Biomimetic Ocean: the implant of the future
Leadership, commitment, and responsibility. The articles in this journal provide remarkable insights into AVINENT’s impressive territorial expansion. In recent months, we have traveled to places such as the United States, Australia, Japan, Canada, Taiwan, Hong Kong, Morocco, and France. The quality of our services and our alliance with the CORE3D group have raised the international presence of our firm, which has consolidated its position as a flagship in the implantology and digital odontology sector.

2012 is proving to be a turning point in the company’s history. We have launched a new implant system onto the market, developed thanks to a long and intensive process of research. It is a system we are particularly proud of and which we describe in this journal. We have forged closer ties with CORE3D and our structure design and fabrication division that uses digital technology is at the cutting edge worldwide. We distribute the most innovative technology in the sector, intra-oral scanners, and we also contribute to their development. Expodental represented a significant leap forward, as reflected in our spectacular stand, which offered visitors the opportunity to enjoy the «AVINENT Experience». We are seeing strong growth and are proud to be creating jobs.

This situation is all the more remarkable given the overall state of the economy. The fact that our firm is cited as an example and is studied in institutions, business schools, universities, and the media is a source of satisfaction but also gives us added responsibility.

AVINENT is committed to continued growth. The sector is advancing by leaps and bounds, and participating successfully in this extremely demanding technological race is a task that calls for dedication and effort. We are determined to take our place at the forefront of the sector by working with scientific stringency and a strong sense of duty towards our clients. We believe that our growth will come from offering new solutions, greater added value, and increased professionalism. We will work to achieve this, all the while mindful of our fundamental values. Using local professionals, as always, but with a clear understanding that our market is the entire globe, our aspiration is to continue to join forces with others in order to excel every day.

Albert Giralt, General Manager
**AVINENT consolidates its presence in Taiwan**

An AVINENT delegation, led by General Manager Albert Giménez, recently visited Taiwan, one of the company’s major overseas markets. The purpose of the trip was to confirm the brand’s consolidation in the region and to strengthen the ties with local collaborators, as well as to promote and reinforce various scientific collaborations.

**New AVINENT-CORE3D prosthetic products**

AVINENT’s division for making dental structures using digital technology, CORE3D, has launched new prosthetic products onto the market to meet the sector’s needs. AVINENT-CORE3D has embraced the latest-generation technologies in scanning, designing, and milling structures, enabling it to offer solutions for every case. The new products launched are kits that are compatible with X-rays, have laser markings and are suitable for use with intra-oral scanners; screws shaped to achieve the very best fit for single and multiple implants, replicas for lab models and for impressed models, and bases for single and multiple implants that guarantee optimum performance for every clinical requirement.

**AVINENT participates in the most important dental exhibition in Australia**

AVINENT and its partner CORE3D remain committed to their global expansion strategy. In March, AVINENT participated in the Sydney Dental Exhibition ADEX12, the most important event in the dental sector in Australia and Oceania as a whole. Four thousand visitors attended the exhibition, among them leading worldwide specialists and commercial brands. AVINENT and CORE3D had their own stand at ADEX12, where they presented their extensive range of digital solutions for the prosthetics sector. In addition, AVINENT launched its dental implant line, which are now being distributed in Australia.

**AVINENT organizes seminars on updating 3Shape 2012 software**

AVINENT is an official distributor of 3Shape 3D scanners and CAD/CAM software solutions. The company also runs training courses on updating this system and offers ongoing technical assistance. AVINENT is a 3Shape Academy approved center and employs highly skilled professionals to provide training and refresher courses on the system. The new 3Shape 2012 software was recently launched and in response AVINENT set up training courses to ensure that its clients were able to benefit from its potential from day one.

**AVINENT signs collaboration accords with universities**

AVINENT has just signed a number of accords with university institutions, reflecting its support for professional training for dental practitioners entering the sector. Firstly, a framework agreement has been reached with the Josep Fusteros Foundation of the University of Barcelona (UB), formalizing the collaboration with the foundation. The most notable aspects of this workshop are the day-long practice sessions using cryopreserved material from cadavers, and the practical experiences sessions with patients over a period of two and a half days. The course will take place on September 17th through 22nd at the University of Barcelona Odontological Hospital. It is aimed at generalist and specialist odontologists and will be led by Dr. Carlos Subirà. Participants will benefit from the experience of the outstanding teaching staff, university lecturers, with a proven background in clinical practice and the academic sphere.

**AVINENT-CORE3D offers a course on computer-aided dental design**

AVINENT-CORE3D is organizing two-day advanced courses on computer-aided dental design. The first two of the three courses to be held were run in April and May and were extremely successful. The third course will be on September 20th and 21st. The course is intended to equip professionals working in prosthetics with the advanced skills they require to use CAD/CAM systems. The theme of the course is tailored to suit each student’s level of knowledge and needs.

**AVINENT-CORE3D is present of the prestigious Chicago Midwinter Intensive Workshop in Implantology**

AVINENT-CORE3D, the group of laboratories that includes AVINENT, attended the Chicago Midwinter Lab Day, an international event for the dental sector in North America. Through CORE3D, AVINENT is consolidating its presence around the world, thanks to its platform of digital solutions for making customized prosthetic structures that are suitable for every system and material.

