Technology Transfer

New Research Technologies for Dairy Products

CDR Technology Portfolio

Partners
This Program is for **YOU** if:

- Your company is interested in accessing more functional, health oriented dairy ingredients for your products
- Your company is interested in cost reduction production processes
- You are an entrepreneur with a new dairy related technology that needs further development, testing and/or market research

The Wisconsin Center for Dairy Research (CDR) is excited to announce its “TURBO Program” designed to increase the speed of commercialization in new product development for companies in dairy related industries. This assistance can occur in two ways:

- The entrepreneur or existing company is interested in licensing the technology of one of CDR’s existing patents or accessing other non-patentable technologies. CDR can then assist the client in further technical development to the point where, hopefully, a new product is launched into the market place.
- The entrepreneur or existing company has their own dairy-related technology and would like CDR to provide technical assistance to further develop it for potential commercialization.

The CDR TURBO Program is a comprehensive Accelerator that can assist you, not only in expediting dairy/food innovation and product commercialization but also in other related facets such as business planning, market development, regulatory issues, and identifying potential funding sources. This additional support can be accessed through our partners such as WI Alumni Research Foundation (WARF); WI Economic Development Corporation; WI Milk Marketing Board; WI Dept. of Agriculture, Trade & Consumer Protection; WI Cheese Makers Association and others.

As a part of this program, a technology portfolio is available online listing CDR patents and process technologies. The licensing of patents is negotiated through the WI Alumni Research Foundation (WARF) [www.warf.org](http://www.warf.org). Information on non-patentable technologies can be obtained directly from CDR.

CDR is the premier dairy research center, offering solution-based research backed by experience, passion and tradition. Established in 1986, the Center is located within a licensed, operating dairy plant on the University of Wisconsin-Madison campus. Each year CDR works with more than 100 state, regional, national and international companies as well as entrepreneurial start-ups, providing assistance in the form of basic research, technical support, scale-up, applications, and sensory testing.

**ANNOUNCING**

UW-Madison Center for Dairy Research, TURBO Program

An Innovation Accelerator for Companies Developing Products Containing Dairy Related Ingredients

**For more information please contact:**

Vic Grassman, Technology Commercialization Manager | Email: vgrassman@cdr.wisc.edu | Telephone: 608-512-6661 | CDR Main Office: 608-262-5970

Partners
The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking a company interested in adapting beta-casein separation for commercial purposes. CDR’s patent pending methodology is the first in the industry to achieve this type of separation at commercial production levels. If you are interested in making this type of ingredient, or if your company is currently using sodium caseinate or non-protein emulsifiers, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

**Technology**

- Beta-casein was not a viable ingredient option for many years as the technology to produce beta-casein for large scale, commercial applications was simply not available. However, CDR researchers have now developed a method for separating beta-casein from milk allowing it to be used for commercial applications. The process uses a polymeric microfiltration membrane to form a permeate enriched beta-casein. During the process, the milk must be cooled to at least 40 degrees Fahrenheit in order to separate the beta-casein from the other caseins. Partial demineralization of the permeate allows for the removal of soluble beta-casein from the whey proteins in the permeate. While isolated beta-casein can be used as a dairy ingredient, studies also show that cheese produced with beta-casein depleted milk may actually have enhanced meltability, reduced bitterness and the cheese may age more quickly.

**Functional/Nutritional Benefits**

- Beta-casein is often referred to as the “gold standard” of emulsifiers and foaming agents. A superior substitute for imported sodium caseinate, beta-casein offers the benefits of bioactive peptides and proteins while also assisting in applications requiring foaming and emulsification. In contrast to caseinate, no chemical acidification or neutralization is involved. Potential applications include use of beta-casein as a food ingredient or a coffee whitener. The superior functionality of beta-casein could also allow for lower usage levels in applications needing emulsification or foaming.

**Economic Benefits**

- Currently a significant portion of sodium caseinate is imported into the United States. By using the CDR process outlined above, domestically produced beta-casein can replace sodium caseinate in the marketplace.

