

Center for Particulate and Surfactant Systems

An NSF Industry/University Cooperative Research Center (I/UCRC) since 2008



Fall 2011 Industrial Advisory Board (IAB) Meeting

August 17-18, 2011

Columbia University, New York, NY

~ Meeting Highlights ~

The Fall 2011 IAB Meeting for the Center for Particulate and Surfactant Systems (CPaSS) took place at Columbia University in New York on August 17-18, 2011. The two-day program consisted of project updates, industry feedback, discussions of green initiatives and a poster session.

Below are the main highlights of the meeting - the Center leadership would appreciate any comments, questions or suggestions you may have regarding any of these items.

Vision of the Center

- Updated to include greener surfactant and particle technologies

Potential Memorandum of Understanding (MOU)

- Being explored with the Shah-Schulman Center for Surface Science and Nanotechnology at DD University, Nadiad, India

Project-Industry Sector Matrix

- Being used to help identify and recruit new members, as well as to see where new project proposals can be initiated

Single IAB

- Outlined a possible plan to share all funding across both sites

CPaSS Phase II Renewal

- Outlined proposal requirements which will be due in the Fall of 2012

From NSF

- Described potential funding opportunities and requested feedback regarding impact of I/UCRCs on IAB companies

LIFE Form Comments

- Currently being addressed by PIs and research team members

Next IAB Meeting

- Spring 2012 IAB Meeting to be held on February 13-15, 2012, at the University of Florida in Gainesville, FL

For additional information on these meeting items, please refer to the attached agendas and meeting minutes

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~ Meeting Minutes ~

~ Wednesday, August 17, 2011 ~

Davis Auditorium, Schapiro Center, Columbia University

Green Mineral Processing Program

- Moderated by Prof. P. Somasundaran (CPaSS Co-Director)
- For questions related to the Green Mineral Processing Program, please contact Prof. Som (ps24@columbia.edu)

Welcome & Introduction

Dr. Deborah Stiles, Vice President for Research Operations, Columbia University

NSF I/UCRC Program Update

Dr. Rathindra (Babu) DasGupta, I/UCRC Program Director

I/UCRC Impact on IAB Members

- NSF would like to hear more from IAB Members regarding the far-reaching impact of I/UCRCs
- Items of interest that can be reported include:
 - How many students working on IUCRC projects are being hired by IAB Members of that Center?
 - How many patents have originated through I/UCRC projects? How many patents have involved IAB Members?
 - Was there any increased revenue/tangible economic impact at your company?

Potential Funding Opportunities for CPaSS and IAB Members

- Collaborative Opportunity for Research Between I/UCRCs (CORBI) [11-074](#)
- Fundamental Research Program for Industry/University Cooperative Research Centers (FRP) [11-570](#)
- Research Experiences for Undergraduates (REU) [09-598](#): CPaSS needs a stronger undergraduate presence!
- Research Experiences for Veterans (REV) [11-054](#): New solicitation/program!
- Innovation Corps Program (I-Corps) [11-560](#): Anyone who is considering this program should speak with Babu (rdasgupt@nsf.gov) **before** submitting your proposal! Babu stressed that this program is targeting work that is literally on the cusp on being commercialized.
- Small Business Innovation Research Program Phase I Solicitation FY-2012 (SBIR) [11-577](#)
- Small Business Technology Transfer Program Phase I Solicitation FY-2012 (STTR) [11-561](#)

Dr. Denis Gray, I/UCRC Evaluator

LIFE Forms

- Reminded attendees that hard copies of the forms were provided in the meeting folders
- Directions for filling out the online forms (<http://isl.ucf.edu/life/>) were also noted

Center Process/Outcome Questionnaire

- A single representative from each IAB Member company was asked to fill out the questionnaire
- Questionnaires were to be returned to Denis before the end of the meeting
- Denis reviewed some general feedback from 2010-2011, including endorsement of the new green initiatives as well as some recommended improvements to Center operations and communications

- In addition to the questions that NSF is interested in hearing about (noted by Babu), Denis added that NSF would like to also know whether any projects had been started at IAB Member companies that were initiated from CPaSS projects