**AVINENT participates in updating 3Shape 2012 software**

AVINENT-CORE3D participated in the meeting on Implantology that took place over two and a half days. The course is in its seventh edition this year and the University of Malaga is once again working with the University of Barcelona and the University of Almería. The course is in clinical practice and the academic sphere.

**AVINENT participates in the most important dental exhibition in Australia**

AVINENT and its partner CORE3D remain committed to their global expansion strategy. In March, AVINENT participated in the Sydney Dental Exhibition ADEX12, the most important event in the dental sector in Australia and Oceania as a whole. Four thousand visitors attended the exhibition, among them leading worldwide specialists and commercial brands. AVINENT and CORE3D had their own stand at ADEX12, where they presented their extensive range of digital solutions for the prosthetics sector. In addition, AVINENT launched its dental implant line, which are now being distributed in Australia.
AVINENT is making enormous strides forward this year. The firm has embarked on a course of expansion and growth, a period of leadership reflected in many areas and in a new line of implants that are the result of unwavering scientific research. It is preeminent in digital technology worldwide and its international expansion is reaching far and wide into new and valuable markets. All of this is reflected in a new image that symbolizes the dominance of a company that is constantly evolving and which knows no limits. AVINENT is the present and the future. It is the leading company.

In 2012, AVINENT presented its impressive new graphic image, which features in all the firm’s catalogues and videos and on its website and product packaging. This renewal is an exemplary metaphor, encapsulating the constant evolution of the company, which this year is experiencing a spectacular period of transformation and growth in every area of its business. It is now a world leader and has seen extraordinary expansion in its markets around the globe. This new phase has come about as a result of the launch of a new system of AVINENT implants, Biomimetic Ocean, and the consolidation and dramatic growth of its digital odontology division, a product of its technological alliance with the international group CORE3D.

Expodental discovers the amazing «AVINENT Experience»

The launchpad for this new era was the most recent edition of Expodental, held at the IFEMA exhibition centre in Madrid, which marked a before and after in AVINENT’s progress to date. The firm attended the event, taking with it a spectacular stand covering more than 250 square meters. Here, visitors were able to enjoy the «AVINENT Experience», a remarkable and compelling audiovisual presentation that described AVINENT’s history as a company and its particular characteristics. AVINENT impressed visitors and presented its top achievements in the fields of implantology and digital odontology, and in making customized structures.
The spectacular graphic image that AVINENT has just launched is in keeping with the dynamic and innovative character of the company. For the biomimetic implants, 3D illustrations with new organic forms have been designed, representing an evolution and a modernization of the image, which now features a marine background and is inspired by nature, an inspiration that has always been an inherent aspect of the company.

For the digital odontology line, we have moved away from the traditional image of molecules and have opted for a distinctive technological and futuristic air. The image appears in every catalogue and on all publications (general image catalogue, product catalogues, leaflets, price lists, etc.), as well as on the packaging of the two implant lines, Biomimetic Coral and Ocean.

Special mention must also be made of AVINENT’s new website (www.avinent.com), which has also been completely revamped and updated with new content.

International flagship in digital technologies

It is now an acknowledged fact that the future of the odontology sector is digital. AVINENT was one of the first to make the leap to this new technology and as a result it has become a benchmark in the field. AVINENT’s CAD/CAM division is a part of the international technological alliance of CORE3D milling centers and can undertake every phase of making customized structures in the digital era, including scanning, designing, and milling using new technologies and a wide range of materials. Hand in hand with CORE3D, AVINENT is a universal platform for digital solutions.

Expodental also hosted the launch of the new intra-oral scanner made by 3Shape, which offers the very latest in innovative technology. AVINENT not only distributes this scanner but is also contributing to its development.

This commitment to the digital sector has boosted the company’s international growth and represents a veritable turning point in its development. AVINENT is now present in markets in five continents and its turnover and staff are steadily increasing. This, plus its dominance in digital odontology and in developing customized products, ensures that the company’s future looks bright.

At the forefront in implantology

The new Biomimetic Ocean implant system, which AVINENT also presented at Expodental, has all the extraordinary characteristics of its predecessor. It has the same revolutionary biomimetic surface, plus a number of new features, such as an innovative shape (see pages 10-13), another advance welcomed by professionals in the sector that raises the brand’s image and consolidates it as synonymous with quality.

Futuristic and striking graphic approach

The spectacular graphic image that AVINENT has just launched is in keeping with the dynamic and innovative character of the company. For the biomimetic implants, 3D illustrations with new organic forms have been designed, representing an evolution and a modernization of the image, which now features a marine background and is inspired by nature, an inspiration that has always been an inherent aspect of the company.

For the digital odontology line, we have moved away from the traditional image of molecules and have opted for a distinctive technological and futuristic air. The image appears in every catalogue and on all publications (general image catalogue, product catalogues, leaflets, price lists, etc.), as well as on the packaging of the two implant lines, Biomimetic Coral and Ocean.

