

Minutes of the Division of Comparative Biomechanics business meeting, January 4, 2010

The Division Chair, Bob Full, called the meeting to order. Membership in DCB now stands at over 600 (compare to 151 when the Division was first formed). DCB is making a strong showing at the Seattle meeting, being represented in 35 contributed paper sessions, and being the identified division on 196 papers and 68 posters. 58 students entered the Best Student Paper competition (both oral and poster presentations). DCB sponsored the Mechanics without Muscle: Evolutionary Design of Macrophytes symposium, organized by Patrick Martone (which is significant because it broadens our participation/audience to plant people), and also co-sponsored a symposium with DVM organized by Jeff Walker on the Evolution of the Fish Body Plan.

Bob reported on things that had come up in the meeting of the SICB Executive Committee. Bill Zamer of NSF once again addressed the committee; last year he asked for input from SICB on the future of organismal biology, specifically what we see as the “grand challenges in biology” that can only be answered through organismal approaches. SICB’s response directly led to the Grand Challenges write-up in Integrative and Comparative Biology. However, that was just the starting point, and now Zamer wants the Society to continue identifying directions and to take the next step – translate those Grand Challenges into specific questions, and what resources would be needed to answer them. Additionally, we should focus on broadening our approaches to involve non-biologists (e.g., engineers), and creatively link research questions with strengthening undergraduate education (especially broadening the participation of minorities). Zamer promised that information on specific programs to address the Grand Challenges would appear soon.

The SICB Society officers entered the room and were introduced. Rich Satterlie, the Society President, encouraged everyone to attend the Grand Challenges Workshop at the meeting. Ron Dimock, Society Treasurer, encouraged all members to consider making contributions to SICB’s various “unrestricted funds.” These mostly support specific scholarships and awards, and many of them are severely underfunded. Ron also informed us that an “error” was made by the hotel that resulted in them overcharging us for beer at the Welcome to Seattle social; the price for beer would be correspondingly reduced at the Dessert Social. Brian Tsukimura, the incoming Society Program Officer, reminded everyone that proposals for symposia for the Charleston meeting would be due in August.

After the Society officers left, Bob reiterated that those who could attend the Grand Challenges Workshop should do so, in order that the Comparative Biomechanics viewpoint would be represented.

Several of the unrestricted funds of the Society are in very bad shape indeed, and Bob specifically mentioned the Hyman, Skinner, and Davis funds as ones that could use our help. On a happier note, the new DCB-centric Gans Award is ready to go! The Gans family matched member donations on a 2-for-1 basis, and the fund raised \$34,400 in one year! Sadly, Carl Gans died last November; there will be a call for nominations for the first-ever Gans Award this coming summer. The award will recognize a unique published contribution in comparative biomechanics for the year; further details regarding the award can be found on our Division page on the SICB website.

NSF is supporting the field of Comparative Biomechanics with 2 IGERT grants. One is at the University of Chicago, administered primarily by Melina Hale. This program is called Integrative Training in Motor Control and Movement. The other IGERT is at UC Berkeley, administered by Bob Full. This program is called CIBER, and integrates engineering approaches with biology (<http://ciber.berkeley.edu/cgi-bin/twiki/view/CIBER/WebHome>).

Bob encouraged the DCB membership to do more to recruit underrepresented minorities into our field, and get them active in SICB. If interested, please contact him for information – either to go to and present at minority-focused meetings, or to serve as a mentor for minority students at their first SICB meeting.

Our outgoing Program Officer, Frank Fish, spoke next. He reported that the Macrophyte symposium had been well received. DCB will be sponsoring 3 symposia for the 2011 meeting: one on Gliding flight (organized by Robert Dudley), one on Bioinspired designs in comparative biology (organized by Brooke Flammang), and one on Central pattern generators (with the catchy title, “I’ve got rhythm”).

Frank encouraged everyone to think about organizing a symposium. The paperwork to do so is on the SICB website. He offered the following advice to budding organizers:

- The symposium must have broad appeal in its subject matter.
- Don’t pick as speakers people who always come to SICB. We should use this as a recruiting tool – invited speakers will see how great the meeting is, and keep coming back, possibly bringing in their colleagues as well.
- Think about inviting international speakers to increase the visibility of the symposium.
- Think about diversity in your speakers list. Pick speakers at different career levels. NSF and other funding agencies are very interested in seeing diversity.
- You must apply for external funding to support your symposium. You don’t necessarily have to apply to NSF – there are other sources that could be tapped as well. Also, you don’t have to win funding in order to have your symposium, but SICB requires that you apply.
- You should make an honest estimate of attendance. This is crucially important in assigning rooms.
- You have to build a webpage for the symposium (the SICB webmaster, Ruedi Birenheide, will assist you in this) to publicize it.
- Talk to the Program Officer about possible “extras” for your symposium. For instance, do you want to have a social associated with it? A roundtable discussion?
- Remember that Integrative and Comparative Biology has the first right of refusal to publish the symposium.
- Keep your number of speakers reasonable (10 or 12 for an all-day symposium). Remember that you can have associated paper sessions, which have the non-trivial perk of getting first priority for scheduling!

