

2008 NATIONAL DROSOPHILA BOARD MEETING

April 2, 2008, San Diego, California, Town and Country Resort and Conference Center
Pacific Ballroom Salon 1, 3:00 – 6:00 PM

Present:

Susan Abmayr, Michael Ashburner, Utpal Banerjee, Phil Batterham, Hugo Bellen, Michael Bender, David Bilder, Nancy Bonini, Nick Brown, Kevin Cook, Lynn Cooley, Susan Celniker, Bill Gelbart, Pam Geyer, Jamila Horabin, Thom Kaufman, Masahiko Kitayama, Mitzi Kuroda, Chuck Langley, Howard Lipshitz, A. Javier Lopez, Trudy MacKay, Teri Markow, Kathy Matthews, Brian Oliver, Terry Orr-Weaver, Helen Salz, John Tamkun, Jim Thompson

Notes (from Utpal Banerjee, President):

The majority of the notes taken during the meeting are fully and accurately represented by the summaries provided by various contributing individuals. These comments are not repeated here. The entire proceedings were recorded on audio tape. Here a couple of points are summarized that generated a significant amount of discussion and that were slated for immediate follow up after the meeting. Some of the follow up material is also now available.

Kim van der Linde presented the *Drosophila* nomenclature issue and asked the community to make a statement regarding the proposed Genus name change to *Sophophora*. An application to this effect has been submitted to nomenclature committee that meets in December. Further follow-up on this is attached. After much discussion, those that find it difficult to believe that their genetic organism name may become *Sophophora* yielded to those with some perspective on nomenclature and phylogeny, concluding that this board did not have the necessary expertise or authority to make a meaningful comment; rather the matter should be taken up at the species identification workshop which several members of the board were to attend. Therese Markow took charge of informing the board about the outcome of the workshop. Indeed she informed the board later about the details of the meeting and its agenda. This is attached at the end of these minutes.

Fourteen workshops were approved for the current meeting and it was felt that some revision to the policies governing workshops was in order. Some workshops are run like platform sessions and compete with the latter even though the selection process for speakers is not sometimes as rigorous. Workshops should be for breaking fields, with only rare exceptions for historical value such as the well-run ecdysone workshop. It was suggested that the future organizers and Board members make a list of criteria and set up an application process. An application deadline must be strictly followed to make it possible for the meeting organizers to complete their planning process.

Several comments were made about phasing out the abstract book and using only a CD-ROM instead. Perhaps print the program and a map to guide the attendees during the meeting.

Bloomington will have to raise its prices by a small margin to keep up with the expansion of its capacity. The proposed increase was very modest and was universally agreed upon. More difficult was the question of what to do about the myriad of new stocks that will be generated in the near future. Hugo Bellen gave a really nice presentation describing resources that are being generated through recombineering techniques that will revolutionize the way we analyze fly genes and mutations. However, this will lead to an explosion of stocks with nowhere to place them. This discussion has no easy solution; the usual discussions ranging from freezing flies to storing DNA only, as well as creating stock centers outside of the US, were all discussed. In the end, it was decided that a smaller group will look into this matter more intently. Hugo Bellen, Howard Lipshitz and Utpal Banerjee volunteered to be on such a committee, along with of course the veterans of Indiana and others that wish to join. The next

President will hopefully take this matter up as an important priority. Since the meeting, some further information on this matter, including some cost analysis provided by Hugo Bellen, is now available and is attached at the end of this document. The subcommittee met during the Crete meeting and is exploring several options.

New RNAi lines are being constructed at Harvard under the leadership of Norbert Perrimon and with support from the NIH that the fly board supported. A pilot screen at HHMI has resulted in 1000 lines. 6000 new lines are being generated. Nominations from the community for genes of interest are welcome. Cell based screens will be possible, stocks will eventually be curated at Bloomington. The stocks are created in such a way to alter the number of UAS units driving the RNAi, allowing the creation of an allelic series.

2008 NATIONAL DROSOPHILA BOARD MEETING AGENDA

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Pacific Ballroom Salon 1, 3:00 – 6:00 PM

		Report
INTRODUCTION & APPROVAL OF THE 2007 MINUTES	3:00 – 3:10	1
DROSOPHILA BY ANY OTHER NAME (Kim van der Linde)	3:10 – 3:15	
MEETING ORGANIZATION (Sue Celniker, Nancy Bonini, Brian Oliver, John Tamkun)	3:15 – 3:55	2
2008 PROGRAM COMMITTEE REPORT	15'	
DISCUSSION OF WORKSHOPS	15'	
2009 PROGRAM COMMITTEE	10'	3
REPORT OF THE GSA MEETING COORDINATOR (Suzy Brown)	3:45 – 4:05	4
AWARDS	4:05 – 4:15	
SANDLER LECTURESHIP COMMITTEE (Helen Salz)	4'	5
GSA POSTER AWARD (Brian Oliver)	3'	6
IMAGE AWARD (David Bilder)	3'	7
TREASURER'S REPORT (Michael Bender)	4:15 – 4:20	8
DROSOPHILA BOARD COMPOSITION	4:20 – 4:25	
ELECTION REPORT (Mark Krasnow)	5'	9
COMMUNITY RESOURCE REPORTS & PROJECTS	4:25 – 6:00	
BLOOMINGTON STOCK CENTER (Kathy Matthews, Kevin Cook)	5'	10
Hugo Bellen: BLOOMINGTON STOCK CENTER	3'	
MINOS PROJECT	3'	
P[ACMAN] LIBRARIES	3'	
FLYBASE (Bill Gelbart)	5'	11
DROSOPHILA INFORMATION SERVICE (Jim Thompson)	5'	12
TUCSON STOCK CENTER (Teri Markow)	5'	13
KYOTO DROSOPHILA GENETIC RESOURCE CENTER (Kevin Cook)	5'	14
DROSOPHILA BOARD WHITE PAPER (Trudy Mackay)	10'	15
TRANSGENIC RNAi (Stephanie Mohr)	5'	16
FLY BOOK (Lynn Cooley, Michael Ashburner)	5'	
FREEZING FLIES (Thom Kaufman)	5'	
REPORTS OF INTERNATIONAL RESOURCES BY ASIAN, AUSTRALIAN, EUROPEAN REPRESENTATIVES	15'	
OTHER BUSINESS	15'	
ADJOURN	6:00	

1. 2007 MINUTES

2007 Drosophila Board Meeting Minutes. March 7, 2007, Philadelphia, Pennsylvania. Submitted by Trudy Mackay. Posted on Flybase.

Present: Susan Abmayr, Justen Andrews, Michael Ashburner, Utpal Banerjee, Phil Batterham (for Robert Saint), Hugo Bellen, Michael Bender, Suzy Brown, Ken Burtis, Susan Celnicker, Kevin Cook, Lynn Cooley, Claude Desplan, Barry Dickson, Steve DiNardo, Liz Gavis, Bill Gelbart, Pamela Geyer, Scott Hawley, Yash Hiromi, David Ish-Horowicz, Tom Jongens, Thom Kaufman, Mark Krasnow, Mitzi Kuroda, Chuck Langley, Trudy Mackay, Therese Markow, Kathy Matthews, Helen Salz, Allan Spradling, Jim Thompson, Carl Thummel, Laurie Tompkins, Jessica Treisman.

Newly elected Board members were introduced: Carl Thummel (President-Elect), Jim Truman (Northwest), Graeme David (California), Liz Gavis (Mid-Atlantic), Phil Batterham (Australia/Oceania), Vijay Raghavan (Asia), Barry Dickson (Europe). Thanks and appreciation were expressed to Board members completing their terms: Mark Krasnow (President), Ruth Lehmann (Past President), Barb Taylor (Northwest), Ken Burtis (California), Claude Despan (Mid-Atlantic), Robert Saint (Australia/Oceania), Yash Hiromi (Asia), David Ish-Horowicz (Europe).

2. REPORT OF THE 2008 PROGRAM COMMITTEE (Sue Celniker, Nancy Bonini, Brian Oliver, John Tamkun)

The formation of this years program committee started at the 2007 meeting in Washington DC when the board asked Susan Celniker to form a committee to organize the 2008 meeting. She met with Suzy Brown and the 2007 chairs, Steve DiNardo, Jessica Treisman and Liz Gavis for an informational lunch. On advice from incoming president Utpal Banerjee, she decided to put together a region-neutral committee, meaning the committee did not have to be west coast centered. She recruited Nancy Bonini (U Penn), Brian Oliver (NIH) and John Tamkun (UCSC) via email shortly thereafter.

The organization of the meeting went smoothly. It was invaluable to meet with last year's committee to get an idea of what the task involves and to benefit from their organization. Suzy Brown has kept us well informed of procedures and deadlines and did a great job leading us through the process (see below). Due to everyone being in a different institution and physically separated, the meeting was organized via email and monthly conference calls. Of the various tasks involved, the major challenge this year was the workshops, primarily because there are no guidelines for the selection of workshop topics and format. Suggestions to improve this process are described below.

Registration:

Pre-registration for the meeting is strong. 1,354 people have registered for the meeting (1,344- 2007; 1,275-2006; 1,435-2005; 1,540-2004). So we are up a bit from last year and down from 2004 and 2005. Also, we don't know the late registration numbers. So the comparison to final registration numbers of previous years should fare better. Suzy Brown (GSA CMP) will provide a more complete picture of the meeting registration and attendance.

Abstract Submission:

Abstracts were solicited under sixteen areas of primary research interest. We promoted two of last year's workshops (RNA Biology and RNAi Techniques) to platform sessions (RNA Biology and Techniques and Functional Genomics). The 2007 organizers of these workshops were asked to be chairs of the new sessions. The list of 2008 topics is shown below, including the number of abstracts submitted in each area, talks requested and the number of talks assigned for the meeting. In total, 900 requests were received for posters and platform talks by the deadline and 93 late abstracts were submitted for a total of 993. This number compares with a total number of 897 in 2007, 910 in 2006,

1043 in 2005, 982 in 2004, 1016 in 2003, 1003 in 2002 and 966 in 2001. There were 434 requests for platform presentations for 156 available slots, allowing accommodation of 35.9% of the requests (this ratio is similar to that of 2005, we don't have the numbers for 2006).

The choice of session topics worked reasonably well, although there is definitely a higher chance of being chosen for a platform presentation in some areas relative to others (see Table below). This is because of the constraints placed on the number of talks per session, which vary from 15 to 7. The number of speakers for each sub-topic was roughly in proportion to the number of abstracts requesting platform talks in each sub-field. The most popular submission topics were Organogenesis and Gametogenesis (which we split, see below) and Evolution and Quantitative Genetics.

Based on advice from the 2007 organizers, we combined the Gametogenesis and Organogenesis sessions. However based on the number of requested talks, we split them out again giving the two topics eight talks each. The meeting now has a total of seventeen topics. Based on other advice from the 2007 organizers, we eliminated one of the two Pattern Formation sessions and one of the Signal Transduction sessions. We also reduced the number of talks for the Cell Division and Growth Control session from fourteen to eight and increased the number of talks for the Drosophila Models of Human Diseases from eight to fourteen. We introduced two new topics Chromatin and Gene Expression with a total of seven talks and RNA Biology also with a total of seven talks. We selected one chair for each topic regardless of the number of sessions and talks, to simplify the organization of the meeting.

