As part of this year’s EuroPerio in Vienna, Heraeus held two symposiums on the latest developments in the treatment of periodontitis. The question investigated by the first session on Friday morning was how local antibiotics can assist in the treatment of periodontitis. Following a short introduction from Professor Niklaus P. Lang from the University of Hong Kong, China, Professor Maurizio S. Tonetti, Executive Director of the European Research Group on Periodontology (ERGO-Perio), Italy, opened the first Heraeus Symposium with his presentation on current advances in the treatment of periodontitis and how it changes treatment. He began by highlighting the importance of periodontitis as a serious health problem worldwide. 

In addition to the role played by biofilm in triggering development, individual susceptibility to periodontal disease is also an increasingly important factor. This is influenced by genetic predisposition and environmental risk factors, and determines the intensity and clinical presentation of the periodontal inflammatory process. 

Periodontitis is also proven to have various effects on the body as a whole. In addition to providing systemic periodontal therapy with regular follow-up for the rest of the patient’s life, it is therefore also important to limit additional risk factors. With professional preventative measures geared towards the patient’s individual symptoms, further progression of the condition can be prevented in the long-term.

Professor Tonetti concluded his presentation with an outlook on possible future therapies. In a dug (bragel) model of replacement therapy, “Friendship” bacteria such as streptococcus sanguinis, streptococcus mutans and staphylococcus mutans appear to have a positive impact on inflammation (Pan et al., 2012). This approach sub-gingivally in addition to scaling & root planing (SRP). This is demonstrated in X-ray images by increased bone density and bone level (Nackaerts et al., 2008). Another way to limit biofilm looks at the effect of micro-nutrients as a food supplement. Here, daily intake indicates a reduction in probing pocket depths (Chapple IL et al., 2012). Further clinical studies are needed in order to verify the clinical significance.

Professor Lang concentrated his presentation on the management of deep pockets. Currently considered equivalent to a probing pocket depth of 6 mm, this correlates with an increased risk of tooth loss. This is also the level at which the composition of biofilm and its pathogenicity changes. The local administration of adjunctive antibiotics requires the application of a significantly higher concentration of active ingredients in order to kill the periodontal pathogenic bacteria. In addition, the delivered substance must remain at the active site for a sufficient(5,17),(994,992)