

PPIC Technical Committee meeting, Tuesday Sep 8th, 12:00 pm to 1:30 pm, via Zoom

Present:

B. Pam Ismail (PPIC)
Amy Mathiowetz (PPIC)
Gabriela Perez-Hernandez (Kellogg's)
Gary Reineccius (UMN)
Steve Hess (Hershey's)
Lolly Occhino (AURI)
Sara Rosene (GMI)
Clint Johnson (Conagra Brands)
Yui Maneephan Keeratiurai (Danone)
Seyhun Gemili (ADM)
Wajira Ratnayake (Ingredion)
Carrie Lendon (Cargill)
Lehan Patrick (Saputo)
Adam Janczuk (IFF)
Darren Walkey (Pleasant Valley Oil Mills)
Julie Anne Grover (Kraft Heinz)

MEETING MINUTES

1) Introductions and Welcome to Adam Janczuk from IFF, Julie Anne Grover from Kraft Heinz, and Darren Walkey from Pleasant Valley Oil Mills

1. Adam Janczuk (representative from IFF): Global Director, Re-Imagine Protein®; responsible for innovation strategy around plant-based/alternative protein on global scale; background in organic chemistry
2. Julie Anne Grover (representative from Kraft Heinz): Principal Scientist, Technology, Discovery & Development team with large focus on plant-based research
3. Darren Walkey (representative from Pleasant Valley Oil Mills): President of Innovation & Value Add; expanding plant-based at Pleasant Valley, including developing functional ingredients from byproduct streams

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

1. Focus of last meeting was primarily on review of 6 grant proposals submitted during second round of PPIC RFP, which resulted in funding of 3 new grant proposals

3) General Updates

a. Announcing new members

1. Total of 19 members as of meeting date
2. 4 new members since last Technical Committee meeting: Pleasant Valley Oil Mills (Partner), IFF (Partner), Kraft Heinz (Partner), and Minn-Dak Growers (Associate Member)
3. 7 new members during quarantine, including Bay State Milling (1 year trial membership at Associate level), EverGrain (Associate Member) and Danone (Partner), as well as those listed above

b. Updates on efforts to recruit new members; in conversation with several parties including:

1. Givaudan: connected with PPIC via Julie Simonson, Exec Board member; they will follow up with PPIC in September
 2. Scoular: met with Scoular in June 2019, but have since reprioritized direction of company; they reached out again in August and were interested in how they could collaborate with PPIC; regrouping internally and will get back to PPIC team
 3. Buhler: have been holding conversations with Buhler for past several months; want to be involved in Center through in-kind support (running projects for us, lending equipment i.e. small scale extruders)
 4. BioTEI, Inc., based out of Manitoba, Canada; research and innovation company with current focus on developing cosmetic & pharmaceutical products from seed oils & leaf powders but looking towards protein extraction for food use; interested in collaborating on project, potentially through membership
 5. JUST: representative from JUST reached out in August and had a meeting with PPIC end of August; were interested in learning more about PPIC and its structure; they have an active R&D team at JUST, but are attracted to the vast capabilities of PPIC
 6. CoverCress: high technology company using gene editing to domesticate and commercialize pennycress; approached PPIC about a project and is considering doing so as a member
 7. Amazon Regeneration: startup based out of San Francisco looking to source ingredients from Amazon and concentrate protein from them to create meal replacement product; budget reconstruction since meeting with PPIC in August will prevent them from collaborating with PPIC through project or membership at this time
 8. 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
- c. **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 starting this fall
 3. Challenge will be getting these researchers into the lab – all of our projects are starting at a slower rate (we are functioning at 33-50% capacity)
- d. **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 for funding: active negotiation on budget (slightly less than 1 million)
 4. Will not be announced until contract is signed
 5. Anticipated start date: Jan 2021 pending contract signed
 6. This is an example of seeking external funding for projects
- e. **Updates on currently funded PPIC projects:**
1. Three new projects were approved for funding in June 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. Thank you to the efforts of our tech committee members in the review process!
We funded 3 proposals out of 6 submitted
 - iii. Starting date delayed until Sep 2020 due to COVID
 - iv. New projects Q1 reports will be due at each quarter starting in November
2. Currently funded projects
 - i. Projects (Summarized on our website)
 1. *Impact of Cold Plasma Treatment on Pea Protein Structural and Functional Characteristics*
 2. *An Interdisciplinary Strategy for Improving Hemp Protein as a Food Ingredient through Plant Breeding and Processing*
 - ii. Initial timeline was up in Sept. 2020, however due to COVID, we offered no cost extensions for the ongoing projects; may be extended up to 6 months
 - iii. Q1-Q3 reports for the two initial funded projects shared with Tech Committee; shared with new members via Dropbox
- f. **Updates on research planning meeting and short course** (*Appendix 2 of agenda*): Postponed, both will be held in conjunction as a three-day event in Spring 2021
 1. Actively looking at date options – the hope is to hold it in person
 2. 2 days of short course followed by 1 day of Research Planning Meeting, where we have industry speakers talk about trends, opportunities, challenges and what direction the research should go in, as well round table discussions to re-evaluate and rank research priorities for center

