

► Study reveals the importance of nucleotides to keep cells young

New research from the University of Southern California has found that the production of nucleotides is essential to keep cells young. The study, recently published in the *Journal of Biological Chemistry*, focused on senescence, a natural biological process where cells permanently stop creating new cells. The researchers revealed that senescent cells stopped producing nucleotides, which are basically the building blocks of DNA, during the ageing process. When the cells failed to produce nucleotides, these cells aged.



Alireza Delfarah, lead researcher, explains: "Senescent cells are effectively the opposite of stem cells, which have an unlimited potential for self-renewal or division. The production of nucleotides is essential to keep cells young. It also means that if we could prevent cells from losing nucleotide synthesis, they might age more slowly".

This research has implications for the design of new drugs in the field of senolytics, a class of drug that could remove ageing cells and help promote a healthier life well into old age. But this is a good few years off yet.

According to Dr Peter Koeppel, pioneering expert on dietary nucleotides, much can already be done today, nutritionally, to increase our chances of achieving 'healthy' ageing.

Ensuring that replicating cells have adequate and ready availability of all the nucleotides for DNA and RNA synthesis means that cells can achieve a longer lifespan, with fewer DNA mistakes. Each cell replication needs three billion nucleotides just for the duplication of the DNA. If a cell can no longer produce all the required nucleotides, its function deteriorates. Diets that contain adequate amounts of nucleotides can compensate for the lower internal production of nucleotides by the cell, and restore its function. This is how dietary nucleotides can support the process of keeping cells healthy as we age. Unfortunately, only 'true' paleo diets, which include offal meats, can provide all the dietary nucleotides needed. This means people with nucleotide-poor diets, heavy stress loads (e.g. athletes), or chronic and acute diseases, would be well advised to supplement their nucleotide intake, with readily digested, purified nucleotides.

• www.nucleotidenutrition.com

► NUTRISPORT JOINS ESSNA

The European Specialist Sports Nutrition Alliance (ESSNA) is delighted to welcome a new addition to the family. NutriSport, a leading European distributor and manufacturer of quality sports supplements, is the latest organisation to become a professional member, which strengthens ESSNA's presence in the sports nutrition industry.

A family business founded in Barcelona, NutriSport has been working in the field of sports nutrition for 35 years. In that time, NutriSport's mission has been to make their products an essential part of sports people's daily lives.

Celebrated for their product variation and diversity, NutriSport's range can be identified by a common denominator: quality. Using only the best raw materials, all products are manufactured under strict standards and regulations. In NutriSport's facilities, the technical team works rigorously to research, design and develop products that meet the needs of all disciplines at every level. The union between work, research and perseverance has brought NutriSport to where it is today: a key player in Spain on a global scale, thanks to its wide range of high-quality



products.

Chair of ESSNA, Dr Adam Carey, says: "We are delighted to welcome NutriSport as our newest ESSNA member. The organisation's admirable dedication to manufacturing and providing only the best quality products aligns unquestionably with our ethos here at ESSNA. All ESSNA members commit to its values and join us in the mission to create a safe and healthy environment for the sports nutrition industry. We look forward to working with NutriSport and encourage the team to make full use of the value of joining our industry body."

NutriSport General Manager, Joan Sacristan, adds: "It is an honour for NutriSport to become a member of ESSNA. After 35 years delivering premium quality products and strictly following compliance in manufacturing, being part of an organisation with both global and European recognition on regulatory compliance, represents a key milestone for maintaining the lead in the sports nutrition sector."

• www.essna.com

► BAM ORGANIC LAUNCHES NEW HIGH-PROTEIN CHOCOLATE MILKSHAKE

Bam Organic has extended its 25g High Protein range of all-natural, ready-to-drink shakes with the introduction of Bam Organic 25g High Protein Chocolate. The organic, high-protein recovery shake will join Bam Organic 25g High Protein Vanilla and award-winning Bam Organic 25g High Protein Banoffee, to extend the range to three delicious flavour options. The products offer an increasingly demanding consumer a high-protein shake without compromise on taste or consistency, and the reassurance of organic, clean-labelled, ethical and sustainable ingredients.



Certified by Informed Sport, one of the world's leading quality assurance programmes for sports nutrition, the shake contains 25g of protein, essential carbohydrates for post-workout recovery, with less than 1g of fat, and none of the artificial aftertaste often experienced with high-protein sports drinks.

Co-founder of Bam Organic, Graham Dodridge, said: "A chocolate flavour for the 25g High Protein range was a natural progression for us and customer feedback has been extremely positive. Made with organic British skimmed milk and milk protein, simply blended with honey rather than refined sugar, and reduced fat cocoa powder, we are confident it will be well received in the market with high demand. Our range is the ideal ready-to-drink post-workout recovery drink, or grab-and-go refuel, meeting increased demand for high-protein products without artificial ingredients that are potentially harmful to health. Chocolate will always be a favourite, so we are excited to bring our guilt-free new flavour to consumers. We are here to 'Fight The Fake' and challenge the norm in the protein market."

The gluten-free and vegetarian shakes come in handy 330ml, 100 per cent recyclable and resealable cartons.

• www.bamorganic.com