

Center for Particulate and Surfactant Systems (CPaSS)
I/UCRC IAB Meeting
Gainesville, FL, March 5, 2009

Meeting Minutes and Action Items

A. I/UCRC GENERAL BUSINESS DISCUSSION-

- Paul Siracusa (Chair of IAB- Columbia University) acted as the chair and moderator during the closed meeting for IAB members.

First item: Attendees were asked what they expected to accomplish during the meeting.

INDUSTRY

- Understanding how I/UCRC will work
- Identify the Focus
- Precompetitive research
- PERC's relationship with Florida I/UCRC
- How will research interests of specific industries with fewer members(e.g., mining) served under the new structure

- Responding to some members concern about being a minority in the IAB, the chair asked attendees to identify their industry affiliations:

- Consumer products - (7)
 - Household cleaning/detergent
 - Personal
- Mining – (4)
- Industrial/process/water (environmental) - (1)
- Specialty Chemicals - (1)
- Energy – oil/gas (2)
- Pharma - not represented among the attendees but large portion of the IAB members

ACADEME

- Research priorities (via interest from members)
- Recruiting new companies

NSF

- Level of interest by industry
- New project selection process

As per NSF: Different divisions of the same company can join both sites. Evonik is a current example.

- Before addressing the L.I.F.E. Forms and evaluating each project presented, preliminary action items were outlined:
 - Feedback from Industry will be reviewed by IAB Directors
 - Revise project descriptions addressing industry suggestions/comments as much as possible
 - Despite industry interests or lack thereof some projects cannot be stopped if a graduate student thesis research depends on it

- Some of the projects presented are existing programs that are up for review and progress – cannot stop funding those linked to grad student thesis, even if the current company interest in such projects is low. Voting will focus on new projects and programs.
- Always remember - L.I.F.E. forms are a way to gauge interest not a voting ballot.
- Budget available for new projects: For 2009 cycle there is about \$200K available for funding of new Florida site projects. A similar amount is available for the Columbia site projects. NSF clearly states that even if only one company shows interest for a particular project - that need should be addressed by the center as resources allow.
- Generating additional revenues: Combining 2 sites has reduced the pool of sponsors; centers need to look at strategies for increasing membership. One possibility is to attend industry shows, marketing events – to advertise I/UCRC. Some of IAB members, especially those that provide ‘in kind’ support, attend conferences and technical fairs regularly, and may be requested to display and discuss I/UCRC material at their exhibit. Proper marketing material from CPaSS needs to be prepared and distributed among them so they can assist in recruiting members. According to NSF experience, one of the best recruiting tools for I/UCRCs is the active participation of industry members in this task. Marketing plan: put a scope together; industrial partners should be involved to drive the program.
- IAB should establish an executive committee of industry members to guide the center on several fronts. The first and foremost being approval of the bylaws. Additionally, executive support is needed in the following three areas. Volunteer were identified from the attendees.

Marketing: D.R. Nagaraj (Cytex Industries, Inc.), Pete He (Henkel)

Budget: Paul Siracusa (Church and Dwight)

Research Portfolio: Bruce Keiser (Nalco Company)

Bylaws are to be approved by end of March.

- Most appropriate classification of I/UCRC research: After some discussion it was decided to continue to classify it as precompetitive (royalty free, level playing field).
- PERC, I/UCRC relationship was discussed by Dr. Moudgil. He clarified that all industry partners of PERC had agreed to become members of I/UCRC IAB. Upon approval of the bylaws, all industry members will be formally informed about their membership being transferred to I/UCRC IAB. Any new members joining the I/UCRC program will sign the current I/UCRC industry-university agreement.
- Several IAB members expressed their concern with having to sign new agreements. Involving legal departments during these critical times may force some companies to drop their membership. Accordingly, as mentioned above, a formal notification will be sent to all those who have agreed for using their membership fee dollars for

supporting the I/UCRC program. PERC will continue to provide administrative support and education programs as needed by the I/UCRC program.