There are two market opportunities here; the manufacturing process and the actual ingredient you derive from the process. Those already processing whey will be able to add the manufacture of beta-casein to their line as an additional value-added ingredient.

**Applications**

- Functional food ingredient
- Coffee whitener
- Can be used as a substitute for any product that currently uses sodium caseinate
- Whipping and foaming applications
- Infant formula
- Pharmaceuticals

**Pro’s and Con’s**

- Beta-caseins have excellent foaming and emulsification properties when used in an application. They can be removed from milk without contamination of the milk or beta-casein. Whole milk or skim milk can be used. An ideal partner must have access to or the ability to obtain microfiltration equipment. A complimentary partner would include a larger cheese plant that produces non-standard of identity cheeses, or a facility producing milk protein concentrates.

**How can CDR help me?**

- CDR is an internationally known dairy research center and the largest within the United States. Access to world class food scientists/technologists, and a licensed, “operating” dairy plant along with CDR’s client confidentiality commitment provides applied research results at a minimal costs. This technology is currently available for licensing from Wisconsin Alumni Research Foundation - WARF CDR will assist in this adoption for a nominal fee.

For further information, please contact Vic Grassman, Manager - Technology Commercialization at 608-512-6661 | vgrassman@cdr.wisc.edu
The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking a company interested in the further development of a process in which cheeses, already in their retail packaging, are subjected to high pressure processing. This process can offer benefits including accelerated ripening, improved texture, or extended shelf life. CDR has experience in selecting specific high pressure conditions to achieve these desired outcomes. There are commercial high pressure processing facilities available in Wisconsin that are already processing foods, such as deli meat in this fashion. Facilities also available in other parts of the U.S. that can process cheeses for manufacturers. This treatment is considered a non-thermal process.

If your company is interested in the development of customized high pressure processing procedures for your cheese products, please contact CDR for more information and assistance. We encourage you to find out more about how your company can benefit from working with CDR.

**Technology**

High pressure processing uses commercial facilities where pressures of up to 87,000 psi can be applied for periods of several minutes. Products are treated in the retail package so no post-process contamination will occur. The high pressure system inactivates bacteria and enzymes, depending on the conditions, and the process is becoming a widely used technique in the food industry.

**Functional/Nutritional Benefits**

A major problem with reduced and low fat cheese is the difficulty manufacturers face in attaining a strong flavor that is typical of full-fat versions. High pressure processing can offer some solutions. Essentially, cheeses in their packaged form are subjected to selected pressures and time to achieve the targeted impact on softening texture, reducing starter culture numbers or extending shelf-life. CDR researchers have found that applying high pressure processing to young cheese greatly improves the textural and sensory characteristics of low fat cheese, including the occurrence of increased buttery flavor and sweetness early in ripening.

By customizing the high pressure processing conditions applied to cheese, it allows cheese manufacturers to limit unwanted microbial and enzymatic activity in reduced salt cheese thus preventing excessive acidity, improving product safety and increasing shelf life. It can also be applied to high pH fresh cheese, making the product safer for consumers.

Treatment parameters can also be selected to accelerate cheese ripening in order to achieve better flavor and texture in a shorter period of time.

**Economic Benefits**

Aging cheese is very expensive and CDR has applied specific high pressure parameters to accelerate this aging process thereby reducing related costs.

Alternatively, different parameters can be selected to treat cheese in a way that will extend its (quality) shelf life and offer new export options.

**Applications**

- Improve sensory characteristics of low fat cheese
- Better quality low sodium cheese
- Extended shelf life cheese for export
- Accelerated cheese ripening
- Improve safety of high pH cheese

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Priority will be given to the first company accessing this technology with CDR.

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The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the further development of a high protein cheese snack that will meet the growing demand for high protein dairy products (e.g., Greek Yogurt). If your company is currently producing products in this category or you are considering new product lines, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

Technology
- CDR staff have developed a process for manufacturing a high protein cheddar-like cheese snack with a minimum of 36 percent protein. To obtain this high protein cheese, specific steps are taken to greatly lower the moisture content but maintain a high fat level, which helps to boost the protein level. The cheese is ripened to develop flavor before a combination of drying and whey protein addition occurs, allowing the cheese to reach the target protein level. The flavor tends to be described as parmesan-like, sweet, and nutty but the product maintains a desirable cheese snack texture. CDR is looking for a company to work jointly on the further development of this process, which clearly provides an exceptional nutritional value and improve shelf stability.

