



PPIC Executive Board meeting, Wednesday, March 21st, 10:30 am to 12:00 pm, In Person (FScN 225G)/Zoom meeting

MINUTES

In attendance: Pam Ismail – UMN
Karthik Pandalaneni – UMN
Greg Cuomo – UMN
Julie Simonson – Schwan’s
Denis Chereau – IMPROVE
Sergiy Smetana – Food Data Group
Laurice Pouvreau – Wageningen University and Research
Christina Connelly – Canadian Consulate
Jason Robinson – AURI

1. Introductions and Welcome

2. General Updates

a. Announcing new members

- i. Total of 36 members as of meeting date
- ii. New Members: Microsoft (Partner), Bay State Milling (upgraded to Partner), Bayer (Associate Member-trial), Milk Specialties (Associate member-trial), Waters (Associate member-trial), Schreiber Foods (Associate member-trial), Amano (Associate member-trial), Caloris (Associate member-trial), Balchem (Associate member-trial), Ish Foods (Associate member), The Land Institute (Associate level).
- iii. 29 new members gained since quarantine in March 2020.

b. Four additional members signing the agreements:

- i. Ferrero at Partner level, Manitoba Harvest at one-year trial Associate level, Gehl Foods at one-year trial Associate level, and DryGro at Affiliate level.
- ii. This will bring us to 40 members this Spring!

c. Two founding members renewals:

- i. ADM and Hershey

d. Four members lost:

- i. Two founding members (Coca Cola and Kellogg’s)

1. Comments:

Julie: Were Coca Cola and Kelloggs engaged?

Pam: Kellogg’s were on the tech committee, they left because of budget. Coca Cola was a confidential case.

Greg: At the University Industry Consortium, I will bring awareness to PPIC, if that's helpful. Also, Bayer and Monsanto supporters of UMN breeding program, they are looking to come to the University and can visit PPIC at the same time. Bayer contacts will be sent to Greg from Karthik.

ii. Two Associate members-trial, Scoular and Johnsonville, they were never engaged.

e. New supporters:

i. Crown (Sponsor of the new level) will sponsor 50% of the cost for Affiliate members. Not certain how many members they will support. Advertisement went out for the new level and for the sponsorship opportunity

ii. Extraction Alternatives (In Kind): 1 in-kind defatting of up to 50lb sample using solvent extraction

1. Comments:

Jason: I made a contact with a company that does CO₂ extraction, I wonder if they would be willing to do something similar? Nemadji. I can set up the connection.

f. New Level: [Affiliate member](#) (\$3,000 per year) with sponsorship program to cover 50% of the cost

i. Pay 50% fee for 3 years

ii. Fill out an application form online

iii. They get many benefits, including 2 waived registrations to events

1. Comments:

Christina: Did Crown say how many they would support?

Pam: We didn't ask them, we will get applicants and propose to them.

Jason: How actively are you recruiting?

Pam: We advertised on the website, LinkedIn, and press release.

Jason: How actively do you want to recruit?

Pam: Very actively, Crown is happy to be able to support. Supporters get the same benefits as the Affiliate members

g. Recruitment effort: See exec board shared resources document

i. Comments:

Pam: Karthik is going to the B2F conference and will have a lot of networking opportunities there.

Christina: I went to there B2B in Calgary and it was well organized and quick. I highly recommend. Made several connections and pitched PPIC

Denis: I agree, it is well organized. It's people with strong interest in the business.

Pam: You can select who to meet with ahead of time.

Jason: I went to ExpoWest and it felt the same.

Pam: we could also check in to a booth at IFT but it can be very expensive.

Pam: We are getting approached rather than us seeking out new members, but any thoughts from the board on recruitment efforts?

Jason: I'm pleased to hear that it's more a pull than a push now.

Julie: I agree, but I don't think we should become complacent. There is a lot of pressure on industry company's right now, so we need to keep up.

Christina: I'm really happy to hear about the Affiliate level. Is there a way to do something that shows what PPIC projects mean down the road for CPG companies?