2008 Statistics

<u>TOPIC</u>	<u>ABS-TALKREQ.-TALKS</u>
Cell division and Growth Control	70-28-8 (29%)*
Cytoskeleton and Cell Biology	76-39-14 (36%)
Genome and Chromosome Structure	20-7**-7 (57%)
Regulation of Gene Expression	89-32-14 (44%)
Chromatin and Gene Expression	36-13-7 (53%)
Signal transduction	63-24-8 (33%)
Pattern formation	61-27-8 (30%)
Gametogenesis	107Ψ-26-8 (30%)
Organogenesis	Ψ-26-8 (30%)
Neurogenetics and neural development	74-23-8 (35%)
Neural physiology and behavior	52-22-8 (36%)
Evolution and quantitative genetics	90-46-14 (30%)
Immune system and cell death	63-34-8 (24%)
Techniques and genomics	40-20-7 (35%)
Drosophila models of human diseases	76-35-14 (40%)
Physiology and aging	44-15-8 (53%)
RNA Biology	32-15-7 (46%)

*Percentages indicate the success rate of obtaining a first choice platform presentation.

**In addition to the seven first choice abstracts there were 21 second choice abstracts and three of these were chosen for talks.

Ψ Abstract number is for the combined Gametogenesis and organogenesis topic since we didn't have separate topics initially.

With the exception of three topics, all talks were chosen based on first choice requests. We spent considerable time reviewed selected platform sessions to balance talks among labs. The three topics that are represented by second choice requests include: Chromatin and Gene expression containing two of the seven talks with first choice of Regulation of Gene Expression; Genome and chromosome structure containing three of the seven talks with first choice of Evolution and quantitative genetics; and Regulation of gene expression containing one of the fourteen talks with a first choice of Signal Transduction. The least popular session this year is the Genome and Chromosome Structure session and we suggest replacing it. Although the Immune system and Cell Death session appears to be the

most selective with only a 24% success rate of getting a talk, it is ranked only 7th in popularity by total number of abstracts submitted, 63, and has the highest percent of requested talks 54%. We did not feel that this session merited additional talks although the Immune System workshop organizers suggested it.

2007 Statistics

<u>TOPIC</u>	<u>ABS-TALKREQ.-TALKS</u>
Cell division and Growth Control	87-39-14 (36%)*
Cytoskeleton and Cell Biology	83-34-14 (41%)
Genome and Chromosome Structure	59-22-8 (36%)
Regulation of Gene Expression	107-47-14(30%)
Signal transduction	65-30-14 (47%)
Pattern formation	70-38-14 (37%)
Gametogenesis and sex determination	51-25-8 (32%)
Organogenesis	38-17-8 (47%)
Neurogenetics and neural development	52-18-8 (44%)
Neural physiology and behavior	60-24-8 (33%)
Evolution and quantitative genetics	94-35-14 (40%)
Immune system and cell death	59-24-8 (33%)
Techniques and genomics	39-16-7 (44%)
Drosophila models of human diseases	70-30-8 (27%)
Physiology and aging	53-26-8 (31%)

*percentages indicate the success rate of obtaining a requested platform presentation.

Invited Speakers:

The historical speaker was chosen soon after the Washington DC meeting and the first choice was Antonio Garcia-Bellido and he gladly agreed to give the talk. Bill McGinnis agreed to introduce him. In May, we made a list of suggestions for Plenary Speakers, listed preferences by email (this involved asking advice from colleagues in areas that we lack expertise) and then decided on a primary invitation list via conference call. All of those considered were highly productive in a diverse area of topics that represent the breadth of *Drosophila* research. Based on advice from the 2007 committee we were careful to consider the following criteria including representing junior and senior researchers, gender, regional location and we also eliminated choices of individuals that have spoken as a plenary speaker at the fly meeting for the last several years. Everyone we asked agreed to speak at this years meeting. The list of speakers was completed by the end of May 2007 in time to be added to the postcard advertising the meeting. We had one late withdrawal, Nicole Francis on March 7th 2008. We decided not to find a replacement.

Plenary Speakers:

David Anderson, Mark Biggin, David Bilder, Sara Cherry, Steve Cohen, Nicole Francis, Manolis Kellis, Artyom Kopp, Dietmar Schmucker, Pat Simpson, Allan Spradling and Rachel Wilson

Session Chairs:

We then decided on a list of session chairs, using the same criteria and methods as for selecting the plenary speakers, but in general we put a little more emphasis on recruiting more junior investigators (those coming up for tenure) and the areas of recruitment were based on the session topics. Two declined; everyone else we asked gladly agreed to do it and it was not difficult to find additional enthusiastic participants. The session chairs list was completed by the end of May/early June. In general, we found people enthusiastic about participating in the meeting.

This year's chairs:

Tom Clandinin, Kristin White, Justin Kumar, David Arnosti, Trisha Wittkopp, Brooke McCartney, Scott Barolo, Xin Chen, Richard Mann, Ethan Bier, A. Javier Lopez, Roger Hoskins, Bernard Mathey-Prevot, Elissa Lei, Daniela Brummond-Barbosa, Marc Freeman and Amy Kiger.

The session chairs were each sent the list of abstracts for their respective topic that were requesting platform presentations. They were asked to rank order the top 12 or so talks and then the meeting organizers took these lists to assign platform presentations for each session. We cross-referenced each list to make sure that no lab had excessive representation. All of the chairs did this in a timely fashion.

All of the meeting organizers, plenary speakers, the introducer of the historical speaker, and the Larry Sandler memorial lecturer were offered free registration. This is a continuation of what was offered the year before. They all had to cover their room fees and travel costs. Since the historical speaker is emeritus he requested support for travel and hotel costs and we provided it.

Workshops:

The review and scheduling of workshops proved challenging, due to the large number of proposals received and the lack of clear guidelines concerning this aspect of the conference. Between 1998 and 2007, the number of workshops ranged from six to thirteen (median = 10) (see attached spreadsheet). Many of these workshops dealt with topics that were not a good fit with existing platform sessions, including education; professional development; techniques; community resources or late-breaking developments. In other cases, the format and content of workshops were indistinguishable from platform sessions. Prior to this year, the number of workshop proposals never exceeded the capacity of the conference site and all reasonable requests were approved.

We were eager to reduce the number of workshops this year to avoid conflicts with poster sessions and free up additional time for informal interactions among conference participants. We therefore decided to cancel the workshop session scheduled for 9:30 to 11:30 PM on Saturday evening and reduce the number of concurrent workshops in each session to three or four. This would limit the total number of workshops to nine or less, only slightly below the median for previous conferences. To help meet this goal, we created new platform sessions on RNA biology and techniques, which were the topic of four of the eleven workshops at the 2007 conference.

As the November 1 deadline approached, it became clear that we would receive more than nine workshop proposals. We initially planned to deny requests for workshops that significantly overlapped platform sessions. After failing to obtain support for this plan from the Drosophila Board, we did our best to accommodate all workshop requests.

We received a record high of sixteen workshop requests this year. Two overlapping requests were merged into a single workshop proposal; another was withdrawn after we expressed concerns about overlap with a platform session. By scheduling the maximum number of workshops that could be physically accommodated at the conference site (including four late on Saturday night), we were able to approve all of the remaining fourteen requests. We suspect that this is the largest number of workshops ever held at the conference. The scheduled workshops include the Ecdysone workshop that is traditionally held prior to the start of the meeting; Immunity and Pathogenesis; Drosophila Research and Pedagogy at Primarily Undergraduate Institutions; ModENCODE; RNA Control and Developmental Processes; Cell Cycle and Checkpoints; Monoamines; Gases in Drosophila Physiology and Development; the Maternal to Zygotic Transition; Chromosome Pairing and Trans-sensing effects; Extracellular Matrix; Population Genomics; Longevity and Functional Senescence; and Cell Death. The programs for each workshop were left in the hands of the organizers, but abstracts for each workshop were mandatory.

Based on our experience this year, we would like to offer the following suggestions:

- 1 The organizers of future meetings need clear direction on how to prioritize requests for workshops. These priorities should be communicated to potential conference participants well in advance of the meeting via the conference web page. This will discourage proposals that are unlikely to be approved and help prevent hard feelings that may arise if long-standing workshops can no longer be accommodated. To ensure consistency and fairness, these decisions should not be made by conference organizers on an ad hoc basis each year. We therefore strongly encourage the board to reach a consensus on the number, format and goals of the workshops well in advance of the next conference.
2. To minimize competition with poster sessions and other events, only two sessions of three to four workshops should be scheduled at future meetings. We suspect that it may be impossible to accommodate all workshop requests next year. This should be made clear to the community.
3. We believe that the majority of workshops should be devoted to techniques and community resources. Workshops devoted to education and professional development should also be encouraged. Such workshops are common at other major scientific conferences and are usually quite popular, particularly with graduate students and postdocs.
4. At least one workshop should be left open for late-breaking developments that occur after the application deadline.
5. Workshops should **not** be used as de facto platform sessions that are held on a recurring basis. If expanded coverage of specific topics is warranted, the board should consider replacing one of the workshop sessions with an additional platform session. This would allow speakers to be selected on a competitive basis from submitted abstracts with input from the session chairs and conference organizers
6. Workshop attendance should be monitored during the conference. Feedback from workshop participants should also be solicited. This information would help the organizers identify popular workshops and determine whether they should be held in subsequent years or converted to platform sessions.
7. A web-based application form that includes all of the information required to evaluate workshop proposals would greatly simplify the application process and reduce the organizers' workload.

Poster award:

The award committee consists of all the platform chairs, plus Amanda Simcox, Trudy Mckay, and Brian Oliver. The session chairs will read all of the posters in their area and nominate one presented by a post doc and one presented a graduate student via e-mail to Brian Oliver by Friday 7 AM. These will be forwarded to Amanda Simcox and Trudy Mckay. Results will be tallied/discussed at the entrance to the posters at 7PM Friday. Ribbons (1st, 2nd, 3rd place, honorable mention) will be immediately pinned to the posters, so that the presenters will have two sessions to stand in front of their recognized poster. Winning posters will also be displayed in front of the plenary session room and winners will be recognized during the final plenary. We have three hard copies of Genes, Development and Cancer to give as gifts.

Interaction with the GSA office:

The organizers would especially like to thank Suzy Brown and GSA for providing a significant amount of help and information during the organization of the meeting. Suzy generated a comprehensive timeline that enabled our planning and scheduling. Most questions were answered rapidly even on weekends and evenings. In addition, Suzy Brown and her staff have handled a large number of tasks

so the organizing committee did not have to be involved with such issues as interfacing with the hotel, making room assignments for concurrent sessions, posters presentations and workshops, arranging audio/visual needs, and a whole host of issues we are unaware of.