Functional/Nutritional Benefits
- With a protein content of 36 percent, a serving of this cheese contains more than 20 percent of the daily recommended value for protein, which enables it to be labeled as “high protein” or as an “excellent source of protein”. This is similar to the labeling claim made by Greek yogurt products.

Economic Benefits
- High protein products are an important consumer trend that has fueled growth in the Greek Yogurt market as well as others. Current cheese snacks like string cheese do not meet this growing market but the new cheese snack outlined here could be an excellent option. In addition to the protein levels, this cheese should have greater shelf stability, due to the low water activity, and it is expected to have a longer shelf life than other products indicating future export potential.

Applications
- School Lunch Program
- Snack sticks/slices (lunch boxes)
- Cheese ingredient for food service
- Snack for athletes
- Weight management programs (high protein diet plans)

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<table>
<thead>
<tr>
<th>Cheese Composition After Drying</th>
<th>Cheddar Cheese Stick</th>
<th>Mozzarella String Cheese Snack</th>
<th>CDR's High-Protein Cheese Snack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture (%)</td>
<td>37.0%</td>
<td>46.5%</td>
<td>28.7%</td>
</tr>
<tr>
<td>Fat (%)</td>
<td>33.3%</td>
<td>18.8%</td>
<td>27.7%</td>
</tr>
<tr>
<td>Sodium (Mg/100G)</td>
<td>710 mg</td>
<td>710 mg</td>
<td>885 mg</td>
</tr>
<tr>
<td>Protein (%)</td>
<td>23.8%</td>
<td>25.0%</td>
<td>36%</td>
</tr>
</tbody>
</table>

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The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the commercialization of a patented process to make low-fat mozzarella-type cheese with improved texture and baking properties. If your company in producing food products that contain low or reduced fat cheese as an ingredient or you are considering the development of products in this category, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

**Technology**
- The patented process for manufacturing this cheese includes the use of food-grade emulsifiers (monoglycerides and diglycerides) to modify the texture and melt of nonfat cheese, rather than sodium citrate or sodium phosphate melting salts that are used in process cheese. This change in ingredients allows the cheese to be categorized as a reduced-sodium cheese. Another key to the process is the addition of acid to the fat-free or skim milk curd, which improves the melt of the cheese while also reducing curd stickiness. This cheese does not require aging for excellent performance (e.g. stretch) in baking applications or on pizza.

**Functional/Nutritional Benefits**
- The cheese that results from this patented process will be no more than six percent fat (if you include the “fat” from the glycerides) so it is an ideal candidate for use in low-fat pizzas and frozen-food entrees. For example, in combination with pizza components that are also low in fat/sodium, such as the crust and sauce, this cheese provides a low-fat, reduced-sodium pizza option for commercial or school lunch program applications. Note that this cheese can be blended with more flavorful cheeses, or other flavors, for use on a pizza or as a part of a food application.

**Economic Benefits**
- While some low-fat or reduced-sodium cheeses are available on the market, this particular cheese maintains desirable attributes such as stretch, melt and color that other low fat or reduced sodium cheeses lack. One of the key drivers for the increase in demand for low-fat cheese is the growing health consciousness among consumers. Moreover, the school lunch program is now requiring the use of lower fat and lower sodium food products in all meals, opening the door for this market.

