

SNIPPETS

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CURCUMIN'S IMMUNE-BOOSTING POWERS PIN-POINTED

The health boosting activity of curcumin may be due to the molecule's ability to stabilise cell membranes and increase the cell's resistance to infection, suggests a new study. The research, published in the prestigious *Journal of the American Chemical Society*, may help scientists understand how curcumin works inside the body.

Using solid-state NMR spectroscopy, Ayyalusamy Ramamoorthy and his co-workers at the University of Michigan report that molecules of curcumin insert themselves into cell membranes and make the membranes more stable and orderly. This makes the cells more resistant to infection by disease-causing microbes, they added.

The study also revealed that curcumin exerts this strong effect on the membrane structure at low concentrations. *NUTRAingredients.com 20 April 2009.*

THE PROMISE OF AFGHAN POMEGRANATES

A scheme that aims to replace poppy plantations with pomegranate orchards in war-ravaged Afghanistan is winning support with up-market UK retailer Waitrose throwing its weight behind the project.

It has begun stocking "pre-tox" pomegranate drink, Alibi, a UK start-up that is the first company to ally with POM354, the Afghani scheme that seeks to wipe out much of the world's opium production, of which about 90 per cent is sourced from the Afghani poppy crop.

Brett told *NutraIngredients.com* that the link-up with Alibi, a slim-line canned beverage mixing fruit juice, herbal extracts and amino acids, had opened the doors at Waitrose and other UK retailers had expressed interest in coming onboard.

"This project has the potential to put a serious dent in the global heroin trade and is an economically viable source of a fruit whose popularity is surging," Brett said.

The plan is in its infancy, with just 40,000 trees planted, and these will not deliver pomegranate yields until 2011. The Alibi deal means five pence from every can sold goes to POM354, which has gained the support of the Afghan government although the UK government is yet to come onboard.

Half a million more trees bearing the antioxidant-laden fruit will be planted all over Afghanistan's provinces by the end of 2010.

According to United Nations and Afghan government figures, poppy farmers can generate about €1500 per

acre. Switching to pomegranates can yield €3750 per acre, Brett said.

It was "massively important" to gain the support of a major multiple like Waitrose, which stocks many pomegranate superfruit products, including an own-brand juice.

NUTRAingredients.com 31-Mar-2009

OBAMA SIGNS MEMORANDUM ON SCIENTIFIC INTEGRITY

"Today, more than ever before, science holds the key to our survival as a planet and our security and prosperity as a nation. It's time we once again put science at the top of our agenda and work to restore America's place as the world leader in science and technology." With this pronouncement United States President Barack Obama signed a Presidential Memorandum on scientific integrity.

The Memorandum aims to "restore scientific integrity in government decision making." Hence, the Administration's decisions about public policy will be guided by the most accurate and objective scientific advice available. "The public must be able to trust that advice, as well, and to be confident that public officials will not conceal or distort the scientific findings that are relevant to policy choice," the Memorandum noted.

Crop Biotech Update 13 March 2009

http://www.whitehouse.gov/the_press_office/Fact-Sheet-on-Presidential-Memorandum-on-Scientific-Integrity/

EFSA PUBLISHES OPINION ON NANO RISK

The European Food Safety Authority (EFSA) has published its scientific opinion on nanoscience and nanotechnologies in relation to food and feed safety. EFSA's Scientific Committee (SC) has concluded that established international approaches to risk assessment can also be applied to engineered nano materials (ENM). However, the SC also concluded that a case-by-case approach would be necessary and that, in practice, current data limitations and a lack of validated test methodologies could make risk assessment of specific nano products very difficult and subject to a high degree of uncertainty. *IFT Newsletter 11 March 2009.* http://www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1211902362054.htm

THE FUTURE FOR STEVIA

On Dec. 17, 2008, the U.S. Food and Drug Administration declared that rebaudioside A (reb A), derived from the stevia plant, is generally recognized as safe (GRAS) for use as a general purpose sweetener at 95% purity or above. Since then, there has been a whirlwind of product development activity as food and beverage manufacturers race to take advantage of the new sweetener's popularity. In that first week after reb A was cleared, Pepsi launched three flavors of SoBe Life Water, while Coke launched a reduced-calorie version of Sprite, called Sprite Green, and two Odwalla juice drinks, containing PureVia and Truvia, respectively. But where can we expect to see the stevia-derived sweetener appearing next? The second in a regular series of online features by Food Technology Digital Media Editor Kelly Frederick explores the challenges in formulating with reb A and

what food products consumers can expect to see it in over the next 12 months. *IFT Newsletter 11 March 2009*.

