

## 2013 NATIONAL DROSOPHILA BOARD MEETING AGENDA

Wednesday, April 3, 2013

Wilson Room, Marriot Wardman Park

Washington, DC

3:00-6:00 PM

Attendees: Debbie Andrew, Michelle Arbeitman, Eric Baehrecke, Amy Bejsovec, Hugo Bellen, David Bilder, Seth Blair, Giovanni Bosco, Suzy Brown, Sue Celniker, Kevin Cook, Steve Crews, Adam Fagen, Yuly Fuentes-Medel, Liz Gavis, Bill Gelbart, Karen Hales, Shigeo Hayashi, Gary Hime, Ken Irvine, Richard Mann, Terry Markow, Kathy Matthews, Lisa Meadows, Mariana Melani, Denise Montell, Stephanie Mohr, Alexis Nagengast, Laura Nilson, Mike O'Connor, Terry Orr-Weaver, Helena Richardson, Maxi Richmond, Juan Riesgo-Escovar, Helen Salz, Michaela Serpe, Angelike Stathopoulos, Henry Sun, Jim Thompson, Jessica Treisman, Mark Van Doren, Hannele Ruohola-Baker

***Discussion items are italicized, and are not necessarily direct quotes – some of the discussion was compressed and paraphrased.***

1. Introduction and Approval of the 2012 minutes (Mike O'Connor) 3:00-3:05
2. Drosophila Board Election Report (Denise Montell) 3:05-3:10
3. 2013 Report of the Organizing Committee (Richard Mann) 3:15-3:25
4. 2014 Fly Meeting Organizers (Mike O'Connor) read only
5. President's Report (Mike O'Connor) 3:25-3:35
6. GSA Expanding Opportunities (Adam Fagen)
7. Treasurer's Report (Debbie Andrew) 3:40-3:55
8. Report of the GSA Senior Director (Suzy Brown) 3:55-4:00
9. Image Award (David Bilder) 4:00- 4:05
10. Sandler Lectureship Committee (Ken Irvine) 4:05-4:15
11. Victoria Finnerty Undergraduate Travel Award (Helen Salz) 4:15-4:20
12. Undergraduate Education Initiatives (Karen Hales) 4:20-4:25
13. Public Outreach (Liz Gavis, Eric Baehrecke, Yuly Fuentes-Medel) 4:25-4:45

BREAK 4:45 -5:00

### **Community Resources and Projects 5:00-6:00**

14. White Paper (Mike)
15. Bloomington Stock Center (Kathy Matthews, Kevin Cook)
16. Kyoto Stock Center (Masa Itoh)
17. Species Stock Center (Maxi Richmond, Teri Markow)
18. Berkeley Drosophila Genome Project (Sue Celniker)
19. ModENCODE and ModENCODE II (Sue Celniker)
20. Drosophila Gene Disruption Project (Hugo Bellen)
21. Harvard Drosophila RNAi Screening Center (Stephanie Mohr)
22. Harvard Transgenic RNAi Project (Liz Perkins)
23. Vienna Transgenic RNAi Project (Lisa Meadows)
24. DIS (Jim Thompson)
25. FlyBase (Bill Gelbart)

1. Introduction and Approval of the 2012 minutes (Mike O'Connor) 3:00-3:05  
2012 minutes approved

3. 2013 Report of the Organizing Committee (Richard Mann) 3:15-3:25  
As stated in the report, Suzy Brown's help and guidance were essential and Google Docs proved to be an excellent means to exchange information during the planning phase. One of the plenary speakers, Jurg Mueller, had to cancel at the last minute. However, Terry Orr-Weaver had been added as a speaker to the first plenary session in celebration of her FASEB award. This extra lecture mitigated the loss of a plenary speaker. Both session chairs for the Pattern Formation session, Francois Payre and Ruth Lehmann, also cancelled at the last minute. Tin Tin Su graciously agreed to chair this session by herself. A new method of selecting the poster award winners will be introduced this year, with the GSA setting up a web site for public voting on posters. Since there will be 700 attendees without posters, the voting will not be compromised by people just voting for themselves.

