



Division of Evolutionary Developmental Biology

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Message from the Chair

Chris Lowe

Hello all from rainy California.

This is my first update to you all as the new Chair for DEDB taking over from Mark Martindale, your previous fearless leader. I hope everyone enjoyed the Charleston meeting and the terrific symposia sponsored by our Division: "The Impacts of Developmental Plasticity on Evolutionary Innovation and Diversification"; "Dispersal of Marine Organisms, Poecilogony as a Window on Larval Evolution"; and finally, "EvoDevo rides the Genomics Express." I hope you all enjoyed these sessions and are planning to attend SICB San Francisco 2013 for our stellar symposia. Patricia Hernandez will give us more details in her report below. Start planning your trip – California is great to visit at that time of year.

I have a couple of issues to bring to your attention. First is related to teaching evo-devo: thanks to Greg Davis for bringing this to our attention. More and more college-level instructors are incorporating evolutionary developmental biology into introductory and upper-level college curricula. That makes now a good time to think carefully about what students should learn about our emerging field. A NESCent working group is currently developing a kind of assessment tool, called a concept inventory (CI), to measure evo-devo concepts that students have truly mastered. This concept inventory will allow instructors to quantify the efficacy of different approaches to teaching evo-devo. The working group recently solicited input from the evo-devo community to identify the core concepts in evolutionary developmental biology that experts are already teaching, and the group is now working with students to identify common misconceptions about those core concepts. If you are interested in assisting with the testing and validation of the EvoDevo CI, please contact Anna Hiatt at Oklahoma State University (anna.hiatt@okstate.edu). The PIs of the working group are Kathryn E. Perez (perez.kath@uwlax.edu) and Rebecca M. Price (becca.price@uwb.edu).

I'd like to remind everyone about the fantastic funding opportunities from EDEN: Evo-Devo-Eco Network funded by NSF. This program has a variety of funding possibilities to support: meeting attendance, research exchange for graduate students, postdocs and faculty, and undergraduate internships.



The deadline for the research exchange program is coming up soon on May 7. For more information on these opportunities go to the EDEN website <http://edenrcn.com/>.

On the topic of funding, I would like to encourage/beg you all to drum up your colleagues, students and postdocs to join SICB. Our division needs these funds and can be used in pursuit of a variety of DEDB activities. Please join.

Finally, Billie Swalla, our incoming SICB President, has discussed the possibility of putting together a collective effort to sequence representatives of important phyla for comparative purposes. If this starts to take shape, then we will be asking for input from our DEDB members. Stay tuned and I will update you in my next newsletter. Anyone with thoughts on this, then feel free to contact me.

Until the Fall, I wish you all a productive Spring and Summer.

Message from the Program Officer

Patricia Hernandez

Greetings All,

I am hoping that everyone enjoyed the Charleston meeting as much as I did. We had some great symposia and a fine selection of contributed talks and posters.

While we certainly continue to grow as a division I feel that we could do more to bring in new members, especially young students. While the number of contributed abstracts continues to grow, we are far from reaching our full potential. Please tell your students and friends about our great division. The Society provides wonderful support for students. Most students interested in evolutionary develop-

mental biology would never have a chance to give a talk at the meetings of the Society of Developmental Biology. Talk up our division so that we can keep growing!

Below is a list of symposia (supported by our division) selected for next year's meeting in San Francisco.

Ecological Epigenetics. Organizers: Cristina Ledon-Rettig, Andrea Liebl, Christina Richards, Aaron Schrey, Armin Moczek

Understanding First Order Phenotypes: Transcriptomics for Emerging Model Systems. Organizer: Suzy Renn, Ant3nia Monteiro, Arkhat Abzhanov

Vertebrate Land Invasions: Past, Present, and Future. Organizers: Alice Gibb, Miriam Ashley-Ross, Richard Blob, Tonia Hsieh

Finally, it is never too early to start thinking about future symposia. The deadline for symposia applications for the Austin meeting is August 24, 2012. Please consider organizing a symposium. Feel free to contact me anytime if you would like to discuss organizing a symposium.

All the best,

Your loyal program officer

Message from the Secretary

Mike Shapiro

Happy Spring, everyone! It was wonderful to see DEDB so well represented at the Charleston meeting, both in the high number and quality of talks. SICB continues to be a top forum for evo-devo and evolutionary genetics research. No doubt, next year's meeting in San Francisco will continue this trend, and I hope to see you there in January 2013. The Society



Eduardo Zattara

has negotiated some outstanding hotel rates at a great location in the heart of the city, so the meeting should be a big draw (in addition to the great science, of course).