Special mention must also be made of AVINENT’s new website (www.avinent.com), which has also been completely revamped and updated with new content.
Biomimetic Ocean, the implant of the future

Innovative, attractive, and perfect. Three words that sum up Biomimetic Ocean, the system that joins the AVINENT range of implants and which the company has just launched onto the market. This new line has the same surface and innovative characteristics as its predecessor, Biomimetic Coral, and features new concepts developed after long and meticulous research, to which numerous professionals and specialists in the sector contributed. Ocean meets emerging surgical and prosthetic needs. Its shape ensures remarkable primary stability and bone preservation, as well as outstanding aesthetic results. In addition, the system has very simple and logical surgical procedure and features a purpose-made surgical box with drills especially shaped to suit the implant.

Surface inspired by nature

The Biomimetic Ocean implant has the BIOMIMETIC ADVANCED SURFACE, inspired by the biochemical processes that occur in nature. It is a revolutionary surface that includes calcium and phosphorus. This BIOMIMETIC ADVANCED SURFACE is common to all AVINENT implants and encourages bone-implant interaction, thereby speeding up osseointegration.

Shape adapted to the biological architecture of bone

- Platform switching at positive angle with polished surface, ensuring outstanding aesthetic results.
- Micro-spiral neck, improving bone-implant contact and the distribution of the stresses in the cortical zone.
- Progressive and asymmetric double thread, which enables the implant to adapt perfectly to the various areas of the bone.
- Apical end with radial tip that reduces the insult to the anatomical peri-implant structures.
- Self-tapping implants to facilitate the insertion and positioning of the implant.
- Available with internal and external hex.
‘The making of’ Biomimetic Ocean

An exemplary process to create the best product

The launch of the Biomimetic Ocean implant is the result of a long process led by AVINENT’s scientific committee, supported by expert scientists and clinical professionals: three years of research, design and engineering work from concept to commercialization during which the opinions of professionals and specialists in the field were sought to arrive at the best product. This was a painstaking, participative and exemplary process. The scientific committee that developed the implant consisted of AVINENT staff members Anna Cortina, Carme Vendrell, Albert Mangas and Héctor Serrano, who were aided by Dr. Carlos Rodado, an eminent oral and maxillofacial surgeon. The leading members of the scientific committee give us a detailed account of the process.

Initial information gathering
The AVINENT scientific team began work by compiling information. “We looked through specialist publications, studied market trends, attended congresses, gathered technical and clinical information, etc,” explains Anna Cortina.

Design of a questionnaire for professionals
With the advice of a number of professionals, among them Dr. Rodado, AVINENT designed a questionnaire to identify the needs of the sector. Anna Cortina points out “the objective was to gather impressions and information from clients and non-clients alike concerning the characteristics that the new implant and drills needed to have.”

Questionnaire survey of 100 clinical professionals
The AVINENT scientific team traveled the length and breadth of Spain to conduct face-to-face interviews with more than a hundred professionals. “The first-hand information we gleaned was extremely important to the design of the implant,” says Carme Vendrell.

Obtaining the CE mark and production
The implant was given the CE mark and all the relevant quality certificates. Once testing and monitoring had been successfully completed, the next stage was to manufacture the implant at AVINENT’s facilities.

Clinical trials in patients
“A number of doctors used the Biomimetic Ocean implant for clinical trials in patients and detailed follow-up of these cases was done,” which proved a success, as Carme Vendrell recalls.

Prototypes and trials
The process led to the creation of prototypes, which the team employed in in vitro trials (using artificial bone and cryopreserved material from bones) and in vivo trials (using animals).

Trials
“This was an important moment, the carrying out of trials to check the implant response,” comments Albert Mangas. Mechanical and technical tests were done, such as fatigue testing, finite element simulations, etc.

Questionnaire put to prosthetics specialists
A similar questionnaire was put to prosthetics specialists to check the implant response,” comments Albert Mangas. Mechanical and technical tests were done, such as fatigue testing, finite element simulations, etc.

Design of the implant and drills
The engineering team designed the implant and drills based on the conclusions drawn from the questionnaires, the information gathered at the start and AVINENT’s own experience. “The ideas were expressed graphically and progress was evaluated at the scientific committee meetings,” recalls Albert Mangas.

Follow-up and prospective scientific studies
In the months after the launch, cases were followed up and a prospective study was done on the response of the new implant, which “will offer interesting conclusions for the company and for the sector as a whole,” as the leading members of the scientific team put it.

Marketing launch of the implant
The Biomimetic Ocean implants and their drilling system are now a reality and were greeted with a very favorable initial response on their market launch.

Dr. Carlos Rodado
Oral and maxillofacial surgeon and a member of the scientific committee.
In your view, how important is clinical advice to the design of new products?
One of the major problems facing many implant companies or businesses in any sector is that the team designing or developing the product does not work with it and they do not take into account issues that may arise in real-life situations. AVINENT did well to draw on the support of clinicians who use this kind of product every day and who have extremely valuable experience. In addition to the implant design, the drilling sequence is vital: there are drills designed which, when it comes to the moment of truth, do not work. Clinical advice is crucial, and AVINENT accorded it considerable importance.
Do you think this collaboration is widespread in the odontology sector, or do you think it still doesn’t happen often enough?
Clinical advice sometimes have scientific advisors but they don’t have a lot of experience in the clinical field. It’s like evaluating a car: the experience of a professional who drives miles and miles every day in lots of different cars will be useful when it comes to testing a new model. If you only drive every now and then, you don’t have that experience. Some- times there are advisers with little clinical experience, professionals who perhaps teach a lot or give papers but who don’t operate every day.
How would you rate the final result of the BIOMIMETIC OCEAN system? Do you think it meets its goal of satisfying emerging needs in the odontology sector?
I believe it does. AVINENT has moved forwards. The new line does not replace the previous one but complements it and meets new needs. The initial feedback is positive; so far it is meeting or higher expectations. In the coming months, we will have more data and will be able to come to a more definitive assessment, but thus far the response has been excellent.
AVINENT-CORE3D enables the sector to make the final leap to the digital world with the 3Shape Trios scanner