Julie: Great point! Showing the linkage between precompetitive to potential commercialization will drive value for the companies. How do we illustrate that it pays to be a part of the pre-competitive research.

Pam: I'm not presenting at the Commercialization workshop but can prepare a presentation of PPIC's existing projects and how they translate to potential commercialization.

Christina: I'm not sure what your audience is, but if you can make the linkage it would bring a value.

Jason: Basically “translating research into reality”, in a sense

h. Update on external funding:

- i. BBBRC call by EDA: one of eight sub projects led by Greater MSP, Agriculture Innovation Scaling & Market Development (Ag project focused on sustainable plant protein) submitted in collaboration: PPIC, FGI, AURI and MBOLD. A total of \$3.4 million for UofM

1. Comments

Pam: Came up with 20% matching funds. We asked for equipment (\$700,000), two project managers, and four graduate students over 3 year period.

Jason: Build Back Better is federal grant, 1 per region, part of a series focused on equity, precompetitive sources. There was an issue because the original proposal was to go towards supporting start-ups. We found out they couldn't support private businesses, so things changed last minute.

Pam: Are we able to see the entire project that was submitted?

Jason: Yes, on Thursday at 3pm CT there will be a recap of the entire thing via zoom. I can forward it to you.

Denis: When you said that the University of Minnesota will receive \$3.4 million, is it because we need to add some expense on the side, or will everything be covered?

Pam: We have 20% in match that we had to come up with. Some of that will be my time, which the university pays for, and then we could put some of PPIC dollars that we have for research, and some indirect cost.

- ii. Submitted grants to GFI (in collaboration with Bright Future Foods), to United States India Science and Technology Endowment Fund (USISTEF) -Energy Solutions Ignition Grants, and to Northarvest Bean Association

1. Comments:

Pam: International Collaboration with a company in India. With Northarvest they were looking for additional value and use of beans, kidney beans for example, where MN is number one producer globally.

Greg: There is a bill put forward by Rick Hansen about long term propagation towards oilseeds. They asked what we could do, we put together 4 or 5 ideas that could get a onetime \$2.5 million funding from the state.

Pam: GFI is also supporting a generic bill for plant protein research and the University can't support the bill unless some of the funds is going to fund research at the U.

Pam: My concern is that other places might start a center. There are people who want to invest in this space.

Julie: There is a foods center in North Carolina State. They are different than PPIC.

Sergiy: The focus of PPIC isn't necessarily start-ups

Pam: At heart we are doing basic public research.

Sergiy: The main idea is not the incubator for start-ups, right?

Julie: PPIC is doing the pre-competitive and fundamental research that feeds the whole industry

Denis: Could we say that PPIC is more focused on the B to B and the others are on B to C?

Pam: Actually, we focus on B to B but we actually do research across the whole value chain.

- i. **Updates on currently funded PPIC projects:** *Cold Plasma Project ended, final report shared, two manuscripts, one published and one submitted. Hemp Project ended, final report will be shared, two manuscripts in preparation.* Three projects funded in 2020 are under way with three progress reports so far submitted and shared. Additional two projects funded in 2021, and one is pending

- i. Impact of Cold Plasma Treatment on Pea Protein Structural and Functional Characteristics

- ii. An Interdisciplinary Strategy for Improving Hemp Protein as a Food Ingredient through Plant Breeding and Processing
- iii. Flavor Reactions with Plant Proteins (Given additional year of funding)
- iv. Enhancing Pennycress Oilseeds as a New Protein Source by Improving Flavor and Protein Extractability
- v. Impact of Pea Storage Protein Fractions and Their Ratio on Functionality and Nutritional Quality
- vi. Plant Protein Blending: Inducing Molecular Interactions to Enhance Texturization

1. Comments:

Greg: Do all of these have a non-technical summary available?