The GSA is sponsoring a **Mentor Roundtable Lunch**, again this year. The number of tables has doubled from four tables of seven students/postdocs and one mentor to approximately eight tables between 70-80 students/postdocs. The mentors have all been chosen. This year GSA charged \$10 dollars per person for the lunch but they won't do this again since we have a budget surplus. Allan Spradling suggested giving career guidance books as gifts and Elaine Strass of the GSA is working on making this happen.

Additional suggestions for next years meeting:

As we were educated by the organizers of 2007, we would like to recommend that next year's organizer get a copy of the meeting reports from the last several years at the start of the organization, to enlighten them about all the issues that were considered in previous meetings.

I. Updated Plenary Speaker list, thru 2008 San Diego

Susan Abmayr	1995
Ravi Allada	2007
David Anderson	2008
Kathryn Anderson	1999
Deborah Andrew	1997
<u>Doris Bachtrog</u>	<u>2005</u>
Bruce Baker	1996
Bruce S. Baker	2002
Utpal Banerjee	1997, 2005
Konrad Basler	2003
Amy Bejsovec	2000
Phil Beachy	1998
Hugo Bellen	1997
Marianne Bienz	1996
Ethan Bier	2002
Mark Biggin	2008
David Bilder	2008
Seth Blair	1997
Grace Boekhoff-Falk	2003
Nancy Bonini	2000
Juan Botas	1999
Andrea Brand	2001
<u>Sarah Bray</u>	<u>2005</u>
Vivian Budnik	2000
Ross Cagan	1998
John Carlson	1999, 2002
Sean Carroll	1995, 2006
<u>Richard Carthew</u>	<u>2005</u>
Sara Cherry	2008
Bill Chia	2006
Andrew G. Clark	2002
Tom Cline	2000
Steve Cohen	2008
Francis Collins	2004
Claire Cronmiller	1995
Ilan Davis	2001
Rob Denell	1999

Claude Desplan	2007
Michael Dickinson	1995
Barry Dickson	2006
Chris Doe	1996
Ian Duncan	2001
Bruce Edgar	1997
Mike Eisen	2007
<i>Sarah Elgin</i>	2005
Anne Ephrussi	2001
Mel B. Feany	2002
Martin Feder	1998
Janice Fischer	1998
Nicole Francis	2008 (accepted but withdrew March 7th)
Matthew Freeman	2004
Minx Fuller	2003
Ulrike Gaul	2007
Elizabeth R. Gavis	2002
Pam Geyer	1996
Richard Gibbs	2003
David Glover	2000
Kent Golic	2001
<i>Ralph Greenspan</i>	2005
Leslie Griffith	2006
<i>Ernst Hafen</i>	2005
Iswar Hariharan	2003
Dan Hartl	2001
Scott Hawley	2001
Tom Hayes	1995
Ulrike Heberlein	1996, 1998
Martin Heisenberg	1998
David Hogness	1999
Joan Hooper	1995
<i>Yuh Nung Jan</i>	2005
Wayne Johnson	2000
<i>Laura Johnston</i>	2005
Gary Karpen	2006
Timothy Karr	2003
Thom Kaufman	2001
Manolis Kellis	2008
Rebecca Kellum	1999
Christian Klambt	1998
Artyom Kopp	2008
Thomas B. Kornberg	2002
Mark Krasnow	2004
Henry Krause	2004
Ed Kravitz	2004
Mitzi Kuroda	2003
Chuck Langley	2006
Paul Lasko	1999
Cathy Laurie	1997
Thoma Lecuit	2007
Ruth Lehmann	2002
Mike Levine	2003
Bob Levis	1997
Haifan Lin	1995

Susan Lindquist	2000
John Lis	2001
Troy Littleton	2006
Liqun Luo	2003
Trudy Mackay	2000
Richard Mann	2006
J. Lawrence Marsh	2004
Erika Matunis	2004
Dennis McKearin	1996
Mike McKeown	1996
Gero Miesenbock	2006
Jon Minden	1999
Marek Mlodzik	2006
Denise Montell	2002
Mohamed Noor	2007
Roel Nusse	1997
David O'Brochta	1997
<i>Michael O'Connor</i>	2005
Terry L. Orr-Weaver	2002
Linda Partridge	2004
Mark Peifer	1997
Trudy MacKay	2000
Nipam Patel	2000
Norbert Perrimon	1999
M. Ramaswami	2001
Robert Rawson	2003
Don Rio	2007
Pernille Rorth	1995, 2007
Gerry Rubin	1998, 2001
Eric Rulifson	2007
Hannele Ruohola-Baker	1999
Babis Savakis	1995
Paul Schedl	1998
Dietmar Schmucker	2008
Gerold Schübiger	1996
Trudi Schüpbach	2004
Thomas Schwarz	2007
Kristin Scott	2007
Matthew P. Scott	2002
John Sedat	2000
Amita Sehgal	2003
Pat Simpson	2008
Marla Sokolowski	1998
Allan Spradling	2008
Ruth Steward	1996
<i>Daniel St. Johnston</i>	2005
Tin Tin Su	2002
Bill Sullivan	1996
John Sved	1997
John Tamkun	2000
Barbara Taylor	1996
William Theurkauf	2002
<i>Jessica Treisman</i>	2005
Tim Tully	1995
Talila Volk	2004

Leslie Vosshall	2006
Barbara Wakimoto	2001
Lori Wallrath	2007
Steve Wasserman	1996
Kevin P. White	2004
Kristin White	2004
Eric Wieschaus	1996
Rachel Wilson	2008
Ting Wu	1997
Tian Xu	1997
Philip Zamore	2003
Susan Zusman	1998

II Session Chairs:

Techniques & Genomics

- 2003 Christenson & Dearolf
- 2004 Westwood
- 2005 Amy Kiger
- 2006 Chen
- 2007 Dasgupta
- 2008 Bernard Mathey-Prevot (called Techniques and Functional Genomics)

Organogenesis

- 2003 Abmayer / Cripps
- 2004 Godt
- 2005 Frasch
- 2006 Debbie Andrew
- 2007 Baylies
- 2008 Justin Kumar

Mitosis, Meiosis & Cell Division

- 2003 Su / Johnston
- 2004 Campbell
- 2005 Scholey
- 2006 Thomas Neufeld (called Cell Division & Growth Control)
- 2007 Moberg
- 2008 Kiger (called Cell Division & Growth Control)

Cytoskeleton & Cell Biology

- 2003 Sisson / Miller
- 2004 Schoeck
- 2005 Helmut Kramer
- 2006 Dave Bilder (1/2 session...)
- 2007 Zallen
- 2008 McCartney

Cytoskeleton & Cell Biology II

- 2008 McCarney

Neurogenetics & Neural Development

- 2003 Wolff / Seeger
- 2004 Yong Rao

2005 Zinn
2006 Kwang-Wook Choi
2007 Grueber
2008 Freeman

Signal Transduction I

2003 Jiang / Robinow
2004 Therrien
2005 Erica bach
2006 Xinhua Lin
2007 Rebay
2008 Barolo

Neurophysiology & Behavior

2003 Smith / Taylor
2004 Boulianne
2005 Krantz
2006 Littleton
2007 Blau
2008 Clandinin

Gametogenesis & Sex Determination

2003 Matunis / Godt
2004 Brill
2005 Arbeitman
2006 Rick Kelley
2007 Van Doren
2008 Chen

Signal Transduction II

2003 Halder / McNeill
2004 Bruce Reed
2005 Marques
2006
2007 Wharton
2008 (only one session of eight talks)

Immune System & Cell Death

2003 McCall & Bergmann
2004 Manoukian
2005 Brachman
2006 Bergmann
2007 Schneider
2008 White (Kristin)

Pattern Formation I

2003 Horabin & Rogers
2004 Laura Nilson
2005 Raftery
2006 Justin Kumar
2007 Stathopoulos
2008 Richard Mann

Pattern Formation II

2003 Pollack & JOnes

2004 Tepass
2005 Stuart Newfeld
2006 Rushlow
2007 Irvine
2008 (only one session of eight)

Regulation of Gene Expression

2003 Arnosti / Orenic
2004 Vett Lloyd
2005 Coury
2006 Scott Barolo
2007 Small
2008 Arnosti

Genome & Chromosome Structure

2003 Dernburg / Gallant
2004 Brock
2005 Biessmann
2006 Geyer
2007 Ahmad
2008 Hoskins

Drosophila Models of Human Disease:

2005 Ming Guo
2006 Fortini
2007 Bonini / Fortini?
2008 Bier

Drosophila Models of Human Disease II:

2008 Bier

Physiology & Ageing

2006 Pletcher
2007 Tatar
2008 Drummond-Barbosa

Evolution & Quantitative Genetics

2003 McAllister & Gleason
2004 Andolfatto
2005 Long
2006 Gibson
2007 Stern
2008 Wittkopp

Evolution & Quantitative Genetics II

2008 Wittkopp

RNA Biology

2008 Lopez

III: Past Historical Speakers

Antonio Garcia-Bellido - 2008

Spyro Artavanis-Tsakonas – 2007

Thom Kauffman – 2006

Christiane Nusslein-Volhard – 2005

Peter Lawrence – 2004

Michael Ashburner – 2003

Ed Lewis – 2002

Gerry Rubin – 2001

Seymour Benzer – 2000

Dan Lindsley (introduction) and Iris Sandler (Keynote) followed by Gerry Rubin (introduction) and David Hogness (Keynote) 1999 (started this year)

2008 Suggestions for future historical speakers: Allan Spradling, Eric Weischaus, John Merriam, Tony Mahowald, Bill Gelbart, Tom Cline

2007 Suggestions for future historical speakers: Walter Gehring, Gerold Schubiger, Bruce Baker

3. 2009 PROGRAM COMMITTEE

The 50th annual Drosophila Research Conference is March 4 - 8, 2009 at the Sheraton Chicago Hotel and Towers, in Chicago, Illinois. The organizers for the 2009 meeting will be chosen at the Board meeting. The 51st annual Drosophila Research Conference is April 7 -10, 2010 at the Marriot Wardman Park Hotel in Washington DC. The organizers for the 2010 meeting self-assembled and were approved by the Board via email. They are Steven Hou, Leslie Pick, Debbie Andrews and Mark Fortini.

4. REPORT OF THE GSA MEETING COORDINATOR (Suzy Brown, CMP)

49th ANNUAL DROSOPHILA RESEARCH CONFERENCE

As you can see from the information in the treasurer's report, I budgeted a loss of over \$21,000 for this year. This is due in large part to the addition of a luncheon that is estimated to cost approximately \$35,000 or more (depending on attendance) without, at the Board's direction, raising registration prices. Since the Drosophila Main Fund is over \$270,000, this shortfall will be easily absorbed by the Fund. That having been said, we have paid close attention to expenses, as always, to try and cut costs where possible (for example, we negotiated a 35% reduction in coffee prices). Unfortunately A/V costs have risen this year but are still far below the industry standard for the type of equipment we use. We were able to secure a 50% discount on the equipment. Labor is the item that keeps going up in relation to A/V techs.

