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**SCIENTISTS PRESENT KEY FINDINGS ON NEW APPLICATIONS FOR THE CANARY SYSTEM**

Quantum Dental Technologies (QDT) announced the findings from two key presentations last week at the 60<sup>th</sup> Congress of the European Organization for Caries Research (ORCA) in Liverpool, United Kingdom.

In the first study, lesion depth of natural caries was correlated with the readings from The Canary System, DIAGNOdent (DD), and the ICDAS II (a visual ranking system). Using polarized light microscopy to examine the tooth samples, investigators found that the Canary Numbers produced a more accurate correlation with lesion depth than either the DD or ICDAS II. This strong correlation may be explained by the ability of The Canary System to measure changes in the crystal structure of the tooth. In contrast, other caries detection devices rely on fluorescence technology. Fluorescence can detect the presence of bacterial porphyrins but is not capable of identifying changes in tooth crystal structure.

“With an overall Pearson’s Correlation coefficient of 0.84, The Canary System can be a great tool to aid dental professionals in the diagnosis of caries and estimation of lesion depth”, said Dr. Bennett Amaechi, Professor and Director of Cariology at the University of Texas San Antonio. “This is a very exciting development in dentistry and in the management of tooth decay”.

In the second study, the energy conversion technology PTR-LUM that powers The Canary System enabled investigators to accurately detect caries around the intact margins of ceramic crown restorations. In contrast, most of the DIAGNOdent readings did not reveal the presence of tooth decay. This study showed that The Canary System may be a valuable addition to conventional methods for detecting tooth decay that develops around ceramic crowns.

“The Canary System now provides dentists with the ability to detect tooth decay beneath the edges of fillings, crowns and bridges; one of the most common conditions that lead to the clinical failure of these restorations”, said Dr. Stephen Abrams, co-founder of Quantum Dental Technologies. “Early detection of tooth decay, before it is seen on an x-ray or detected with visual inspection, means that dentists can treat problems before the decay has destroyed significant amounts of tooth structure”.

The Canary System is a low-powered laser-based device that uses a novel combination of heat and light to directly examine the crystal structure of teeth. The Canary System can detect, map and monitor carious lesions on any tooth surface earlier and more accurately than other existing modalities.

For those who did not attend the ORCA meeting, please visit [www.thecanarysystem.com](http://www.thecanarysystem.com) or email [info@thecanarysystem.com](mailto:info@thecanarysystem.com) to request additional information.

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