

Press Release

Awardees of 1st Heraeus Travel Award presented research results:

New ideas for tomorrow's dental materials

Hanau, Germany, 2010 – **At the 88th General Session & Exhibition of the IADR in Barcelona, Heraeus and the IADR presented five young investigators in dental and material sciences with the first IADR/Heraeus Travel Award. The prize enabled the awardees to attend the IADR Session, July 14-17, and to present their research projects to an international audience.**

The International Association for Dental Research (IADR) and Heraeus founded the Travel Award in 2009 to advance research in dental materials. Five applicants from four continents received USD 2,500 each for travel expenses to present their research during the IADR Session. At the presentation of the Travel Award on July 14, IADR President **Dr. Maria Fidela de Lima Navarro** (elected on July 16) stressed the importance of the new prize: "Coming from Brazil, I know how hard it is for young investigators in some countries to get financial support for presenting their research at an international congress. The Heraeus Travel Award offers new opportunities." **Dr. Marianne G. Schmettow**, Head of Scientific and Clinical Affairs at Heraeus, pointed out: "We want to encourage young investigators all over the world to undertake research in innovative testing methods and to generate new ideas for improving dental materials."

Innovative approaches in materials research and development

The awardees presented their research projects to an international audience of more than 80 leading dental scientists. **Dr. Jonathan Y. An** (University of Washington, USA) introduced titanate-metal ion particles. These suppress the growth of several pathogenic oral bacteria and could be a component of restoratives in the future. **Dr. Yu Furuya** (Osaka University, Japan) explained why UV irradiation strengthens human dentine when rehydrated. This technique could

Page 2

help to prevent fractures in devitalised teeth. Using a dynamic spectroscopy technique **Dr. Mohammed Hadis** (University of Birmingham, UK) analysed the photobleaching characteristics of photoinitiators in resin based materials throughout cure. The interfacial adhesion of veneering ceramics to zirconia was in the center of **Dr. Philipp Kohorst's** project (Hannover Medical School, Germany). He concluded that thermal expansion and glass transition temperature of the veneering ceramic together with the amount of residual stress influence interfacial adhesion. **Dr. Sybele Saska** (Sao Paulo State University, Brazil) presented a composite she had developed for bone regeneration with bioactive and osteoinductive properties based on bacterial cellulose, collagen, hydroxylapatite and growth factors.

IADR contributions confirmed high quality of Heraeus products

At the well-attended 88th IADR General Session many contributors confirmed the good clinical and physical properties of Heraeus products. In two contributions from the University of Trieste (Italy), Venus Diamond and Venus Diamond Flow were attested extremely low shrinkage stress. The same research group around Prof. Breschi attested iBond Total Etch consistent bond strength after a long-term storage of 6 months. A clinical 24-months evaluation at the Loma Linda University concluded that the clinical performance of the all-in-one adhesive iBond Self Etch is comparable to the etch-and-rinse adhesive GLUMA Comfort Bond + Desensitizer. Several contributions looked ahead and presented an experimental biomimetic mineralisation kit. The Tohoku University Japan tested an experimental desensitising gel. Dentine permeability reduction with the experimental desensitizer gel was equally pronounced as with the proven Gluma Desensitizer.

Travel Award 2011

After the successful launch, the IADR/Heraeus Travel Award has been announced again for the IADR Meeting in March 2011 in San Diego, California (USA). More information is available on www.iadr.org.



Presentation of the IADR/Heraeus Travel Award (left to right): Dr. Marianne G. Schmettow (Heraeus), Dr. Christopher Fox (IADR), Dr. Yu Furuya (Osaka University), Dr. Maria Fidela de Lima Navarro (IADR)



Left to right: Awardees Dr. Sybele Saska (Sao Paulo State University), Dr. Jonathan Y. An (University of Washington), Dr. Philipp Kohorst (Hannover Medical School) and Dr. Mohammed Hadis (University of Birmingham)



IADR President Dr. Maria Fidela de Lima Navarro stressed the importance of supporting young investigators worldwide.



Dr. Yu Furuya showed that UV strengthens dentine under rehydrated condition.



Dr. Mohammed Hadis illuminated photoinitiators in resin based materials.

The company:

Heraeus, the precious metals and technology group headquartered in Hanau, Germany, is a global, private company with over 155 years of tradition. Our businesses include precious metals, sensors, dental products and biomaterials, quartz glass, and specialty lighting sources. With product revenues approaching € 2.6 billion and precious metal trading revenues of € 13.6 billion, as well as more than 12,300 employees in more than 110 companies worldwide, Heraeus holds a leading position in its global markets.