

Division of Comparative Physiology & Biochemistry (DCPB): 2004 Fall Newsletter

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For a list of current DCPB officers go to <http://sicb.org/divisions/dcpb.php3#officers>

Message from the Chair

Donna L. Wolcott

It's a great time to be working in comparative physiology and biochemistry. New research tools continue to be added to the researcher's repertoire, making persistent questions amenable to attack. And in fact, the questions themselves change in response to new techniques. The means of acquiring data and the power to visualize and process it continue to evolve and expand, which means that more complex questions can be addressed. Complex research spurs the need to collaborate, but the ease with which collaborations can be established and maintained is also evolving and improving. Some things have not changed, including the excitement of uncovering new knowledge, the importance of lateral and creative thinking, and the element of serendipity in discovery. Such foment of ideas is fostered at the annual meetings of SICB. It would be interesting to know how many new research directions, fruitful collaborations, and adaptations of useful techniques are spawned each year. I hope to see you in San Diego in January.

SICB, at the urging of DCPB, and the consent of the SICB executive committee, is underwriting a symposium at the upcoming congress of the International Union of Physiological Sciences. The hope is that SICB support will highlight the utility of a comparative and integrative approach in resolving questions in the field of physiology, a field that has been dominated by issues in human health. In fact, even the likelihood of adequately framing hypotheses improves when physiology and biochemistry are considered from a broader, phylogenetically informed perspective. I encourage you to read more about the congress (see Lou Burnett's article later in the newsletter), and if possible, to contribute to the fund that promotes travel to the Congress by young investigators. Thanks are due to Nora Terwilliger and Lou Burnett, SICB Representatives to IUPS, for keeping DCPB informed and for seeking ways to educate physiologists in the human health field about the benefits of a comparative and integrative approach to their research. Thanks to Malcolm Gordon for his efforts on behalf of comparative physiology as part of the Scientific Program Committee for the upcoming congress.

David Tapley will once again coordinate the judging for the Best Student presentations. Please respond positively if contacted to serve as a judge, and please encourage your students to apply (instructions can be found on the SICB web site).

We have reached the end of the review process for the George A. Bartholomew Award Competition, which is given each year to "a young investigator for distinguished contributions to comparative physiology and biochemistry or to related fields of functional and integrative biology". This year's awardee is Dr. Nicole King, Assistant Professor of Genetics and Development and of Integrative Biology at UC Berkeley. Her groundbreaking research into the evolution and functional implications of multi-cellularity will be presented at the annual Bartholomew Award lecture, to be given on the evening of the first full day of sessions at the San Diego meetings. You won't want to miss it! Selecting the best young investigator from among the eleven excellent candidates has challenged the committee (Ross Ellington, Chair, Steve Hand, Gretchen Hofmann, Martin Wikelski and Sonke Johnson; Ray Huey, Past-Chair and ex officio). Thanks to them, and thanks for the efforts of senior colleagues who nominated and wrote letters in support of this outstanding group of young scientists.

Message from the SICB Representative to IUPS

Lou Burnett

IUPS Update

This is a special year in physiology for the United States because for the first time in 38 years the 35th International Congress of the International Union of Physiological Sciences (IUPS) will be held in this country. IUPS congresses occur every four years at different venues around the world and will happen in San Diego from March 30 through April 5, 2005. The theme for this congress is "From Genomes to Functions" and the program has a strong flavor of comparative physiology. A number of comparative symposia are offered in a general track called "Ecophysiology of the 21st Century." The most broadly comparative of the symposia is sponsored by SICB and chaired by George Somero. The title of the symposium is "Functional Genomics of Macromolecular Damage Responses and Environmental Stress Adaptation." SICB is also contributing to travel funds to support young investigators. Education sessions, distinguished lectures, satellite symposia, and a strong scientific program are a part of this meeting and details can be found on the IUPS 2005 web site www.iups2005.org. The IUPS meeting will be held in conjunction with the Experimental Biology 2005 meeting, so this will be a large and exciting conference. The registration site is now open.

Message from the Program Officer

Michael Dickinson

San Diego:

Another year with over 1000 submitted abstracts for the Society in general, with roughly 135 submitted with DCPB as a primary affiliation.

The Division is sponsoring two symposia in San Diego:

- *Desiccation Tolerance in Animals, Microbes, and Plants: Comparative Mechanisms and Evolution* (organized by Peter Albert, Jim Clegg, Brent Mishler, and Mel Oliver) will run over two days, from the morning session on Wednesday through the morning session on Thursday, with a complimentary poster session on the first day.
- *Adaptations for Life at High Elevations*, (Organized by Doug Altshuler and Robert Dudley), will run all day Friday with a complimentary poster session on Thursday.

Event Planner:

With so many cross-disciplinary symposia and bewildering array of parallel sessions, many members find it difficult to navigate through the meeting. To help, SICB has implemented an automated meeting planner, which will be available on the SICB website by the middle of October, once the scheduling for the meeting is finalized.

Student support:

I would like to remind all student members that if they wish to apply for housing support for the upcoming meeting they should visit the SICB Student Support Program website: <http://www.sicb.org/meetings/2005/studentssupport.php3>. The deadline for application is Friday, November 1, 2004.

