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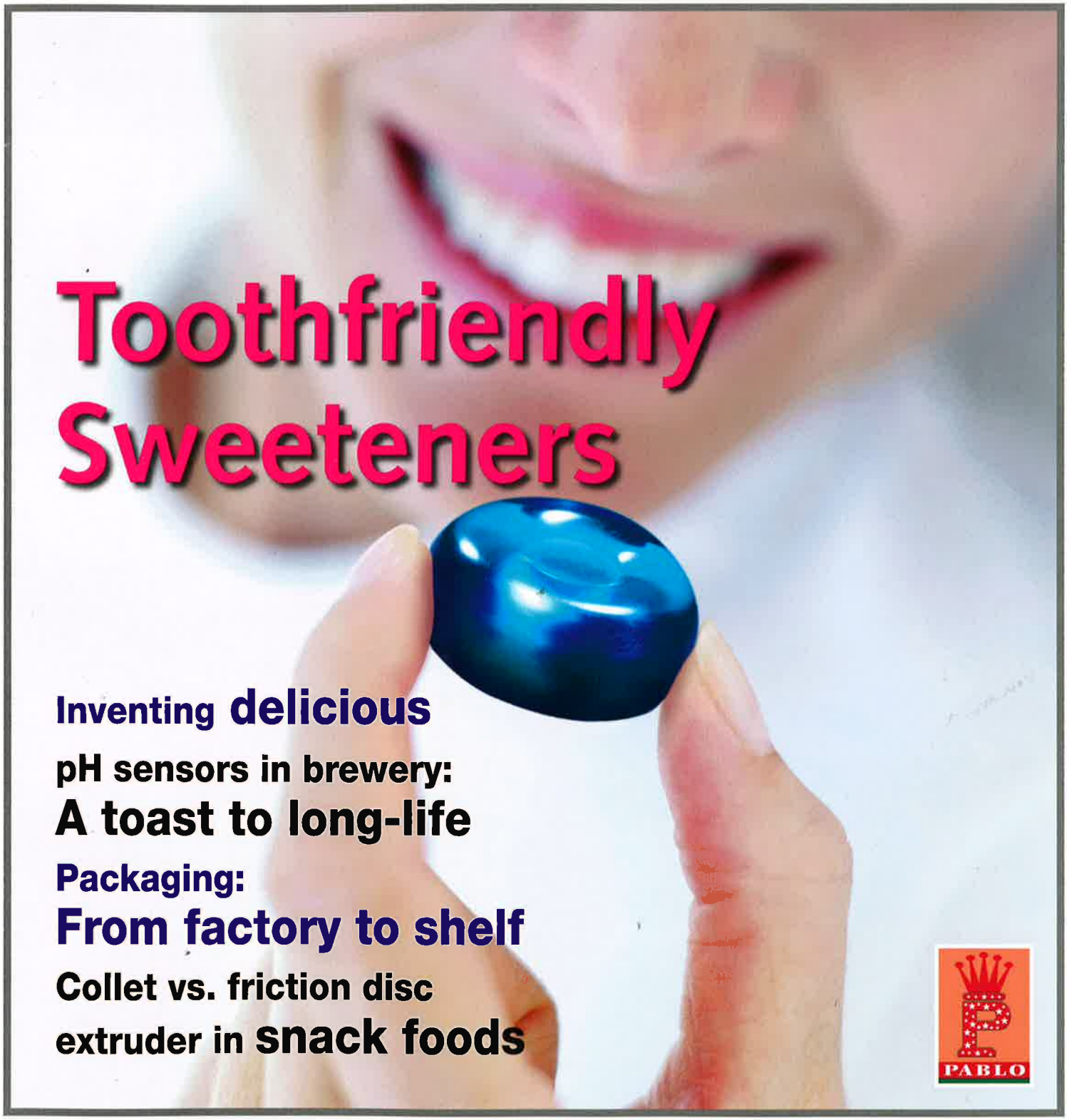

Toothfriendly Sweeteners

Inventing **delicious**

pH sensors in brewery:
A toast to long-life

Packaging:
From factory to shelf

Collet vs. friction disc extruder in **snack foods**

Davos makes beverages good for our heart

Scientists have found that gamma and delta tocotrienols, derived naturally from palm oil, are potent in lowering triglyceride levels (-27%) in the blood after two months of tocotrienol supplementation. In addition, tocotrienol-treated subjects in the double blind, placebo-controlled human trials showed decreasing trends in average weight, body fat mass, body fat percentage and waist measurement. The study hence points to the potential of tocotrienols as a natural remedy in fighting obesity and its related diseases.

This research study, which involves collaboration between scientists at Davos Life Science (Singapore), researchers at Malaysia Palm Oil Board (Malaysia) and Phytopharma Co. Ltd. (Japan), was reported in the Journal of Atherosclerosis and Thrombosis, the reputable publication of the Japan Atherosclerosis Society. Twenty human subjects were involved in this study, conducted at the Takara Clinic in Japan. The subjects were not on any cholesterol-lowering medication and were individuals with borderline-high cholesterol levels.

Studies have shown triglyceride-lowering effects of eicosapentaenoic acid (EPA), a polyunsaturated fatty acid found in oily fish, which is approved by Japan's Ministry of Health as a treatment for hyperlipidemia. This study reveals that tocotrienols have a more significant serum triglyceride lowering effect than EPA. More importantly, tocotrienol did not have any observable side effects, suggesting that it could become a natural remedy to lower triglycerides effectively.

Previous studies have established that people with elevated triglyceride levels are at an increased risk of cardiovascular diseases and have a tendency for excessive blood clotting. This study demonstrates for the first time that gamma and delta tocotrienols work to lower triglycerides, or blood fats, by directly suppressing triglyceride biosynthesis genes (SREBP1/2, DGAT2 and APOB100). As gamma and delta tocotrienols are able to inhibit triglyceride biosynthesis genes directly, it is an effective means to regulate triglyceride production. At the same time, this down-regulation also translates into a reduction in the level of triglyceride transport lipoproteins (VLDL and chylomicron), which distribute fats around the body. The study supports its in vitro findings, by demonstrating the triglycerides lowering effect of tocotrienols in both mice and humans. The study has also showed that tocotrienol may have an inhibitory effect on the development of atherosclerosis, a disease in which plaque builds up inside the arteries. It was found that gamma tocotrienol can enhance the efflux of LDL-cholesterol (also known as the "bad" cholesterol) by inducing the expression of LDL receptors.

T3Boost

Davos Life Science's new innovation of T3Boost with patent pending status has opened up new possibilities for beverages formulators who are working on heart health concept. In particular, Tocotrienol enjoys a growing status as a 'super-vitamin e', given the increasing volume of data confirming its superiority compared to the common vitamin e 'd-α-tocopherol'.

Derived from palm oil, T3Boost belongs to the Natural e3 range of products. It is the solution for food and supplement manufacturers who seek to offer the health benefits of Tocotrienol along with the assurance of a product high in quality and made without solvents. Backed by a growing library of research on its ability to maintain a healthy cardiovascular system, T3Boost is a natural choice and partner to create a new generation of products that address the concerns of people who truly care for their heart.