I'm pleased to announce the winners of our Best Student Presentation awards for the 2012 meeting. The winners of the oral and poster presentation awards are:



Emi Yamaguchi

Best Oral Presentation:

Eduardo Zattara: A modern view of annelid "neoblasts": live 4D imaging reveals widespread cell migration during annelid regeneration

Runner-up Presentation:

Emi Yamaguchi: Developmental potential of embryonic cells to generate larval and juvenile eyes in the polychaete *Capitellateleta*



Ariel Aspiras

Best Poster:

Ariel Aspiras: Sex-specific gene interactions in the patterning of insect genitalia

Runner-up Poster:

Austen Barnett: Exploring the loss of the Hoxgene *abdominal-A* in the mite *Archegozetes longisetosus*



Austen Barnett

The winners of each category will receive a check for \$150 and a subscription to *J. Exp. Zoology B*, both courtesy of Wiley Blackwell. Runners-up will receive a certificate of achievement from SICB. Congratulations to this year's winners, and many thanks to all of the participants and judges in this year's competition.

In addition to SICB, a couple of other upcoming meetings should be of interest to members of our division. First, the 4th Euro Evo Devo conference takes place this summer, July 10-13, in Lisbon, Portugal. See the conference website for details on abstract submission, program information, and accommodations: <http://evodevo.eu/conferences/2012>. Second, the 10th International Congress of Vertebrate Morphology (ICVM-10) will be held in Barcelona, Spain, from July 8-12, 2013. Abstract submission will be open soon, so keep an eye on the meeting website: <http://icvm2013.com>.

Finally, we have a divisional election for Chair-elect this Spring. We have two excellent candidates for office, so please be sure to read their statements below and vote during the election in May.

Message from the Student/Postdoctoral Affairs Committee Representative

Jacob Musser

Greetings students and postdocs,

It was great to see many of you in Charleston at our latest meeting. As usual, the annual SICB meeting had a slew of interesting talks and a packed schedule of socials and relevant workshops. Hopefully you managed to get away for a short while to explore downtown Charleston and walk along the harbor at Battery Park, sample



some boiled peanuts, or explore the local pub scene (my favorite was the Gin Joint). I just want to share a few notes regarding student and postdoc events at the conference and some future plans.

First, at this year's meeting our division initiated a new event for students: evo-devo "dinner dates." Over 20 full SICB members signed up to take one or two students out for dinner for conversation and discussion of research, careers, etc. The response from students was fantastic; nearly 40 of you signed up! Thanks to all who participated and made it a success. I have received lots of positive feedback regarding the event and we look forward to continuing it at future annual meetings.

In addition to our new divisional event, the society-wide workshop for students and postdocs hosted by SPDAC (Student/Postdoctoral Affairs Committee) also went well. This year we covered interviewing for academic positions, first via small group discussion with a panel of experts, then conducting mock interviews to highlight constructive answers and ways to avoid pitfalls when responding to common interview questions. If you haven't attended this workshop in the past, I encourage you to give it a try. Every year we aim to provide an engaging event with useful, practical information for graduate students and postdocs.

Speaking of future events, planning is already underway for SPDAC events at next year's convention in San Francisco. Possible topics for the workshop include covering novel teaching strategies, and practicing your elevator research talk (that short version you always wished you could get just right). In addition, SPDAC will now have a space in the main convention hall, hopefully with coffee, where students and postdocs can relax and recharge for a few minutes. Further, we are planning on bringing in knowledgeable people a few times during the week for informal discus-

sion and to answer questions on relevant topics (e.g., improving your CV).

As always, I am looking for feedback and suggestions on ways to improve these events and the organization. Please email me with your ideas or with questions related to SICB or the Division of Evolutionary Developmental Biology.

Minutes of the DIVISION OF EVOLUTIONARY DEVELOPMENTAL BIOLOGY BUSINESS MEETING, January 4, 2011, Charleston, SC

[Click here for PDF file on SICB.org](#)

Elections: Candidates for DEDB Chair (listed in alphabetical order)

Marcus C. Davis

Current Position: Assistant Professor, Department of Biology and Physics, Kennesaw State University, Kennesaw, Georgia.

Education: B.S. Biology, Georgia Institute of Technology; Ph.D. Biology, University of Chicago.