Travel Tips:

When arriving in San Diego, I highly recommend buying a 4-day pass for the San Diego Trolley System (\$15). The Meeting Hotel is served by the Fashion Valley/Transit Center stop of the Blue Line. The Trolley provides easy access all the major restaurant areas including Old Town, The Waterfront, and the Gas Light District. Just one round trip cab ride to Old Town will cost about \$15. You can even take a short shuttle from the Airport to Sante Fe Depot (the Amtrak station) where you can pick up the Trolley. The link to the San Diego trolley system is <http://www.transit-rider.com/ca.sandiego/sdtrolley.cfm>.

Future Meetings:

The Symposia for the Orlando Meetings have been chosen, I will provide more details in the Spring Newsletter. Thanks to the individuals who submitted excellent proposals, DCPB will be well represented next year. It is never too early to plan for future meetings. Please email me (flyman@caltech.edu) or call (626-395-5775) to discuss ideas and get started.

Upcoming Events:

Another reminder that 35th Congress of the International Union of Physiological Sciences (IUPS) will be held in San Diego from March 31 to April 5th (<http://www.iups.org/>). Although this meeting is only a few months after the next SICB meeting in the same town, there are many excellent reasons for attending. First, the Congress has an integrative theme this year: From Genomes to Functions, which will be of interest to DCPB members. The Division encourages all of its members to attend what is sure to be an excellent meeting.

Message from the Secretary

Paul H. Yancey

Elections

We held elections for DCPB Chair and Program Officer. Congratulations to:

Patrick J. Walsh: our new DCPB Chair Elect

Kimberly A. Hammond: our new DCPB Program Officer Elect

Many thanks to **Joe B. Williams** and **Gretchen E. Hofmann** for running for these offices.

Other Division Business

The changes made to the DCPB bylaws have been added to our website. The SICB officers have given division officers three tasks for the coming year:

- 1) Each division should examine its bylaws for conflicts with the main SICB bylaws. One immediate issue is the term length for officers. DCPB has two-year terms, while some divisions and SICB have three-year terms. It has been proposed that all terms should be the same, at three years.
- 2) Division officers should assist their chairs in producing manuals of duties for each office.
- 3) Division secretaries should "spice up" their division web sites, many of which are rather dull.

We are working on these issues, and would appreciate any thoughts that our members might have on these projects (yancey@whitman.edu). I would particularly like feedback on the term-length issue and on ways to improve our DCPB website (<http://www.sicb.org/divisions/dcpb.php3>).

Message from the Graduate Student/Postdoc Representative

Joanna Joyner Matos

Hello to all DCPB graduate students and postdocs!

I am looking forward to seeing you at our 2005 Annual Meeting in San Diego (January 4–8th). DCPB is sponsoring a number of symposia this year, including "*Desiccation Tolerance in Animals, Microbes, and Plants: Comparative Mechanisms and Evolution*" and "*Adaptations for Life at High Elevation*"

There are a number of events that you should be sure to attend, some of which are specifically designed for students. These include the Student "First Timer" Orientation, the Welcome to San Diego Reception, the Student/Postdoctoral Luncheon, and the Society-Wide Social in Honor of Students and Postdocs. I also encourage you to attend the SICB and DCPB business meetings. Please look at the meeting website (<http://www.sicb.org/meetings/2005/index.php3>) for details.

SICB offers a generous student support program for the annual meeting, and details of this program are given on the website (<http://www.sicb.org/meetings/2005/studentssupport.php3>). To be eligible for the program you need to be a member of SICB, a presenting author, and be willing to provide one half-day of assistance during the meeting. The program provides financial support in the form of housing or registration fees. The deadline for this program is November 1.

DCPB offers two Best Student Paper awards at the Annual Meeting, one for the best oral presentation and one

for the best poster presentation. Undergraduate students and graduate students who have not yet been awarded a PhD are eligible for the award, as are new PhD's who have received the degree no more than 12 months prior to the meeting. The work must be original and must be carried out principally by the student presenting the paper or poster. In any one year, a student can enter either the oral or poster competition.

SICB and a number of other organizations offer student grants and fellowships. DCPB students may want to consider the following funding opportunities:

- SICB Grants in Aid of Research, due Nov. 22nd. <http://www.sicb.org/awards.php3#giar>
- SICB Fellowship of Graduate Student Travel, due Nov. 22nd, which provides funds for travel and other expenses at distant research laboratories, museums or field sites. <http://www.sicb.org/grants/fgst/index.php3>
- SICB Libbie H. Hyman Memorial Scholarship, which provides assistance for students to take courses or to carry on research on invertebrates at a marine, freshwater, or terrestrial field station. Generally due in March. <http://sicb.org/grants/hyman/>
- Fall 2005 EPA Science to Achieve Results (STAR) Fellowships, which funds research grants and graduate fellowships in numerous environmental science and engineering disciplines. Closing date Nov. 23rd. http://es.epa.gov/ncer/rfa/2004/2005_star_grad_fellow.html
- Sigma Xi Grants-in-Aid of Research Program provides funding for the purchase of specific equipment necessary to undertake the proposed research project and travel to and from a research site. Proposals are due October 15th and March 15th. <http://www.sigmaxi.org>
- The National Science Foundation offers fellowships for new students (Graduate Research Fellowship <http://www.ehr.nsf.gov/dge/programs/grf/>, due mid–November) and for doctoral candidates (Doctoral Dissertation Improvement Grants, Directorate for Biological Sciences <http://www.nsf.gov/pubs/2002/nsf02173/nsf02173.htm>, due the third Friday in November).