AVINENT-CORE3D is an excellent gateway into the world of digital odontology. A veritable platform of digital solutions, the company has just taken the crucial step of becoming the Spain-wide distributor of the 3Shape TRIOS intra-oral scanner, the world leader in its sector. Yet AVINENT-CORE3D are doing more than just commercializing the scanner: their engineers have developed the first bank of implant solutions for the scanner. This collaboration between manufacturer and distributor makes it possible to obtain digital intra-oral impressions swiftly, accurately, and with guaranteed success for every kind of case. It represents a genuine revolution in the odontology sector.

Unbeatable digital workflow

The 3Shape TRIOS scanner’s workflow is totally digital, from the patient’s visit to the clinic through to the final treatment. The digital impressions taken using the 3Shape scanner improve clinical outcome and reduce the need for post-restoration adjustments. In addition, the screen display enables odontologists to make corrections and to ensure the reliability of the impression-taking while scanning is in progress. This is a hi-tech system that scans 3,000 images per second, which are combined to create the digital impression. It also features a touch-sensitive screen with real-time display and is capable of online communication with the lab. The benefits for patients are enormous: it not only improves the precision of the impressions but also saves the need for uncomfortable and imprecise silicon impressions and eliminates the use of the spray employed in some conventional digital systems.

Some clinics have already begun to treat patients using the intra-oral scanner and the implant solutions developed by AVINENT-CORE3D. Doubtless they will be followed by many more. However, the research and development work has not stopped here, allowing further innovations and new possibilities to be introduced.

Collaboration to achieve major advances

3Shape has established its position as industry leader and sets the standard in cutting-edge technology for 3D and CAD/CAM scanners. Over 280 employees and more than 120 engineers work every day to come up with innovative 3Shape solutions for people engaged in the dentistry sector around the entire planet.

3Shape is a global company with offices all over the world and a notable presence in Europe, Asia, and the Americas. With TRIOS, 3Shape is now giving dentists direct access to its vast experience and power of innovation. TRIOS is a system that is highly suited to the work of implantologists, since it enables them to take intra-oral and soft-tissue images using a simple process. The Spanish market has tremendous experience and works to the highest standards. This is why 3Shape has worked closely with its Spanish partners to ensure the quality of its implant solutions. New options using TRIOS have been designed, tested, and improved, including implant scanning.

This joint effort has resulted in revolutionary innovations that are extremely important to the work of implantologists, such as digital intra-oral implant impressions and the resin models produced using CAD/CAM technology, for which specific analogs have been designed, optimized for use in this kind of model.

Intra-oral innovation

The work done by AVINENT-CORE3D is unique. To date, no other commercial company has developed a solutions bank of this nature for intra-oral scanners. AVINENT-CORE3D’s bank is already being used in markets worldwide. CORE3D USA, the group’s North American delegation, has attended major international events to present the bank developed by AVINENT-CORE3D, the first and only one of its kind around the entire world.
AVINENT is now a worldwide company thanks to its determination to establish itself as the sector leader, its commercial ambition and its business strategy with global vision. The firm has steadily implemented its expansion policy, it has broadened its horizons, and it has opened up markets in five continents. The company also attends congresses, conferences, and other events around the world. Alone or in conjunction with CORE3D, AVINENT is a flagship in the global market.

AVINENT’s expansion has leapt ahead in recent months. The company’s territorial expansion strategy has taken the form of agreements to distribute the AVINENT implant system in countries in five continents. Moreover, AVINENT-CORE3D has successfully completed the various administrative procedures to meet all the health-related standards required to operate commercially. In particular, it has achieved the Health Canada in this North American country and the TGA in Australia. Part and parcel of the company’s increasing commercial expansion is its constant presence at major congresses and events around the world.

AVINENT now has a commercial presence in regions in five continents. In Europe, in addition to the markets in Spain and Portugal, its penetration of the markets in France, the UK, the Benelux countries, and elsewhere is proceeding at a swift pace. In the Americas, the sale of AVINENT-CORE3D products has just begun in Canada, and in the US the company is positioning itself in the market in an operation that will culminate in the coming months. In south-east Asia, AVINENT already has a presence in Hong Kong and Japan, new markets that join Taiwan, where AVINENT is already well established. In North Africa too, AVINENT has begun to distribute its products around Morocco, Algeria, and Tunisia. AVINENT’s commercial team is not resting on its laurels, however, and continues its penetration of new markets.

