



**2015/2016 Division & Class Report
to the
ACerS Board of Directors**

Division/Class: Basic Science Division _____

Current Division/Class Officers: (complete as appropriate for your Division or Class)

Chair: Shen Dillon
Chair-Elect: Xingbo Liu
Vice-chair: Dunbar Birnie
Secretary: Paul Salvador
Secretary-Elect: John Blendell

Counselor: Bryan Huey
Counselor: Wayne Kaplan
Counselor: Jian Luo

Program Chairs: MS&T 2015, EMA 2016: John Blendell, Dominique Chatain
Program Chairs: MS&T 2016, EMA 2017: Ming Tang, Yiquan Wu
Program Chairs: MS&T 2017, EMA 2018: TBD
Program Chairs: MS&T 2018, EMA 2019: TBD

Sosman 2016 Nominations Chair: Shen Dillon, Xingbo Liu
Ceramographic Award: Karren More
PCSA/BSD Student Representative: Lisa Rueschhoff
GEMS Award: John Blendell

Incoming Division Officers: (complete as appropriate for your Division or Class)

Chair: Xingbo Liu
Chair-Elect: Dunbar Birnie
Vice-chair: Paul Salvador
Secretary: John Blendell
Secretary-Elect: TBD

Counselor: Shen Dillon
Counselor: Bryan Huey
Counselor: Wayne Kaplan

Summary of Meetings and Activities Held/To Be Held (from Oct. 2015 through Oct. 2016):

BSD continued strong support of the MS&T annual meeting in 2015. We supported Registration waivers for symposia organized by BSD members, and supported waivers for presenters in the Sosman Symposium. The Sosman prize was awarded to Yuichi Ikuhara in 2015, Jennifer Lewis was selected for the 2016 Award and Michael Hofmann has been announced as the awardee for 2017.

GEMS graduate student awards were again coordinated by John Blendell and funded by BSD.

The Ceramographic contest overseen by Karren More of BSD was again a favorite of MS&T attendees. For MS&T 2016, support has been set aside for a larger Ceramographic prize as well as for printing digital submissions. We hope to increase participation in the contest through this initiative.

EMA 2016 was also strongly supported by BSD. Several symposia were sponsored by BSD members, scholarships were provided to 13 students for attendance and participation, full or partial registration waivers were provided for 7 invited speakers, and funds, and we continued to support the tutorial at EMA, this time on the topic of microstructure and grain growth, by Shen Dillon and Gregory Rohrer. We also requested supplemental funds that were used to support student attend EMA and the Winter Workshop. Details of this were described in the report on supplemental funds.

BSD also provided support for the GRC 2016 Solid State Ceramics conference. This meeting was very successful with presentations from leading scientists in the field and ≈ 124 attendees many of which were either BSD or ACerS members.

Future Planned Meetings/Activities (from Nov. 2016 – October 2017):

BSD continues to strongly support the MS&T annual conference (2016), the EMA annual meeting (January 2017), and GRC solid state ceramics biennial meeting (Summer 2018: organized by Jian Luo). We will be co-organizing the 2017 Winter Workshop in collaboration with the Electronics Division and in coordination with EMA.

New Initiatives/Opportunities:

BSD has submitted an application for \$2,500 of supplemental funding to support expanded graduate student and young professional attendance, awards, and networking opportunities at EMA as well as student participation in the Winter Workshop. This will be the first Winter Workshop organized by ED and BSD.

BSD has provided expanded support for the Ceramographic competition in hopes of attracting more participation. We will evaluate the efficacy of this initiative after MS&T 2016 and determine if such measures should be continued.

Action Items for ACerS Board Consideration 2016 meeting:

It was briefly highlighted during the division leaders conference call that a discussion of the GGRN should take place during the board meeting. This was a concern raised by our members and links to two related issues. First, there has been a concern that the incentive structure of providing funds directly based on membership has discouraged cooperation amongst the divisions. Basic Science shares interests with all of the divisions, has many joint members, and has in the past worked with other divisions and meetings to the best of our ability (e.g. co-organizing with EMA, supporting the Arts division in 2015, and supporting the GRC). For this reason, BSD is particularly concerned about incentives or disincentives for cooperation. As the society discusses the possibility of making the supplemental funds more permanent, we encourage the board to consider ways to promote cooperation amongst the divisions in an effort to promote a stronger society overall.

The second concern was the specific issue raised about the GGRN. Since the GGRN brings students into a specific division, membership in which is difficult to change, along with the \$10 per member going to the division. One division was using supplemental funds to support the \$30 registration of GGRN members in their division, with an effort to get matching support. Thus \$20 dollars are returned to the division for every \$30 of supplemental funds, and there is a better possibility that those members will remain registered in that division regardless of their future work due to the fact that few members change divisions after initially signing up (it seems one must contact ACerS staff to do so). An active BSD member was encouraging the leadership to respond in some way, presumably to launch a competing program. From an economic analysis at the division level, it likely makes sense for other divisions to run competing programs. Overall, we can all agree that it would be beneficial to grow student membership and overall membership. However, from the society level having a series of such efforts amongst all of the divisions may not make the most sense financially. We wonder if having 1/3 of the students fee being returned to the divisions (\$10) is of sufficient benefit to the divisions as to offset the additional cost barrier to student participation. We also wonder if reducing the cost of GGRN membership (perhaps completely) could be offset by benefits in larger circulation of digital media and associated advertising revenue.

Issues/Concerns:

As was pointed out in our report from the prior year, ACerS should continue to work closely with both the divisions and TMS to improve the overall quality of programming at MS&T.

Additional Items of Note:

We are grateful to the always supportive and knowledgeable ACerS staff. We will miss Marcia Stout and all of her great efforts in support of BSD and the society.

Financial Statement: (Including year-end summary of expenditures from the Division's Funds) attached

Submitted By: Shen Dillon