views, so that the dentist can focus on scanning without interruptions. Hands-free operation also guarantees impeccable infection control.

Easy and flexible use

Planmeca PlanScan has been designed for an efficient workflow—it is used just like any other dental instrument and shared effortlessly between different users. The plug-and-play scanner can also be easily installed in different dental units and different rooms. The flexible licensing system enables different CAD/CAM work phases (scanning, designing and manufacturing) to be performed simultaneously by different users.

This is a truly innovative product that guarantees a smooth and effortless chairside workflow and lets dentists concentrate on their patients. The system is built on our Planmeca Romexis software platform—the first software in the world combining CAD/CAM and X-ray imaging. This means that all images and scans are conveniently available through one user interface’, says Mr. Jukka Kanerva, Vice President for Planmeca’s Dental Care Units and CAD/CAM. ‘Together with our other Planmeca CAD/CAM™ solutions, Planmeca PlanScan contributes to better patient care and helps to increase the clinic’s productivity.’

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MIS Implants Technologies launches MCENTER Europe, new digital dentistry hub in Berlin

"MCENTER products represent some very exciting and innovative advances in digital dentistry technology exclusive to MIS Implants," continued Hebbecker. "The MGUIDE surgical template or guide is a lightweight, open wire-frame design that allows delivery of irrigation and anaesthesia through the template. Special slots built in to the drill permit irrigation to penetrate even while the drill is fully inserted in the sleeve. Also no drill guidance keys are needed, freeing up dentists’ hands for a quicker and more accurate procedure."

Hebbecker explained additional features of the MCENTER guided surgical system, including the MGUIDE Surgical Kit (patent pending), in which all of the drills can be used as final drills and actually help collect bone during the drilling process. The proprietary MSOFT planning software, which offers a top-down planning approach, assists clinicians in creating the ideal treatment plan according to depth, position and angulation of the desired end-result. All components used in the MCENTER process are precision engineered for use with MIS implants and prosthetic parts to ensure component compatibility for optimum accuracy, reliability and fit.

"I’m extremely excited to officially open the doors of the new MCENTER Europe facility, and especially proud to be able to offer MIS quality and simplicity in providing our customers, doctors throughout the region, with highly accurate and efficient guided implant placement procedures and CAD/CAM solutions," concluded Hebbecker. To learn more about MIS implants and the MCENTER, please visit the MIS website._

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EGS at IDS 2015: Discover the ultimate CAD/CAM upgrades in digital dentistry

During this year’s IDS exhibition, EGS will be presenting a wide range of products that cover the entire digital dentistry workflow, from digital smile design to 3-D scanning and modelling. During the show, EGS is launching the new DScan 3.2 with verticulator integration and it will be wearing an innovative outfit certain to set a trend for the whole year, the ghost cover.

But do not let the name fool you. The attribute “ghost” is not always equivalent to “scary.” EGS’s Ghost Scanner immediately grabs attention with its elegant and finished look. DScan 3.2 is a new-generation dental scanner that uses structured blue light technology, which allows faster and more accurate 3-D scanning of both the model and verticulators. Specifically designed to accommodate the verticulator (which is also shown digitally in the program), it allows automatic pairing of the models in occlusion.

DentalCAD 4.0, which now boasts a touch screen, will also be showcased at IDS. The newest software version, which offers a complete solution for the dental laboratory and supports users’ experience in dental design and modelling, allows technicians to work with their own hands but in digital mode, making the experience simple and interactive up to 3-D printing: touch it to believe it! This new version presents complete functional coverage (with just one licence), powerful wax-up functions and angled implant support and social integration to share cases and experiences on Facebook.

Moreover, EGS will be introducing the 2.0 version of Digital Smile System, the first software for designing the aesthetic and functional reconstruction of the smile. By means of simple and automatic tools, it allows users to project the final result and to export it in 3-D directly to DentalCAD. It also offers a prosthetic tool with automatic face shape detection and a complete commercial library for use in edentulous patients. This allows the user to study the patient’s morphology and determine the suitable dental library to use.

As is the case every year, EGS’s new products and solutions will be revealed through live demonstrations and presentations. Prospective partners, members of the press and anyone else interested are invited to book individual meetings for further information. Send your meeting request to Serena Santoro at marketing@egsolutions.com.

EGS is an Italian company with more than 15 years of experience in the CAD/CAM industry and is recognized worldwide for its expertise in 3-D technology. Based on its substantial knowledge in this regard, EGS is at the forefront in offering innovative solutions targeted at the original equipment manufacturer market. EGS technology is fully developed in-house to ensure maximum control, safety and quality. EGS works directly with its partners and offers full customization possibilities for both hardware and software to fulfill any specific technical requests or design adaptation.