From the United States to Australia, taking in Europe and Hong Kong along the way

Active participation in major congresses

Ever since the company was created, AVINENT has participated in all the most prestigious international events, where it usually sets up its stand, publicizing its products and services. Similarly, the company has an active presence in international congresses at which researchers and experts give papers, its intention being to ensure that it remains fully abreast of the innovations and research being done in the sector, while at the same time raising increased awareness of its experience in the field of R&D. The congresses at which AVINENT maintains a constant presence include:

- The Association of Dental Implantology (UK)
- The Dentistry Show (UK)
- The European Association for Osseointegration (EAO)
- The International Dental Show (IDS)
- Association of Dental Implantology (UK)
- Association of Dental Implantology (UK)
- The Dentistry Show (UK)
- European Association for Osseointegration (EAO)
- International Dental Show (IDS)
- Association of Dental Implantology (UK)
- Association of Dental Implantology (UK)
- The Dentistry Show (UK)
- European Association for Osseointegration (EAO)
- International Dental Show (IDS)

Certifications from reporting agencies: the mark of quality

Having fulfilled the requirements of reporting agencies, AVINENT has been engaged in recent months in dealing with the health legislation in a number of countries in order to market its products there. In addition to the CE mark and the ISO 13485 international quality standard, both of which AVINENT already complies with scrupulously, the company has also successfully gained other quality certificates. This demonstrates the high standard of AVINENT’s products, which more than meet the requirements to consolidate the company’s international presence. The most recent standards that AVINENT is in the process of pursuing include:

- TGA Therapeutic Goods Administration (Australia)
- Health Canada
- FDA Food and Drug Administration (USA)
- MHLW Ministry of Health, Labour and Welfare (Japan)

Association of Dental Implantology (UK)
- Chicago Midwinter (USA)
- Australian Exhibiting Dental Excellence (ADEX)
- World Dental Federation (FDI) Annual Congress (Asia)
Creating science

AVINENT works together with institutions, universities, and technology centers and uses state-of-the-art technology to lead basic, clinical, and technical research

Research is in AVINENT’s blood. It is its strategic commitment. Ever since it was set up, the company has pursued an ambitious R&D policy. To this end, it works closely with universities, leading international research and technology centers, doctors, and specialists in a wide range of fields. With its facilities equipped with the latest-generation technology and a scientific team consisting of professionals in various fields (biochemistry, engineering, physics, etc.), AVINENT is constantly engaged in basic, clinical, and technical research. Its intensive efforts in this realm are reported in specialist publications.

Basic research
Generating cutting-edge scientific knowledge

As a result of its exhaustive research, focused in the main in the field of biotechnology, and with the collaboration of the CREB (Biomedical Engineering Research Center), an institution of recognized world standing, AVINENT developed the revolutionary BIOMIMETIC ADVANCED SURFACE, which it uses for its ranges of implants. Since then, AVINENT has continued to pursue basic research and to develop new solutions. Its studies and trials in vitro and in vivo using animals are all part of this effort. AVINENT contributes to the creation of knowledge for the sector as a whole and has become a wellspring of scientific material of the first order.

Clinical research
The supreme expression of rigor and quality

AVINENT also carries out clinical research to constantly analyze the results of its products based on a diverse range of parameters. The company’s goal is to ensure that rigor and quality remain at the highest possible level. It carries out studies based on patients’ clinical histories: implant survival, multicenter studies, etc. The results serve to corroborate that the standards of quality attained by the company are at the forefront of the sector.

Technical research
At the forefront of digital odontology

Technical research encompasses studies related to adjustments, resistance, and other technical matters. In addition, in keeping with the market trend, a new area of research focused on the digitizing of odontology processes has been launched in recent years. Within the framework of its alliance with CORE3D, AVINENT has specialized in this field of research, in which it now ranks as the worldwide leader. AVINENT-CORE3D is a firm that plays a major role in the development of structures using digital technology and a wide range of materials. Its engineers have even developed implant solutions for intra-oral scanners.

Images obtained by interferometry of the connection surface of a milled and sintered structure.

Images obtained using an electronic microscope of osteoblast cell cultures at 24 hours.

Images obtained by interferometry of the connection surface of a milled and sintered structure.

X-ray of a clinical case fitted with an Ocean implant.
AVINENT’s ultimate priority is to provide clients with an unbeatable service. The best example of this dedication to customer satisfaction is its speed in handling and delivering products. Especially impressive is the fact that CORE3D designs and fabricates structures in just 48 hours. In the past, this was just a dream; today it is a reality.

CORE3D develops structures made using digital technology for all types of implants in a wide range of materials, and suitable for every kind of connection. Orders can be supplied to clients in just 48 hours from the time of receiving the order to shipping the milled structure. Such a rapid delivery time was previously unimaginable but CORE3D can now achieve it thanks to its state-of-the-art technology and its continuous system that operates 24 hours a day without interruption.

In addition, orders for AVINENT implants or implantology products are always fulfilled immediately. Orders received before 6 pm are dispatched at 8.30 am the following day.

Five-year guarantee on CORE3D products
CORE3D products are supplied with a five-year guarantee. Together with the items, CORE3D provides a label in triplicate stating that the material meets every technical and quality requirement. One copy of the label is for the prosthetics laboratory, another for the dental clinic, and the third is for the patient. Consequently, even the end customer receives a copy of the product certification. This is all further proof of the reliability of the product and of the company’s dedication to improving health and to professionals in the sector, and customers.