4) Upcoming Research Spotlight meeting

- a. Overview of format
 1. Will be held virtually on Tuesday Nov 17, a whole day event. Date based on availability of Technical Committee members
 2. Registration is open; registration fee is \$50 and covers base costs of coordinating event
 3. All Technical Committee representatives received complimentary registration in addition to two additional complimentary registrations for 2 reps from member company
 4. The Research Spotlight Meeting will showcase research that is actively being conducted in the plant proteins space,
 - i. Updates on the five projects funded by PPIC; we will have results from the two projects funded started in Sept. 2019; we will provide an overview of research for three recently funded projects
 - ii. There will be an overview of GFI-funded research project
 - iii. Looking to get presentation from a member of the FFAR project team
 - iv. External researchers (both national and international) invited in addition to researchers from PPIC cohort
 5. The event also will include an interactive e-poster session with the opportunity to speak with students and researchers directly and ask questions about their research; pre-recorded with live Q&A
 6. The event will be formatted in breakout sessions, giving attendees the option to customize their day based on which presentations and e-poster sessions they would like to attend.

7. There will be a number of networking breakout sessions built into the day
8. Will be using Zoom medium
9. Presentations will be pre-recorded with the help of a professional team, but there will be live questions after each presentation; presentations will be ~15 min with 5 minutes of Q&A
10. Suggestions from Technical Committee
 - i. Possible technical challenges when attendance reaches 50+
 1. We will have somebody from IT on stand-by
 2. Comment from Amy – we will be doing this in a meeting vs. webinar format in order to make it interactive and enable live networking and giving attendees the chance to clarify questions or engage in discussion; we will make sure the moderator controls mics/cameras
 - ii. Have attendees raise hands for questions or put questions in chat to avoid having attendees speak over one another
- b. Announcing speakers.
 1. Based on last year’s comments, we wanted to include more external researchers than we did last year but still keep a good balance with researchers from the University of Minnesota, as the PPIC is based out of the University
 2. Atze Jan Van der Goot (Wageningen University)
 3. Laurice Pouvreau (Wageningen University) – texturizing plant proteins for analogs
 4. James House (University of Manitoba) – nutrition quality of plant proteins
 5. Lingyun Chen (University of Alberta)
 6. Bingcan Chen (North Dakota State University)
 7. Juliana Maria Leite De Moura Bell (Davis)
 8. Pam Ismail (University of Minnesota) – will present on projects she is leading
 9. Zata Vickers (University of Minnesota) – GFI project
 10. Gary Reineccus (University of Minnesota) – flavor and plant protein research (overview of funded research)
 11. One or Two other speakers (University of Minnesota)
 - i. Waiting on one internal researcher to present on FFAR project; need to make sure contract is signed
 - ii. Alternative speaker is new nutrition associate professor at University with interest in plant proteins
- c. PPIC will put together schedule and share on our website when available

5) Discuss other tasks

- Diversify the industry members, current members promoting PPIC
 - Would like to continue to diversify industry members and have current members promote the PPIC
 - We had previous discussion whether we want to grow/diversify or satisfy our current members, and consensus was to continue growing
 - Seyhun can propose names for Abbott Nutrition and Mead Johnson, and provide specific contacts for Nestle Health Science (former employee); all are playing a role in nutrition area with focus on medical nutrition; would be great if Seyhun can also send introductory email to Nestle Health Science to prepare them for conversation