<table>
<thead>
<tr>
<th>Typical low moisture part skim mozzarella</th>
<th>CDR low-fat and reduced sodium mozzarella-type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories from Fat (per 28g)</td>
<td>50</td>
</tr>
<tr>
<td>Sodium (mg/28g)</td>
<td>180</td>
</tr>
<tr>
<td>Moisture (%)</td>
<td>47</td>
</tr>
<tr>
<td>Protein (%)</td>
<td>26</td>
</tr>
<tr>
<td>Fat (%)</td>
<td>20</td>
</tr>
<tr>
<td>Salt (%)</td>
<td>1.7</td>
</tr>
</tbody>
</table>

- <9
- 113
- 61
- 32
- 3.7
- 1.0

**Applications**
- School Lunch Program
- Frozen Pizza/Fresh Pizza
- Lean/reduced calorie frozen meals
- Ingredient cheese for baked applications
- Food service applications (e.g. blended with higher fat cheeses to meet specific nutritional targets)

**How can CDR help me?**
- CDR is an internationally known dairy research center and the largest within the United States. Access to world class food scientists/technologists, and a licensed, “operating” dairy plant along with CDR’s client confidentiality commitment provides applied research results at a reasonable cost. This technology is currently available for licensing through the WI Alumni Research Foundation (WARF).

**Photographs of the new CDR cheese and it's performance on pizza**

For further information, please contact Vic Grassman, Manager - Technology Commercialization at 608-512-6661 | vgrassman@cdr.wisc.edu
Seeking Companies interested in the Commercialization of a Modified Milk Protein Concentrate (MPC) or Caseinate Alternative to be Produced Using Microfiltration

The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the development of a less costly, domestically produced, caseinate alternative (water soluble casein). If your company is producing products that contain this ingredient or you are considering the development of products in this category, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

Technology

Researchers at CDR have developed a method to produce a modified MPC that can act as a caseinate alternative. The MPC is modified to contain more soluble caseins and have a lower mineral content. Essentially, the technology uses a gentle acidification process to acidify the milk, which is then washed (diafiltered) before microfiltration is used to reduce unwanted minerals/lactose. Finally, the soluble casein product is concentrated and spray dried. Successful pilot trials have already been performed at CDR.

Functional/Nutritional Benefits

The modified MPC produces a much clearer product than a traditional caseinate, allowing this modified MPC to be used in clear beverages and other applications requiring a good clarity product. This product has excellent heat stability, emulsification and whipping properties. Caseinates often have off-flavors from the acids and alkalis used in their manufacture; in contrast CDR’s modified MPC has a bland flavor due to the gentle methods used during production.

Economic Benefits

The method outlined above has been shown to remove nearly all of the whey proteins, lactose and other such materials in a more cost effective and efficient way than traditional methods used for caseinate. Since the outlined method uses filtration rather than proprietary caseinate equipment, the capital cost of manufacturing a modified MPC is significantly reduced.

In 2012, more than 187 million pounds of caseinate/caseins were imported into the U.S. Now, domestic manufacturers have a chance to compete and produce a more functional caseinate alternative here in the U.S. by using the method outlined above. Additionally, this alternative would not carry with it the negative connotations that often come with a traditional caseinate (often viewed as an industrial chemical).

Applications:

- Retorted nutritional beverages
- Coffee whitener
- Processed (or analog) cheese
- Processed meats
- Milk shakes or whipped toppings
- Bakery mixes

How can CDR help?

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Priority will be given to the first company accessing this technology with CDR.

CDR Modified MPC: Turbidity at different pH Values (note the superior clarity at neutral pH values)

Commercial Sodium Caseinate

For further information, please contact Vic Grassman, Manager - Technology Commercialization at 608-512-6661 | vgrassman@cdr.wisc.edu
Technology

The process involves microfiltration of skim or whole milk using polymeric, spiral type membranes which are less expensive than a traditional ceramic approach. The material passing through the membrane (permeate) is similar to cheese whey but does not contain any cheese coloring or other additives that might be present in cheese derived WPC (CD-WPC). This MD-WPC is then concentrated and dried like traditional CD-WPC. The process conditions needed have been studied extensively at CDR, to allow each condition to be manipulated or customized in order to accommodate the functional properties required in your MD-WPC product.