Pam: Yes, they are all available on our [website](#)

Julie: What was the other external project

Pam: it was on oat protein from University of Manitoba, it needed revision, the revised version is submitted waiting for my review.

j. Updates on Welcome Packages/Projects:

- i. Completed (9) projects: Danone, Evergrain, Ingredion, Nutriati, Bay State Milling, Minn-Dak, Saputo, General Mills, Kraft Heinz
- ii. In progress (4) projects: ADM, Benson Hill, CoverCress, PepsiCo
- iii. Initiated (11): Motif, SunOpta, Milk Specialties, Applied Food Sciences, Microsoft, Bluegrass, Balchem, Ish Foods, Conagra, Nature's Fynd, Amano
- iv. To be initiated (10): Cargill (Nathan Knutson), Hershey (Steven Hess), IFF (Adam Janczuk), Roquette (Jennifer Kimmel), Caloris, Meati Foods, Neom, Bayer, Waters, Schreiber Foods

1. Comments:

Pam: Most of these welcome packages are larger and therefore get additional funding from the member companies. Microsoft for example is funding a post-doc to do research on prediction models for protein quality and functionality.

Christina: Do you find that there is some similarity across the projects?

Pam: They are really different. Some are really basic, for example Motif wants us to publish the research project. Others are analytical service types. While some are really innovative and exciting.

Sergiy: We also have some projects with a lot of data. If you want to collaborate with Microsoft on that.

Pam: That'd be great. They want a lot of information for prediction models. The post-doc will help with data programing.

k. Updates on individualized hands-on training: BSM, Kraft Heinz, Benson Hill

i. **Comments:**

Jason: I had a request from Jack Links to do some educational work for their exec team to translate to the why: how plant proteins work etc.

Pam: We have done that for members for free. But we can certainly for non-members too.

Jason: I will put you in touch with them

l. Updates on PPIC events in 2021/2022:

- i. Proteins Basics Short Course and Research Spotlight 3rd Annual Meeting (**Dec 6-8 2021**)
- ii. Commercialization/Product Launch Workshop (**June 9-10th 2022**)
- iii. Industry Focused Research Planning Meeting (**TBD**)

1. Comments:

Pam: The events were all successful and we had 52 attendees for the short course and 118 attendees for the research spotlight event. Event page was updated with feedback we received.

Pam: The new commercialization workshop is coming up. Since events are a lot of work, this year we won't be able to hold the Industry Focus Research Planning

Meeting. We want to hold it, but the timing isn't working. Would it be ok to hold this off until Spring 2023?

Jason: When was the last time? (2018 the inaugural) That's a long time. It could be virtual in the fall.

Pam: Because of the round table discussions, it's hard to do virtually.

Jason: I'd hate to see 5 years go in between. The focus has been industry directed research, so industry direction is needed.

Pam: We did get industry direction from the Tech Committee meeting in the past couple of years during the Pandemic

Christina: Perhaps we could piggyback on an event and have a side meeting. Some other event that you know most of your companies will be there and you can hold a meeting.

Pam: We can look into that. Perhaps we can hold the event in the fall without the short course, it will be more manageable this way. May be in Dec again.

m. About you links: Featuring you on our website

i. Comments:

The website isn't live yet, but there will be hyperlinks where there will be more information about each company with links to their website and contact info, etc. We are waiting for all the companies to give us their information.

n. PPIC experience google form

o. Developed [promotional video](#), worked with Lori and Dylan from CFANS

p. PPIC in the news (Food Business News, Lead Story on Driven for Greater MN, CFANS featured PPIC in their newsletter and website)

q. New hires: three Researcher 2, one Researcher 4, three Postdocs.

i. Comments: We're 26 researchers including graduate and undergraduate researchers. Growing.

r. Acquiring new instrumentation:

- i. Two freeze dryers
- ii. Floor centrifuge
- iii. Contribution to new nitrogen analyzer
- iv. HPLC unit
- v. Contribution to bench scale Brabender twin-screw extruder
- vi. Another Waters seed HPLC unit with kit for amino acids analysis
- vii. Additional accessories for another GC-MS-O unit

3. Discuss other tasks (20 min)

Objectives: Discuss

a. Associate-Trial, not sustainable

i. Comments:

Pam: In the past 6 or 7 large companies join at the associate level.

