Fast cars and driven technology

Dental Tribune reviews the recent Driving Innovation in Oral Care Symposium held at Mercedes-Benz world in Weybridge, Surrey

A distinguished list of delegates from across the dental profession arrived at Mercedes-Benz World in Surrey ready for a wild ride over a bumpy track. But it was not all about fast cars as the day began with an exclusive symposium entitled ‘Driving Innovation in Oral Care’, hosted by Oral-B. The event brought together leading experts in the demographics of oral health in the UK, biofilms and oral disease, and gave delegates the opportunity to view the very latest in oral care product technology.

Attended by more than 70 professionals, key opinion leaders and the dental press the symposium was chaired by Prof Jimmy Steele, pictured right, Head of Newcastle School of Dental Sciences. He began by asking what technology has done for oral health and listed implants and adhesive dentistry as the subjects usually brought to mind. Pointing out that implants are of benefit to only a very small proportion of the population and that adhesive dentistry is ‘shutting the stable door after the horse has bolted’ (in terms of teeth already having suffered damage) he suggested instead that the technology of fluoride toothpaste for delivery of beneficial oral health ‘here and now’ was a reality that had caused a step change in oral health in recent years.

Prof Steele stated that more people are keeping more teeth for longer, and focused on 45-year-olds as representing the key turning point for oral health. People under the age of 45 had received a lifetime of the newest technologies in oral care resulting in them possessing far more healthy teeth than their age equivalents in modern history.

He posed the question what was the agent acting as the catalyst for this change? Fluoride toothpaste; demonstrating that the capacity of population-wide technologies to make a real contribution to oral health should not be underestimated.

Prof Ian Needleman from the Unit of Periodontology, International Centre for Evidence Based Dental Care at the Eastman Dental Institute was next to address the audience. His presentation Use and Efficacy of Antimicrobials in Dentistry took the audience through the subjects of biofilms and antimicrobials in the prevention of oral diseases, notably periodontal disease.

Describing that although humans are made up of billions of cells only 10 per cent are mammalian, Prof Needleman succinctly summarised the situation that ‘we are our biofilms’. In relation to oral health this is specifically dental plaque and he acknowledged that controlling and manipulating plaque as a biofilm rather than attempting to eliminate it was the appropriate strategy. Increased sophistication of biofilm research methods would reap huge benefits in developing effective technologies, he predicted.

Listing five antimicrobials; chlorhexidine, cetyl pyridinium chloride, triclosan, essential oils and stannous fluoride, Professor Needleman described each of them in terms of their substantivity, clinical efficacy, antimicrobial mode of action and side effects and how several of them have shown clear effects on plaque and to some extent on gingival health. In reviewing these agents he stressed that relatively small amounts of the most effective agents are required and that controlling and managing plaque as a biofilm rather than attempting to eliminate it was the appropriate strategy. Increased sophistication of biofilm research methods would reap huge benefits in developing effective technologies, he predicted.

The symposium also saw the first presentation in the UK of Oral-B’s all-in-one Pro-Expert toothpaste with the background research and evidence supporting the eight claims made to benefit oral health. Pro-Expert toothpaste is proven to protect against plaque, gum problems, caries and the prevention of erosion, calculus formation, dentine sensitivity, staining and bad breath.

The newly formulated all-in-one approach, supported by 15 years of clinical development and more than 70 research papers and presentations, was given thorough explanation by some of the researchers involved in its development as well as through a research and development exhibit.

The accompanying exhibit by the Research and Development Group of Procter and Gamble’s Oral-B brand, located at the London Innovation Centre (LINC) in Surrey, also introduced those attending the symposium to the newest research technologies. These technologies can be used to measure the therapeutic efficacy of oral health products as well as predicting the oral health status of an individual or group. Delegates were invited to take a closer look at these technologies, including going through the plaque grading process using dental plaque image analysis (DPIA) technology.

Delegates in the afternoon were then let loose on the driving track in some top of the range Mercedes cars, allowing for some frustrated wannabe rally drivers to show what they could do with some serious horsepower!

This event brought attendees up to speed with the latest thinking in oral disease management and perspectives of the oral health of the UK population and it was extremely interesting to see how far our understanding of the microbiology of biofilm and the latest research have progressed.