Functional/Nutritional Benefits

MD-WPC is derived directly from milk so there is no cheese coloring and no cheese starter culture by-products such as starter bacteria or added flavors. This characteristic allows MD-WPC to have a particularly clean flavor which is extremely stable during storage. MD-WPC also contains less fat than a traditional CD-WPC. The lower fat content in MD-WPC permits for a clearer (less turbid) appearance in applications, making MD-WPC an excellent choice for clear beverages. These attributes have proven to be highly desirable within the food/beverage industry as studies show that the flavor and appearance of a MD-WPC 80 beverage is preferred over that of a cheese derived whey protein concentrate (CD-WPC 80).

Much like CD-WPC, MD-WPC is an excellent source of protein with a high level of branched chain amino acids, which has been shown to increase muscle synthesis. Whey proteins have already proven to be very popular in the marketplace as they are used in such products as athletic drinks, weight loss products and products developed for the baby-boomers market.

<table>
<thead>
<tr>
<th>Component</th>
<th>Cheese Whey</th>
<th>Native Whey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starter Cultures</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Rennet</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Glycomacropeptide</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Pasteurization Steps</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Fat/Phospholipids</td>
<td>Yes</td>
<td>Negligible</td>
</tr>
<tr>
<td>pH</td>
<td>&lt;6.5</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Applications:

- Protein enhanced beverages (particularly great for clear beverages)
- Infant Formula
- High protein bars

Economic Benefits

The economic benefits of using this ingredient include a longer shelf life, increased vat efficiency for cheesemakers (as they use the by-product of this process, casein enriched retentate) and it is a value-added product that can produce additional revenue streams for your company. Incorporating these benefits could potentially lead to a competitive cost advantage in the marketplace.

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**How can CDR help?**

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For those interested in manufacturing MD-WPC, a polymeric spiral wound microfiltration system will be necessary. CDR can offer an interested company manufacturing trials in the CDR processing pilot plant located on the UW-Madison campus. Working with CDR can provide your company with the data needed to make a business decision on this technology without the significant capital investment needed to conduct this type of applied research.

Priority will be given to the first company accessing this technology with CDR.

<table>
<thead>
<tr>
<th></th>
<th>CDR’s Native WPC-80 Powder</th>
<th>Commercial WPC-80 Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein (%) / Dry matter</td>
<td>80%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Fat (%)</td>
<td>0.2%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Ash (%)</td>
<td>3.8%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Lactose (%)</td>
<td>14%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Moisture (%)</td>
<td>5.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the formulation of products containing dairy permeate, (a filtration by-product) which can be used to reduce sodium content while maintaining a “salty flavor” in addition to reducing manufacturing costs. As manufacturers seek to reduce their sodium levels in food, permeate shows great promise in revising existing food formulations. CDR is well-versed in the formulation of permeate products and staff can offer end users assistance in formulating products that use this economical dairy ingredient. If your company is interested in reducing sodium in your existing food products or you are considering new product lines, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

**Technology**

Permeate (which can be labeled as dairy product solids) is a by-product of the ultra-filtration process of milk or whey. The composition of permeate will vary depending upon the original milk composition. Permeate contains milk salts (minerals), lactose, amino acids and peptides, all of which contribute to permeate’s flavor enhancement characteristics. CDR staff discovered that permeate enhances saltiness and other flavors in foods. Additionally, it was discovered that the product is a cost-effective method for sodium reduction. Permeate can enhance the browning of baked goods, aid in moisture retention, reduce sweetness, deliver a clean dairy flavor and even mask bitter flavors in meat. Salt replacers currently on the market may alter processing parameters and cause off-flavors (e.g. bitterness). CDR staff can work with you to determine the very best permeate source/type for your product and develop a formulation to meet your target market’s demands. CDR staff have years of experience in developing great tasting permeate formulations in everything from muffins to soup.

**Economic Benefits**

From a cost perspective, permeate can be an economical source of dairy solids. In most cases, permeate lowers the cost of product manufacture as permeate’s makeup generally allows it to replace several ingredients in food applications. Permeate can also be used as a lower cost replacement for sweet whey resulting in economic benefits for many food applications.

