

Notes by Kara Luedtke

Participants: Mitch Breunig, Dave Daniels, Aric Dieter, Dale Gallenberg, Angela James, Steve Kelm, Shelly Mayer, Tera Montgomery, Rami Reddy, Scott Rankin, John Umhoefer, Kate VandenBosch, Wayne Weber, Kent Weigel, Heather White, Maria Woldt

The deans welcomed and thanked everyone for coming and for their advocacy

Meeting overview

- Primary purpose of AC is to get input and feedback from this group

Background, organizational structure and operating principles

How the council will engage with the leadership committee and campuses

- Kate is already thinking about questions and how she can engage with the council
- Meeting frequency
  - While they acknowledged the difficulty to have in-person meetings, the council agreed to schedule quarterly, in-person meetings for at least the first year to get things off to a good start
  - It was suggested that we block time every few weeks for a webinar if needed
  - In future years, the council could meet twice in-person and have two conference calls per year
- Mission/operating principles/guidelines of council
  - A council that helps shape the future is more appealing to be involved in, so want a balance between advising the leadership committee (deans) and hearing from them on progress
  - The industry is looking to see how the collaboration works for the greater good – that is the number one thing the eyes are watching
  - Help manage expectations of industry and state (the Hub can't and won't do everything)
  - Oversee the collaboration and communication with the three campuses
  - Bring industry ideas to the leadership committee
  - Assist in setting priorities for funding the four priority areas – make sure there is even distribution
  - Representing the Hub to the broader community
  - Council is overseer of information and accountability
  - Keep as Hub money to fund new ideas – AC may want to hold campuses to what is Hub money and what is not Hub money
  - Enable success – help people see a blind spot and recognize when something might not be worth the investment
  - Instilling a culture of trust – enable, but don't hold a grip
  - Watch for crippling ideas that aren't in line with the mission of the Hub
- This is a venue by which we can communicate and have direct, honest communication
- Everyone and the organizations they represent went out on a limb to make this happen, and now we need to make your job easy to continue to promote it

- Heather, council chair, Kara/Maria will work together on a clear charge that will return for feedback

Brainstorming: What are the transformational innovations the Hub should pursue to assure that the dairy industry is vibrant in the future?

- Enriching human health and nutrition
  - Food allergies
  - Synergies between animal and human health (e.g. calcium role in post-partum)
  - Aging population and health needs (dairy and protein) – designer products
  - Shelf-stable products (expand supply chain)
  - High-pressure processing and product shelf stability
  - On-farm reverse osmosis and other technology to reduce shipping costs
  - Food safety and on-farm practices
  - PFAs and other contaminants
  - Human behavior response to dairy product consumption
  - Nutrition and performance of children
  - Packaging and delivery
  - Drive consumer preferences (proactive vs reactive)
  - Dairy product development for specific markets around the world
  - Salt in processing
  - On-farm methods – milk concentration
  - Immune response systems – cancer and immune deficiencies (are there answers in cow biology?)
  - How can high-value dairy components be enhanced via genetics?
  - Transgenic work and pharmaceutical products
  - GMO technologies
- Ensuring animal health and welfare
  - Consumer perception of animal management
  - Benefit of sensors and technology
  - Artificial intelligence and incorporating information into management decisions
  - Education of public/communication of science
  - Virtual reality for training
  - Pain management tools
  - Metabolic genetics of cow and feed
  - Mastitis prevention and treatment advances
  - Antibiotic use and resistance
  - Communications/social science for public acceptance
  - Science-based methodologies in communication; collaboration with existing resources (e.g. Checkoff)
  - Proactive vs reactive communication (surveying consumers about questions and concerns)
  - Nutrition, genetics, etc. in management of what comes out of animal
  - Crossover to hemp: feeding leftovers/waste/silage for cow health
- Stewarding land and water resources
  - Engineering treatment for water recycling/reuse (affordably)
  - Value-added manure
  - Challenges of undesirable pass-through products recycling within systems
  - Manure nutrients and cycle feed efficiency and reproduction

- What is dairy's equivalent to the ethanol industry?
- Weather changes and adaptability (e.g. nutrient distribution and management)
- Crop quality, environmental stress, mycotoxins
- Environmental implications of using cover crops and tillage
- Cow health and immunology/stress biology
- Air/odor control and reduction in methane production
- Carbon-neutrality
- Feeding cattle leftover hemp products
- Collaborating with other industries
- Crossover to hemp: feeding leftovers/waste/silage for cow health
- Salt in processing and related problems
- Land reclamation and utilization
- Land use patterns, nutrient applications
- How can a farm act like a city in terms of water and waste management, etc.
- Sustainability center to bring it all together
- There is overlap with current bill on investing in water quality research. If it passes, we should think how to interface.
- Rendering/removal of carcasses
- Growing farm businesses and communities
  - Classroom short courses for entrepreneurship
  - Economic policy structures (UW does not set policy – public perception of UW's role)
  - Educational/communication pipeline on initiatives starting in elementary schools (learn from other successful sectors)
  - Basic financial management
  - Tools for analyzing economic activity and viability for business
  - What are the tipping points?
  - Infrastructure needs for processing/maintaining sustainable levels
  - Is where we are sustainable?
  - Developing new products as drivers of business
  - Cost of entry into food processing for producer
  - Integration from food processing to economic viability, etc.
  - Economic modeling skills