Registration:

Total registrations for 2008 (as of the March 10) are 1,343. This number is almost even with last year at the same time. Last year we saw an additional 11% who registered after the early registration deadline. Normally we see an increase between 12 and 20% (the higher percentage was when we didn't have the financial incentive of early registration prices). If we see another 11% this year, our final registration numbers should be at approximately 1,500 attendees.

Registration income at this point is about \$50,000 below the total projected registration income of \$297,500 (increased by \$30,000 from 2007). The number of individuals registering as GSA members, paying the lower member rate, is slightly lower than last year (779 vs. 792 in 2007). I expect that we will see that late and on-site registrations will bring in enough additional income to bring us up to our budgeted revenue number for registration income.

Hotel Rates and Pick-up:

Hotel room rates for singles and doubles in 2008 range from \$162-\$182, slightly lower than last year. . As of the cut-off date of March 1, our block was 92% sold. Generally we experience about a 5% slippage (rooms cancelled after cut-off) but we have met our commitment of 85% of the block which is important because it directly ties into complimentary space, reduced coffee prices and other contractual obligations.

Exhibitors:

Twenty exhibit booths were sold this year compared to fourteen booths last year (12 companies total). The request for multiple booths was up and the sponsorship program was re-structured which brought in our first sponsor in many years. Two additional companies wanted to buy booths which we could not accommodate but should help build interest in next year's show. Eleven of the 12 companies are commercial companies. Overall revenue for exhibits/ads/sponsorship went up by 28% this year. I believe that was due in part to more aggressive marketing and the re-structuring of the sponsorship program.

FUTURE CONFERENCES

Dates and rates have been confirmed through 2013 and the process to look at future years will begin again this year. Any suggested locations are welcome. Is the West, Central, East rotation still preferred? Detailed below is the schedule for the next five years:

2009 – 50th Annual Drosophila Conference: March 4-8, Sheraton Chicago Hotel and Towers. \$199/\$219. This property has had a complete renovation – from meeting space to sleeping rooms.

2010 – 51st Annual Drosophila Conference: April 7-11, Marriott Wardman Park Hotel, Washington, DC. \$215 (\$2 LESS than 2004). All guest rooms and meeting space will have been renovated by 2010.

2011 – 52nd Annual Drosophila Conference: March 30-April 3, The Town and Country Resort Hotel, San Diego. \$176/\$186/\$196.

2012 – 53rd Annual Drosophila Conference: March 7-11, Sheraton Chicago Hotel and Towers. \$230/\$253 (*maximum).

2013 – 54th Annual Drosophila Conference: April 3-7, Marriott Wardman Park Hotel. \$235 (*maximum)

*Note: Sleeping room rates are also tied to the economy so if the hotel's general (rack) rates fall, so does our meeting rate.

Registrations - 2008

	<u>Number</u>	<u>Amount</u>
Members	348	\$68,295.00
NonMembers	138	\$45,245.00
Postdoc Members	164	\$28,699.00
Postdoc Nonmembers	126	\$36,988.00
Student Members	267	\$22,530.00
Student Nonmembers	276	\$42,090.00
Complimentary	28	0
Early/Regular	1,343	\$234,847.00
Mailings-USA	149	\$3,725.00
Overseas	12	\$0.00
Advance Mailings		\$3,725.00
Grand Total	1,340	\$247,572.00

Registrants by Country

Country	Count
United States	1030
United Kingdom	45
Canada	38
Germany	35
Japan	27
France	26
Taiwan	18

Spain	17
Switzerland	12
Korea	11
Mexico	10
Israel	9
Italy	9
Sweden	9
China	7
Portugal	7
Australia	5
Czech Republic	5
Austria	3
Belgium	3
Brazil	3
Singapore	3
Hong Kong	2
Netherlands	2
Argentina	1
Chile	1
Denmark	1
Greece	1
Hungary	1
India	1
Russian Federation	1
Total number of registrants:	1343

31 countries

5. REPORT OF THE SANDLER AWARD COMMITTEE (Helen Salz)

To: The Drosophila Board
 From: Mariana Wolfner, on behalf of the 2007-2008 Sandler Committee

The Sandler Lectureship Committee is charged with choosing the top Drosophila thesis of a given calendar year. The person whose thesis is chosen is invited to give the Sandler Lecture on the first night of the flymeeting.

This year, the Sander Committee's membership was:

Mariana Wolfner (Cornell), Chair
 Helen Salz (Case Western Reserve), previous-Chair
 Trudi Schupbach (Princeton)
 John Carlson (Yale)

Selection procedure:

In Fall '07, an e-mailed "call for nominations" was put out through GSA. It asked Fly PIs to nominate any student who had successfully defended (or would defend), during the 2007 calendar year, an outstanding thesis on any aspect of Drosophila biology. As in the past, nominations consisted of the candidate's CV and thesis abstract, and a letter from their thesis advisor. We received 15 nominations by Dec. 4, 2007. No institution was represented more than once, and nominees were from three countries (mostly US). Eight nominees are female; seven male. Committee members read and ranked the nominations. Votes were submitted and tallied on Dec. 14, 2007. There was clear consensus on five Finalists.

Name of nominee	Nominated by (advisor)	Nominee's degree institution
Allen, Anna	Allan Spradling	Carnegie Inst
Crickmore, Michael	Richard Mann	Columbia
Curtis, Christina	Simon Tavaré	USC
Fang, Yanshan	Amita Seghal	Penn
Friedman, Adam	Norbert Perrimon	Harvard
Hamaratoglu, Fisum	Georg Halder	MD Anderson
Kaun, Karla	Marla Sokolowski	U Toronto
McBride, Sean	Thomas McDonald	Einstein
McClure, Kimberley	Gerold Schubiger	U Washington
Pham, Linh	David Schneider	Stanford
Pollard, Daniel	Michael Eisen	UC Berkeley
Tadros, Wael	Howard Lipshitz	U Toronto
Umulis, David	Michael O'Connor	U. Minnesota
Venken, Koen	Hugo Bellen	Baylor
Wang, Lihui	Peter Ligoxygakis	Oxford

Bold are Finalists

Theses of all five Finalists were sent to each Committee member (as .pdfs) by Dec. 21, 2007. Each committee member read all five theses. Creativity, productivity, scope, independence, and quality and impact of the work were all considered. [Clarity of the thesis, as a metric for potential clarity of a Lecture, was also considered – but was not an issue in any of this year's theses.] All five theses were superb. They spanned a range of topics. We voted, and then held discussions, by e-mail. It was very difficult to pick one winner from among such outstanding "apples and oranges", but a clear consensus did emerge. The Lecturer, two tied runners-up, and the remaining Finalists were notified on Jan. 14, 2008. Because all of our Finalists' theses were amazing, we decided to announce all Finalists at the flymeeting, rather than adhering to the tradition of announcing only the winner and runners-up.

The winner, runners-up and remaining Finalists are:

Winner:

Dr. Adam Friedman, who did his thesis with Norbert Perrimon (Harvard/HHMI). Thesis title was: "Genomic dissection of receptor tyrosine kinase activation of extracellular signal regulated kinase in *Drosophila*".

Tied runners-up:

Dr. Karla Kaun, who did her thesis with Marla Sokolowski (U. of Toronto-Mississauga). Thesis title was: "Neurogenetic and plastic components of food-related behaviors due to the *foraging* gene in *Drosophila melanogaster*".

Dr. Michael Crickmore, who did his thesis with Richard Mann (Columbia). Thesis title was: "The genetic basis of differences in size".

Very very close behind:

Dr. Wael Tadros, who did his thesis with Howard Lipshitz (Hospital for Sick Children, Toronto). Thesis title was: "Post-transcriptional regulation of maternal transcripts by the Pan Gu kinase in early *Drosophila* embryos".

Dr. Fisun Hamaratoglu, who did her thesis with Georg Halder (Baylor). Thesis title was: "The function of the tumor suppressor genes *merlin*, *expanded*, and *fat* in organ size regulation in *Drosophila*".

The 2008 Sandler Lecturer will be announced on the first night of the flymeeting*. Dr. Friedman will then present a seminar on his thesis work (he receives free travel, hotel and flymeeting registration; the two runners-up receive free flymeeting registration).

The Chair of the next Sandler Lectureship Committee is traditionally chosen from among people who have served as a member on this committee at some point. John Carlson has graciously agreed to be next year's Chair.

*because I am unable to attend the Flymeeting this year, Helen Salz (2007 Chair, and a committee member this year) has kindly agreed to announce and introduce the Sandler Lecturer on behalf of the entire committee.

Previous Committee Members (to help future Chairs select new members):

2000 Committee:

Amy Bejsovec
Tom Cline
Joe Duffy
Chris Field
Janice Fischer
Scott Hawley
Bill Saxton (Chair)
Bill Sullivan (1999 Chair)

2001 Committee:

Laurel Raftery
Haig Keshishian
Susan Parkhurst
Bill Saxton (2000 Chair)
Lynn Cooley (Chair)

2002 Committee:

Steve DiNardo, UPenn (Chair)
Lynn Cooley, Yale Med (2001 Chair)
Chip Ferguson, U Chicago
Helen Salz, Case Western

2003 Committee:

Amanda Simcox, Ohio State (Chair)
Steve DiNardo, UPenn (2002 Chair)
Celeste Berg, University of Washington
Jin Jiang, UT Southwestern

2004 Committee:

Ross Cagan, Washington University (Chair)
Amanda Simcox, Ohio State (2003 Chair)
Susan Abmayr, Stowers Institute
Tom Clandinin, Stanford

2005 Committee:

Gerold Schubiger, University of Washington (Chair)
Ross Cagan, Washington University (Chair 2004)
Seth Blair, University of Wisconsin
Gertrud Schüpbach, Princeton University

2006 Committee

R. Scott Hawley, Stowers Institute (Chair)
Helen Salz, Case Western University (Chair 2007)
Kenneth Burtis, UC Davis
Susan Abmayr, Stowers Institute

2007 Committee

Helen Salz, Case Western Reserve University (Chair)
R. Scott Hawley, Stowers Institute (Chair, 2006)
Mariana Wolfner, Cornell University (Chair, 2008)
Jim Erickson, Texas A&M University

2008 Committee

Mariana Wolfner, Cornell University (Chair)
Helen Salz, Case Western Reserve University (Chair, 2007)
Trudi Schupbach, Princeton University
John Carlson, Yale University (Chair, 2009)

6. GSA POSTER AWARD (Brian Oliver)

Included in 2008 Program Committee Report

7. IMAGE AWARD (David Bilder)

This year's competition received 38 submissions, comparable to our best levels from previous years. Michelle Arbeitman will make the Award presentation at the meeting. This year's winner is:

Eric Lecuyer, for his image displaying patterns of embryonic RNA localization from a genome-wide screen.

This year's runners-up are:

-Josh Hagen, for his image of imaginal disc duplications induced by a Wg-regulating micro RNA.

-Christopher Potter, for his image illustrating compartmentalized projections of neurons receiving distinct olfactory inputs.

-Thomas Gregor, for his image displaying the precision of the response to the gradient of Bicoid morphogen.

