Dr. Ray Cross, President University of Wisconsin System 1720 Van Hise Hall 1220 Linden Drive Madison, WI 53706

July 26, 2019

Dear President Cross:

We are submitting this letter and associated material in support of the Dairy Innovation Hub funding for review, consideration, and approval by the University of Wisconsin System and the Board of Regents for submission to the Joint Finance Committee for their approval.

The proposal, based on legislation considered by the Wisconsin Senate and introduced in the Wisconsin Assembly, includes plans for spending in year one and plans for how funds will be allocated after full implementation. While working toward full implementation, we plan to direct funds to projects related to the Dairy Innovation Hub goals, including those identified by the Dairy Task Force 2.0. As assumed by the original Dairy Innovation Hub proposal, we are also requesting the funds be allocated as base-funding, which would provide the stability for all three campuses to recruit the best possible faculty candidates into tenure-track positions.

This proposal, a direct outcome of the 2017 UW System Dairy Summit, builds on our campuses' rich history of supporting Wisconsin agriculture. The Dairy Task Force 2.0 endorsed the plan earlier this year, recognizing that research is the engine that fuels a strong dairy industry.

We are confident that this investment in dairy research and education, equivalent to less than 0.02 percent of the state's dairy economy, will allow our faculty, staff and students to provide the industry with the research and development it needs for coming generations.

Thank you for your consideration.

Sincerely,

Dale Gallenberg, Dean

College of Agriculture, Food and Environmental Sciences
University of Wisconsin-River Falls

Kathryn A. VandenBosch, Dean College of Agricultural and Life Sciences

Kathryn S. Vard Bo

University of Wisconsin-Madison

Wayne Weber, Dean College of Business, Industry, Life Science and Agriculture

University of Wisconsin-Platteville

Dairy Innovation Hub Proposal July 26, 2019

The proposal is based on the Dairy Innovation Hub concept endorsed by the Dairy Task Force 2.0 by a vote of 27-1 and Senate Bill 186, which passed the Committee on Agriculture, Revenue and Financial Institutions (9-0) on May 10, 2019. As described in SB 186, we propose creating a Dairy Innovation Hub housed at the University of Wisconsin-Madison, the University of Wisconsin-Platteville, and the University of Wisconsin-River Falls. The Dairy Innovation Hub will grow capacity and expertise in several sectors to accomplish all of the following objectives:

- Ensure animal health and welfare
- Enrich human health and nutrition
- Steward land and water resources
- Grow farm businesses and communities

Funds will be distributed according to the formula in the bill: 52% to the University of Wisconsin-Madison, 24% to the University of Wisconsin-Platteville, and 24% to the University of Wisconsin-River Falls. The bill directed the Board of Regents to ensure that the Dairy Innovation Hub reflects, "a bona fide increase in funding for the purposes specified in this subsection and that no other funding provided to the board under s. 20.285 is reduced as a result of, or reduced in a way that offsets, this additional funding for the Dairy Innovation Hub." This proposal increases overall funding for research, education, and outreach that supports the dairy industry at the three UW agricultural campuses. This new funding will enable long-term investments, creating a stable infrastructure and attracting world-class talent to drive excellence in dairy research and education, as well as short-term investments, which provide flexibility to address emergent issues within the four designated areas of focus.

- Our year one proposal focuses on short-term investments that can yield quick returns to the industry and planning for our long-term investments, which will be implemented beginning in year two.
- The proposal for the second and subsequent years reflects full implementation of the Hub.
 - O Both the Dairy Task Force 2.0 and the Senate Committee on Agriculture, Revenue and Financial Institutions emphasized investment in faculty who can lead research teams to develop novel solutions for Wisconsin farmers and processors and educate the dairy industry leaders of today and tomorrow. Faculty positions require stable, long-term funding commitments to attract the most talented personnel. For this reason, we ask that the \$7.8 million appropriation be added to the base budget for the University of Wisconsin System to be allocated as summarized below.
 - We expect hiring to take four years to complete. This ramp-up to full staffing will allow use of funds for critical short-term or one-time needs. These expenditures could include project funding to support the Dairy Task Force 2.0 recommendations and complementary investments such as equipment for the remodeled dairy facilities in Babcock Hall at UW-Madison, Pioneer Farm facilities and research labs affiliated with UW-Platteville, and Mann Valley Farm facilities and on campus teaching and research labs at UW-River Falls.
- The Dairy Innovation Hub will be overseen by the deans of agricultural colleges at the three campuses.
- An advisory committee comprised of faculty from all three campuses, industry representatives, and a representative
 from the state will advise the deans on priorities for investments, review progress made by the Hub, and assist a
 faculty director in preparing annual reports.
- Funding for a Dairy Summit and ongoing funds for an Advanced Dairy Management Academy beginning in year two
 will allow those working in the Hub to share their findings with industry, while also deepening educational
 collaborations among UW schools and technical colleges.
- Annual reporting to the Board of Regents will include the following from SB 186:
 - o Identification of all positions created and, for each position, whether the position has been filled or remains open as of the time the report is prepared.
 - Description of the major accomplishments of the Dairy Innovation Hub, both since its inception and during the immediately preceding year.

