



**Guidelines for
Dairy Management Inc.
Product Research 2009 Pre-Proposal Application
for Projects to be Contracted in June 2009**

Deadline for receipt of two-page pre-proposals: 12:00 pm (CST) February 19, 2009

Dear Researcher:

Please help share this announcement with your colleagues.

Dairy Management Inc.™ (DMI) works to increase demand for and drive sales of U.S. dairy products and ingredients on behalf of America's dairy producers. Founded in 1995 as a not-for-profit organization funded by dairy checkoff dollars, DMI leads and manages the American Dairy Association®, the National Dairy Council® and the U.S. Dairy Export Council®.

The Product Research Group at DMI manages a dairy product research program that is scientifically-based to provide better positioning of dairy products and ingredients in the market. This product research program funds both basic and applied dairy product research. Individuals associated with U.S. universities, Federal and State government agencies or domestic non-profit/not-for-profit research organizations are eligible to submit research pre-proposals. Funding is provided in the form of contracted research agreements with the institution.

DMI Product Research Group is interested in receiving pre-proposals in the following 9 specific research areas.

Research Area 1. UHT milk flavor improvement

While UHT treatment of milk provides reasonable shelf-life, UHT-processed products suffer from organoleptic degradation as a result of the high heat treatment and the subsequent ambient storage. This research area supports the establishment of approaches to control and mitigate all quality impacts of UHT on milk.

Research Area 2. Alternative technology for shelf-stable milk

Current shelf-stable technology for processing milk relies solely on UHT technology which negatively impacts the quality of products. This research area seeks the development of new technologies for the manufacturing of non-refrigerated milk with at least a 6 month shelf-life and with parity in quality to their HTST-processed counterparts.

Research Area 3. Low sodium Cheddar cheese

A low sodium Cheddar cheese per labeling requirements will have ≤ 140 mg/50 g of cheese. The removal of sodium from cheese, not only affects the salty taste perception, but may also influence quality owing to outgrowth of undesirable bacteria during aging. This research area focuses on finding comprehensive sodium reduction solutions for Cheddar cheese.

Research Area 4. Heat stability improvement

The manufacture of a high protein beverage often requires substantial heat treatments such as hot filled, UHT and retort. These treatments have all been shown to cause instability to the concentrated protein dispersion immediately post heating and during ambient shelf-life storage. This research area will develop whey protein stabilization technologies suitable for making clear high protein beverages containing 5 to 15% protein at acidic and/or neutral pH.

Research Area 5. Flavor improvement

Flavor defects in whey protein concentrate 80 and whey protein isolate can negatively affect their acceptability especially in beverage application. This research area supports the establishment of knowhow and understandings to control flavor defects in the aforementioned whey protein products.

Research Area 6. Co-product utilization

Advances in processing technology have allowed for the concentration of valuable dairy proteins from processing streams. These processes also generate various co-products with unique properties. This research area aims to identify economically-viable and value-added uses for whey permeate and delactosed permeate that will increase the overall usage of dairy in products suitable for human consumption.

Research Area 7. Whey proteins from microfiltration of milk

Whey proteins obtained from microfiltration of milk can potentially offer different properties than whey proteins obtained from cheese whey. Nevertheless, information on their properties remains relatively limited. This research area seeks proposals that encompass i) processing technologies to further the establishment of whey proteins obtained from microfiltration of milk as a viable ingredient and ii) application technologies to develop new food uses for these proteins.

Research Area 8. Isolation of milk fractions

With increasing understanding of the nutritional and functional properties of milk components, fractionation strategies are needed to develop a new class of dairy ingredients with targeted functionality and benefits. This area solicits breakthrough research in processing and engineering to allow for large-scale production of major and minor milk fractions.

Research Area 9. Discovery

Dairy Product Research
2009 Pre-proposal Application

This research area supports the initial investigation of fundamental sciences and the implementation of novel technologies to dairy products and ingredients. Projects in this area, if successful, could potentially lead to new areas of dairy research. Research proposed for this area should be designed as a proof of concept project. The project should be limited to one year and the budget can be up to \$50,000. Please note that product development and product formulation projects will not be considered.

Please be aware that DMI does not pay indirect costs or allow direct cost for purchasing of equipment.

Primary investigators may submit more than one pre-proposal. The pre-proposal must not exceed two (2) single-sided pages and must use at least a 12-point font. Please see the enclosed Pre-Proposal Application for format. Pre-proposal(s) should be submitted via e-mail to ProductResearch@rosedmi.com by **12:00 pm (CST) February 19, 2009**. **The subject area of the e-mail submission should indicate the following in this order: Last name, first initial, DMI Product Research Pre-Proposal.** If e-mail submission is not an option, please send one (1) hard copy and one (1) CD copy so that they are received by **12:00 pm (CST) February 19, 2009** to:

Product Research
Attn: Andrew Yeung
Dairy Management Inc.
10255 W. Higgins Rd., Suite 900
Rosemont, IL 60018-5616

All pre-proposals will be screened internally by DMI staff to determine if they meet the intent of the research call and to ensure, with information provided, that the research proposed does not duplicate existing or on-going research. Approximately three weeks following the submission deadline, applicants should receive notice of the outcomes of this screening process. One of three outcomes indicated below will be checked off in this notice:

Title: (title of application)

Request full application Yes

Will accept

No

Please note that these notices will not contain an explanation as to why the decision was made. The intent of the pre-proposal is to minimize the work necessary to submit ideas to the program. Submission of pre-proposals allows staff to screen out research ideas which do not meet the needs of the research program or which duplicate any current research *before* the applicant expends the time and effort of submitting a full proposal. A “will accept” status implies that the information provided

in the two-page application was deemed insufficient for staff to make a clear determination and leaves the option open for the applicant to submit a full proposal. For pre-proposals marked “No”, DMI Product Research Group will not accept a full application from the primary investigator on the same topic. The DMI staff decision made on a pre-proposal application is final.

Application kits for full proposals will be forwarded to the primary investigators whose pre-proposals receive a “yes” or “will accept”. **Requested full proposals must be received by 12:00 pm (CDT) on April 2, 2009.** Full proposals will be peer reviewed for scientific merit and DMI staff will make final funding decisions by May 1 of 2009.

Please email or call us (847-627-3236) if you have any questions.

Sincerely,



Andrew C Yeung, Ph.D.
Director, Product Research
Dairy Management Inc.
10255 W. Higgins Rd., Suite 900
Rosemont, IL 60018-5616
ProductResearch@RoseDMI.com

Current Date

Principal Investigator _____

Institution _____

Address _____

City _____

State _____

Zip _____

Phone _____

Fax Number _____

Email Address _____

SECTION 1. FUNDING INFORMATION

Time Requirement (years)

Year 1

Year 2

Year 3

TOTAL

Please provide a brief description of the events to occur during each annual period of the project.

SECTION 2. PROJECT INFORMATION

Project Title _____

Research Area _____

RESEARCH HYPOTHESES

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

SPECIFIC OBJECTIVES / DELIVERABLES

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

EXPERIMENTAL APPROACH

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