8. TREASURER'S REPORT (Michael Bender, March 15, 2008)

A. ANNUAL DROSOPHILA CONFERENCE INCOME/EXPENSE

(Data are from the GSA [Suzy Brown], 3/12/08)

	<u>Houston</u> 2006 <u>Actual</u>	<u>Philadelphia</u> 2007 <u>Actual</u>	<u>San Diego</u> 2008 <u>Budget</u>
REVENUE			
Registration			
1 Fees	\$274,135	\$288,067	\$297,500
2 Grants and Contributions	1,052	0	2,000
3 Exhibit Fees	22,600	19,600	20,000
4 Advertising/Mail Lists/Other	640	3,760	3,600
5 Revenue	<u>298,427</u>	<u>311,427</u>	<u>323,100</u>
EXPENSE			
6 Salary, Payroll Tax and Benefits	82,527	82,027	80,300
7 Printing and Mailing	29,062	24,815	28,000
8 Receptions and Catered Events	93,345	83,758	132,000
9 Posters and Exhibits	22,964	34,832	28,000
10 Supplies and Duplicating	1,978	1,798	3,000
11 Hotel and Travel	5,457	3,640	7,500
12 Audiovisual Services	37,339	45,535	47,000
13 Other Contracted Services	9,380	3,221	7,000
14 Telephone and fax	1,382	2,541	4,000
15 Credit Card Fees	8,013	7,641	8,000
16 Miscellaneous	784	373	0
17 Expense	<u>292,231</u>	<u>290,181</u>	<u>344,800</u>
18			
19 Net Revenue Over (Under) Expense	<u>\$6,196</u>	<u>\$21,246</u>	<u>(\$21,700)</u>

B. MEETING ATTENDANCE

Pre-registration 2008 (San Diego) (Note 1):	1,343	\$243,847
Total registration 2008 (est):	1,504	\$300,000
Pre-registration 2007 (Philadelphia):	1,345	\$234,000
Total registration 2007:	1,507	\$288,067
Pre-registration 2006 (Houston):	1,241	\$222,165
Total registration 2006:	1,402	\$274,350
Pre-registration 2005 (San Diego):	1,451	\$264,440
Total registration 2005:	1,515	\$297,750
Pre-registration 2004 (Wash DC)	1470	\$266,110
Total registration 2004:	1,617	\$313,645
Pre-registration 2003 (Chicago):	1,488	\$256,130
Total registration 2003:	1,603	\$283,270
Pre-registration 2002 (San Diego):	1,219	\$211,000
Total registration 2002:	1,552	\$290,170

Note 1. The early registration deadline was 2/21. Historically, 12 to 20% of registrations come in after the early registration deadline (per Suzy Brown of the GSA). Suzy's estimate for final registration is about 1500 with an anticipated net loss as shown above.

C. ACCOUNT BALANCES

Drosophila Main Fund				
Meeting Year	Location	Net Income	Fund Balance*	# Meeting Attendees
1993	San Diego	\$17,105	\$ 25,146	1,165
1994	Chicago	2,800	27,946	1,222
1995	Atlanta	8,417	36,363	1,103
1996	San Diego	15,035	51,398	1,423
1997	Chicago	31,663	83,061	1,382
1998	Wash DC	21,522	104,583	1,378
1999	Seattle	(6,053)	98,530	1,366
2000	Pittsburgh	(56,060)	42,470	1,183
2001	Wash DC	71,656	114,126	1,627
2002	San Diego	60,661	174,787	1,552
2003	Chicago	(22,993)	151,794	1,603
2004	Wash DC	23,026	174,820	1,617
2005	San Diego	90,562	265,382	1,515
2006	Houston	6,196	271,578	1,402
2007	Philadelphia	21,246	289,299**	1,507
2008	San Diego			

* The GSA Board (Sept. 2003 meeting) established a required ~\$150,000 *minimum* reserve fund (one-half of meeting expenses). No cap figure stated. ** The Drosophila Board (2007 meeting) authorized the use of \$3,525 from the main fund to pay attorney's fees for the preparation of a Materials transfer agreement so that Minos insertion strains can be made freely available to the Drosophila community via the Bloomington stock center. This bill was paid in the summer of 2007.

Sandler Lecture Fund

Year	Investment Gain	Travel expenses	Supplies/ Mailing expenses	Net Income	Balance
1993				1417	25,964
1994				(451)	25,513
1995				1,595	27,108
1996				1,142	28,250
1997				1,119	29,369
1998				1,385	30,754
1999				877	31,631
2000				257	31,888
2001				(234)	31,654
2002				(846)	30,808
2003				(2,431)	28,377
2004				432	28,809
2005	1076	1,208	37	(169)	28,640
2006	1963	469	15	1,479	30,119
2007	2006	501	15	1,490	31,609

D. SUMMARY AND REMARKS

The 2007 meeting in Philadelphia produced a healthy surplus (\$21,246). At the 2007 meeting, the board approved the inclusion of a luncheon for the 2008 meeting (estimated cost approximately \$35,000) to encourage additional scientific exchange over an on-site meal. As noted above in the GSA meeting coordinator's report, this anticipated extra cost plus an increase in A/V costs contribute to the projected deficit for this year's meeting of \$21,700. With the projected deficit, the Drosophila main fund balance would still be a very healthy \$268,000 after the meeting. This is about \$100,000 in excess of the reserve amount required by GSA (one-half of meeting expenses or about \$175,000 using this year's meeting expenses as a guide). Given the healthy balance in the main fund, it does not appear that registration fees will need to be increased. (For reference, registration fees were last increased in 2004 by \$10. Postdoctoral registration fees were later reduced by \$19 - to 10% below faculty rates- for the 2007 meeting.) The board should, however, discuss whether to include the on-site luncheon for the 2009 Chicago meeting. Suzy Brown estimates that the cost for this luncheon at the Chicago site would be about \$45,000 (includes a 31% tax and service charge at this location).

Figures for annual meeting income and attendance (see the Drosophila main fund table above) show that for the past 6 years (2 cycles) the west coast San Diego location has generated large increases to the main fund, the two east coast locations have resulted in healthy surpluses, and the two central locations have resulted in a deficit or a modest surplus. This in part reflects differences in meeting expenses between locations. Attendance is down about 7% for the 2005 to 2007 cycle (average of 1475 per meeting) compared to the 2002 to 2004 cycle (average of 1591 per meeting).

The Sandler lecture endowment fund showed another modest increase in the past year and should be able to continue its function of providing sufficient income to cover travel expenses for the Sandler lecturer each year. The modest increases seen in this fund since 1993 will also ensure that, in the long run, the fund can keep pace with future increases in travel costs.

9. ELECTION REPORT (Mark Krasnow)

The Elections Committee consisted of Mark Krasnow (Chair), Paul Lasko, Dennis McKearin, and two new members, Amita Sehgal and Lori Wallrath. We collected suggestions from outgoing representatives, the committee members, and past Election Committees, and then ranked them based on previous involvement in the fly community or our perception of their ability to perform the job. The chair contacted the individuals selected by the committee to construct the final ballot. This year the website surveymonkey was used to make voting and vote counting easier, replacing the e-mail response system with manual vote count used in previous years. 356 people voted this year, more than twice as many as last year (155), although still a small proportion of the ~3000 people contacted. The Board has requested that in future years short biographies of the candidates, and perhaps links to their home page, be provided in the e-mail to the voters. Linda Restifo asked the Election Committee if Regional groupings can be reevaluated, questioning, for example, the inclusion of Arizona, Utah, and Colorado in the Heartland region.

The following letter was e-mailed to Drosophila researchers by Flybase to solicit votes.

Dear Drosophila researcher,

The time has come again to cast your vote for new members of the National Drosophila Board of Directors. This year we are going to adopt a somewhat different method than in past years. This should allow you to more easily cast your vote and for us to tally the results. As you are likely aware the Board plays an important role for the Drosophila research community, so please take a few seconds to learn about the Board and cast your vote. The Board's duties include: overseeing community resource centers and addressing other research and resource issues that affect the entire Drosophila research community. The Board also administers the finances for the annual North America Drosophila Research Conference and its associated awards, and it chooses the organizers and the site of the annual meeting. The Board consists of 9 regional representatives, 8 from the U.S. and 1 from Canada, who serve 3-year terms. It also has 3 elected officers including a President, a President-Elect and a Treasurer. In addition, the Board has ex officio members, who represent Drosophila community resource centers or international Drosophila communities. For more information about the Board and the summaries of the annual Board meetings see:

<http://flybase.bio.indiana.edu/static_pages/news/board.html>

This year we are electing the President-elect, who will serve as President starting with the fly meeting in April 2009. We are also electing representatives for the Great Lakes, Southeast and New England regions, who will serve 3-year terms starting with the fly meeting, April 2008.

Please participate in this election. It is your opportunity to choose the individuals who will help set priorities and garner support for community resources. In order to record your vote please go to the following URL and follow the instructions on that page.

<http://www.surveymonkey.com/s.aspx?sm=4aJx_2fSxtkauFzMbIUrZPGA_3d_3d>

Please remember you may vote for candidates in ALL categories even though you do not reside in the region represented by the candidates. Balloting will end February 22, 2008.

Thank you,
Drosophila Board Election Committee
Mark Krasnow, Chair
Paul Lasko
Dennis McKearin
Amita Sehgal
Lori Wallrath

The surveymonkey ballot listed the following candidates:

President Elect (vote for one):

Terry Orr-Weaver (Massachusetts Institute of Technology)

Paul Taghert (Washington University)

Great Lakes (vote for one):

A. Javier Lopez (Carnegie Mellon University)

David Arnosti (Michigan State University)

Southeast (vote for one):

Hubert Amrein (Duke University)

Jeff Sekelsky (University of North Carolina)

New England (vote for one):

Leslie Griffith (Brandeis University)

Stephen Helfand (Brown University)

The votes were tallied by surveymonkey and Thom Kaufman, and the winners were:

Terry Orr-Weaver for President-Elect April 2008 – March 2009

A. Javier Lopez for Great Lakes regional rep

Jeff Sekelsky for Southeast regional rep

Leslie Griffith for New England regional rep

The next Election Committee chair is Trudy MacKay. The President, Carl Thummel, should remind her to start the process in the fall.

Drosophila Board Master List (Spring 2007-2008)

flyboard@morgan.harvard.edu

Year indicates the last Fly Meeting through which Board Members will serve as Officers or Regional Reps.

