

GUEST COLUMNIST



CMN Exclusive!



Perspective: Ingredient Technology

Joseph O'Donnell is executive director of the California Dairy Research Foundation. He contributes this column exclusively for *Cheese Market News*®.

Milk genomics consortium formed to deliver technological advantages

Two business stories caught my attention recently. The first was the announcement by a U.S. company called GTC Biotherapeutics of a patent for the production of therapeutic proteins in the milk of transgenic mammals. The second story was about DairyAustralia, which is investing in a three-year research project to unlock hidden pharmaceuticals and nutraceuticals in milk proteins. Both illustrate the rapid growth in research to identify the health benefits of milk components and utilize these

benefits to promote health.

And they are not alone. New Zealand, the Netherlands, France, Canada and numerous other countries have zeroed in on the enormous business potential offered by milk genomics research. This past November the second International Symposium on Milk Genomics and Human Health attracted participants from 11 countries.

The field is growing. It's a natural progression. Over the past several years, we've seen numerous reports of milk's role in

weight management, one of the most visible health issues in the United States and, increasingly, other countries. Weight management is only the beginning. Understanding milk's role in overall health management — from lowering blood pressure to reducing the risk of colon cancer — will continue to expand. That raises the question of how it will happen.

Research organizations from around the world have come together to form the International Milk Genomics Consortium (IMGC) — a corporate/academic partnership designed to provide a collaborative research environment for understanding the biological value of mammalian milk and using that knowledge to improve human health. A key goal of the consortium will be to create tools for collecting data generated by the industry as well as the entire biological research universe — billions of dollars worth — and organizing and presenting these data in a way that can be easily managed.

As you might guess, the computer capacity and staffing to carry out this mission are substantial and costly. Thus, the concept of a consortium makes a lot of sense. In October, the IMGC unveiled a beta version of its web portal (<http://lactoknow.ucdavis.edu>). With this technological tool as a base, dairy product developers will be able to look into pro-

prietary research leading to products that will, in the long run, increase sales of milk-derived products. As a result, everyone in the chain benefits — the researcher, the corporate partner and, most of all, the consumer, the driver of the entire business.

The IMGC represents a unified effort of the leading dairy research organizations (private and nonprofit) to give our product developers the tools and information needed to meet the ever-changing demands of a health conscious consumer. While any industry could use this model, no other industry has, as a raw product, a natural substance designed through evolutionary pressure to maximize delivery of nutrition and health. The answers are there. We are working to find the right questions to unlock them.

We're gaining on it. Consortium membership is growing and research collaborators are coming on board. International scientists will gather again this September in Brussels for the third International Symposium on Milk Genomics and Human Health. It's an exciting time to be in dairy. **CMN**

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