X-Pure GelMA Purest Modified Gelatin for Translational Medicine

Darling Ingredients' Rousselot introduces new gelatin for 3D bioprinting and more

IRVING, Texas, July 20, 2020 /PRNewswire/ -- Darling Ingredients Inc. (NYSE: DAR), today announced that its Rousselot business, the global leader of collagen-based solutions, has successfully introduced X-Pure® GelMA at Bio Digital 2020. The first Good Manufacturing Practice (GMP)-ready range of gelatin methacryloyl (GelMA) biomaterials suitable for preclinical and clinical applications. X-Pure® GelMA is part of the X-Pure® portfolio of ultra-pure gelatins and collagens, suitable for use as biomaterials in 3D bioprinting, tissue engineering, and regenerative medicine.

In GelMA hydrogels, the most versatile biological environment for cells, the inherent bioactivity, biodegradability, and cell compatibility of gelatin are combined with the ability to tailor photo-crosslinking. This combination holds a huge potential for the creation of tunable biological environments for the culture of various eukaryotic cells at body temperature. Uses for this biomedical technology could be bio-adhesives for patching arteries, transdermal needles for drug delivery or act as a matrix for bone regeneration.

X-Pure® GelMA - The first GMP-ready gelatin methacryloyl. GelMA-oriented patent applications have been growing exponentially over the last five years, with many of these research concepts now being translated into the clinic. However, standard GelMA products often carry high and variable levels of soluble impurities originating from either the gelatin raw material or the chemical synthesis process. The presence of these impurities such as endotoxins, pyrogens and/or methacrylic acid residues are detrimental for in-body use but can also affect the success of in vitro applications. X-Pure® GelMA provides an ultra-pure solution.

"We are pleased that our Rousselot development team has delivered on this exciting new product for the biomedical marketplace," said Randall C. Stuewe, Chairman and Chief Executive Officer of Darling Ingredients. "Rousselot continues to be a global leader of collagen-based solutions for food, biomedical and pharmaceutical sectors."

Rousselot's unique patented two-stage purification process results in ultra-low levels of pyrogens and residual methacrylic acid, providing an excellent safety profile to the product. Further, consistent batch-to-batch quality ensures reliable results and shorter lead times to the clinic.

"Our X-Pure® products are unique on the market, as they come with ultra-low levels of endotoxins and fully validated traceability of raw materials," stated Jos Vervoort, Executive Vice President of Rousselot. "X-Pure® GelMA is our latest addition to our biomedical range of ultra-pure gelatins and collagens and our range will be further extended as we move forward with products bringing added value to the whole biomedical industry."

Readily available, X-Pure® GelMA can be produced in compliance with GMP regulatory requirements for quality, raw material sourcing, and documentation for approval across all major regulators worldwide, thereby minimizing regulatory risks and optimizing the pace of product development. The new range covers a broad choice of molecular weights and modification degrees of gelatin methacryloyl biomaterials, allowing close customer collaboration for custom-made solutions.

Contact Darling Ingredients' Rousselot business to speak to an expert on how X-Pure® GelMA will impact the medical community and further meet the needs of an aging population at www.rousselot.com/biomedical.

To watch more on the benefits of X-Pure® GelMA:
https://youtu.be/jBnH4FUffYQ

About Darling
Darling Ingredients Inc. is a global developer and producer of sustainable natural ingredients from edible and inedible bio-nutrients, creating a wide range of ingredients and specialty solutions for customers in the pharmaceutical, food, pet food, feed, technical, fuel, bioenergy, and fertilizer industries. With operations on five continents, the Company collects and transforms all aspects of animal by-product streams into useable and specialty ingredients, such as gelatin, edible fats, feed-grade fats, animal proteins and meals, plasma, pet food ingredients, organic fertilizers, yellow grease, fuel feedstocks, green energy, natural casings and hides. The Company also recovers and converts recycled oils (used cooking oil and animal fats) into valuable feed and fuel ingredients and collects and processes residual bakery products into feed ingredients. In addition, the Company provides environmental services, such as grease trap collection and disposal services to food service establishments. The Company sells its products domestically and internationally and operates within three industry segments: Feed Ingredients, Food Ingredients and Fuel Ingredients. For additional information, visit the Company's website at http://www.darlingii.com.

Safe Harbor Statement

Some of the statements made in this press release are forward-looking statements. These forward-looking statements are based upon our current expectations and projections about future events and generally relate to our plans, objectives and expectations for the development of our business. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this press release.

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