- IAB members explained and agreed that aligning membership dues and payments with the fiscal year of a company helps in getting those payments through. It is easier to execute a previously budgeted payment than to initiate a new activity.
- Voting Issues – every company gets 1 vote per each \$1000 paid as membership fee. 2009 project voting will be done on line once projects are presented in the requested format, and IAB representatives have a chance to discuss priorities with their companies. Votes should be in by the end of March for bylaws. Project voting is to be completed by end of April.
- Industry has to understand what they are voting for – Projects have to be clearly defined in terms of interest to industry: tangible deliverables; clear timeline (project life span, i.e., 1, 2, 3 or 4 years); requested budget; leveraging opportunities, etc.

B. DISCUSSION OF L.I.F.E. FORMS –

- L.I.F.E. forms filled during the meeting yesterday have been processed and all the information is recorded on file for future use and reference.
- L.I.F.E. Forms should be modified to guide the feedback from industry distinguishing between questions, suggestion and comments for each project.
- Project sponsors (industry members) are to be identified for each project that will be carried forward under IAB support.

CONTINUING PROJECTS

1. Particle – Process Analytical Technology (P-PAT) - K. Powers.
 - a. Mentor Bruce Keiser (Nalco)
2. Synergy and Antagonisms in Greener Surfactants – J. Wu.
 - a. Mentor Pete He (Henkel)
3. Cationic Polymers/Anionic Surfactants Complexes–B.Li.
 - a. Mentor Ananthapadmanabhan (Uniliver) (Project needs to conclude by end of 09)
4. Photocatalytic Degradation- V. Krishna.
 - a. Mentor Greg Spontak (P&G)

The following two projects were presented at the IAB meeting. However, it was recognized that these are enhancement projects. Accordingly, no further action is warranted and they will be deleted from the IAB project roster.

5. Mod. of Surfaces: Interfacial Effects of Modified Silicone Polymers-P. Purohit
 - a. Enhanced project already funded. Will not be part of IAB voting process
6. Role of Pulp Rheology and Heterocoagulation in Selective Mineral Sep. – S. Murthy
 - a. Enhanced mining project already funded. Will not be part of IAB voting process

NEW PROJECTS

1. Dilute Suspension Flow – J. Curtis
 - a. Mentor Guoqiang Yang (Shell Global Solutions)
 - b. Better scope needed; PI should focus on modeling and should contact University of Tulsa for the experimental data required for modeling efforts. Get consortium of oil companies to join the Center.
2. Grinding Aids for Nano-milling- B. Moudgil/P.Sharma
 - a. Mentor (?).
 - b. Pharma, cosmetics, and TiO₂ companies should be interested
3. Dispersion in Air of Micron and Nanometer sized Particulate Systems– H. El-Shall
 - a. Mentor Bruce Keiser (Nalco)
 - b. Scope to include pharma applications –also interest from bulk air management.
4. Triboelectric Phenomena in Particulate Materials –S. Brown
 - a. Potential interest from Pharma– Could link well with efforts at the Rutgers ERC. Explore ERC-I/UCRC collaboration- NSF stated it would be a new type of collaborations that would require approval from both I/UCRC and ERC programs directors
 - b. “Free for 1 year” – leveraged project with Space Related funding

PROPOSED PLATFORM INITIATIVES

➤ New initiatives are broad and expansive platforms (thrusts) presented to the IAB as future research directions for their input and guidance. They could trigger formation of consortia or groups of companies to support the effort.

1. Green Surfactants- P. Somasundaran

- a. Ongoing proposition at the Columbia site for which a report has already been generated. The report needs to be put on the website so every member is aware and informed of the steps already taken. There has been too much discussion on this topic already and some members at Columbia are expecting action in the immediate future. Because of the different meaning and definitions of ‘green’ for each industry a viable option might be to structure the initiative as several platforms (shown below) from which specific projects would ‘spin-off’.