<http://members.ift.org/IFT/Pubs/FoodTechnology/OnlineExclusive/stevia.htm>

ALCOHOL CONSUMPTION MAY INCREASE CANCER RISK

A study published in *Cancer Epidemiology, Biomarkers and Prevention* shows that there is a modest increase in risk of pancreatic cancer with consumption of 30 or more g of alcohol per day (this is equal to 1 oz, and an average glass of wine is around 5 oz). The researchers conducted a pooled analysis of the primary data from 14 research studies, for a population that included 862,664 people. Researchers identified 2,187 individuals diagnosed with pancreatic cancer during the study. They found that if individuals consumed 30 or more g of alcohol per day, compared with no alcohol per day, their risk of pancreatic cancer increased by 22%. No difference was observed by type of alcohol.

IFT Weekly Newsletter. 4 March 09.

NEW CODE PROPOSED FOR RETAILER-SUPPLIER DEALS

The rules that govern agreements between retailers and suppliers could be strengthened under a new proposal by the UK's Competition Commission (CC) to protect manufacturers and others from restrictive practices. The order is in response to the CC's inquiry into UK groceries retailing last year, which concluded that measures were needed to address its concerns about relationships between retailers and their suppliers. It comes just weeks after the CIAA, the EU food industry trade association, expressed concern over alleged abusive practices by retailers in their dealings with food manufacturers, who face direct competition from increased market share of retailers' own private label products.

In a communication on food prices in December, the European Commission noted a number of ways in which retailers could act unfairly in their dealings with manufacturers. These include cartels, purchasing agreements between competing buyers, resale price maintenance, certification schemes, tying, and single branding. The CIAA added other claims to the list, such as chronically late payments, long payment periods for suppliers, 'forced' discounts to meet buyers' targets, and 'forced' contributions to finance mergers and acquisitions. *Foodnavigator.com. 05-Mar-2009*

GOUDA'S 800-YEAR-OLD SECRET COULD BENEFIT FLAVOUR FOR ALL DAIRY

German scientists have reportedly cracked the secret of Gouda's complex, long-lasting flavour, and this could lead to developing more flavourful cheeses and other dairy products.

Writing in the *Journal of Agricultural and Food Chemistry*, 2009, Volume 57, No. 4, Pages 1440-1448, German scientists report that six gamma-glutamyl peptides appeared to be mainly responsible for the so-called 'kokumi sensation' behind Gouda.

Gouda was first perfected by farmers in the village of Gouda in Holland about 800 years ago. According to background information in the journal, although many studies over the last three decades have attempted to elucidate the compounds responsible for the complex, long-lasting characteristic taste of the popular cheese, known as the "kokumi sensation", the answers have eluded researchers until now.

Analysis using a combination of high performance liquid chromatography, mass spectroscopy, and gel permeation chromatography (GPC) enabled the identification of two classes of protein, 8 alpha-l-glutamyl and 10 gamma-l-glutamyl dipeptides as potential kokumi-enhancing molecules. However, only the gamma-l-glutamyl dipeptides were found to "impart an enhanced kokumi sensation to the matured cheese, whereas none of the alpha-glutamyl peptides were found to be active", said the researchers. *Foodnavigator.com. 06-Mar-2009.*

DUKE STUDY FINDS NO MERCURY IN HIGH FRUCTOSE CORN SYRUP

Just over a month after two groups of researchers found traces of mercury in some foods containing high-fructose corn syrup, a study from Duke University is denying the presence of the harmful metal in food it sampled.

Woodhall Stopford, a Duke University Medical Center internist and occupational physician, says he found "no quantifiable mercury" in 119 samples of HFCS supplied by five U.S. and Canadian producers from each of their 22 facilities. Nor did he find HFCS to be a "measurable contributor" to mercury found in food, according to information released by Duke yesterday. In his five-page paper, Stopford notes that mercury levels were higher in foods back in the 1970s, prior to the widespread use of HFCS as a sweetener, than they are today. He says the introduction of HFCS as a sweetener "has not been associated with any noticeable difference in mercury levels in foods and beverages" that use HFCS. *Food Chemical News March 19 2009*

EFSA OPINIONS ON THE SAFETY OF ASPARTAME

The artificial sweetener, aspartame, is a methyl ester of the dipeptide of the amino acids aspartic acid and phenylalanine. It has been the subject of controversy since its initial approval in the 1970s, despite its approval by numerous regulatory agencies worldwide, and its consumption by millions of people everyday. In response to a request from the European Commission, the Panel on Food Additives and Nutrient Sources (ANS) of the European Food Safety Authority (EFSA) has now published two opinions on aspartame, necessitated by claims from the European Ramazzini Foundation (ERF) that aspartame is a carcinogen.

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For the full story:

<http://www.rssl.com/services/foodanalysis/foodenews/Pages/Edition4341522april2009.aspx#4>