4. 2014 Fly Meeting Organizers (Mike O'Connor) read only  
Mark Van Doren and Ela Serpe were selected to organize the 2014 San Diego meeting, and they have recruited two other co-organizers: Daniela Drummond-Barbosa and Elissa Lei. This strategy of choosing two organizers and allowing them to recruit their co-organizers was viewed favorably, as it will ensure that organizers work well together.

5. President's Report (Mike O'Connor) 3:25-3:35  
At the 2012 Fly Board meeting, we discussed transferring the Larry Sandler funds from money market accounts that were not performing well into Vanguard balanced funds that are hoped to provide a better yield. Accordingly, this transfer was performed last year following the meeting. In fall of 2012, we discussed via email whether to participate in a joint model systems meeting in lieu of our regular annual meeting, where we would share hotel space other model systems meetings sponsored by the GSA. This joint meeting is now scheduled for 2016, to coincide with 100<sup>th</sup> anniversary of the journal Genetics. If successful, a joint meeting may become part of the regular rotation. The *C.elegans* community is still not on board.

*Adam Fagen: the problem is that their big meeting is in alternate years and wouldn't normally be that year. This joint meeting would be held in an even-numbered year, when they have topical meetings. However, we may be able to get some of the topical groups to come join in.*

Two potential drawbacks are that it will be held at an unusual time for us, July, and in an unusual place, Orlando, FL, which is one of few places large enough to accommodate such a venture. The concerns are that Orlando in July might not be attractive (which is why it is affordable for us), and that scheduling the meeting in July would diminish the participation of undergraduates, especially those who would have graduated that spring.

*Ken Irvine: How many undergrads usually attend our meeting? Karen Hales: We do track the number of undergrads so we will be able to see how much of an*

*impact the alternative time would have. There are 136 undergrads attending this D.C. meeting, which is up from 83 last year.*

#### 6. GSA Expanding Opportunities (Adam Fagen)

In order to optimize the joint model systems meeting, the GSA is mapping sessions between meetings to find commonalities. These topics could be used for joint sessions that will span all (or a subset) of the model systems communities. Some common topics that span all model systems would be, for example, educational initiative, career development, and early career mentoring from funding agency representatives (such as the workshop introduced for the first time at this D.C. meeting). In general, the GSA trying to ramp up its advocacy for model systems research.

#### 2. Drosophila Board Election Report (Denise Montell) 3:05-3:10

There was a record turn-out in voting this year, perhaps because of FlyNews or the fact that there were many positions being contested. Some election tallies were very close, which reflects the very high quality of the candidates standing for election. A few positions were filled by appointment rather than election because not enough nominees could be found to stand for election.

#### 7. Treasurer's Report (Debbie Andrew) 3:40-3:55

As described in the attached report, the Fly Board has spent down our reserve. The GSA requires us to retain as a reserve half the cost of running the meeting, this threshold number now is roughly \$200,000. The 2013 D.C. meeting is projected to lose \$40,000, so our current reserve of \$244,000 will very likely be at the minimal limit after this meeting. Since this D.C. meeting and the last meeting (Chicago) had significant budget losses, we need to adjust our registration fees. Raising the price of registration by 20% will allow us stay on a more stable financial footing while keeping the price comparable to other meetings. Our registration fee will be somewhat lower than the ASCB meeting because we do not charge a fee for submitting abstracts, as they do. This item was not up for vote. GSA regulations require us to have a sustainable financial model, and so we have no choice but to raise the fees to a level where they will pay for the meeting.