Certifications that guarantee top quality
The CORE3D and AVINENT product manufacturing process complies with the ISO 13485 protocol and the 93/42/EEC directive governing health products. In addition, all the products are labelled with the CE mark and hence are approved by reporting agencies, guaranteeing the quality of the product and authorizing its sale. Offering a product of the very highest standard of quality is essential for AVINENT and so its facilities as well as its manufacturing processes conform to all the protocols and comply with all the rules and regulations on quality.

Fabrication and traceability contract: total reliability
In order to formalize and strengthen its relationship with clients and to guarantee quality, AVINENT-CORE3D signs a manufacturing contract with them concerning half-finished customized dental products. In this contract, AVINENT-CORE3D undertakes to manufacture and supply products to clients while complying with the very highest standards of quality. In addition, AVINENT guarantees traceability: each of its products has a batch number and an identification label that includes all the documentation relating to the manufacturing process. All of this is a sign of AVINENT’s commitment to total reliability and the quality of its development and fabrication of odontology products.
The odontology sector is making enormous strides in the production of customized structures using CAD/CAM systems that employ a wide range of digital technologies and materials. Thanks to its strategic alliance with the international CORE3D group, AVINENT has become a specialist in making structures in multiple materials, notably zirconium oxide, an extremely hard and durable material that gives unsurpassable aesthetic results. AVINENT-CORE3D has specialized in producing zirconia structures to suit every need.

**Zirconia:**

**pure resistance**

**Translucent zirconia or zirconia for ceramic stratification**

AVINENT-CORE3D has the capacity to mill high-quality, precision structures from translucent zirconia or zirconia that is suitable for ceramic stratification. Using translucent or monolithic zirconia, we can mill pieces that are anatomical in form, in other words, they are the shape that the structure will have in the mouth. In this way, the piece or structure is prepared, colored, and glazed before being placed in the mouth, without the need for any type of ceramic or its load. The other type of zirconia is suitable for stratifying the ceramic. In this case, a base structure is made onto which the ceramic is loaded to obtain the final form and look.

**Onto natural tooth or onto implants**

Prosthetic structures made of zirconium oxide can be cemented to natural tooth or to supported implant pillars. If the structures are to be screwed, they can be placed directly onto the implant, or a titanium interface connected to the prosthesis can be used. The many possible options allow the most suitable prosthesis to be chosen for each patient.

**A solution for every kind of order**

By supplying this wide range of options, AVINENT-CORE3D aims to offer its clients the largest number of prosthetic solutions available on the market. It is an authorized center for milling structures in various materials, among them the leading systems of IVOCLAR® and 3M ESPE. With its ability to fulfill orders of any kind, AVINENT-CORE3D makes prosthetic structures in all types of metal and ceramic materials based on physical models or digital computer files. In addition, its stock of implants is the largest on the market and the only one to date that enables the intra-oral scanner to be used on implants.
When a patient suffers from oral cancer, the tumour must be excised, which may entail the extraction of teeth and the removal of part of the bone. The Spanish public health system covers this operation, but not the subsequent fitting of implants and prostheses. An agreement now allows these patients in Malaga to undergo dental restorations free of charge, something that would be extremely expensive in the open market. The agreement was signed by Dr. Lucas Bermudo, the director of the master’s degree in Oral Surgery and Implantology at the University of Seville, and AVINENT in the framework of the master’s courses offered by the universities of Seville and Malaga as part of the joint campus accord reached by the two universities.

According to the terms of the agreement, AVINENT will donate implants for a period of three years, while the work will be done free of charge by the dentists on the master’s course, taught at the Carlos Haya Hospital in Malaga and directed by Dr. Lucas Bermudo, who is also the head of Maxillofacial Surgery at the hospital. This three-year master’s course, which consists of 60 credits, began last semester. Dr. Bermudo has expressed his gratitude to AVINENT: “In his view, “it is not easy to get bodies such as universities, a hospital and a private company to reach agreements. In this case, there has always been a very positive attitude towards helping. AVINENT was quick to embrace the accord and so the project became a reality.”

Dr. Bermudo thinks that commercial operations “tend to collaborate with universities but not with hospitals at this level or on projects of this nature. Consequently, this is an especially interesting case.”

Dr. Bermudo points out that the implants will be given to cancer patients whose tumor removal has affected their bone or teeth and so they need implants on which to fix a prosthetic structure. These are people who, without the project, would be unlikely to be able to pay for the intervention themselves. The unit, consisting of eleven professionals and five interns, will carry out 50 interventions a year, though not all of them will require implants. The teaching staff on the course will initially fit patients with implants and when the students have completed most of their training, in the third year, they will carry out the operations on patients under the supervision of experienced staff.