Officers:

Utpal Banerjee President 2011 banerjee@mbi.ucla.edu

Carl Thummel President-elect 2012 carl.thummel@genetics.utah.edu

Trudy Mackay Past-President 2010 trudy_mackay@ncsu.edu

Mark Krasnow Past-President & Elections Chair 2009 krasnow@cmgm.stanford.edu

Lynn Cooley Past-President 2008 lynn.cooley@yale.edu

Michael Bender Treasurer 2009 bender@uga.edu

Regional Representatives:

Howard Lipshitz Canada 2009 howard.lipshitz@utoronto.ca

Amanda Simcox Great Lakes 2008 simcox.1@osu.edu

Jim Truman Northwest 2010 jwt@u.washington.edu

Rebecca Kellum Southeast 2008 rkellum@pop.uky.edu

Graeme Davis California 2010 gdavis@biochem.ucsf.edu

Susan Abmayr Heartland 2009 sma@stowers-institute.org

Mitzi Kuroda New England 2008 mkuroda@genetics.med.harvard.edu

Liz Gavis Mid-Atlantic 2010 lgavis@molbio.Princeton.EDU

Pam Geyer Midwest 2009 pamela-geyer@uiowa.edu

International Representatives:

Phil Batterham Australia/Oceania 2010 P.Batterham@unimelb.edu.au

Vijay Raghavan Asia 2010 vijay@ncbs.res.in

Barry Dickson Europe 2010 dickson@imp.univie.ac.at

Ex Officio:

Bill Gelbart FlyBase gelbart@morgan.harvard.edu

Gerry Rubin BDGP & FlyBase rubing@janelia.hhmi.org

Susan Celniker BDGP celniker@fruitfly.org

Thom Kaufman B'ton S.C. & FlyBase kaufman@bio.indiana.edu

Kathy Matthews B'ton S.C. & FlyBase matthewk@indiana.edu

Kevin Cook B'ton S.C. & Nomenclature Comm. kcook@bio.indiana.edu

Teri Markow Tucson Species S.C. tmarkow@arl.arizona.edu

Masa Toshi Yamamoto DGRC, Kyoto yamamoto@kit.jp

Jim Thompson DIS jthompson@ou.edu

Michael Ashburner Europe & FlyBase ma11@gen.cam.ac.uk

Hugo Bellen B'ton S.C. Adv. Comm. & P element project hbellen@bcm.tmc.edu

Allan Spradling P-element project spradling@ciwemb.edu

Helen Salz Sandler Comm. hks@po.cwru.edu

Scott Hawley Nomenclature Comm rsh@stowers-institute.org

David Bilder Image competition bilder@socrates.berkeley.edu

Chuck Langley At large chlangley@ucdavis.edu

Past-Presidents serve as members-at-large with terms ending:

Lynn Cooley 2008 lynn.cooley@yale.edu
Mark Krasnow 2009 krasnow@cmgm.stanford.edu
Trudy Mackay 2010 trudy_mackay@ncsu.edu

2008 Meeting Organizers:

Susan Celniker celniker@fruitfly.org
Nancy Bonini nbonini@sas.upenn.edu
Brian Oliver oliver@helix.nih.gov
John Tamkun tamkun@biology.ucsc.edu

10. BLOOMINGTON STOCK CENTER (Kathy Matthews, Kevin Cook, Thom Kaufman)

Bloomington Drosophila Stock Center Report to the Drosophila Board, April 2008. Prepared by Kathy Matthews, Kevin Cook and Thom Kaufman, with figures as of 3/28/08.

- Stocks held: 23,432
- Registered user groups: 2,324
- Registered users: 5,016
- **Funding:** We are in year 4 of a 5 year grant from NSF+NIH, ~\$455,000 direct costs this year. We expect to raise approximately \$510,000 through cost-recovery in 2008. Increased income from user fees is paying for the growth of the collection. Fees will have to continue to increase if the collection size is to continue to increase.
- **New stocks:** We expect to add 3,600–4,000 new stocks in 2008.
 - 1,200–1,400 GenExel P{GawB} insertions via the GDP pipeline
 - 500–600 Minos insertions from GDP
 - 1,200 insertions of RNAi constructs from the Drosophila RNAi Screening Center
 - 300 Bloomington Deficiency Project deficiencies
 - 400–500 stocks in all categories from the community at large
- **Culls:** We plan to remove ~500 stocks (possibly more) in three categories:
 - Aberrations that have become largely obsolete
 - Effective redundancy and overlap in the insertion collection
 - Alleles of genes for which we have many alleles that are little used

11. FLYBASE (Bill Gelbart)

This report will highlight events of the last year and FlyBase plans moving forward.

Funding: FlyBase is in our last year of the current 5-year grant cycle which end 12/31/2008. In late January, 2008, we submitted our 5-year renewal application for funding beginning 01/01/2009 through 12/31/2013. This grant will be reviewed by the appropriate NHGRI study section in May or June and we should have the first sense of how we did during the summer.

Project Leadership: During 2007, one of the two PIs at Cambridge, Rachel Drysdale, resigned her position. Nick Brown came forward to become a PI and has been with the project since August 2007. While we regretted Rachel's departure and appreciate her many contributions, we were fortunate that Nick stepped and that the transition has been quite smooth. Michael Ashburner will be leaving the project, according to his previously announced plan, at the end of the current 5-year cycle and Nick will be the sole Cambridge PI. Michael is one of a kind and it is not possible to overstate his contributions to FlyBase. All of the PIs and the fly community in general owe Michael a great debt for these special

contributions. We look forward to continuing to get sound advice from our friend Michael as the project moves forward.

For the next 5 year period, we have proposed an additional PI at the University of New Mexico, Maggie Werner-Washburne, who will work with the other PIs on bringing underrepresented minority researchers (URMs) into genomics and bioinformatics through their participation in FlyBase. Maggie has a long history of contributions to URM research issues and two of the PIs (Thom, Bill) have already begun to work with her over the last two years. We look forward to a long and productive association.

Highlights of Progress in from April 2007 to Present: As we presented last year, FlyBase had invested greatly in the complete redesign of most aspects of the project to ensure that, moving forward, we could more effectively capture, house and present an integrated view of the genetic and genomic data on our favorite flies (the family Drosophilidae). This investment, while it slowed down our public update frequency during this transitional period, has paid off handsomely. Some of the main benefits from the community's point of view are:

- monthly updates of the web site.
- the new "Matryoshka" organization to the web site, permitting full integration of previously Balkanized data sets.
- new query engines and browsing tools that take advantage of the integrated data sets.

Issues for the Upcoming Year: With a robust infrastructure in place, FlyBase is focusing on several areas for development or improvement:

- developing methods for accelerating curation, including development of curation support tools, text mining and user submissions. Particularly on the last point (user submissions), we would appreciate any help from the Drosophila Board in beta-testing and in encouraging the regional communities to contribute.
- improving the transparency of the gene report pages and the ease-of-use of the query tools so that the community can dig deeper and more effectively in the rich data that FlyBase contains. We are currently addressing many valuable suggestions that came out of the recent survey that we conducted, and we would again appreciate Board input into improving the FlyBase web site.
- improving methods to handle the ever-increasing amounts and variety of high-throughput data that are emerging, most notably the importation and integration of modENCODE data into FlyBase.

Respectfully submitted,

Bill Gelbart, Thom Kaufman, Kathy Matthews, Nick Brown

12. DROSOPHILA INFORMATION SERVICE (Jim Thompson)

Volume 90 (2007) of Drosophila Information Service was published on schedule in January 2008 with articles accepted during the 2007 calendar year. At 194 pages, it was over 25% larger than recent annual issues. Most contributions are received between mid November and the end of December in response to our traditional annual "Call for Papers". The publication rate is, therefore, relatively rapid. Volume 90 is now freely available at our open web site, www.ou.edu/journals/dis. Among the many interesting articles are Technique Reports like amplification of DNA from 30-year-old aceto-orcein-stained polytene chromosome slides, high-resolution MRI scanning of *Drosophila*, high-throughput DNA extraction, and multiplex PCR reactions for microsatellite genotyping. Three new Teaching Notes and a wide array of Research Notes address topics from molecular and developmental to population genetics. While archiving of back issues is underway, we now provide free pdf-format copies electronically for any available article requested from Volume 1 (1934) onwards. The Drosophila Information Service

website also now has a link to the new *Drosophila Proteome Atlas*, an electronic proteomics database being developed through collaboration of the University of Oklahoma Health Sciences Center, University of Oklahoma, and the *Drosophila* Genetic Resource Center, Kyoto Institute of Technology, Japan. The cost of this year's issue is unchanged at \$12.00, and the shipping and handling costs did not increase this year. Submissions are accepted at any time. Manuscripts and orders can be sent to James N. Thompson, jr., Department of Zoology, University of Oklahoma, Norman, OK 73019; jthompson@ou.edu.

13. TUSCON STOCK CENTER (Teri Markow)

14. KYOTO DROSOPHILA GENETIC RESOURCE CENTER (Kevin Cook)

Drosophila Genetic Resource Center (DGRC) KYOTO STOCK CENTER

Kyoto, JAPAN

<http://www.DGRC.kit.ac.jp/>

<http://www.DGRC.jp/>

Report to the Drosophila Board (April 2008 prepared by Masa-Toshi Yamamoto), as of 3/16/2008

Drosophila Genetic Resource Center (DGRC) of Kyoto Institute of Technology (KIT) was established in 1999 as the national Drosophila Genetic Resource Center by Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Since 2002, DGRC is the core institute for Drosophila resources of National Bio-Resource Project (NBRP "Drosophila") run by MEXT and three sub-institutes, National Institute of Genetics, Ehime University, and Kyorin University, joined to form the Drosophila-Group in order to help maintaining wide range of genetic resources, RNAi strains and the other Drosophila species to melanogaster. The first NBRP was finished at the end of March, 2007, and consecutively the second five-year-project continued from April 2007. In four years from now this project may be terminated by the unreliable and unexpected political influences to the basic sciences.

Stocks held: 37,745 (October 2007)

DGRC, KIT: 22,863 (Basic strains: 4,000, Enhancer trap lines: 4,100, UAS expression lines: 7,000, FRT-lethal from UCLA: 1,300, others: 3,000).

Very recently we received about 500 DrosDel stocks from Cambridge, and 1,900 pB-MARCM from Dr. Luo, Stanford University, which are all expected to be opened to the public in April 2008.

National Institute of Genetics : 13,454 (All RNAi strains)

Ehime University: 703 strains of mostly Japanese 103 species

Kyorin University: Mutant strains not melanogaster 725 strains

Search and Order: All stocks we carry under the project can be searched through the WEB site <http://www.DGRC.jp/> in which users can find insertion sites of various insertion stocks and RNAi information. You can go to the site at which you can make orders from us. We have a common entrance to register User ID and payment by credit cards. You can also visit either site, DGRC (<http://kyotofly.kit.jp/> <http://www.DGRC.kit.ac.jp/en/>) or NIG (<http://www.shigen.nig.ac.jp/fly/nigfly/index.jsp>) to make orders. If you obtain your ID at either site

above, you may order stocks from the other NBRP group with the user ID.

Registered user groups: about 1,300. Registration has to be done every year.

New stocks: We plan no more large scale collection this year, but small scaled interesting stocks are welcome to be donated. We may ask authors of various scientific papers for donation of stocks. If we have to consider a large scale collection in a few years we need requests and comments from Drosophila community.

Other species: 1,450 lines (103 species collected in Japan, and mutant strains of 6 species) at Ehime University and Kyorin University.

Other resources: BAC libraries of 5 species (melanogaster, simulans, sechellia, ananassae, auraria), and cDNA libraries will be ready to be opened to the public.

