

PPIC Technical Committee Meeting Minutes, Monday Feb 10th, 1:30 to 3:00 pm, FScN 225G

In attendance: Pam Ismail – UMN, PPIC Director
Amy Mathiowetz – UMN, PPIC Manager of Operations
Gary Reineccius – Professor Emeritus, UMN
Lolly Occhino – AURI
Clint Johnson – ConAgra Brands
Dina Fernandez – ADM
Steve Hess – Hershey
Carrie Lendon – Cargill
Gabriela Perez-Hernandez – Kellogg
Wajira Ratnayake – Ingredion
Lehan Patrick – Saputo

I. Introductions and Welcome to Lehan Patrick from Saputo

- Lehan works as lead of product development team; Saputo is looking for better understanding of how plant proteins are influencing food system
- Gary Reineccius also as research representative on committee – Gary is Professor Emeritus in Food Science & Nutrition Dept whose research areas of expertise are flavor chemistry & encapsulation

II. Quick re-cap of previous meeting (minutes in *Appendix 1* of meeting agenda)

III. Updates

Objectives:

A. Update on Proposal to GFI: submitted pre-proposal and got invited to submit a full proposal; Title: “Characterizing and Texturizing Proteins from Pulses to Form Fibers with Textures that Mimic Chicken”; Three interdisciplinary researchers; Funds requested: \$250,000 (**FUNDED**)

1. Project will be started in April
2. Team: Zata Vickers (PI), Job Ubbink, Pam Ismail

B. Updates on Research Planning meeting:

1. Reserved May 4th
2. Idea of meeting is to revise priority areas for Center
3. Structure of meeting
 - i. Half-day of presentations from industry speakers (will address market trends, needs, challenges); will be reaching out to Mike Grusak with ARS of USDA as potential speakers, along with tech committee representatives who did not present at Inaugural Meeting
 - ii. Half-day of round table discussions (come together as a group, rank and further discuss priorities) – ranked research priorities will be brought to technical committee for final ranking
 - iii. Networking sessions with booths
4. Currently working on inviting speakers and setting up registration.

C. Updates on efforts (by us and tech committee members) to recruit new members [These efforts are reflected on the Exec Board Shared Resources Document in Google Drive]

1. Announcing new members Saputo and Motif Food Works; Danone pending (they have been sent membership agreement); also just heard from Bay State Milling that they are interested in joining at Partner level
2. Clint Johnson touched base with his contact at Danone and will follow up again
3. Carrie – recently reached out to Jenni Harrington at Buhler and is currently awaiting response
 - i. Per former conversations Pam had with Buhler: In the beginning, they were willing to offer in-kind support, but it was unclear where they stood on joining as a PPIC partner
4. Gary will follow up with Nadji Rekhif from Nestlé (Pam has had multiple former conversations with him, as well)
5. Gabriela – Will follow up with MycoTechnology
6. Amy will be sending out hard copies and electronic copies of postcards on how to become a member to use in conversation with potential members
7. Drafted emails to several others: PepsiCo (follow-up), DSM (follow-up), Griffith Foods (follow-up); Impossible Foods (follow-up), STET (follow-up), Buhler (follow-up), Novozymes (follow-up), Kraft Heinz (follow-up), Air Liquide (new referral from Denis on Exec Board), Greenleaf Foods (referral from Christina on Exec Board), Caribou (referral from Christina on Exec Board), Daiya Foods (referral from Christina on Exec Board)
8. Executive Board members are also reaching out to several other companies (Starbucks, Just Foods Tyson, etc.) – see Exec Board Shared Resources Document

IV. Short-term and long-term PPIC goals

Objectives:

A. Review current PPIC goals

1. Current goals (reflected on our website under “About” tab)
 - i. Create active platform to study and promote plant proteins
 - ii. Gain the involvement of key industry players
 - iii. Establish a cohort of interdisciplinary researchers
 - iv. Develop research programs that address industry-identified challenges and opportunities
 - v. Develop and disseminate a wealth of interdisciplinary knowledge and technologies to advance plant proteins
 - vi. Create momentum and acquire funding from diverse sources to accelerate outputs
 - vii. Foster partnerships, scientific exchange, and interdisciplinary interactions
 - viii. Train the next generation of researchers, who will become scientists for future hires
 - ix. Address the consumer desire for nutritious and healthy food
 - x. Have a positive impact on the environment
 - xi. Provide additional protein sources for the growing population
 - xii. Provide revenue to farmers
 - xiii. Become a nationally and internationally recognized protein center of excellence
2. No comments/suggestions from committee members at this time

