

PPIC Technical Committee meeting, Friday January 22nd, 11:00 am to 12:30 pm CST, via Zoom

Present:

B. Pam Ismail (PPIC)
Karthik Pandalaneni (PPIC)
Misen Luu (PPIC)
Bin Wang (Coca-Cola)
Nathan Knutson (Cargill)
Darren Walkey (Pleasant Valley Oil Mills)
Julie Anne Grover (Kraft Heinz)
Seyhun Gemili (ADM)
Lolly Occhino (AURI)
Yui Maneephan Keeratiurai (Danone)
Steve Hess (Hershey's)
Gary Reineccius (UMN)
Sara Rosene (GMI)
Adam Janczuk (IFF)
Wajira Ratnayake (Ingredion)
Gabriela Perez-Hernandez (Kellogg's)
Clint Johnson (Conagra Brands)

MEETING MINUTES

1) Introductions and Welcome to Bin Wang (Coca-Cola) and Nathan Knutson (Cargill)

1. Bin Wang (representative from Coca-Cola): Manager, Natural Products in Flavor Systems and Ingredients research group; responsible for exploration of new functional ingredients and partly support discovery of natural sweetener program.
2. Nathan Knutson (representative from Cargill): Research, Development, and Innovation Manager; working with alternative, plant, and animal proteins and other ingredients. (Nathan took over Carrie Landon's role as Cargill's representative on the PPIC technical committee).

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

1. Focus of last meeting was primarily on PPIC funded projects, planning of the Virtual Research Spotlight Meeting, and ideas to facilitate interactions among current members to initiate collaborative projects.

3) General Updates

a. Announcing new members

1. Total of 24 members as of meeting date
2. 5 new members since last Technical Committee meeting: Johnsonville (1 year trial membership at Associate level), Meati Foods (Associate Member), CoverCress (Associate Member), Scoular (1 year trial membership at Associate level), and Neom (Associate Member).

b. Two additional members signing the agreements:

1. Bluegrass Ingredients at Partner level, SunOpta at one-year trial membership at Associate level.

2. By end of January 2021 PPIC will have 26 members
- c. **Updates on efforts to recruit new members; in conversation with several parties including:**
 1. Givaudan: Held conversation in July, 2020 and in Sep 2020. Primary focus is understanding flavor-protein interactions. George Krintiras and team will follow up after internal discussions.
 2. Bayer: had a couple of conversations, in Nov and in Dec 2020, with Dan Ruzicka, PhD, Innovation Sourcing Lead – Biotech and Breeding, will get back to us in January 2021 after new budget.
 3. Griffith Foods: Interested in trial Associate level membership. Held conversation with Leticia Chuy, Principal Scientist in January 2021. Will get back to PPIC after internal discussion with executive team.
 4. Avena Foods: Held conversation with Matt Lentsh, Director of Sales and Business Development in December 2020. Will get back to PPIC after internal discussions.
 5. Ferrero Group: Held conversation with David Del Pozo, Sr. Director Open Innovation in November 2020. Actively following up and discussions on NDA are currently going on.
 6. Natures Fynd: Held conversations through Baljit and interested in Associate level membership. Will get back to PPIC soon.
 7. All conversations are outlined and accessible through “Exec Board Shared Resources Document” in Google Drive, which will be shared with all new members in addition to current members
- d. **Update on funded (\$250,000) GFI project:** Title: “Characterizing and Texturizing Proteins from Pulses to Form Fibers with Textures that Mimic Chicken”
 1. Three interdisciplinary researchers from PPIC cohort (Zata Vickers, Job Ubbink, and Pam Ismail)
 2. Two grad students started in Fall 2020.
 3. Functional properties of protein isolates from chickpea and pea will be evaluated followed by evaluation of texturization potential to mimic chicken.
 4. Good progress so far in terms of collecting data. Will share reports when available
- e. **Update on FFAR proposal submitted to Plant Protein Enhancement Project:** “Legumes of the future: Developing methodologies and germplasm to enhance the functionality and nutritional quality of pea protein”
 1. Five interdisciplinary researchers
 2. Funds requested: \$1,167,797
 3. Approved funding: \$800,000
 4. Start date: Jan 2021
 5. Graduate student and a post-doc will be starting soon on this project. Other PIs are also putting together their research team.
 6. Reports on this project will also be shared with the Technical Committee.
- f. **Submitted USDA CAP letter of intent** (up to \$10,000,000 cross institutions proposal) in Collaboration with the Protein Highway, with participation from Forever Green Initiative and AURI: “*Sustainable protein from crops- securing the supply*”.
 1. Pam took lead on this effort to submit letter of intent in collaboration with the Protein Highway.
 2. Put together group of researchers and participants to investigate sustainable protein from crops, securing supply, and yield of protein that can be obtained from these crops.
 3. Will hear back if invited for full proposal by end of January 2021
- g. **Updates on currently funded PPIC projects:**