Import permits: USA, Australia, Taiwan, and New Zealand require import permit. Please tell US fly people that the system is troublesome, but functioning well. We had no serious problem so far. We hope people in US understand the system and check the information provided from <http://flystocks.bio.indiana.edu/Regulatory/import.htm>.

Since DGRC Kyoto itself is capable to maintain about 50,000 stocks, in duplicated cultures, we still have about 25,000 more capacity to maintain new stocks. Kevin visited us in November 2007 and therefore tells you how we are doing for Drosophila research and researchers in the world.

15. DROSOPHILA BOARD WHITE PAPER (Trudy Mackay)

The first White Paper was written in 1999 by a Fly Board subcommittee led by Bill Gelbart. It was modified by a group that Laurie Tompkins organized for an NIH workshop in March 2000. This revised version is posted on the FlyBase Web site as the White Paper 2001. The 2002, the Fly Board decided we should write a White Paper every two years. We agreed that we would not support specific investigators, but project goals. An obvious exception is continuing support for stock centers. Barbara Wakimoto and Lynn Cooley coordinated White Papers 2003 and 2005, respectively, and I followed their guidelines for White Paper 2007, as follows.

On January 3, 2007, I emailed the Drosophila Board to poll their opinion about whether we should draft a White Paper in 2007:

January 3, 2007

Dear FlyBoard,

As you know, the Drosophila Board has written four White Papers. The first Drosophila White Paper was written in 1999 and revised in 2001 and 2003. At our 2004 meeting, the Drosophila Board of Directors decided to write a new White Paper to take stock of the progress made in the preceding two years and to assess current and future needs of the Drosophila research community. The 2005 White Paper is attached. It was drafted by the Board, and then modified according to input and feedback from the Drosophila research community. It is now time to determine whether we need to write another White Paper in 2007. Has enough changed/progressed since this was written? Or should we revise the 2005 White Paper? Could you let me know your thoughts?

Best Wishes, and Happy New Year,
Trudy

The responses were all in favor. On January 12, 2007, I sent the following message to the Drosophila Board:

Hi All,

Not everyone has responded to my query about writing another White Paper in 2007, but all who did respond were unanimous that we should continue to have an up-to-date 'wish list' for the Drosophila community. I'm attaching the 2005 White Paper again, and asking for your input. Could you identify (a) projects that are essentially complete, and should be deleted; (b) items that are ongoing and should be continued; and (c) new needs of the community. I will also send a message to all registered fly people to get their input, and collate responses. I would like to send around a draft of the 2007 White Paper for discussion at the upcoming Drosophila Board meeting in Philadelphia on March 7, 2007, and would very much appreciate your comments as soon as possible, and preferably before the end of this month.

Thanks for your help,
Trudy

Also on January 12, 2007, asked Kathy Matthews to post this message on FlyBase:

Dear Fly Person,

With extensive input from the Drosophila community, the Drosophila Board of Directors assembles and publishes the Drosophila Board White Paper. This document is extremely useful for informing NIH and NSF of our top research priorities. Past White Papers have helped to justify funding for valuable community resources such as insertion mutations, cDNA collections, FlyBase and fly and molecular stock centers. It is now time to update the White Paper and I am writing to ask for your input.

Please download the Drosophila Board White Paper 2005:
<http://flybase.bio.indiana.edu/static_pages/news/whitepapers/DrosBoardWP2005.pdf>

Many of the projects listed in the White Paper are underway or nearing completion.

- * Which projects on the list remain high priority?
- * What are the bottlenecks to current research using Drosophila?
- * What do you see as the emerging projects or technologies that should be encouraged or supported?

Your input in this process is essential to maintaining and expanding our research tools. Please take the time to send your comments and ideas so the priorities for the next 2-3 years in the White Paper accurately represent the community. Respond to this email, to your regional Representative on the Board of Directors, or to any member of the Board as soon as possible.

Thank you and Happy New Year,
Trudy Mackay
President, Drosophila Board of Directors
http://flybase.bio.indiana.edu/static_pages/news/board.html

Based on the responses I received, I modified the 2005 Drosophila White Paper to produce the draft that was discussed at the 2007 Board Meeting. The White Paper was revised with input from Hugo Bellen, Susan Celniker, Kevin Cook, Kathy Matthews, Allan Spradling, and Carl Thummel.

The following letter was sent to members of the Drosophila community November 6, 2007, and the draft posted on FlyBase.

Dear Fly Person,

I am writing to ask for your comments on the Drosophila Board White Paper 2007 draft. The White Paper is extremely important for informing funding agencies including the NIH and NSF of our top research priorities for the next 2-3 years. Past White Papers have helped to justify funding for valuable community resources such as insertion mutations, cDNA collections, FlyBase and fly and molecular stock centers.

The Drosophila Board White Paper 2007 draft has been assembled by the Board of Directors based on input from many members of the community. For it to accurately reflect the community's priorities, we need your input now. Please download the draft and send me your comments. Do you agree with the priorities? Is something important to your research missing? Are there things in the document you do not agree with?

Please send comments even if it is only to endorse the White Paper. The White Paper is most powerful when backed by everyone in the research community including students, postdocs and PI's. Your opinion matters!

Download the Drosophila Board White Paper 2007 draft at:
<http://flybase.net/.data/docs/CommunityWhitePapers/>

Send comments to trudy_mackay@ncsu.edu with "White Paper" on the subject line.
Deadline for comments: November 30, 2007.

Thank you for your help,
Trudy Mackay
For the Drosophila Board of Directors

I received comments from 20 people, and revised the White Paper further to incorporate relevant comments. I send the revised White Paper to the Board in early December, and posted it on FlyBase on December 17, 2007.

16. TRANSGENIC RNAi (Stephanie Mohr)

Drosophila RNAi Screening Center (DRSC)

The Drosophila RNAi Screening Center (DRSC), which is located at Harvard Medical School, was founded in 2003 and is funded by a grant from NIGMS. The primary goal of the DRSC has been to make it possible for researchers to perform genome-wide RNAi screens in Drosophila cells. We have a state-of-the-art facility equipped to capture assay read-outs as specific as changes in expression of a single gene or protein (i.e. fluorescence or luminescence plate-reader assays) or as general as changes in cell shape (i.e. high-content image screening). To date, about 75 screens have been done at the DRSC, resulting in more than 30 publications. The high demand for genome-wide screening continues. Moreover, we are working with collaborators to expand the range of cell screening and RNAi reagents we have available. We are working with the modENCODE group to add non-coding RNAs to the screening collection and with BDGP/S. Celniker to make it possible to do over-expression screening in fly cells. We have both a kinase/phosphatase and a transcription factor RNAi sub-library and together with R. DasGupta (NYU), we are adding additional dsRNA sub-libraries, which are designed for deep coverage (multiple dsRNAs per gene) of functionally related gene sets. Finally, a recent grant to N. Perrimon from NIH provides funding for the Transgenic RNAi Project (TRiP).

The Transgenic RNAi Project (TRiP)

Introduction. Despite the wealth of genetic information we have about Drosophila, mutations have been isolated for fewer than half of the ~15,000 annotated genes in the fly genome. This lack of functional information, the so-called “phenotype gap,” does not suggest that these genes have no function but instead, tells us that much remains to be learned. Moreover, our understanding of many genes for which mutant alleles do exist is limited by issues of pleiotropy. One method that can be used to address both the phenotype gap and issues of pleiotropy is inducible expression of a hairpin for gene-specific RNAi knockdown. With this in mind, the goal of the TRiP is to generate a large collection of transgenic hairpin fly lines that can be openly distributed in the research community.

Scope of the Project. A pilot project at HHMI’s Janelia Farm has generated about 1,250 transgenic hairpin fly lines. A recently awarded grant from NIGMS will make it possible for us to generate at least ~1,250 lines/year over the 4-year grant period, for a total of at least ~6,000 fly lines.

Project Details. Genes will be selected on the basis of community nomination of targets, input from the Bloomington stock center, and the needs for *in vivo* validation of gene “hits” identified in cell-based screens at the Drosophila RNAi Screening Center (DRSC). We have constructed an appropriate vector, pVALIUM, in which the hairpin follows a pair of 5xUAS cassettes (Ni et al. 2008). We are taking a phiC31 integrase-mediated approach to genome integration and using additional methods to limit variability in hairpin expression levels (Markstein et al. 2008). One of the 5xUAS cassettes can be removed via Cre recombinase, such that expression levels can also be mediated via control of the UAS copy number (5x, 10x, 15x and 20x UAS). We adopted a long snap-back dsRNA approach to hairpin design and minimized potential for off-target effects (Kulkarni et al. 2006) in hairpin sequence design. Efficacy of the approach was experimentally validated with constructs designed to disrupt genes with known phenotypes. In all cases where two independent hairpins were generated against a single gene, the resultant phenotypes in flies were similar or identical.

For Updates on Progress. Information about the TRiP and how to nominate genes is available through the recently revised DRSC website <http://flyrnai.org>. In the future, we will add a search tool for identifying genes already in the queue, in addition to more information about the project.

Distribution of TRiP Flies. We plan to transfer verified transgenic fly lines to the Bloomington stock center for distribution. The first set of TRiP flies should be available fall 2008.

Addenda: Post meeting communications

Hi Utpal,

As I mentioned in the Flyboard meeting, we are having a symposium the last day of our annual species workshop to address the issues raised by Kim van der Linde at her visit to our meeting last spring.

The implications of her proposed naming application are very broad and should be of concern to *Drosophila* biologists in a range of disciplines.

Not only might the names of common *Drosophila* species change, producing a myriad issues for publication, etc. Larger issues concern the need to know the true evolutionary relationships of the various species in order to make proper inferences about conserved versus novel coding or regulatory sequences and elements, gene family evolution, etc. So the symposium is designed to do two things. First, to provide the community with what the actual issues are that are driving the controversy about the nomenclature. We have assembled the world's foremost *Drosophila* taxonomists and systematists to present and discuss these issues. Second, the implications of the true phylogenetic relationships for developmental, neuro, and cell and molecular genetics will be discussed by researchers representative of these fields.

I'm attaching the program and request that you forward this to members of the Flyboard. It is critical that the board have an understanding of these issues. As additional *Drosophila* genomes are sequenced and as the genetic tools common for *D. melanogaster* become available for the other species, we will see an even greater growth in comparative studies than we observe today. The Species Stock Center already receives a record number of orders for other species from colleagues whose work was restricted to *D. melanogaster* in the past.

With best regards,

Teri

SYMPOSIUM
***Drosophila* Evolution: Taxonomy, Systematics, Phylogenetics**
and their Relationships to *Drosophila* Biology
Sunday, November 23, 2008

The genus *Drosophila* is one of the best-studied model systems in modern biology, with twelve fully sequenced genomes available. In spite of the large number of genetic and genomic resources, little is known concerning the phylogenetic relationships, ecology, and evolutionary history of all but a few species. Recent molecular systematic studies have shown that this genus is comprised of at least three independent lineages and that several other genera are actually imbedded within *Drosophila*. This accounts for nearly 2500 described, and many more undescribed, species. While some *Drosophila* researchers currently are advocating

dividing this genus into three or more separate genera, others favor maintaining *Drosophila* as a single large genus. The subdivision of this genus has significant implications for many biological processes, from the annotation of single genes to understanding how ecological adaptations have occurred over the history of the group.