**Applications**

- Baked goods
- Soups
- Confections
- Dry mixes
- Meats
- Dips, cheese sauces, process cheese food
- Ice cream and frozen desserts

**Functional/Sodium Reduction Benefits**

Permeate can help to significantly reduce sodium levels in a product while still maintaining the “salty taste” that consumers expect. Up to a 25 percent sodium reduction has been achieved in application research. Nutrionally, permeate contains calcium, phosphorus, and other valuable minerals, contributing to overall mineral profile of a food product creating a salty flavor that enhances the flavor of any product. In addition, the lactose in permeate contributes to browning (but is less sweet than sucrose) which contributes in a positive way to the functionality of a baked good.

For further information, please contact Vic Grassman, Manager - Technology Commercialization at 608-512-6661 | vgrassman@cdr.wisc.edu
The Center for Dairy Research (CDR) (www.cdr.wisc.edu) is seeking companies interested in the commercialization of a novel patented process that improves the emulsifying ability, heat stability and acid stability of dairy proteins. This technique offers manufacturers the opportunity to use proteins in applications where it was previously impossible due to heat and acid conditions. Additionally, this modified dairy protein can also be used as a replacement for gum Arabic, a naturally occurring protein-carbohydrate complex. If your company is interested in producing a whey protein ingredient with improved heat stability or if you would like to use this ingredient for use in UHT or retort products, please contact CDR for more information. We encourage you to find out more about how your company can benefit from working with CDR.

**Technology**
- Based on the Schiff Base formation or initial step in the Maillard reaction, CDR researchers have developed a novel (patent pending) technique for creating a stable covalent bond between protein and carbohydrates that is resistant to changes in temperature, pH and ionic strength. No chemicals or enzymes are used in this novel process. These changes allow the protein to be used in applications that contain a low pH and/or require high heat. It is important to note that the Schiff Base formation does not lead to any browning, discoloration or off-flavors in a product. The process is simply used to modify the protein. Please note that both the protein and the carbohydrate used for this process are food grade and GRAS approved.

**Applications**
- UHT or retort beverages, sauces or soups
- Acidified dairy protein beverages
- Gum Arabic replacement e.g. emulsifies/stabilizes flavors and beverages

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**Functional Benefits**
- This patent pending process produces superior thermal stability, color and emulsifying properties in protein fortified food applications. The modified protein protects against protein aggregation and allows the use of higher heat processing temperatures in beverages and food products.

**Economic Benefits**
- This patent pending process allows for protein enriched applications that were not previously possible. Thanks to its heat and acid stability as well as its superior emulsifying properties, this modified protein can provide an excellent and economical source of protein in many applications. Additionally, this modified protein can be considered a less expensive substitute for gum Arabic due to the fact that it is a domestically produced ingredient product.

For further information, please contact Vic Grassman, Manager - Technology Commercialization at 608-512-6661 | vgrassman@cdr.wisc.edu
Contact Information

**Vic Grassman, CEcD**
**TURBO Program, Technology Commercialization Manager**
As the CDR TURBO program Commercialization Manager, Vic Grassman, CEcD serves as the lead coordinator and partner contact for the program. Grassman has more than twenty-five years of experience in economic development and previously served the Wisconsin Department of Workforce Development and the City of Janesville in economic development leadership positions. Grassman views this role as an important, pro-active step in bringing research and technology to the private sector. His goal is to engage partners and industry in the economic development process by building strong networks and assisting start-ups and businesses looking to further explore new technologies and research in the dairy sector.
Phone: 608-512-6661 | email vgrassman@cdr.wisc.edu | CDR Main Office: 608-262-5970

**Elise Lambert**
**Associate Research Specialist**
As the research specialist for the CDR TURBO program, Elise assists clients with the science and technology portion of the program. She also works directly with CDR research staff to commercialize CDR research projects. Elise is a graduate of Virginia Commonwealth University in Richmond, VA with dual degrees in Chemical & Life Science Engineering and Chemistry with a minor in Mathematics. While pursuing her degrees, she worked in the pharmaceutical field.
Phone: 608-263-6149 | email elambert@cdr.wisc.edu | CDR Main Office: 608-262-5970