*Suzy Brown: Prices keep going up, for example the reception tonight will cost \$60,000. Eric Baehrecke: Has the GSA board discussed the funding crisis? Why increase prices at a time when everyone is stressed? Suzy Brown: GSA can't take financial risk of allowing a surplus at one meeting (like San Diego) to subsidize other meetings in more expensive locations. Budgeting for a \$45,000 loss (this D.C. meeting) is not sustainable. Adam Fagen: None of the societies is sure of the impact of sequestration. We may be seeing that in the lower number of attendees at this DC meeting, down from past DC meetings. The GSA is committed to keeping the meeting affordable, which is part of the reason for suggesting the move to Orlando, where we were able to negotiate a rate of \$135 per night. New investigators seem to prefer system rather than organism type meetings, and that may be reflected in fly meeting attendance. Helen Salz: the*

*reserves also fund the Larry Sandler and Finnerty awards, not just the meeting itself.*

8. Report of the GSA Senior Director (Suzy Brown) 3:55-4:00

This meeting is projected to have a total of 1500 attendees, down from the 1668 who attended the last DC meeting. We will hit budget but only because we had projected a budget loss for this meeting. Arrangements for this DC meeting went smoothly.

9. Image Award (David Bilder) 4:00- 4:05

Trudi Schupbach substituted for Richard Mann on the Image Committee because Richard was busy organizing the meeting. The Image Committee welcomes feedback from the board and the fly community.

10. Sandler Lectureship Committee (Ken Irvine) 4:05-4:15

There were 18 nominees this year, down from 32 last year.

*David Bilder: Was there any impact of the eligibility extension? Changing to a one and a half year window, could allow some people to have 2 chances at winning. Ken Irvine: That extension was put in place after the year when there were only 4 nominees. There have been no duplications in the nominations, so this does not seem to be a problem.*

11. Victoria Finnerty Undergraduate Travel Award (Helen Salz) 4:15-4:20

This is the second year of funding travel awards for undergraduates. This time the notice was circulated before registration was due, and this increased the size of the application pool. Because there were so many outstanding applicants, 9 awards were made. This completely depleted the funds available (\$6,000). The Fly Board will need to replenish this account if we are to continue this award for next year's meeting.

*Liz Gavis: Victoria Finnerty's son had pledge to donate \$2500 per year to this fund. This should be in addition to the \$6,000 we had moved from board funds to the Finnerty award. We need to find out who is responsible for handling these continuing donations through the GSA.*

12. Undergraduate Education Initiatives (Karen Hales) 4:20-4:25

It has been 3 years since a PUI (Primarily Undergraduate Institution) representative was added to the Fly Board. Beth Ruedi has helped tremendously in arranging special events for undergraduates at the meeting. For example, this year's meeting features a workshop for local undergraduates, to introduce them to the conference experience. Another event for undergraduates attending the fly meeting will include 2 plenary speakers, Mariana Wolfner and John Carlson, who will present talks with more background than is typical for a plenary talk, to make their work accessible to undergrads.

13. Public Outreach (Liz Gavis, Eric Baehrecke, Yuly Fuentes-Medel) 4:25-4:45

The Communications Committee had a conference call to brainstorm about what could be done to improve communication with the public. One issue that was not resolved is how to raise capital for PR. Yuly Fuentes-Medel was invited to the

2013 Board meeting to present her ideas on how to accomplish this. Yuly is a former fly person, trained by Vivian Budnick and Marc Freeman, and is currently a postdoctoral fellow at MIT Sloan School of Management. She would like to develop a business plan for GSA, with flies as a key component.

**At this point in the Fly Board meeting, Yuly used a Powerpoint presentation to describe her vision of the economics of science.** Among the points that she raised were the need for a new model for advocacy and funding, with greater emphasis on philanthropy, corporations and private donors; the need to change public perception, perhaps by defining our work as “essential science” instead of basic science; and the need to hire people with expertise in marketing to raise awareness among non-scientists and to promote advocacy and networking. **This powerpoint presentation stimulated an extended discussion among the board members, which centered around the issues of how do we do this and how do we pay for it.**