1. Two projects from RFP 1 were delayed due to COVID. Q3, Q4, and Q5 reports for the two initial funded projects were shared with Technical Committee. Both projects received a no-cost extension.
 - i. *Impact of Cold Plasma Treatment on Pea Protein Structural and Functional Characteristics*; end date- March 31st,2021
 - ii. *An Interdisciplinary Strategy for Improving Hemp Protein as a Food Ingredient through Plant Breeding and Processing*; end date – Sep 30th,2021.
2. Start date of three projects approved for funding in June 2020 (RFP 2) was pushed to Sep 2020.
 - i. Projects (Summarized on our website)
 1. *Flavor Reactions with Plant Proteins*
 2. *Enhancing Pennycress Oilseeds as a New Protein Source by Improving Flavor and Protein Extractability*
 3. *Impact of Pea Storage Protein Fractions and Their Ratio on Functionality and Nutritional Quality*
 - ii. Deadline for Q1 reports of these projects was extended to March 1st, 2021.
3. All these project results will be published once the project ends and will also be included in the theses of the graduate students working on them.

h. Updates on Research Spotlight meeting (Nov 17, 2020)

1. Great turn out, 275 attendees from 95 different companies, organizations and institutions.
2. Post meeting evaluation: Over 90% very satisfied or satisfied with the overall program, content, and presentations. Comments were shared in an appendix to the agenda
3. Moving forward we will end the registration a week earlier to allow time to distribute final meeting agenda to all attendees.
4. Comments/Feedback from the Technical Committee.
 - i. Julie Anne: “A great job on the virtual conference!”
 - ii. Gabriela: Very good experience; several members from Kellogg’s attended and had positive experience having a booth and interacting with other companies. Had several follow ups from ingredient companies and researchers as well.
 - iii. Adam: We hosted a booth as well as several team members attended the conference. Very good feedback and agree with ending registration a week earlier. Interactive sessions are short in breakout rooms. Spreading out the event to few days would be very helpful.
 - iv. Bin: It was challenging to attend the whole event in a day because of the conflict with other meetings. Having it spread over couple of days would be very helpful.
 - v. Wajira: Good feedback was received from our team who attended. Good technical content. There was a lag to join to another breakout room but overall, it was a good experience.
5. Pam: Will consider comments regarding allocating members to virtual booths and chat rooms for next virtual meeting. Will also consider spreading the event to two days.

4) Overview of funds from membership dollars and allocation of research dollars.

1. Grand total membership dollar amount is \$1,489,200 since the PPIC inaugural in Nov 2018, accounting for three years memberships, \$502,400 per one fiscal year. Funds

available for research in 2021-2022 after overhead (15%), admin cost (15%), and instrumentation (7%) cost, is **\$316,680** (63%).

