



Division of Comparative Biomechanics

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DCB Officers & Representatives

Mark Denny
Chair 2013-2015

Melina Hale
Chair-Elect 2013-2015

Sharon Swartz
Past Chair 2013-2015

Tim Higham
Secretary 2012-2014

Laura Miller
Program Officer 2012-2014

Nicholas Gidmark
Student/Postdoc Rep 2013-2016

Message from the Chair

Mark Denny, Chair.DCB@sicb.org

As 2013 draws to a close, it's time to anticipate the thrills and camaraderie of this year's annual meeting in Austin. In addition to the usual flood of contributed papers, there are three society-wide symposia that should be of particular interest to comparative biomechanists.

David Hu, Rachel Levy, and Lydia Bourouiba have organized a series of talks on "Shaking, Dripping and Drinking: Surface Tension Phenomena in Organismal Biology." Although at press time the line up of speakers was still in flux, the broad range of topics promises to have something for everyone; from flow through xylem to the ejection of fungal spores to the spread of pathogenic bacteria.

The symposium organized by Richard Blob and Tim Higham addresses the timely question of "Terrestrial Locomotion: Where We Stand and Where We Are Going," offering both a review of current theory and glimpses into how theory and measurement can be combined to study the evolution and diversity of locomotory dynamics.

And lastly, there is another in the continuing series of symposia addressing the grand challenges in organismal biology. Dianna Padilla, Billie Swalla, and Brain Tsukimura bring together an all-star cast to grapple with the formation of "A New Organismal Systems Biology: How Animals Walk the Tightrope between Stability and Change." Topics range from the theory of gene regulatory networks to control theory, with several perspectives on plasticity in between. DCB is well represented among the speakers, so even if the individual topics may appear to be outside your area of expertise, the relevance of this subject to, and its importance for, biomechanics will become apparent. The symposium will be followed by a round-table discussion.

Jake Socha will again be organizing the judging of DCB students' talks and posters. Please consider donating a bit of your time to help with this important process. You can sign up when you register for the meetings, or you can contact Jake directly (jjsocha@vt.edu).

Elections

The round of elections last spring brings us two new officers. Joe Thompson will succeed Laura Miller as DCB's Program Officer and Andie Ward will take over the Secretary's duties when Tim Higham steps down. Congratulations to both Joe and Andie, welcome aboard. Thanks to Rachel Merz, Miriam Ashley-Ross, Frank Fish, and Stephen Deban who assisted Tim and Laura in the nomination process. Thanks also to the other candidates who were willing to throw their hats into the ring.



Message from the Program Officer

Laura Miller, DPO.DCB@sicb.org

Fall is here at last, and it is time to start making your travel plans to Austin! All of the program officers arrived in Austin over the weekend of September 28th to plan this year's meeting, and I am happy to report that we will be staying in a beautiful hotel located in the heart of Austin. You will not have difficulty finding things to do near the conference, and I heard that some of the executive committee enjoyed the sights and sounds by seeing Blondie live. Please be sure to reserve a room at the Hilton Austin early to receive the SICB discounted rate. You will also want to register for the meeting by December 6th to receive the early rate.

Rita Mehta and I worked tirelessly this month to organize the morphology and biomechanics abstracts and are happy to let you know that DVM/DCB has over 220 oral presentations and about 100 posters. We are also happy to announce the co-sponsorship of two exciting symposia in Austin. The first symposia will be held on Sunday January 5th and is titled, "Terrestrial locomotion: Where do we stand, where are we going?" It is organized by Richard Blob (Clemson University) and Timothy Higham (University of California, Riverside). The second symposium will be held on Tuesday January 7th, and it is titled, "Shaking, dripping and drinking: surface-tension phenomena in organismal biology." This symposium is being organized by the mathematical and engineering team of David Hu (Georgia Institute of Technology), Rachel Levy (Harvey Mudd College), and Lydia Bourouiba (Massachusetts Institute of Technology).

I was happy to see that so many of you signed up to be session chairs, and I wanted to let you know that it makes programming the meeting that much easier. Despite the growing number of abstracts, we have very few 5 minute talks this year. It may be worth revisiting the 5 minute option with DVM in the future. If you have any suggestions for these sessions, please feel free to talk with me about it in Austin or over email.

It isn't too early to start thinking ahead to West Palm Beach in 2015 and Portland in 2016. There were several biomechanics related symposia proposed for West Palm Beach that will be announced in the coming months. Please also start to think about submitting proposals for the Portland meeting. Proposals will be due in August 2014, and more details will follow in the

coming months. Remember that exciting symposia and their publication in ICB are critical for the success of the society, and we definitely want comparative biomechanics to be well represented.

Finally, please join me in congratulating Joe Thompson who will take over as the DCB program officer starting January 2014. I look forward to seeing everyone this January, and remember to keep Austin weird!

Message from the Graduate Student/Postdoctoral Representative

Nick Gidmark, gidmark@uw.edu

Hi there, DCB'ers. I'm so excited to see all of you in Austin! SICB organizers have been hard at work getting things ready for the January meetings, and the SPDAC is no exception. We've been planning some great programs for January.