*Eric Baehrecke: How do we reach Fox news? We don't need to educate New York Times readers – we need the heartland. Denise Montell: We hired Ricki Lewis when we had a surplus in the budget, and we thought PR would be a good investment [Last year the Fly Board had hired Ricki Lewis to do press releases for the fly meeting and we have hired her for a second year to do the same for this fly meeting, but she is not charged with this marketing role]. Maybe we should raise the registration fees even more, to get seed money to get this started. Could we have a more specific idea of what you (Yuly) intend to do? Yuly Fuentes-Medel: To create a communication plan, we need to engage people. This is different from grant-writing which focuses on significance and preliminary data. We need to move people (convey, compel, convince). Having a network means we can keep doing the science, but others will spread the word. Project Fly Advocacy Network has a small team, and our job will be to inform the network. David Bilder: There is nothing more important than to address outreach and the consequences of the decline in funding on young scientists. Why not tap into the ASCB network already in place for advocacy? Yuly Fuentes-Medel: I am more familiar with the ACS network. Adam Fagen: All societies are in the same boat. GSA has started a partnership to raise awareness of science in the community. More scientists work in applied science rather than the basic/essential science, so we need to make sure that these activities include model systems research. Denise Montell: Even at NIH, we are being pushed aside by translational research, so we do need to advocate with other scientists. Eric Baehrecke: How do we best take advantage of our community? I have talked with Victor Ambros to get a broader view of how to handle this outreach. For example, we asked Michael Bender to recruit colleague Program Officers at NIH to come to this DC fly meeting. Most of our funding comes from GM (National Institute of General Medical Sciences). Perhaps we need to diversify our portfolio. Yuly Fuentes-Medel: I've been chosen by MIT to advocate in Congress. The demographic shift to an older population requiring Social Security and Medicare has put pressure on us as discretionary funding.*

**Some general discussion followed about the development versus the implementation of a plan.** It became clear that to obtain specifics about a

“protocol for communication” will require payment. \$40,000 would be required for Yuly Fuentes-Medel to provide us with a business plan. There was considerable hesitation about budgeting so much with no clear idea of what will be provided.

*Bill Gelbart: The Gates Foundation has an interest in vector biology. Perhaps they can be approached since Drosophila is a model for other dipterans. Gary Hime: We can all contribute to this effort as educators. In getting premeds interested in basic/essential science, we need to make the point that Drosophila was how things were discovered. Fly research leads to human outcomes. So we need to get clinicians educated. Terry Orr-Weaver: Research America is an organization that has the goal of lay public education in science. Their target audience is the ordinary person watching TV. Yuly Fuentes-Medel: The critical point is coordination, because isolated activities may fail. Education in science should start in kindergarten. Eric Baehrecke: There is no rep from GSA on the FASEB board, which is a major advocate in Congress. Adam Fagen: Yes, GSA has a member on the board. Our challenge is that many of the societies are more applied. It is difficult to give a strong voice to basic/essential research. Eric Baerhaeke: We should have a plan in place before reaching out to other model systems groups, who also need to be involved. \$20,000 plus some of Yuly’s time might be a modest start if we wind up with a concrete plan, which hopefully will lead to more research funding for all of us. Steve Crews: One possibility is to think locally. At UNC fly people get together and talk to donors (getting permission from the dean first). Stephanie Mohr: What constraints do we need to consider – will the plan just call for \$20 million that we don’t have? Yuly Fuentes-Medel: I don’t know how much it will cost to implement. The seed money is to find out those numbers. A Hollywood movie costs a lot up front, which will be offset by ticket sales. Debbie Andrew: We are not hearing concrete ideas about how Yuly will reach out to community. Would it be possible to put on a web site what the seed money would be doing and what the following money will do? Yuly Fuentes-Medel: We need the money first to explore the issue in order to make a concrete plan. Sue Celnicker: Are you producing a plan for individual scientists, or a department or university? We don’t understand the scope. How would we go out and do this? Are there examples of where this strategy has worked – are the Gates’ a target? Yuly Fuentes-Medel: I have used their system as a model for future funding of science in my research on economics of science. Denise Montell: Could we see a proposal for what you would do, who would do what and what we would have in the end? Then we could vote on investing our money here. It would be helpful to see specifics so that we could evaluate and vote. David Bilder: I think that our native skepticism is muting our enthusiastic feelings. This is a leap of faith, but we will feel more comfortable having someone with a fly background, like you, involved. Ken Irvine: We are enthusiastic, but need to see where our money would be going.*