2. Objective: Determine how many short-term vs. long-term projects to fund. Fund 2-3 or more projects in 2021, continue with short-term? Long-term? How much per project?
3. Wait to identify new research priorities or use the ones already established
4. Comments:
 - Gabriela: Any feedback on how it is working for the researchers?
 - Pam: Due to COVID there are delays in completing the project in one year. Initially due to budget restrictions and to show the value of research we funded short-term projects but now because of the availability of funds, we want to discuss if we can fund long-term projects as well.
 - Gary: In academics it is harder to staff one-year projects unless it is to collect data to apply for a bigger project. So, if it's a graduate student, it is good to have support for two years instead of one.
 - Pam: Agrees with Gary. And wanted to hear input from Technical Committee.
 - Adam: Is there a table of key activities outlining projects as short-term and long-term?
 - Pam: We have research priorities listed but depending on the time limit proposals will be submitted targeting fewer objectives. More objectives can be taken into consideration to propose a long-term project.
 - Adam: Based on the discoveries could it be a long-term project
 - Pam: It can go either way in research. Research can be extended based on the results or we can address some short-term objectives.
 - Gabriela- Will you be applying to funding again to extend the research based on the results?
 - Pam- Yes, will apply again to continue the research. But based on these short-term project results there is an opportunity to apply for bigger grants.
 - Lolly- Would you anticipate the increase in cost of the project from \$50,000 to \$100,000 if project timeline is increased from one year to two year?
 - Pam: Yes, one year of grad student is \$42,000 so that leaves \$8,000 for supplies.
 - Gabriela and Lolly- Is there a possibility for mixed approach?
 - Pam: Yes, maybe we can fund two short-term and two long-term projects bringing it to \$300,000 in total
 - Wajira: I agree with Pam's approach- maybe based on the needs we can decide short-term vs long-term projects.
 - Seyhun: I wouldn't suggest giving numbers to projects. Limiting to 2 short-term and 2 long-term, we might lose an opportunity to fund a good 3 short-term projects.
 - Pam: As a researcher I would request a project with maximum funding. We have to look into ways to be able to fund both long-term and short-term. We can prioritize research priorities to select if the project can be short-term or long-term. Technical Committee can decide which research priorities are to be included for short-term and long-term projects. All the research priorities can be long-term, but we can choose all the research priorities that are already addressed as long-term eligible and research priorities that are not addressed yet and something that has to be looked into more to be short-term eligible.

- Julie Anne: Perhaps proposals can be submitted for both short-term and long-term and tech committee can review and select which one is eligible for short-term or long-term funding.
- Pam: Yes, current top 6 research priorities can be revised, and technical committee can submit ideas on projects and build RFP based on these recommendations. Technical Committee can add suggestions if a certain research priority has to be short-term or long-term. Any suggestions?
- Steve: We are ok with either way Pam discussed. But long-term projects with much longer timelines maybe challenging.
- Pam: Long-term projects are 2 year long for now. When we have external funding, then 3-5 years projects can be planned.
- Technical Committee to give feedback on current research priorities and add more to them if necessary. Since we cancelled our last research planning meeting in May 2020 due to COVID and due to limitations of virtual planning, Pam wants Technical Committee to revise and update research priorities for next request for proposal.
- Adam: I would suggest using Teams and agree with Wajira that some companies have firewall against google drive docs.
- Pam: We will look into using Teams and get back to you.

5) Discuss other tasks

- Review research priorities – Will share the research priorities with the tech committee to review, provide feedback, and add suggestions.
- When to hold research planning meeting and short course: both to be held in conjunction as a three-day event in Summer 2021
 - 1st and 2nd day- Short course.
 - 3rd day- Research planning and Round table discussion on ranking priorities
 - Will discuss details of short course in next technical committee.
- Welcome packages:
 - Please use welcome package. It is worth \$8,000 at no additional cost to you.
 - It could include a customized project or a literature review.
 - PPIC will reach out to companies who hasn't used their welcome packages.
 - If membership is renewed after three years, you get another welcome package.
 - Welcome package can also include projects with any of the members from our research cohort.
- How to facilitate interactions among current members to initiate collaborative projects
 - Julie Anne: Interested in hearing about this.
 - Pam: Will bring that up in one-on-one meeting to discuss more about potential collaboration.
 - Adam: Collect one-pager on where we need help and offer collaboration.

6) Post-Meeting Action Items

- a. Karthik to share Technical meeting minutes and “Executive Board Shared Resources Document” with all Technical Committee representatives; representatives can add new company conversations and potential contacts to this sheet
- b. Continue recruiting efforts

- c. Obtain Final reports on one of the two PPIC funded projects (due March 31st, 2021)
- d. Obtain Q1 reports on the three newly funded PPIC projects (due March 1st, 2021)
- e. With the technical committee help, review current research priorities, add other priorities if needed, add suggestions on short or long-term projects.
- f. Initiate Teams documents to share and provide input on research priorities and short vs. long term projects
- g. Prepare Spring RFP
- h. Initiate more welcome packages and send reminders out to the companies.
- i. Initiate collaboration between members on research projects.
- j. Request all the members to provide a one-pager to identify a better match to collaborate.