B. Discuss the views of our partners regarding short-term goals:

1. Increase our membership pool or focus on satisfying current members/creating projects that address needs of current industry members
 - i. What is the downside to expanding membership pool? – potentially more difficult to satisfy all members’ fundamental research needs and challenges and find a consensus as to what the research priorities of the PPIC should be
 - ii. On the other hand, if we don’t increase member pool, will also have limited funding to conduct research – theoretically, research output will increase proportionally to funding inputs; Carrie and Gabriella in support of increasing membership pool to increase funding for research
 - iii. Target: ~1million consistently per year (in next 2-3 years) to fund 5+ active research projects yearly; 10-15 more members could help us reach this number
 - iv. Lolly: Number of committee members could be cumbersome with growing membership; consider rotation of members on technical committee as membership grows
 - v. Consensus to continue effort to expand membership pool
 - vi. What are the companies that are attending PPIC meetings but not yet members missing in terms of value for joining? Are we following up with these companies? Yes -- We do continue to follow up with these companies, i.e. Hormel, AGT, Novozymes, Kraft, Firmenich, Givadaun; Gary has a contact at PepsiCo and can reach out
2. Diversify the industry members? Beyond ingredient suppliers, manufacturers, etc.
 - i. Are we looking to diversify in terms of including non-food companies, as well? We are looking at the entirety of the food chain, as well as companies who work closely with food companies and directly benefit those food companies (technology developers, packaging manufacturers, etc.)
 - ii. Going beyond food companies – important to consider that it could be difficult to find common interest areas when developing research priorities
 - iii. Potentially include agronomic side in industry membership
3. How to facilitate interactions among current members to initiate collaborative projects through the Center
 - i. Find common areas of interest to derive projects from outside of membership dollars OR if members construct project and bring to PPIC, could be up for discussion to fund through PPIC researchers if within PPIC funding means
 - ii. Could be a slippery slope to use PPIC funding for a project that only a few members developed outside of PPIC that does not necessarily serve the needs of all members
 - iii. Consider that interaction among members doesn’t necessarily need to be a in the form of a specific funded project – members could work together to identify common gaps in knowledge and create a report/literature search that benefits all members
 - iv. Carrie – opportunity for *interaction vs. co-funding*; getting to know each other through Center by teaming up to train graduate students for projects
 - v. Important to highly encourage membership partners to attend events
 - Add technical committee meeting in-person meeting to Research planning meeting
 - vi. Could turn to other Centers for ideas of how they foster partnership across members; Bridge to Food is not a research center but could serve as an example for how to encourage interactions

4. Fund 2-3 or more projects this year (2020)
5. Offer training programs
6. Sharing knowledge and current trends (through website and events)

V. Second Round of RFPs

Objectives:

- A. **Provide an overview of current funds** (2018-2021: \$727,200, after 15% IDC: \$618,120 from membership dollars; remaining from first year after funding two \$50K projects, paying admin costs, and hosting events: \$84,000; year two: \$150,000; total available in 2020: \$234,000)
- B. **Discuss potential use of funds currently available:** Fund two to three more \$50K projects in 2020 (we have funding for up to 4)
 - a. Will consider longer term projects when we have additional funding; however, could use short-term projects as phase 1 with opportunity to propose phase 2 in second year
- C. **Review revised RFP for 2020 and timeline** (*Appendix 3* of meeting agenda)
 - a. Agreed on in former technical committee meeting that we would keep same research priorities as is for this RFP (research priorities will be re-evaluated at Research Planning Meeting and new/modified research priorities will be reflected in next RFP)
 - b. Priority areas are tweaked to encourage diversity of applications
 - i. Modified first two to encompass legumes as a whole (*changes italicized*)
 - “Exploring functionalization approaches of *pea protein* (e.g. utilization of cold plasma to enhance functionality for various applications)” → “Exploring *protein* functionalization approaches and *processing technologies* to utilize pulses in *trendy* applications (e.g. meat alternatives, dairy alternatives, high protein beverages)”
 - “Characterization of structure and function relationship of *hemp* protein as impacted by various extraction and processing protocols (e.g. optimization of extraction protocol to preserve structure and eliminate color and offensive flavor)” → “Characterization of structure and function relationship of *novel plant proteins* as impacted by various extraction and processing protocols”
 - Comment: Could priority area 1 go beyond pulses or does that make it too big? Use “plant proteins” in place of pulses – change approved by committee
 - i. Added an additional priority area: “Characterization of protein functional properties, flavor profile, and nutritional quality *as impacted by varietal differences and growing conditions*”
 - ii. Comment: Priority areas 5 and 7 too similar? Add nutritional quality as another output variable to 5, i.e. “Characterization of structure and function relationship *and nutritional quality* as impacted by various extraction and processing protocols (e.g. optimization of extraction protocol to preserve structure *and nutritional quality* and eliminate color and offensive flavor)”
 - iii. Priority areas coded in yellow (see *Appendix 3* of meeting agenda) – changed order of priority
 - Comment on order of priority: Priority areas 5&7 (once combined) should be moved to top 3 – impact of extraction/protocol on structure/function seems to be a bigger & more pressing area than blending and trendy applications; committee in consensus