Professional Experience: Postdoctoral fellow, University of California - San Francisco, CA (2004-2005); Postdoctoral scholar, University of Chicago, IL (2005-2007); Visiting Profes-





sor, Biology Department, Northern Illinois University, IL (2006); Principal Investigator, Kennesaw State University, Department of Biology and Physics, Kennesaw, GA (2007-present); Founder and University Chair, Institutional Animal Use and Care Committee, Kennesaw State University, Kennesaw, GA (2010-present).

SICB Activities: SICB (and DEDB) member since 1999. DEDB Secretary (2007-2008).

Other Memberships: Society of Vertebrate Paleontology

Research Interests: My lab studies the developmental mechanisms of vertebrate morphogenesis, with an emphasis on musculoskeletal complexes such as paired appendages (fins and limbs) and jaws. We take a broadly comparative approach, utilizing basal actinopterygians such as the North American paddlefish *Polyodonspathula chondrichthyans*, and even basal tetrapods to test hypotheses about the evolution of development.

Goals Statement: The broadly comparative nature of SICB and the individual Divisions fosters crosstalk across so many disciplines. I contend that our diffuse borders are one of our greatest strengths. DEDB is no different – where else can you learn about signal transduction cascades AND fossils, often in the same talk? We're a collaborative group by nature as well. We all have colleagues interested in some of the same questions, but perhaps because of their less comparative backgrounds SICB has never been on their "radar screen". We would all benefit from their contributions, and I'd like to explore ways to bring them to our meetings. One way is to continue to foster exciting symposia in key and emerging fields – both on our own and in collaboration with other Divisions. If elected, this would be a central focus: ensuring our symposia are standouts, not just at the annual meeting, but within our discipline(s). I want people

that miss attending to regret it!

I'd also like to develop further networking opportunities for our junior researchers. When I first started attending SICB as a graduate student, I was immediately impressed by the opportunities to spend quality time with experienced researchers. This had a fundamental (positive!) impact on my early career. The Division has recently implemented new opportunities for student researchers to have one-on-one time with seniors... err, experienced researchers. I want to expand on this excellent foundation.

Finally, Chairs should be conduits of good ideas... I would want to hear from you! It would be a pleasure to contribute to DEDB growth if elected Chair.

Sally P. Leys

Current Position: Professor and Canada Research Chair in Evolutionary and Developmental Biology, Department of Biological Sciences, University of Alberta, Edmonton, AB.

Professional Experience: 2010 Visiting Research Scholar, Merton College, Oxford, UK; 2002– present, Canada Research Chair, Biological Sciences, University of Alberta; 2008-2011 Associate Professor, Univ. of Alberta; 2002-2008 Assistant Professor, Univ. of Alberta; 2000-2002 Assistant Professor Limited Term, Biology, University of Victoria; 1998-2000 PDF, U. Queensland and Queensland Museum, Brisbane, Australia; 1998 PDF, Station Marine d'Endoume, Université Aix-Marseille, Marseille, France;





1997 PDF, McGill University and Bellairs Research Institute, Barbados.

SICB Activities: SICB member since 2002; SICB Member at large 2010-2013; AMS (sister society) Member at large 2010-2013; Symposium speaker: 2002, New perspectives on the origin of metazoan complexity; 2005, The New Microscopy: Novel Characters and the Importance of Morphology in Phylogenetic Analysis; 2007, Symposium Honoring Dr. Steven Vogel Marine Biomechanics; 2008, Cell-Cell Signaling Drives the Evolution of Complex Traits.

Other Memberships & Society activities: Member of Society for Developmental Biology (NWDB meeting organizer 2008); Canadian Society of Zoologists (CSZ Bulletin Editor); International Society for Invertebrate Morphology (ISIM Board member 2012 -).

Research Interests: Evolution and development of early metazoans; Evolution of gastrulation and tissues; Epithelia; Origin of coordination in multicellular animals; Cilia as sensory organelles; Polarity and organization of poriferan body plans; Flow as a driver for body plan evolution; Glass sponges; Sponge larval development and metamorphosis.

Goals Statement: As Chair my aim and role would be to cultivate membership of the DEDB and to promote and enhance interaction between the many facets of Evolutionary Developmental Biology research. Membership is cultivated by holding attractive symposia and fostering new student members by supporting student research and student travel to, and participation in, symposia. The Division Chair is also the formal link between the SICB executive and the DEDB members and therefore the Chair's responsibility would be to represent the DEDB within SICB to maximize opportunities for DEDB members within the Society.