The project will also generate documentation and knowledge, since the plan is to monitor the implants in order to draw conclusions concerning their behavior. “We will be able to find out about the survival of the implants in this kind of case and analyze the conclusions within the university and in collaboration with AVINENT’s scientific committee,” explains Dr. Bermudo. This is, in a word, an exemplary project.
AVINENT has an excellent relationship with numerous university institutions, with which it promotes research projects and also collaborates on master's degrees and postgraduate courses, thereby contributing to the training of future professionals. One of the institutions with which AVINENT has extremely close ties is the Complutense University of Madrid (UCM). In particular, AVINENT contributes to the courses in Surgical Anatomy taught in the university’s School of Medicine. We talked to José Francisco Rodríguez Vázquez, Professor of Human Anatomy and Embryology at the UCM. Prof. Rodríguez Vázquez holds PhDs in Medicine and Surgery, and in Odontology, and he is a corresponding member of the Royal National Academy of Medicine and the coordinator of the courses.

Prof. José Francisco Rodríguez Vázquez
PROFESSOR OF HUMAN ANATOMY AND EMBRYOLOGY AT THE UCM

Q. How did the initiative for this type of training arise? What is its purpose and who is it intended for?
A. About 30 years ago, at the start of the 1980s, a friend and collaborator with the Chair of Anatomy II, Dr. Salagaray, a veritable pioneer in Spanish implantology and a keen advocate of the clinical aspect of anatomy, showed us that it would be possible to run this kind of course focused on implantology. And as anatomists, we believed that they ought to be held, since good surgical practices must be founded on good anatomical knowledge of the structures onto which the implant will be placed. Consequently, the purpose and aims are evident: specific knowledge of the areas on which the implantologist will be working and of the nerves, arteries, and other elements that will affect the fitting of the implant. This is the big difference between an implantologist and an excellent dentist.

Q. How have the courses been received?
A. The courses have been welcomed, because in mind that their anatomical focus is specifically applied to implantology and also radiological anatomy, which is extremely important in planning but which is frequently forgotten. There are many courses offered, and it is often the introductions to anatomy or refresher information that are the most useful and effective. There is a greater risk of error in complex technological systems that involve lots of different steps. The AVINENT system is intuitive and easy to use. And as I said, the company’s donation of its materials to the courses has been a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. How is your assessment of this collaboration?
A. AVINENT’s contribution has been fundamental: in courses run 20 years ago, doctors did not have the opportunity to fit implants. The AVINENT system is intuitive and easy to use. And as I said, the company’s donation of its materials to the courses has been a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. What is your assessment of this collaboration?
A. AVINENT’s contribution has been fundamental: in courses run 20 years ago, doctors did not have the opportunity to fit implants. The AVINENT system is intuitive and easy to use. And as I said, the company’s donation of its materials to the courses has been a very important factor in training doctors.

Q. What are the benefits of going on courses with the backing of a prestigious university such as the UCM in comparison with private-run or other training?
A. Even though I may be influenced by my affection for the UCM, I am a professor, this university unquestionably has the human and material resources required to run this type of course, one of the many that it offers. This training is of benefit to everyone:

- doctors acquire specific knowledge from lectures in anatomy who are expert in this area of knowledge.
- it is preposterous to believe that a professional without training in anatomy has the ability to explain it, but this does happen elsewhere. Anatomy ought to be explained by an anatomist, just as physiology ought to be described by a physiologist. The university itself and research groups like the one I lead also benefit, since it gives us access to additional financing which, together with projects and grants, is extremely useful in these economically strained times.

Q. What is the purpose and aims of the postgraduate courses at the UCM in recent years?
A. AVINENT’s collaboration is a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. What is your assessment of this collaboration?
A. AVINENT’s contribution has been fundamental: in courses run 20 years ago, doctors did not have the opportunity to fit implants. The AVINENT system is intuitive and easy to use. And as I said, the company’s donation of its materials to the courses has been a very important factor in training doctors.

Q. What is the purpose and aims of the postgraduate courses at the UCM in recent years?
A. AVINENT’s collaboration is a very important factor in training doctors.

Q. What are the benefits of going on courses with the backing of a prestigious university such as the UCM in comparison with private-run or other training?
A. Even though I may be influenced by my affection for the UCM, I am a professor, this university unquestionably has the human and material resources required to run this type of course, one of the many that it offers. This training is of benefit to every-

- doctors acquire specific knowledge from lectures in anatomy who are expert in this area of knowledge.
- it is preposterous to believe that a professional without training in anatomy has the ability to explain it, but this does happen elsewhere. Anatomy ought to be explained by an anatomist, just as physiology ought to be described by a physiologist. The university itself and research groups like the one I lead also benefit, since it gives us access to additional financing which, together with projects and grants, is extremely useful in these economically strained times.

Q. What is the purpose and aims of the postgraduate courses at the UCM in recent years?
A. AVINENT’s collaboration is a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. What are the benefits of going on courses with the backing of a prestigious university such as the UCM in comparison with private-run or other training?
A. Even though I may be influenced by my affection for the UCM, I am a professor, this university unquestionably has the human and material resources required to run this type of course, one of the many that it offers. This training is of benefit to every-

- doctors acquire specific knowledge from lectures in anatomy who are expert in this area of knowledge.
- it is preposterous to believe that a professional without training in anatomy has the ability to explain it, but this does happen elsewhere. Anatomy ought to be explained by an anatomist, just as physiology ought to be described by a physiologist. The university itself and research groups like the one I lead also benefit, since it gives us access to additional financing which, together with projects and grants, is extremely useful in these economically strained times.