BREAK 4:45 -5:00

## Community Resources and Projects 5:00-6:00

### 14. White Paper (Mike)

As the previous discussion demonstrated, we know that we need to improve our communication to the public and to educate the NIH officials outside of GM. We need to keep our message short, but with high impact, and we need to figure out who we to send it to. We have had quite a few community responses.

#### **Extensive discussion followed:**

*Bill Gelbart: Is there still a trans NIH committee, with representatives from all institutes? They wanted a very practical list of priorities. We used to go through Laurie Tompkins who was on the committee. Hugo Bellen: People need to refer to the White Paper in their grant proposals when they accomplish a goal outlined in the White Paper. Mostly the White Paper was for large projects like Flybase and BDGP. Susan Celnicker: Can we expand the scope? Kevin Cook: That committee may no longer exist. We need to find out whom to target. Bill Gelbart: This is the first time in 15 years that there isn't a flagship resource generation project (mod ENCODE was the last). Maybe we need a workshop to brainstorm another big project. Mike O'Connor: Issues such as metabolomics and the humanization of flies (human mutations into flies) were raised by community. Bill Gelbart: This needs to be a big thing with the seal of approval from the community via the board, for example something that will accelerate translational research. Denise Montell: We shouldn't turn this White Paper into advocacy for a specific project. This one is about what our community really needs. Bill Gelbart and Sue Celnicker: none of the White Papers were about individual projects. Kevin Cook: We also need to have projects sunset when enough progress has been made. Liz Gavis: Laurie Tompkins emphasized that we can't just say we want to maintain what we have. I like Bill's idea about having a brainstorming workshop. People need to meet in face-to-face. Hugo Bellen: There was a meeting like this at Janelia. We've continually changed methods and technologies – we need to choose the best strategy for the research questions being addressed. Bill Gelbart: As advisor to NHGRI, I hear about human disease, Mendelian disorders, bringing sequencing into clinics, so we need to emphasize the fly contribution to quantitative genetics. What do we want to solve at a high level? Understanding variation and the phenotypic consequences may be the theme to choose. Mike O'Connor: How do we formulate these questions? Bill Gelbart: Identify an organizing committee to put together a workshop. Find a small number of projects that people are excited about, then choose one or have several workshops. Sue Celnicker to Hugo Bellen: Did you guys put together a White Paper at Janelia? Hugo Bellen: No, we just had a general discussion about best approaches, for example TALEN vs. Mimic, which one is better for which questions. We need to decide which way we want to go. Denise Montell: Putting something in a White Paper does bias reviewers, and leaving something out creates problems as well. We need a crystal ball to know what will be most important. Hugo Bellen: Technology is not limiting. Denise Montell: Allan's concern [Allan Spradling via email had cautioned that human disease may not be what we want to promote in a White Paper] was that we don't want to undermine fly research. Mike O'Connor: It would be cumbersome to have the whole board*

*doing this. Should we put together a subcommittee? Hugo Bellen: We shouldn't be driven by the technology. Eric Baehrecke: How could the White Paper be applied to really basic research? Maybe that part of the White Paper is not developed. Hugo Bellen: It needs to be something big, for example, making monoclonal antibodies against all proteins would benefit everybody. Bill Gelbart: NIH wants to know what is most important to the community. Technology may not be limiting but we need to be talking about how fly research touches the community. Posting the White Paper should be an inclusive process where everyone can have input and can use it. Denise Montell: This White Paper has been through that process and is now overdue. If it's not conveying all they want it to convey, people need to say specifically what is missing. If it needs fundamental improvement, someone needs to revise it. Mike O'Connor: It's time we finish this, because comments from the fly community have been solicited, and we've reached the point of diminishing returns.*

15. Bloomington Stock Center (Kathy Matthews, Kevin Cook)

As described in the attached report: BDSC is doing OK, it is on a solid financial footing and the facility is growing.