#### Updates from River Falls

- Consultations with CAFES Department Chairs and UWRF Administration
- Faculty Research Fellowships call for proposals
- Call for proposals for Supplies and Equipment
- Facilities are important to our success
- Launched a local steering committee of department chairs that work in Hub-related fields
- Will be hiring support staff to help transition some faculty to hold 50% research positions (right now faculty are hired on 9-month appointments with 100% teaching appointment)
- Questions and discussion
  - What is the current teaching expectation for faculty?
    - 12 work load units

#### Updates from Madison

- Launched a local steering committee of faculty and staff

- Put out three calls for proposals
  - Postdoctoral fellows (13 submitted)
  - Capacity-building equipment (10 submitted)
  - Short-term, high-impact projects (due February 17)
- Notified six faculty that their postdoc proposals were approved today
- Held two brainstorming sessions to solicit local input on high-potential hiring and investments (faculty and staff from CALS attended)
- Questions and discussion
  - We welcome AC reviewers on short-term, high-impact calls
    - PDPW board sees the Hub as a priority and they are more than willing to review
    - John Umhoefer, Angela James, Dave Daniels, Shelly Mayer will review
    - Heather will send them out after February 17 and will give a couple of weeks for review
    - Plan to fund ~8 at ~\$50K

#### Updates from Platteville

- Working on budget planning and budget infrastructure
- Sustainable production through technology, etc.
- Equipment and facility renovation
  - Replacement of robotic milking systems (would be the only research farm in system with robotic milking systems) – facilitates collaboration and opens many doors to research
  - Pioneer Farm had milking systems, but they are outdated and not being used right now
  - Have negotiated with robotic companies
- Austin Polebitski from civil and environmental engineering is also on the steering committee
- Faculty search for dairy nutritionist
  - Madison just hired a dairy nutritionist and it was a great pool
  - Platteville hasn't launched their search yet
  - Looking for 75% research, 25% teaching for the dairy nutritionist
- Questions and discussion
  - What synergies with engineering at Platteville are there with the Hub?
    - Great opportunities for involvement
    - Technology and sustainability of operations
  - Research it as a rural place to impact other rural areas of the state

#### Examples of three campuses working together

- Example 1: robots at UW-P would encourage collaboration of UW-Madison and UW-RF researchers with those at UW-P
- Example 2: Potential graduate program that would recruit top undergrads from UW-P and UW-RF to do collaborative senior research with a faculty at UW-M that would lead into a MS program at UW-M

#### Questions and discussion

- What are the campus leadership views of the Hub?
  - Platteville chancellor and administration have been very supportive
  - River Falls as well – the legislation is written specifically that this funding is for CAFES

- Administration understands and supports that, despite the fact that the rest of the campus is having budget challenges
    - Letting the intention of the Hub drive where we are making decisions
  - Madison – honoring that the money comes to the colleges, not the campus
    - Chancellor wants us to be visible and impactful
    - We have been really well supported in budget modeling
    - A little lack of clarity with how we interact with Extension when it comes to Hub funding
    - Thinking about how we target positions (research and teaching, or research and extension)
    - Great seed money that can make faculty very competitive for additional grants
- Be sure you have people who can communicate the research
- Dairy outreach specialist, but not an Extension specialist who will get pulled into all directions
- We can draft guidelines for sponsored research for feedback at a future meeting
- Is small ruminant research in line with the mission of the Hub?
  - Think about why we pursued the Hub in the first place? What problem are we trying to solve?
  - It is also a question of facilities and the capabilities we have
  - If we went in this area, it would make sense for one of the campuses to focus on it
  - On-farm research is a possibility
  - We want to be sure there is a good reason
  - It might not fit into the short-term initiatives
  - Demand is coming from the large ruminant animals
  - Be open to the opportunities
  - Meet the needs of the immediate consumer and get a lot of buy-in and support
  - Optics of the state legislature – I think they think they are funding dairy cows
  - It makes no sense to say no. It makes no sense to make artificial priorities. We will follow the discoveries as they come that lead us to solutions. We have an idea of where to start, so we are starting there.
  - Hypothesis-driven discovery work that responds to demand

#### Future meetings

- Leadership committee and steering committees are meeting monthly
- Campuses should share best practices so we stay together as a family
- Provide input on what you would like regularly on the agenda
- Deans would like input from the AC on annual report to legislature
- Meet in a different place every time
- We will need AC input on the dairy summit
- Introduce DIH faculty to the AC
- Could have a postdoc come present on work they are doing
- House-keeping and updates, but also two discussion topics
- Deans take the AC ideas back to the steering committees to make sure we are on track; are there new ideas; etc. – report back on the committee thoughts
- Could see that there would be times you would want to have conversations without the deans there
- Get a secure website for meeting materials

#### Selecting a chair

- Dave nominated Mitch Breunig, Shelly seconded, Mitch accepted the nomination
- Dave moved to elect Mitch, Tera seconded and it passed by unanimous vote
- Mitch, Heather and Maria/Kara will work to schedule the next meeting