Q. What is the purpose and aims of the postgraduate courses at the UCM in recent years?
A. AVINENT’s collaboration is a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. What are the benefits of going on courses with the backing of a prestigious university such as the UCM in comparison with private-run or other training?
A. Even though I may be influenced by my affection for the UCM, I am a professor, this university unquestionably has the human and material resources required to run this type of course, one of the many that it offers. This training is of benefit to every-

- doctors acquire specific knowledge from lectures in anatomy who are expert in this area of knowledge.
- it is preposterous to believe that a professional without training in anatomy has the ability to explain it, but this does happen elsewhere. Anatomy ought to be explained by an anatomist, just as physiology ought to be described by a physiologist. The university itself and research groups like the one I lead also benefit, since it gives us access to additional financing which, together with projects and grants, is extremely useful in these economically strained times.

Q. What is the purpose and aims of the postgraduate courses at the UCM in recent years?
A. AVINENT’s collaboration is a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
A. Simple things that fulfill a purpose are always more useful and effective. There is a need for anatomical materials that demonstrate all too clearly speakers’ lack of expertise in anatomy, even though the courses may be excellent in other respects.

Q. What are the benefits of going on courses with the backing of a prestigious university such as the UCM in comparison with private-run or other training?
A. Even though I may be influenced by my affection for the UCM, I am a professor, this university unquestionably has the human and material resources required to run this type of course, one of the many that it offers. This training is of benefit to every-

- doctors acquire specific knowledge from lectures in anatomy who are expert in this area of knowledge.
- it is preposterous to believe that a professional without training in anatomy has the ability to explain it, but this does happen elsewhere. Anatomy ought to be explained by an anatomist, just as physiology ought to be described by a physiologist. The university itself and research groups like the one I lead also benefit, since it gives us access to additional financing which, together with projects and grants, is extremely useful in these economically strained times.

Q. What is the purpose and aims of the postgraduate courses at the UCM in recent years?
A. AVINENT’s collaboration is a very important factor in training doctors.

Q. How do you rate AVINENT products and services?
The north region, a commercial bastion

The north of Spain is one of AVINENT’s most commercially active areas. The sales team for the north region consists of five members of staff who cover the Basque Country, Navarra, Cantabria, La Rioja, Aragon, and part of Castile and León. This is a region where, as the team’s director Iñigo Egiluz puts it, «AVINENT’s turnover has increased dramatically in the last four years.» The key to AVINENT’s commercial success is quality, according to Iñigo Egiluz: «It’s an outstanding product at a highly competitive price. The market acceptance is extraordinary.» The brand is recognized and appreciated and increasing numbers of eminent professionals are becoming AVINENT clients. AVINENT is today a benchmark brand. Its name is now synonymous with quality and good service, and professionals in the sector are familiar with its innovative nature and aware of the brand’s impressive presence at every congress, in specialist journals, etc.

Consequently, the sales team is highly specialized and keeps up to date via constant training in order to remain abreast of the full details of the latest items and all the product characteristics. The salesmen and women are in direct contact with almost every department in the company. A new member of staff who specializes in prosthetics issues has recently joined the team and is responsible for the entire area of AVINENT-CORE3D brand-ed customized structures. It’s a team that is growing, as is AVINENT’s entire sales force.

Telephone hotline: speed and agility

A company’s results are the product of the work, enthusiasm, and efficiency of every one of its departments. In AVINENT, an essential aspect is the professionalism of the people who are responsible for guaranteeing a satisfactory standard of client service and for providing users with products and services. The AVINENT sales department is noted for its quick and efficient attention to customers’ needs. Alongside the strictly commercial teams, the telephone hotline department is crucial to ensuring the personalized attention and excellent customer service for which the company is known. Consisting of seven members of staff, the telephone hotline offers continuous advice and constant attention every day from 9 am to 7 pm. Their work is essential to the efficient handling of orders and to guaranteeing a speedy service. For AVINENT, an immediate response to queries and excellent product shipping management are indispensable, so much so that the company can fulfill orders received by 6 pm at 8.30 am the following day. Professionalism, courtesy, and speed are just some of the attributes of the telephone hotline team. It is one of AVINENT’s public faces and consequently embodies all the company’s values and capabilities. The success and the future of AVINENT depend on them too.
CORE3D centers provide digital solutions in odontology to the entire world through seven delegations across five continents. The group serves 5,000 dental laboratories, a figure that continues to rise each day. CORE3D is a solutions platform capable of producing customized structures using CAD/CAM technology.

The sum of the group members’ knowledge has made it a worldwide leader, as it uses the latest-generation technology in scanning, designing, and precision-machining prosthetic structures. CORE3D can fabricate structures in an extensive range of materials (cobalt-chromium, titanium, zirconia, lithium disilicate, etc.) and is authorized to manufacture structures using materials from leading brands such as 3M ESPE, Wieland® and Ivoclar Vivadent®.

AVINENT’s corporate headquarters are the offices of the CORE3D southern Europe delegation. It covers the Mediterranean region and supports the CORE3D delegations around the world. CORE3D is a leading alliance for the digital era.