*Gary Himes: Flies exported from Australia are now costing huge fees because they have to be shipped by a dangerous goods handler. Kevin Cook: We can talk about this later. This application of the dangerous goods regulations is incorrect.*

16. Kyoto Stock Center (Masa Itoh)

See attached report. No representative was in attendance.

17. Species Stock Center (Maxi Richmond, Teri Markow)

See attached report. The SSC has seen an increase in the number of orders in the past year. The increasing number of species sequenced may account for this. The stock center is growing and doing well. The annual species workshop has also helped increase the user base.

18. Berkeley Drosophila Genome Project (Sue Celniker)

See attached report. The BDGP is continuing to make expression-ready and expression clones for tagged constructs. These lines are available from VijayRaghavan.

19. ModENCODE and ModENCODE II (Sue Celniker)

See attached report. NIH did not continue support. However, extension of the RNA seq and Transcription factor CRM projects were proposed by fly and worm groups and are now going to council.

20. Drosophila Gene Disruption Project (Hugo Bellen)

See attached report. The DGDP has deposited 5000 MiMIC inserts at Bloomington this year. This project will be extended to convert the MiMIC inserts into tagged stocks. The goal is to generate 18,000 MiMIC inserts, about 1 every 20 kb, which will allow generation of precise deletions with no remnant DNA.

21. Harvard Drosophila RNAi Screening Center (Stephanie Mohr)



See attached report. There is a new tool for keeping target information current, which checks daily for new updates on RNAi reagents with the latest Flybase release. This will be publicized in Fly News. TALEs are being developed as a strategy to do double knockdowns with RNAi. Some of the infrastructure is shared with RNAi, and TALEs can now be made in 96-well format. Details of this are on the DRSC web site.

22. Harvard Transgenic RNAi Project (Stephanie Mohr for Liz Perkins)

See attached report. The RSVP web site is up and active. This features qPCR data on RNAi reagents and provides a forum for community input.

23. Vienna Transgenic RNAi Project (Lisa Meadows)

See attached report. The VDRC is now taking on lines from Barry Dickson's group, and will be able to offer Gal4 lines along with the RNAi lines.

24. DIS (Jim Thompson)

See attached report. DIS remains an active outlet for technique and teaching applications that might not be published elsewhere. The current volume has 175 pages; these articles are available almost immediately online once a year.

25. FlyBase (Bill Gelbart)

See attached report. Flybase is finalizing our 5-year renewal. This will be in the form of a cooperative agreement rather than proposal, with a goal of coordinating with other model systems databases. The recent Flybase survey got 1500 responses, which is a good vote of confidence. Pubmed was trawled for references to Flybase, and many references found are from papers outside of the fly community. These data points should help the renewal. The big challenge is how to present large datasets.

*Helena Richardson: Has Flybase citation improved? Bill Gelbart: No, no bump up in Pubmed. We are drafting a document on how to cite and how to present what you extracted from Flybase. Ken Irvine: Maybe citing Flybase in a paper is not the best measure. What about total hits? Bill Gelbart: We have statistics on number of hits and IP addresses that access Flybase but that is an approximation of usage. Most users are coming in multiple times a day. Our goal is to extend usership beyond the fly community. Giovanni Bosco: How many users use Flybase as a portal to go elsewhere? Bill Gelbart: That's tricky. We can't track how many times people open and close things within the gene reports. Genbank will contribute the RefSeq numbers since those sequences were contributed by Flybase.*

ADJOURN 6:00