

Press Release

Heraeus hosts CNEOC meeting: insight and exchange

Material trends for healthy and beautiful teeth

Hanau, Germany, May, 2011 – **Development of dental materials must consider both, dental health and aesthetics. On this point all experts agreed at the meeting of the CNEOC (Cercle National d'Odontologie Conservative) hosted by Heraeus. In May, the manufacturer received 13 leading dental scientists from the French society at its headquarter in Hanau, Germany.**

The dialogue with the dental industry is an integral part of CNEOC's work. From May 5-7, CNEOC president Prof. Jean-Jaques Lasfarques and twelve other experts from ten French universities held a meeting at Heraeus Dental. The CNEOC members combined their sessions with insights into the activities of the manufacturer. In the centre of the meeting was an exchange between the guests and Heraeus representatives on trends in dental material science.

Glimpses into R&D: Restorative materials today and tomorrow

Two presentations on materials development at Heraeus opened the discussion session on Friday afternoon. Dr. Andreas Utterodt, R&D Manager Fillings, gave an overview of composite classes and allowed insight into current R&D activities. From the methacrylate based Durafill in the 1970s to today's TCD-urethane monomer in Venus Diamond, Heraeus has always shaped the development of composites. Dr. Utterodt identified the filler structure as a vital factor for further progress: "Future materials may be developed with tailor-made fillers." His colleague Dr. Norman Hendrik Riedel, R&D Manager Bondings, outlined current issues in adhesive development. He looked at the mechanism of modern one-step and two-step bonders. Which system is better? – This depends on the indication and the individual working style of the dentist, Dr. Riedel explained. "With iBond Self Etch and iBond Total Etch Heraeus offers reliable solutions for both ways."

Is bisphenol-A a biological risk? – Heraeus materials BPA-free

A vivid discussion between the experts from CNEOC and Heraeus followed. One issue was the biocompatibility of BPA (bisphenol-A), a component of common composite monomers like Bis-GMA (bisphenol-A glycidyl methacrylate). Dr. Richard Kaleka from the Cabinet Dentaire in Paris pointed out that currently, many dentists are confused about the risks of BPA. Dr. Janine Schweppe, Scientific Affairs Manager Restoratives at Heraeus, reduced the fear and referred to the keynote lecture by Prof. Gottfried Schmalz from Regensburg at the 2010 Meeting of the American Association for Dental Research (AADR). According to him, the connection between BPA and its side chains is so tight, that in the oral cavity it is nearly impossible for these compounds to break up and set free BPA. In conclusion, Dr. Schweppe went with Prof. Schmalz: The risk of BPA in dentistry is, according to present evidence, acceptable. “Yet, at Heraeus all raw materials are checked for BPA contamination”, Dr. Schweppe informed the auditorium. “With Heraeus composites the dentist always has the confidence of BPA-free material.”

Different demands in practice and science

Regarding new materials, the guests observed different demands and premises in dental practice and university. “The benefits of advanced technology are not always known to the general practitioner”, Prof. Pierre Colon from the Denis Diderot University, Paris, indicated. Prof. Lasfargues added: Daily practice and academic research tend to approach conservative dentistry differently. Practitioners have to fulfil the patients’ increasing demands for aesthetics. Universities take a rather medical approach seeing the aim of dentistry in treating or preventing pain and preserving tooth substance. Guests and hosts agreed that new dental materials have to consider both demands. According to Lasfargues, the future of dentistry lies in solutions for less caries, less periodontitis and more minimally invasive procedures. What alternative materials could contribute to future conservative dentistry?

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“We may pursue to imitate nature with composites more similar to natural tooth structure”, Dr. Utterodt explained. He reported on first experiences with a biomimetic composite. The guests from France generally approved these innovative solutions – if only their effects could show faster. This task was left to the researchers at Heraeus Dental.

Behind the scenes of composite production and CAD/CAM

Alongside discussion sessions Heraeus invited the guests to look behind the scenes. At the production site for composites and bondings at Wehrheim the French scientists could get an idea of the high quality standards at Heraeus. In Hanau, they caught a glimpse of another innovative technology. They experienced the computer-aided production of indirect restorations with cara, the CAD/CAM system by Heraeus. The CNEOC members were impressed when they learned about the many other activities of the technology group: Catalysts, photovoltaics, glass fibres are just some examples for hightech by Heraeus.

Guests appreciated open discussion

“The meeting evidences the quality and expertise of Heraeus”, was one of the guests’ comments at the end of the meeting. The CNEOC members explicitly commended the open discussion. Host Dr. Marianne Countess Schmettow, Head of Scientific Relations & Communication at Heraeus Dental, thanked the CNEOC for the fruitful exchange. “Experts in dialogue – under this headline we are looking forward to have even more international exchange with dental experts in the future.”



The CNEOC members combined their sessions at Heraeus with insights into the manufacturer's activities. Here, the French guests visit the composite production at Wehrheim.

CNEOC

The French CNEOC (Cercle National d'Odontologie Conservatrice) has 150 members from 16 francophone dental schools. The society takes responsibility for a pedagogic approach at dental schools, good clinical practice, evidence based dentistry, national and international exchange also with the dental industry. CNEOC is also active in continuing education and releases own publications. The society annually organises a scientific, pedagogic and clinic congress. 2013 CNEOC will hold responsibility for the CONSEURO in Paris.

Heraeus

Heraeus, the precious metals and technology group headquartered in Hanau, Germany, is a global, private company with 160 years of tradition. Our fields of competence include precious metals, materials, and technologies, sensors, biomaterials, and medical products, as well as dental products, quartz glass, and specialty light sources. With product revenues of €4.1 billion and precious metal trading revenues of €17.9 billion, as well as more than 12,900 employees in over 120 subsidiaries worldwide, Heraeus holds a leading position in its global markets.

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