



Center for Dairy Research (CDR): *Some Ideas on Product Innovation*

*Professor John Lucey
Center for Dairy Research
University of Wisconsin-Madison*

Center for Dairy Research *“Solution Based Research Backed by Experience, Passion and Tradition”*





New Milk Beverages

SKIM *ultra-filtered milk*

fairlife® fat-free ultra-filtered milk has 50% more protein, 30% more calcium and 50% less sugar than typically found in milk. With its rich and creamy flavor, some people even say it tastes like low fat milk! Treat yourself to goodness.



NUTRITION COMPARISON

Per Serving	Protein	Calcium	Sugar	Lactose free
fairlife® skim	13g	370mg	6g	YES
organic milk	8g	276mg	12g	NO
almond milk*	1g	451mg	15g	YES
soy milk*	7g	299mg	6g	YES

*compared to the leading brand of almond and soy milk.

- Using filtration technologies to increase the protein (50%) and calcium (30%) and lactose free
- Backed by Coca-Cola
Sales in 2017: > \$250M



Designer Milk: New Value-added Products



- “*Designer Milk*”: Selecting and breeding cows with unique concentrations of components, for example:
 - Increased CLA content (health benefits like anti-cancer, obesity)
 - Reduction in content of allergenic milk proteins (e.g., β -lactoglobulin)
 - Increased lactoferrin content (antibacterial)
 - Enhanced immunoglobulin levels (helps immune function)
 - Increased Vitamin B12 (milk might be the main source for this in a vegan household)



TECHNOLOGY

Designer milk to protect against tooth decay

25 Jun, 2006 7:08pm

© 2 minutes to read



Researchers are immunising cows to create bacteria-busting milk products.

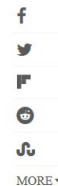
NZPA



Agricultural researchers are immunising cows against human illnesses so they will produce milk with enhanced protective qualities for the people who drink it.

Holy Cow! 'Daisy' Makes Hypoallergenic Milk

By Trevor Stokes, LiveScience Contributor | October 1, 2012 03:14pm ET



Various Research Areas in the New CDR Facility



- Cheese
 - Production spaces for natural, processed, and specialty cheese
 - Ripening rooms for specialty cheese
- Fractionated milk proteins (e.g. purified proteins with membrane filtration)
- Dried dairy ingredients (e.g. powders)
- Cultured products (e.g. Greek yogurt)
- Beverages (e.g. UHT aseptic, juices containing dairy proteins)
- Food research and culinary kitchens
- New auditorium for training purposes

CDR as an “Incubator”

- The new CDR is planned to be a licensed dairy plant.
- Using the new CDR facility as an “incubator” to help:
 - New cheesemakers/entrepreneurs (a place to start out)
 - Existing cheesemakers (create new products)
 - Large cheesemakers to switch to more value-added products
- We will need additional staffing to handle this role





Growing Exports

- Need to understand consumer insights in key markets (what do they want)
- CDR would need extra staff to support companies making new products/ training/ supporting trade missions etc
- Could we create a “Wisconsin Dairy Export Board”, like the Irish Dairy Board
 - Single organization responsible for distribution, marketing, one brand, logistics
 - Cheese company members with partners like CDR, DFW, DATCP, etc