FUNDAMENTALS ON GREEN SURFACTANTS/POLYMERS			
Industry Leader: Pete He (Henkel)			

<p>MINING Industry Champion: D.R. Nagaraj (Cytec Industries)</p>	<p>CONSUMER PRODUCTS Industry Champion: Marcus Doerr (Cognis Care Chem)</p>	<p>WATER Industry Champion: Bruce Keiser (Nalco)</p>	<p>OIL/ENERGY Industry Champion:</p>
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- NOTE: if treated as a mini consortium, funds other than the IAB membership fee would be required to support consortia additional research.
2. **Product Development Software Tool to Predict Bulk Cohesive Properties of Powders – K. Johanson**
 - a. Bulk Cohesive Properties – Kerry has applied for SBIR funding – resolution on that request is expected at the end of March. No further IAB action is warranted at this time.
 3. **E-Module: Sampling- Theory and Practice, Part I: Dry Powders – H. El-Shall**
 - a. Members did like and approved the initiative. It could be self-sufficient by charging for download and/or use
 - b. Scope should be broadened and other tools like e-lectures and animation should be applied.
 - c. Revise budget, send for comments and execute.

OTHER ITEMS

IAB members observed that the funds provided by NSF to the I/UCRC program are modest and whether it is advisable for IAB as a whole to approach NSF to ask for increased funding for the I/UCRC program. NSF representatives did not comment on it. It was suggested that a direct communication with NSF at the Engineering Deans level about the I/UCRC program support may be a more appropriate option.

C. EXECUTIVE DECISIONS AND ACTION ITEMS -

1. Bylaws: In order to proceed with bylaws approval the following is needed:
 - a. Glossary of terms used (terminology definition)
 - b. Clarity and broadening of the research focus section
 - c. Diagram showing the organizational structure
 - d. IAB nominated 3-members executive committee to resolve the above and any other issue, and make a recommendation to be voted on by all the members
 - e. Needs to be completed by 03/31/09
2. Web site has to be updated to incorporate suggested items/issues:
 - a. Communicate a 2-page summary of revised projects identifying what is to be worked – define categories – list PI, mentors, timelines, deliverables, etc.
 - b. Divide projects by categories – continuing/new. Voting should be understood by members.

3. Motion from floor to approve I/UCRC budget as shown on page 9 of the handout slides presented by the directors was approved to accept as shown.
4. Motion to grandfather current “in kind” members until bylaws are in place was approved unanimously.
 - a. Som asked for new members to be grandfathered until bylaws are in place.
5. Election of IAB Chair and Vice Chair –Greg Spontak was nominated from the floor – Greg suggested that Paul Siracusa, who has been serving as Columbia site IAB Chair had more experience in I/UCRCs, therefore he suggested Paul to be the Acting Chair and him (Spontak) to be the Acting Vice Chair.
 - a. Proposal from the floor for Paul Siracusa as the *acting* chair and Greg Spontak as the *acting* vice chair, seconded, approved.
 - b. Bylaws will clearly state the terms and election guidelines for the members of the IAB Chair, Vice Chair and the IAB Executive Committee. Once bylaws are approved nominations for the 2-year term positions of the executive committee will be solicited through the web site and posted, announced, voted on and approved.
 - c. Timeline for IAB Executive Committee election will be 03/31/09 - 04/31/09.
6. Schedule of action Items
 - a. Edit and approve bylaws
 - b. Elect chair, vice chair and executive committee (if no additional nominations are presented - the vote will be for keeping the current acting chair and vice chair for a next term)
 - c. Website will be modified and voting on projects will be scheduled and collected on line.
7. *Acting* Executive Committee will assist the acting chair and vice chair on the above tasks until permanent Executive Committee is elected: Acting IAB Executive committee members include Paul Siracusa (Church & Dwight), Greg Spontak (P&G), Pat Macy (Kemira Chemicals), K.P. Ananthapadmanabhan (Uniliver), Bruce Keiser (Nalco) and D.R. Nagaraj (Cytec Industries).
8. NSF I/UCRC center evaluators Vida Scarpello and Denis Gray offered their assistance in guiding/helping the *Acting* Executive Committee.
9. Next Meeting – Columbia University, NY (1-day meeting)
 - a. **Thursday 08/20/09 Approved**
10. Spring Meeting – at the University of Florida, Gainesville, FL 2010
 - a. **Feb. 17-18, 2010 – Approved**

Meeting adjourned at 11:25 AM