This symposium will bring together *Drosophila* experts to address issues relevant to revising the genus into a stable, predictive group that maximizes its utility as a tool in comparative biology. The symposium will be divided into two distinct sessions. The morning session (I) will be devoted to how to address the paraphyly of the genus *Drosophila*, including (a) preserving the name *Drosophila melanogaster* and (b) the implications of dividing *Drosophila* into multiple genera, maintaining a large (~2500 spp.) genus *Drosophila*, or devising an alternative method to denote monophyletic groups within the larger *Drosophila* clade. The afternoon session (I) will address the implications to comparative biology, genomics and the evolution of development to altering the taxonomic and phylogenetic relationships within the genus *Drosophila*.

Attendees are encouraged to present a poster during the buffet lunch.

Registration is \$150 USD & includes Saturday's dinner and Sunday's lunch.

Symposium Schedule

Saturday, November 22

Birch Aquarium, La Jolla, California

- 6:00 p.m. Reception and Dinner at Birch Aquarium, La Jolla
- 7:30 p.m. **Keynote address, Dr. Kenneth Kaneshiro,
University of Hawaii**

Sunday, November 23

Eucalyptus Point Conference Center, UCSD Campus

- 8:00 a.m. *Drosophila* Taxonomy in the Next Century (P. O'Grady)
- 8:30 a.m. Proposed conservation of *Drosophila* (G. Baechli, K.van der Linde)
- 9:00 a.m. Panel Discussion I (M. Ashburner, moderator)
Panel Members: S. McEvey, F. Val, M.Toda, J. David, K.Kaneshiro
- 10:30 a.m. Break
- 11:00 a.m. Concluding remarks (P. O'Grady)
- 11:30 a.m. The role of Flybase as a taxonomic resource (T. Kaufman)
- 12:00 p.m. Buffet lunch and Posters
- 1:30 p.m. The Importance of Phylogenetics, Species Identification & Classification to
Evolutionary Biology and Development (R.deSalle)
- 2:00 p.m. DNA barcoding and *Drosophila* (R. Hanner)
- 2:15 p.m. The Taxonomic Impediment (B. Fisher)
- 2:30 p.m. Panel discussion II (Wm. McGinnis, moderator)
Panel Members: N. Gompel, J. Ranz, S. Schaeffer, T. Kaufman
- 3:30 p.m. Break
- 4:00 p.m. Roundtable discussion with the goal of producing a consensus document to be
published in Fly
- 5:30 Adjourn

Drosophila Species Workshop Instructors and Symposium Participants

Wyatt Anderson, University of Georgia
Michael Ashburner, Cambridge University
Gerhard Baechli, University of Basel
Sergio Castrezana, University of California at San Diego
Jean David*, Paris Natural History Museum
Rob DeSalle, American Museum of Natural History
Francisca do Val, University of Sao Paulo
Brian Fisher, California Academy of Sciences
William Gelbart, Harvard University
Nicholas Gompel, Developmental Biology Institute of Marseilles
Robert Hanner, University of Guelph
Ken Kaneshiro, University of Hawai'i, Manoa
Thom Kaufman, Indiana University
Therese Markow, University of California at San Diego
Luciano Matzkin, University of California at San Diego
Bryant McAllister, University of Iowa
Shane McEvey, Australian Museum
William McGinnis, University of California at San Diego
Patrick O'Grady, University of California at Berkeley
Violeta Rafael, Universidad Pontificia Catolica de Ecuador
José Ranz, University of California at Irvine
Steve Schaeffer, Penn State University
Masanori Toda, Hokkaido University
Kim van der Linde, Florida State University
Masayoshi Watada, Ehime University

From: Bellen, Hugo J [<mailto:hbellen@bcm.tmc.edu>] **Sent:** Sunday, July 06, 2008 6:28 PM
To: vijay@ncbs.res.in; Utpal Banerjee; Bassem Hassan **Cc:** Rubin, Gerry; Artavanis-Tsakonas, Spyros **Subject:** stockcenters

Hi Everybody,

I wrote this in Crete and edited it today. Any feed-back is welcome.

Hugo

Issues to consider in the development of a new stockcenter: science, budgets etc

Hugo J. Bellen

One of the main issues that we are currently facing in the Drosophila community is that new technology such as RNAi, P[acman] technology, MIMIC, and GAL4 associated technology will lead to more stocks that will have to be maintained and distributed to scientists worldwide. Yet, the capacity of the Bloomington Stock Center (BSC) will probably reach a point soon when many useful reagents will not be able to be maintained there (the BSC maximum capacity is estimated at about 35,000 stocks, current holdings are close to 25,000). The BSC has committed to absorb an RNAi collection (Perrimon et al.) as well as some stocks from the gene disruption project (Bellen et al.) which will probably bring their collection close to maximal capacity, unless a new solution can be developed.

There are currently a few other stock centers which are in operation that can be considered for maintenance and distribution of stocks. These include the Kyoto stock center in Japan which is estimated to have a similar maximal capacity as BSC (maybe more, 40,000?) and already houses more than 20,000 stocks. In addition, the European Stock center in Szeged also houses a significant collection of P-elements (estimate 5,000?) but its future is less than certain. Finally, the Artavanis-Tsakonas lab at Harvard distributes the Exelixis collection (~16,000) but again, the future of this collection is also in jeopardy and it may well be that this collection will have to be transferred to Japan or eliminated or partially transferred to BSC. In summary, the creation of any additional large collection will face a daunting problem: who will maintain the stocks and where will these collections be kept?

We are planning on generating two valuable collections. The first one is based on the MIMIC transposable element that contains a cassette that allows Recombination Mediated Cassette Exchange (RMCE see Bateman et al. 2006). This is a collaboration with the Hoskins and Spradling labs. This new technology allows one to insert DNA of any type with high efficiency into the site where MIMIC is inserted. As 25% of the MIMIC inserts are in introns, it will allow creation of gene traps with very high efficiency, gene fusions, tagging, etc. Note that MIMIC has no insertional specificity and inserts essentially randomly, very different from P-elements. In addition, one should be able to remove or replace the DNA between two MIMIC elements that are up to 80 kB apart with P[acman] DNA (see below) allowing the manipulations of genes in their proper genomic context. In summary, this collection would be valuable and 80% or more of all MIMIC insertions may be worth keeping. We are currently supported by the NIH to create 30,000 MIMIC strains and BSC will probably only take 3,000 to 6,000 of these stocks. Hence, an estimated 20,000 valuable stocks may have to be eliminated in the next three to four years.

In another project, in collaboration with Kevin White, we are planning on tagging 10,000 genes present in the genomic P[acman] libraries with a sophisticated tag that should allow live imaging, protein purification, CHIP, and immunohistochemical staining in fixed tissue. The methodology is based on recombineering and insertions of positive-negative selection markers. The value of these collections of clones would be tremendously enhanced if the clones were integrated in attP docking sites and the strains would be made available to the community. For example, one would be able to define an atlas of gene expression for every tissue at many different developmental stages. A set of about 5-10,000 useful stocks could be generated, only if we can find a stock center that is willing to distribute these stocks.

In summary, two very valuable collections totaling more than 25,000 stocks could be created and maintained in the next 5-8 years if someone is willing and able to maintain and distribute these stocks. To provide an idea of the costs that are associated with the maintenance and distribution of a collection of 10,000 stocks I will guide the reader through a cost estimate.

The costs to maintain a single stock in a single vial in Houston is as follows:

- production of one vial including materials, fly food and labor in my lab is at a minimum 15 c/per vial (scale is important as we cook ~ 1,000,000 vials per year). I estimate that 15c/vial is quite reasonable in most places in the US.
- each stock must be transferred on average about 20 times a year if maintained at 18-19C, hence $20 \times 15c = \$3.0$ per stock per year.
- -the labor transfer costs are estimated (based on the cost structure in my lab) at 5c per vial per transfer but will vary greatly from lab to lab. (my cost base is \$10.0 per hour including benefits). Hence, for 20 transfers per year we need to add an additional \$1.0 per stock per year. The total cost is therefore \$4.0 per stock if one copy is kept.

Unfortunately, stocks need to be maintained in at least three copies, and each copy needs to be maintained in a different incubator controlled by a different electrical circuit (preferably in a different building) to avoid catastrophic losses and to allow the replacement of lost vials, subcultures etc. Hence, the total cost to maintain a stock, including labor is ~\$12.00 (3 X \$4.0) per year per stock. This implies that the basic costs associated with maintaining 10,000 stocks per year is ~\$120,000 per year. It could be argued that stocks that are replaceable like the P[acman] stocks could be kept in two copies instead of three. Hence, the cost would be reduced by \$40,000 per year.

A stock center this size will need one person full time for distribution of the stocks and other tasks (Salary: \$40,000/year including benefits). The cost of other personnel [cooking and transfer] is already included in the vial costs. I cannot estimate this cost in other places than Houston as this will again vary from place to place. In addition, the stock center will have to be managed by a person who is a geneticist and is willing to do administration and billing etc (\$80,000 including benefits). In Houston, these costs would therefore be approximately \$120,000.

Hence, the total amounts to about \$240,000 per year.

I estimate that all other costs could be accommodated with less than \$60,000 per year. These include gas, water, electricity, rent, insurance, maintenance, capital replacement etc. The total for our location (Houston) for a collection of 10,000 strains would therefore hover around \$300,000 per year. Obviously, this may vary significantly, and every reader can now adapt the costs based on this model.

Finally, one needs an infrastructure, which one would hope would be build and developed by the University/Research Center that houses the collection. One will need three walk-in 18C rooms (~\$120,000), microscopes (~\$30,000), a packaging room (~\$10,000), an office (~\$5,000), and a large fly kitchen (~\$50,000). This totals about \$220,000. Total required space should be around 1,500 +/- 200 sq ft

Cost recovery.

There are three main possibilities: All external support via grants, all cost recovery, or a mix of both. If we assume a full cost recovery strategy we can envisage a few scenarios. The average stock is ordered once a year, implying that 10,000 subcultures are sent out per year: cost is \$30 per stock. Obviously, if 20,000 subcultures are sent out per year the cost is on \$15 per vial. The BSC stocks are sent out on average about 10X per year (~about 3\$ per stock) but private collections will never come close to this number as their utility is often more limited. A fair estimate would be 1-3 X per stocks per year for 10 years.

I hope that this outline will provide you with a way to estimate your cost structure and I will be eager to

talk to anyone who is considering setting up a stock center. There is obviously an advantage associated with a stock center, including name recognition, access to collection for locals etc. In addition, these collections could be screened by visiting scholars and international scholars, thereby enhancing the scientific interaction and promoting collaborations as well as exchange of ideas within the fly community. Screening the collections locally would be much cheaper than sending 10,000 stocks, and would promote interactions and collaborations etc.

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