Year one (\$1,000,000):

UW-Madison = \$520,000

•	6 Postdoctoral Research Fellows (partial year) Research Capacity-Building Staff Research Farms, Labs, & Equipment Dairy Innovation Summit Projects Related to Dairy Task Force 2.0 Recommendations	\$262,000 \$118,000 \$100,000 \$20,000 \$20,000
UW-Platteville = \$240,000		
•	Research Farms, Labs, & Equipment Dairy Innovation Summit	\$230,000 \$10,000
UW-River Falls = \$240,000		
•	Research Capacity-Building Staff Research Farms, Labs, & Equipment Dairy Innovation Summit	\$125,000 \$105,000 \$10,000
On-going funding, beginning year two (\$7,800,000)		
UW-Madison = \$4,056,000		
•	14-16 Faculty Members 14-24 Research Trainees (Graduate Students/Postdocs) Advanced Dairy Management Academy Research Capacity-Building Staff Research Farms, Labs, & Equipment Dairy Innovation Summit	\$2,100,200 \$1,029,300 \$80,000 \$176,500 \$650,000 \$20,000
UW-Platteville = \$1,872,000		
•	4-5 Faculty Members 4-6 Research Fellowships for Existing Faculty 2 Postdoctoral Teaching Fellows Research Capacity-Building Staff Research Farms, Labs, & Equipment Dairy Innovation Summit	\$650,000 \$150,000 \$170,000 \$250,000 \$640,000 \$12,000
UW-River Falls = \$1,872,000		
•	5 Faculty Members 5-10 Research Fellowships for Existing Faculty 2 Postdoctoral Teaching Fellowships Research Capacity-Building Staff Research Farms, Labs, & Equipment Dairy Innovation Summit	\$650,000 \$250,000 \$170,000 \$250,000 \$540,000 \$12,000

UW-Madison summary of investment

- Funding the 16 faculty positions in four areas described the original proposal (land and water resources, human health and nutrition, animal health and welfare, and farm business and communities) ensures research leadership in each of the critical areas of focus.
- Flexible allocations of graduate students and postdoctoral fellows will allow UW-Madison researchers to recruit and train the best talent to support research needs. Graduate students collect data in the field and other hands-on work over an average of five years and earn their advanced degrees while disseminating this knowledge to the research community and dairy industry. Postdoctoral fellows bring advanced research experience, with a two to three year appointment, and they can complete analyses to ensure research is ready for public release. The combined total of appointments across all four areas will range between 14-24 spread across the four focus areas depending on the topics of greatest interest in a five-year time period. This allows for flexibility to respond to unexpected conditions the industry may face in the future.
- A faculty director and one administrative coordinator position will build the research capacity of all members of the Hub by connecting collaborators through trainings and providing a single point of contact to the industry and others hoping to build a collaboration.
- Investment in research farms, labs, and equipment will ensure researchers have access to the same technological tools used by modern producers and processors. These funds will be distributed on an annual basis to the projects that demonstrate the greatest need and utility across the four areas of focus.
- The Advanced Dairy Management Academy will catalyze new professional training programs serving the dairy industry. This aspect of the program will not only strengthen and encourage collaboration in teaching and research across the agricultural campuses, but will provide educational and outreach opportunities targeting dairy producers from farms of all sizes and industry professionals across the sectors.

UW-Platteville summary of investment

- Funding for four to five faculty positions will be distributed across the priority areas of the Hub.
- Research fellowships for existing faculty will be key to further engage faculty and staff in research opportunities.
- Postdoctoral fellowships will provide a means to recruit talent and increase flexibility for faculty and staff to meet the needs of the dairy industry.
- Investment in research farms, labs, and equipment will ensure researchers and students have access to cutting
 edge technologies used by modern producers and processors that can serve as a model for regional
 stakeholders.
- Investments in research capacity-building staff are essential to facilitate maximizing resources on campus and at Pioneer Farm for research and education.

UW-River Falls summary of investment

- Five faculty positions will be funded with at least one in each of the four priority areas of the Dairy Innovation Hub.
- Research fellowships for existing faculty will be important to increase the capacity for research and development. This will be accomplished through a combination of reassigned time, summer salary, and project funding, depending on individual faculty.
- Postdoctoral teaching fellows will provide opportunities to recruit and engage individuals into the teaching component of the college's mission and help ensure a pipeline of talented students into the industry. They will also provide additional flexibility for current faculty to contribute through research and development.
- Maximizing the potential of these funds through our faculty will depend on increased support through research capacity-building staff positions.
- Investments in facilities and equipment on Laboratory Farms and campus will provide faculty, staff, and students with cutting-edge technology and better accommodate and equip these spaces for research and development.

\$7.8 million/year ongoing for four critical research areas

Steward Land & Water Resources

3-6 Tenure-Track Assistant Professors

UW-Madison CALS
UW-Platteville

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-River Falls

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs, & Equipment

UW-Madison

UW-Platteville

UW-River Falls

Enrich Human Health & Nutrition

3-7 Tenure-Track Assistant Professors

UW-Madison CALS

UW-Platteville

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-Platteville

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs, & Equipment

UW-Madison

UW-Platteville

UW-River Falls

Ensure Animal Health & Welfare

3-6 Tenure-Track Assistant Professors

UW-Madison CALS

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-Platteville

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs & Equipment

UW-Madison

UW-Platteville

UW-River Falls

Grow Farm Businesses & Communities

3-6 Tenure-Track Assistant Professors

UW-Madison CALS

UW-Platteville

UW-River Falls

Research Fellowships for Existing Faculty

(1-2) UW-Platteville

(2-4) UW-River Falls

1 Postdoctoral Teaching Fellow

UW-River Falls

3-6 Research Trainees (Grad Students/Postdocs)

UW-Madison

Advanced Dairy Management Academy

Research Capacity-Building Staff

UW-Madison

UW-Platteville

UW-River Falls

Research Farms, Labs & Equipment

UW-Madison

UW-Platteville

UW-River Falls