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Adentatec

Competence in Dental

Adentatec, based in Cologne in Germany, is a global dental company specialising in the production and distribution of non-precious dental alloys on a cobalt–chromium and a nickel–chromium base, as well as CAD/CAM discs on a cobalt–chromium and a titanium base. The medical devices distributed by Adentatec are exclusively produced in Germany and are certified to the highest standards (CE marking and US Food and Drug Administration). Adentatec is committed to the strict implementation of the quality and process requirements of DIN EN ISO 13485 and DIN EN ISO 9001 in relation to the entire manufacturing process.

The company was established in 1997 and its focus at that time was the distribution of sand-blasting material and plaster to dental laboratories all over Germany. In 2003, Adentatec started production of high-quality dental alloys, for which it implemented a quality management system. Its products undergo biocompatibility and corrosion resistance tests, among others, and are manufactured from high-quality raw materials to ensure consistent quality. Adentatec has always given priority to patient health. Since 2005, the company’s export business has increased steadily. Adentatec now has more than 20 agents worldwide who represent its product range.

The company’s brand-name products, such as System KN, System MG and System NE, have long been widely used by dental technicians. Its product range includes plaster, investment material and sand-blasting material. In 2009, Adentatec expanded the range to CAD/CAM discs on a cobalt–chromium base (System NE-Blank and System Soft-Blank). The high-quality discs are available in different diameters and heights, and can be used for all open milling systems. The discs are soft, homogeneous and easily milled. The strong oxide provides excellent metal to ceramic bonding. Importantly, the discs have high corrosion resistance and biocompatibility. In 2012, the company’s CAD/CAM disc on a titanium base, System Ti 5-Blank (Grade IV), was launched.

The Adentatec team would be pleased to welcome you at their booth at the IDS in Cologne. Please stop by at hall 10.2., booth V029 to learn more about the Adentatec products and services.
Eisenbacher Dentalwaren ED, your specialist for NEM dental alloys

German manufacturer and supplier of NEM dental alloys Eisenbacher Dentalwaren ED offers a range of well-designed products for casting, milling (CAD/CAM) and laser sintering technologies (selective laser melting). It also manufactures high-quality consumer products for daily use in dental laboratories, such as all types of dental stone and phosphate investment materials for crowns and bridges and for model-casting processes.

With over 20 years of experience, the highly motivated Eisenbacher team produces dental and medical products of the highest quality. The company’s key strengths are its reliability, materials expertise and fully comprehensive service for customers, with quick and simple processing at reasonable prices. Eisenbacher Dentalwaren has DIN EN ISO 9001:2008 and DIN EN ISO 13485 certification, and meets the standards of the US Food and Drug Administration. It distributes its tried-and-tested products to over 75 countries.

The new cobalt–chromium sintering powder Kera S-Powder has been designed for use in the production of crowns and bridges, for ceramic veneering and for removable dentures (combined model casting) in laser sintering processes (selective laser melting). The powder has a very high degree of pourability and can be processed using common laser sintering systems. Owing to the selected composition and grain distribution, very delicate framework structures can be produced economically, with homogeneous material structures and good surface qualities.

The tried-and-tested Kera-Disc CAD/CAM milling alloy is a cobalt–chromium ceramic alloy for the CNC production of dental crown and bridge...
restorations. The circular blank alloy stands out owing to its very good machining properties and protects the milling tools for economic and effective processing. The special manufacturing method with subsequent heating process under high pressure gives the disc complete homogeneity and a very delicate grain structure, which explains its good corrosion resistance and biocompatibility. The blanks are available in different thicknesses, from 8 mm to 24.5 mm, either with or without a step, and with a diameter of 98.3 mm or 99.5 mm, and are suitable for the most commonly used milling machines. The frameworks produced using Kera-Disc can of course be veneered with all standard refractory dental ceramics.

The Kera Line milling alloy has been available for some time as a material- and time-saving alternative for the milling-based CNC production of crowns and bridges or single-piece abutments. This dosage form is available in Grade 5 titanium and as a bonding cobalt-chromium alloy in the proven composition of universal casting alloy Keragen in different diameters.

The Kera Ti 5-Disc Grade 5 titanium milling alloy is particularly suitable for the production of implant-supported dentures. The biocompatible material is available in thicknesses of 8–25 mm, with or without a step, and in diameters of 98.5 mm and 99.5 mm. It can be used in common milling machines. With a thermal expansion of $10 \times 10^{-6}$ K$^{-1}$, the alloy can be used with titanium ceramics.

For the conventional segment in crown/bridge technology and for model-casting processes, Eisenbacher Dentalwaren ED offers its customers a wide range of bonding/casting alloys with excellent material and processing properties. The Main Metall casting alloy, for example, has specially configured strength properties that allow it to be used for delicate and long-span bridges, as well as for implant-supported treatments with multiple pontics. The Robur 400 model-casting alloy is the perfect product for partial dentures with clips. The above-average tensile strength of the alloy ensures good strength with enough elasticity leeway for delicate and stable removable dentures.

Visit us at IDS 2015 in Hall 3.2, Booth A30/C39; we look forward to seeing you!