Frank claimed that scheduling problems in the contributed paper sessions were because we’re too successful as a division – there were so many talks that having conflicting sessions was

unavoidable, and it also led to such head-scratching moments as the multiple fish talks in the “Non-piscine swimming” session.

Finally, Frank claimed that being Program Officer was the “worst job one could ever really like,” and resignedly passed the baton to our incoming PO. Bob Full presented Frank with a parting gift in recognition of his service to the Division.

The Secretary, Miriam Ashley-Ross, introduced the new officers elected last spring: Steve Deban is our new Program Officer, and Sharon Swartz is our new Chair-Elect. Sharon will take over as Chair at the end of the Salt Lake City meeting in 2011. In order to bring our still relatively new division into compliance with our bylaws and the society election schedule, we will have to have another election this spring for a Chair-Elect who will take office when Sharon becomes Chair. Our divisional Researchers Database is still woefully thin; all are encouraged to send the Secretary (rossma@wfu.edu) a short paragraph describing your research interests and a photo of either your experimental organism(s), or a technique you use. It’s a great tool for recruiting students and fostering collaborations.

Patrick Martone, organizer of the Mechanics without Muscle: Evolutionary Design of Macrophytes symposium, reported that it went well, and that there were some non-plant people in the audience. He made a plea that we, as a division, think more explicitly about integrating plant studies into form-function symposia. Currently, there is no meeting in the US that focuses on plant biomechanics, and that most of the workers in that field go to the SEB meeting.

Beth Brainerd raised the possibility of a joint SICB/SEB meeting, but acknowledged that the timing of such a meeting would be sticky, and that there would need to be a leader of the effort on the SEB end.

Richard Zimmer, currently serving as Program Officer in Integrative Organismal Systems at NSF spoke next. He first stated in no uncertain terms that there are No More Stimulus Funds – they’ve all been spent. However, he also encouraged DCB members to investigate the “Life in Transition” program – this is extra money that NSF has to award. To apply, grant proposals should go to their regular review panel, but the title of the grant should be prefaced by “LIT:”. There are a couple of aspects of the LIT program that might fit into biomechanics research: (1) what are the principles and mechanisms of resiliency and sustainability used by living organisms in the face of environmental change, and (2) positive and negative feedback mechanisms used by organisms and ecosystems, and how those interact. The “Dear Colleague” letter describing the program is available online.

Zimmer also informed us that NSF won’t be accepting 2 page updates to grant applications anymore, because NSF determined that 95% of them were addendums to the proposal that allowed PIs to get around the 15 page limit. If you have some new substantial information that you want the review panel to have, contact the program director and tell them what it is, and he/she will attach it to the proposal.

The Fall NSF panels had a record number of proposals to deal with; hence the funding rate was low. Zimmer therefore encouraged everyone to make sure that your proposal is top-notch before submitting it.

If you include funding for a postdoc in a grant, you need to have an explicit “postdoc plan” – what you as a mentor will do to foster their career.

For the Broader Impacts criterion on grant proposals, it’s not enough anymore to say that grad students and undergrads will receive research training. Be creative.

NSF is always trying to recruit new Program Directors and panelists!

Several upcoming meetings are related to biomechanics:

- SEB 2010, held in Prague in July; one session is on Function and control of elastic systems.
- American Society of Biomechanics, held in August, in Providence, RI
- World Congress of Biomechanics, held in August, in Singapore
- DCB/DVM Regional Meeting, at Virginia Tech (likely in October)

Adam Summers announced two courses being offered this summer at Friday Harbor Labs: Biomechanics, June 14 – July 16; and Functional Morphology and Ecology of Marine Fishes (July 10 – August 20). Applications are due February 1, 2010. Further information can be found at <http://depts.washington.edu/fhl/studentSummer2010.html>

Beth Brainerd announced that the Journal of Comparative Zoology A was now welcoming methods-centric papers for publication.

The business being exhausted, the meeting was adjourned.