Julie: They will all have to make a decision at the end of 2022/2023. There are some that joined earlier and they're going to have to make a decision soon.

Pam: We lost two of the previous trial associates. What makes me nervous is we have 14 partners and that hasn't increased. We lost 2 and gained two. I'm nervous to have request for proposals to go out because we won't have enough funding to go out to dedicate to new research projects. \$6,000 membership fee during trial period is not sustainable. Also at the associate, they get the welcome package, and we would lose money if they don't come back as Partners.

Christina: Is it beneficial to not offer the welcome package? Even though that's a great benefit?

Pam: Perhaps we could propose a smaller welcome project of \$4,000? For associates they pay over 3 years, but the trial year is one year so we're losing money.

Jason: How much is a difference of \$4000 to 8000?

Pam: Usually companies do larger than \$8000 project. So \$4000 would be like a discount, not a whole project.

Julie: Do we keep the trial option? Risk going forward we'll have fewer big companies to commit. Now they commit for the year, and we don't know how many we'll lose.

Jason: We need to be aware of the inflationary pressures that the company's have.

Perhaps the welcome package could be consultation instead.

Pam: We already offer office hours and consultation as a benefit.

Greg: Julie, what does a large company feel they get?

Julie: I think large companies realize they can't do everything internally and look for other research institutes to do research for them.

Pam: And it's cheaper for them to use us than do it themselves and we write a manuscript with all the methods etc.

Greg: Is there a way to tie in the pilot plant?

Pam: We do use it a lot already.

Christina: Another option would be to leave it available but increase the trial membership fee.

Pam: Can we say the trial associate would be \$10,000 which is not much of a difference for a large company. Keep the associate at \$6000.

Jason: Perhaps you need to make a separate level?

Pam: I don't want to call them partner. We can change the wording for associate and trial associate.

b. PPIC initiatives

- i. Initiate new programs such as exchange students and international project collaboration (e.g. initiatives with Wageningen University and Research, Improve, Nizo, DIL)
- ii. Seek new funding sources **(Tabled)**
- iii. Outreach programs
 - a. Comments:

Pam: I want to thank Sergiy (DIL) for helping a student go to Germany this summer. She is funded by PPIC project on blending

Sergiy: It's great you have such an excellent student and the collaboration can work. We have this German exchange program that she could apply for. It was great to get someone relevant to us. She will come in May for a few months. Will do something with extrusion.

Pam: I hope we can work with other Universities as well. We will still pay her while she is there. Hopefully we can figure something out to do the same with Wageningen as well.

c. When to hold next PPIC events, what to prioritize (short course, research spotlight, or planning meeting) (Tabled)

d. Membership goals (Tabled)

- iv. Increase our membership pool Target: ~\$1 million consistently per year (in next 2-3 years) to fund 3+ active research projects yearly; 25 partner members could help us reach this number, we are now at 14 Partners and 22 Associates

e. When to have another RFP

- i. Comments:

Julie: When to see another RFP?

Pam: I want to see some of these associates bump up. So by the end of 2022 we'll have a better idea. Available funds are committed already.

Julie: As far as recruiting, we've talked a lot about contacts and conferences etc. Is there anything else that we should be pursuing?

Christina: When I speak at events, I try and let people know about PPIC and make my contact info available to people.

4. Next steps (5 min) (**Ran out of time**)

Objectives:

- a. Planning for commercialization workshop!
- b. New call for Proposals
- c. Continue recruiting efforts
- d. Determine focus of next meeting; when should we meet next?

Post-Meeting Action Items

- Karthik to send Hemp final report along with minutes
- Send Bayer's contacts to Greg and follow up to get Industry Consortium attendee list.
- Open registration for the commercialization workshop
- Look into possibilities to host Industry Focused Research Planning meeting in the fall
- Follow up with Sergiy on potential collaboration for Microsoft project
- Increase the Associate trial membership fee to \$10,000 for Partners
- Follow up with Jack Links to plan executive level training on plant proteins.
- Pam to put together a presentation highlighting how PPIC projects translate to products/commercialization that can be presented at PPIC's upcoming Commercialization workshop.