- iv. Clarification that #4 can include blends with animal proteins, as some industries are looking at applications that involve blending animal and plant sources
- v. Added oilseeds to list of protein sources on which research is encouraged
- c. Revised timeline to allow for 2 months' submission time (release RFP Feb 14th, deadline April 13th); aiming for June 1st start date

D. Come up with a project based on common interests

E. Review proposal evaluation rubric (shared in Google Drive)

- a. Are scores weighted – are certain aspects more important than others? No they are not weighted – can discuss what is most important to committee during discussion of proposals, however weighted scores could be considered for future RFP rounds
- b. Will there be an opportunity to discuss proposals before scoring in order to clear up anything that might be confusing? No – It would be a lot to organize a technical committee meeting both before and after scoring, however any questions on proposals can be directed to Pam at any time
- c. Will select ad-hoc reviewers if we get a large amount of proposals; *not* for pre-screening but to review proposals in addition to committee
- d. Pam can do pre-screens to make sure they meet basic criteria before sending out
- e. Regarding timeline, Amy will send a notice not only for meetings, but for when to start reviewing proposals

F. Overview proposal evaluation review process (committee in support of this review process and agree that it is an improvement from review process for first round of RFP)

- a. Technical committee members individually review all submitted proposals
- b. Ad hoc reviewers might be invited to review specific proposals
- c. The technical committee will have two weeks to review and fill out evaluation rubric for all submitted proposals
- d. Evaluate based on rubrics keeping in mind priority areas, while providing constructive criticism to improve the project or revise to meet the need
- e. Technical committee members have the freedom to revise experimental design in a way that ensures positive outcomes
- f. Technical committee members realize that the PPIC is not a typical funding agency, we have flexibility to mold the proposed research to meet the need
- g. Technical committee may invite researchers to participate in a call to answer questions or to present their proposed idea
- h. Technical committee will meet after completing the evaluation rubrics to discuss the proposals and decide if more information is needed
- i. Technical committee members will cast a vote on proposals (Yes, yes with revisions, no but submit next round, no)
- j. Technical committee comments and votes will be shared with the executive board and the executive board will cast the final funding vote
- k. The whole process will be completed in 4-5 weeks. Tech committee meeting and executive board meeting will be set ahead of time to ensure that we meet the set deadline.

VI. Next steps

Objectives:

- A.** Finalize RFP and circulate
- B.** Start organizing the Research Planning Meeting

- C. Invite/suggest speakers for the Research Planning Meeting
- D. Discuss new ideas that partners would like the PPIC to implement
- E. Obtain Q2 reports on the two PPIC funded projects

VII. Post-Meeting Action Items

- PPIC Research Planning Meeting (May 4th, 2020)
 - PPIC members/technical committee representatives are strongly encouraged to block May 4th on their calendars for this event, which will be held at the University of Minnesota St. Paul campus ****member companies have 2 registrations waived****
 - Member companies: consider whether you would like to hold a booth at the Spring Planning Meeting, and let Amy or Pam know
 - Pam will be reaching out to potential speakers for event, including several technical committee representatives who did not speak at Inaugural Meeting
 - Amy is working on setting up registration link
 - Pam/Amy will add technical committee in-person meeting to agenda for this event
- Follow-Ups
 - Clint will follow up with Morrad Fadel from Danone
 - Carrie has followed up with Jenni Harrington from Buhler and will circle back with outcome of conversation
 - Gary will follow up with Nadji Rekhif from Nestle, as well as his contact at PepsiCo
 - Gabriela will follow up with Bhupendra Soni from MycoTechnology
 - Pam will continue to follow up with companies as listed in Executive Board Shared Resources Google Drive document
- Amy will be mailing out hard copies of PPIC promotional materials to technical committee representatives and will also send electronic copies; these materials can be used in conversations with potential members, supporters, and collaborators
- Spring RFP (Round 2)
 - Pam and Amy will update RFP priority areas per the recommendations of the technical committee in today's meeting and will send out the finalized RFP on 2-14-20 to the PPIC researcher cohort
 - Amy will be sending out Doodle polls for the next technical committee meeting focused on reviewing proposals to make sure we respect the timeline listed in RFP; she will also include a calendar reminder to committee for when to start reviewing proposals