- Yui came from Mead Johnson and can provide contacts, as well
- Sara Rosene: Nizo has a lot of research going on similar to PPIC; how could we partner? Pam has connections there and has formerly worked with them and can reach out about collaborating
 - i. Serve on Exec Board? (similar to Improve)
 - ii. Exchange program for projects?
- Wajira has connections with company in France called Extractis – works closely with Improve
- Plant Based Food of Canada – can collaborations be combined? Divide and conquer research priorities to cover a broader range of research
 - i. Pam does have existing connections with several groups actively working in plant-based ingredients and products (i.e. Protein Industries Canada)
 - ii. Consider complementary projects rather than joint projects -- The challenge is exchanging funds across the border
- Equipment manufacturers
 - i. Lolly: update on Coperion? Discussed leasing equipment vs. membership
- Welcome packages: several are underway, some are being discussed, others not initiated yet
 - All members have access to welcome package: complimentary research project
 - We are delayed by COVID, but we can begin discussions at any time to scope projects
 - We understand that often projects have deadlines, and we can try to accommodate these deadlines as best as possible
 - Our members will get priority over non-members in terms of when projects are started
 - Complimentary projects are up to \$8000 in cost
 - Complimentary projects are one-time per 3-year membership period
 - These projects are done under NDA separate from membership agreement; results are given to company and are not shared; if worth publication, we will consult with company
- How to facilitate interactions among current members to initiate collaborative projects
 - We want members to feel that they are part of bigger community that they can come together to collaborate at pre-competitive level to collaborate on projects that meet overlapping research priorities
 - Pam was thinking of including just partner companies at this point due to their higher monetary contribution, but we are open to discussing the potential value of including associate members
 - How?
 - i. Either collaboratively fund a project externally that PPIC can do in-house; we can design this project in any way the members would like
 - ii. Develop a research project based on the overlapping research interests of multiple members and recruit a PPIC researcher to develop this project and submit for funding in the next cycle of RFP to be funded using membership dollars
 - Ideas:
 - i. Informal pitch session for industry members to find common research interests among member companies
 - ii. Pam can also discuss with companies 1:1 under NDA and then find common interests to unite companies; voiced support from Sara, Carrie, Yui, Clint

1. PPIC will start reaching out to companies individually first to set up NDAs if not already in place and then to set up meetings to discuss research priorities of company
- Discuss new ideas that partners would like the PPIC to implement
 - Tabled for next meeting due to time
 - Feel free to share via email with PPIC
 - Fund 2-3 or more projects in Spring 2021
 - Ideally, we will have Research Planning Meeting first to review and evaluate our research priorities for Center
 - Offer training programs (designing training program or workshop for 1-2 employees from each partner company)
 - Come up with proposal of topics and discuss at later time
 - Tabled until next meeting due to time
 - Sharing knowledge and current trends (through website and events)
 - Actively working on a literature review
 - Working with Christina Connelly from Executive Board to implement the database on our website
 - Sharing knowledge through our events via presentations and posters
 - We are also actively sharing information from current projects through quarterly reports

6) Next steps

- a. Continue recruiting efforts
- b. Planning the Research Spotlight Meeting
- c. Planning the spring event, hopefully in person experience, Short Course and Research Planning Meeting
- d. Obtain Q4 reports on the two PPIC funded projects (due Sep 30)
- e. Obtain Q1 reports on the three newly funded PPIC projects (due end of Fall)

Questions?

Julie Anne: What is the cadence of this meeting?

In general, 3-4 times per year, and each meeting has a theme (i.e. proposal review)

Post-Meeting Action Items

- Amy has shared the “Executive Board Shared Resources Document” with all Technical Committee representatives; representatives can add new company conversations and potential contacts to this sheet
- Research Spotlight Meeting
 - Reminder to all representatives that in addition to complimentary registration for all Technical Committee representatives, each member company receives two complimentary registrations; Amy has sent promo codes to each of you – please take advantage!
 - The PPIC Team will share the agenda for the event as soon as it is solidified
- Research Planning Meeting
 - The PPIC Team will announce the dates for event as soon as they are determined
- Recruiting new members:
 - Seyhun will propose names for Abbott Nutrition & Mead Johnson

- Seyhun will provide contacts for Nestle Health Sciences and will send introductory emails
- Yui will provide contacts for Mead Johnson
- Wajira will provide contacts for Extractis in France
- Pam will follow-up with Coperion and continue communication with other equipment manufacturers (Scoular, Buhler)
- Pam will continue to brainstorm how we can best collaborate with organizations with similar agendas (i.e. NIZO, PIC, Plant Based Foods of Canada)
- Member welcome packages – Reminder to reach out and take advantage of complimentary research project with PPIC if you have not already
- Facilitating collaborate projects across partner companies -- PPIC will start reaching out to companies individually first to set up NDAs if not already in place and then to set up meetings to discuss research priorities of company