CPaSS Sites - Status & Update

Dr. Brij M. Moudgil & Dr. P. Somasundaran, CPaSS Directors

Center Status

- Updated vision: Greener Surfactant and Particle Technologies
- Unified IAB: Collaborative and interactive efforts
- Center Research Expertise & Facilities: A brief summary of the unique collection of research tools across both university sites
- Site Specific Research Projects: Columbia University, University of Florida

Program Enhancements, Outcomes & Leveraging

- Strategic Planning Committee (SPC) and IAB Recommendations: Most have been implemented at the Fall 2011 IAB Meeting or will be at the Spring 2012 Meeting
- Project-Industry Sector Matrix: noted a cross-cutting a wide research spectrum including Consumer Products, Pharmaceutical & Health, Agriculture & Food, Oil/Mining/Minerals, Specialty Chemicals and Analytical Instrumentation & Services
- Phase II Renewal: Outlined requirements for proposal to be submitted in Fall 2012

Prospective CPaSS International Partner Site - Dharmsinh Desai University

Dr. Dinesh O. Shah, Shah-Schulman Center for Surface Science and Nanotechnology Director

- Potential Memorandum of Understanding (MOU) with DD University, Nadiad, India

Project Updates

- Moderated by Prof. Som and D. R. Nagaraj (Cytec Industries)
- Characterization/Processing & Bio/Particulate Systems Sessions

Poster Session

NSF I/UCRC Program Update

Dr. Denis Gray, I/UCRC Evaluator

- Reminded IAB Members to return the Center Process/Outcome Questionnaire before the end of the meeting

Project Updates

- Moderated by Rodney Guico (UF Site Director)
- Dry Systems & Wet Systems

IAB Executive Meeting (Davis Auditorium) Closed-Door ~ IAB Members Only

Dr. Brij M. Moudgil & Dr. P. Somasundaran, CPaSS Directors

LIFE Forms Discussion

- Moderated by Dr. Denis Gray
- Second day fatigue was noted in the lower response numbers from the LIFE forms tally
- A few comments were highlighted from each project - Denis asked the IAB Member/industry guest who wrote the comment to identify himself/herself which was then followed by any answers and/or responses from Dr. Moudgil, Prof. Som and the project researchers
- Babu noted that some portions of projects could be turned into proposals for the Fundamental Research Program
- Denis noted that IAB Members will be able to access a copy of the LIFE form comments

Center Status and New Items

- Moderated by Dr. Brij M. Moudgil (CPaSS Director) and Prof. P. Somasundaran (CPaSS Co-Director)
- Reviewed list of recommendations by Strategic Planning Committee (SPC) and IAB Members
- Reviewed Project-Industry Sector Matrix
- Outlined a potential change in how the Center could function with a single IAB
- Motivation for this change came from the complementary nature of both sites and, as such, the competition for potential members, which is something Dr. Moudgil and Prof. Som want to avoid - this change would alleviate being forced to compete with one another
- CU has avoided saying 'Yes' to some companies since UF had worked with them in the past
- Additionally, the UF site has been losing members while there has been considerable interest in the green surfactant work
- A workable solution would be to sign an MOU that would dictate the sharing of all funding across both sites - it would then be important to keep track of all resources
- The model essentially would be a lead university plus a subcontractor site
- Checks will be signed and money collected would be issued to both universities: one university would handle the checks and this leading university would certify that the other university would be holding up their end
- The NSF requirement of \$150,000 in membership fees per site would still apply
- Money would be distributed based on project voting by sponsors as in the past
- This 'umbrella' structure would make it easier to go after new members while being able to promote both surfactant and particle technologies of the Center
- It was reiterated, of course, that the IAB must approve this change and that it was being presented at this meeting to initiate the dialogue for moving forward with implementing it or not
- *[in response to question from Ray Farinato]* MOU would have to state that overhead would not change for the IAB
- *[in response to question from Pat Macy]* This is part of the unified theme of CPaSS (greener technologies), in order to move forward/make progress as one entity instead of competing between sites for members
- Denis Gray noted that other I/UCRCs have functioned with this umbrella structure, which is very doable in CPaSS's case - he also noted that the competition will then be over projects ([the site] where the companies want the work done will get the money)
- *[from Steve Bolkan]* This unified umbrella is the beauty of being a complementary center - it's all about the surfactant and particulate capabilities. When we recruit, we pitch to particle industries - we felt like we were stepping on CU's toes.
- On the whole, not much would change operationally at CPaSS, but the Center still needs to satisfy the requirements of NSF - however, both sites usually have a requirement that University administrative officials must see and certify the checks before 'signing off' on them
- A unified IAB would help protect the graduate students so their funding is somewhat guaranteed
- *[from Reg Davies]* CPaSS should create a formal process so that proposals would go to companies to rank them. Also, we still need a road map, something that we, and IAB Member companies, can sell easily (which we don't currently have). But this marketing strategy needs material to back it up (videotape perhaps?) and clarity in identity...we need to know clearly what and who CPaSS is (both for industry members and for faculty).