First, we'll be holding a workshop on "developing a web presence for your research." This workshop is centered around 1) what the resources are for developing a web presence; 2) using that web presence for advancing outreach to the public; and 3) using that presence to advance domestic and international collaborations. This workshop will help to demonstrate the ways that a web presence can help develop your personal scientific goals, so come computer-in-hand to get on-the-ground help! If you're interested in participating with organizing or contributing to this session, please let me know (gidmark@uw.edu) and we'll get you on the docket. We're especially looking for people who can demonstrate ways to achieve the first and third goals. This should be an awesome workshop!

Second, we're currently compiling a website that details the grants and fellowships that are available for SICB graduate students and postdocs. The idea here is to compile an extensive list that students and postdocs can peruse and find opportunities for finding that they might otherwise miss. This should prove a great, long-term resource for graduate students and postdocs. If you have little-known funding sources that you're willing to share, please also email them to me and I'll be sure they get up on the site.

Finally, the SPDAC has an exhibitor booth again this year, and we're currently exploring opportunities for how to best use it. More on that in the near future. If you have ideas for how that might best be used, again feel free to send them my way and I'll pass them on.



SICB Newsletter

Fall 2013 Issue

Hope everyone is having a delightful, productive, and happy fall. See you in Austin.

Message from the Secretary

Timothy Higham, Secretary.DCB@sicb.org

My time as secretary is coming to an end, but I am very excited that Andrea Ward will be taking my spot. I have no doubt that she will do a fantastic job! I am extremely excited about the meeting in Austin, and I look forward to interacting with many of you. My main goal for this newsletter is to highlight the regional meetings, which were incredibly successful. There were three (SE, SW, and NE). Perhaps the northwest will launch a regional meeting in the near future!

Regional meeting in the Southwest

Building on the successful meeting last year in San Bernardino, the Higham Lab at UC Riverside hosted the meeting this year. We had 79 people registered from 19 different universities, including 40 oral presentations and 2 posters. Some of the well-represented universities included UC Riverside, UC Irvine, San Diego State University, and Cal State San Bernardino. We even had people from Harvard University, Clemson University, UNLV, and the Royal Veterinary College in London! There was a great mixture of talks spanning both DCB and DVM, with topics ranging from bed bugs to hummingbirds. Ted Garland started the day with a fantastic plenary lecture on selection experiments and vertebrate locomotion. The day was filled with 5-minute talks, insightful questions, Thai Food, and, finally, gourmet hot dogs and beer. I want to thank Kathleen Foster, Emily Kane, Clint Collins, Kevin Jagnandan, Vicky Zhuang, Aleksandra Birn-Jeffery, William Stewart, and Sean Harrington (all from the Higham Lab) who devoted a considerable amount of time to make this meeting a success.

The quality of graduate and undergraduate presentations was incredible. I haven't witnessed such a stellar group of students in a very long time. We gave out awards for best graduate and undergraduate presentations, and our award winners gave informative and exciting talks. The best graduate student presentation award was given to Emily Abbott (UC Irvine) for her talk about how muscle relaxation rate may determine tendon recoil rate during energy dissipating tasks. The best undergraduate presentation award was given to Amberle McKee (Cal State Long Beach) for her talk regarding how substrate attributes determine gait in a terrestrial gastropod. Congratulations to both Emily

and Amberle!! We hope to see you next year!

The 3rd annual SW regional meeting will be held at UC Irvine next year. We hope to continually grow!



Group photo from the SW regional meeting at UC Riverside



The SW regional meeting (UC Riverside) held a competition for best oral presentations. Emily Abbott (Left) from UC Irvine won the award for best graduate student presentation and Amberle McKee (Right) from CSU Long Beach won the award for best undergraduate presentation.

Regional meeting in the Southeast

The 3rd Annual SE SICB conference was held at Georgia Institute of Technology on September 27, 2013. The organizers were Professors Daniel Goldman and David Hu. The conference began with a keynote presentation delivered by Jake Socha, Ph.D. from the Department of Engineering Science and Mechanics at Virginia Tech. His talk was entitled: "Push, squeeze, and suck: How insects move fluids on the inside." The day consisted of 10 minute talks which brought together researchers involved in topics pertaining to morphology and biomechanics of vertebrates, invertebrates, and plants. Talks were interspersed with coffee breaks which endorsed opportunities for informal discus-



sion about the various researches being conducted. There were participants from Georgia Tech, Clemson University, University of Alabama, Virginia Tech, Kennesaw University, among other universities. The total number of attendees was 46 with 25 presentations. Following the conference, participants met at a local happy hour at Cypress Street. Dan Goldman and Jake Socha provided some interesting photos!



A number of interesting topics were covered at the SE meeting at Georgia Tech!



Some participants at the SE regional meeting at Georgia Tech



Jake Socha and his lab at the SE regional meeting

Regional meeting in the Northeast

Daniel Field and Teresa Feo organized the NE regional meeting, which was held on October 26th at Yale University. The group photo was taken with the Yale Peabody Museum's famous Torosaurus statue! The meeting attracted 95 researchers from 17 different universities across the northeast, including 45 oral presentations. Lots of interesting discussion was stimulated, and everyone had a great time!



A group photo from the NE regional meeting at Yale University. This photo was taken with the Yale Peabody Museum's famous *Torosaurus* statue!