- [from Nelson Preto] I'm attracted to projects relevant to my company but also to having access to two universities
- [from Steve Bolkan] It took four meetings to crystalize the synergy between UF and CU - the IAB needs to turn around those non-relevant projects into relevant projects to CPaSS. Also, the project-industry sector matrix could use a 3rd dimension: interest level.
- Let's think about it and discuss further before the next IAB Meeting. A document articulating and further explaining these potential changes will also be distributed to the IAB Members in the coming weeks following the meeting.

Membership Status and Recruitment

- Moderated by Steve Bolkan (Church & Dwight)
- As an aside to the unified IAB change, have we asked ourselves how many members is our goal? Do we know how much we want to grow? Does anyone go back to their company and plant the seeds of possible CPaSS projects from within? A template for IAB Members to take back and disseminate would be useful here. We see the Center as an extension of our company's R&D.
- [from Charbel Tengroth] The CDs distributed at the meeting are useful - I will plan on sharing it with the rest of the company.
- [from Dr. Moudgil] Remember that these projects are pre-competitive! The IAB is reducing risk by funding this research through pre-competitive projects.
- [from Reg Davies] 10 major (large) companies on each side would be very good. Yes, what matters is what you IAB Members do once you get back from the meeting. At DuPont, we tried to get as much info back as possible - it opens doors!
- [from Pete He] I bring back project reports and presentations and make the higher-ups the hero! But I also need to be bringing in patent disclosures, sustainability/tangibility, value chain, supply, chain, etc. to show why CPaSS is needed. The discussions tend to be too diffuse and too diverse. To bring in more members, CPaSS needs a philosophy.
- So what's the sweet spot? At what point would we as a Center be satisfied? How can we communicate a plan to different industries? Perhaps we redo the project-industry sector matrix which can be taken back to prospective member companies.
- [in response to question from Steve Adamy] Companies don't join/haven't joined since they say "We'll try to get it in next year's budget," or cite, "budget problems," "mergers," or someone retires. Also, some companies don't want to join if their competitors have already joined.
- [from Pete He] A member benefit document would be extremely useful here!

Potential MOU with DD University, Nadiad, India

- Moderated by Steve Bolkan (Church & Dwight)
- [from Oliver Thum] This would be beneficial to the Center!
- [from K. P. Ananth] This would bring good expertise to the group!
- [from Denis Gray] CPaSS would need MOU for all three sites, so you share in what's happened. Need to address items such as NDAs, IP, etc., but it can be formalized and is easy to do with agreements in place. Understanding that everybody shares everything is challenging.
- [from Dr. Moudgil] It should be noted that no monies will be shared with DDU...it's an added international resource to the Center, which NSF encourages. Finally, there will need to be a vote and understanding from all IAB Members for us to proceed with adding DDU to CPaSS

Next IAB Meeting

- [from Rodney Guico] The Spring 2012 IAB Meeting will be on February 13-15, 2012, at the University of Florida in Gainesville, FL

Green Chemicals Roundtable

- Moderated by Pete He (Henkel) and Kevin Jarrell (Modular Genetics)
- Teleconference to be scheduled after the meeting for follow-up items

Meeting Adjourned at 2:30 P.M.

As recorded by Claire Noelle Frost (CPaSS Administrative Assistant) and Rodney Guico (UF Site Director)