# THE GSA REPORTER

#### sept | oct 2010

### GSA Award Sites Are Open

The Genetics Society of America is pleased to announce that the online websites for the five GSA awards that recognize outstanding leadership in the field of genetics and for the DeLill Nasser Travel Awards for graduate students and postdoctoral fellows are now open until September 30, 2010.

You are invited to **nominate your colleagues** at **http://www. genetics-gsa.org/pages/awards. shtml** for the **2011 GSA Awards**, which include the GSA Medal, the

continued on page two

## Yeast Poster Award Winners Recognized

The Genetics Society of America congratulates the four GSA poster winners and the five honorable mention award recipients from the Yeast Genetics and Molecular Biology meeting, July 27-August 1, 2010 at the University of British Columbia, Vancouver, Canada. Each award winner received a cash award. Those receiving honorable mentions received a meeting T-shirt and an iTunes card.

The award winners are:

• **Andrew Manford**, Cornell University, Ithaca, NY, "Lipid signaling and the role for the oxysterol-binding protein family

continued on page two

### Bylaw Revisions and Board Members on GSA Ballot

GSA's annual election is taking place now until October 29 via electronic ballot. In addition to selecting members for the Board of Directors, members are asked to approve bylaw revisions.

The bylaw revisions have been approved by the GSA Board of Directors, but must be approved by a majority of members voting in this election in order to go into effect. The last revisions made to the GSA bylaws were in 1996. For a summary of the revisions being made to the bylaws, please see page 7. To review the current bylaws, see the GSA website at http://www.genetics-gsa.org/pages/ gsabylaws.shtml. For the complete bylaw revision being voted on, please go to the GSA website at http://www. genetics-gsa.org/election/bylaws full. shtml

Board members to be selected are a vice president for 2011, who will become GSA president in 2012, and three members for a threeyear term who will replace those members whose tenure is ending as of December 31, 2010.

The GSA thanks for their service, Past President Fred Winston, Treasurer Trudy F. Mackay, and Directors Sally A. Camper, Charles H. Langley, and Susan T. Lovett whose terms will end. Continuing on the Board are: Scott Hawley, who will become past president in 2011; Paul W. Sternberg, who will become president; Mariana F. Wolfner as secretary; Mark Johnston as *GENETICS* Editor-in-Chief; and, as directors, Utpal Banerjee\*, Elizabeth De Stasio, Jay Dunlap, Sue Jinks-Robertson, Douglas Koshland, Thomas J. Silhavey and Susan Wessler.

The GSA thanks all the members who nominated colleagues for Board positions. This slate of candidates was a result of careful deliberations by the Nominating Committee after reviewing all nominees. The GSA thanks the Nominating Committee members: Vicki L. Chandler, Jasper D. Rine and Helen K. Salz, with *ex officio* members GSA President Scott Hawley, Secretary Mariana F. Wolfner, and Executive Director Sherry A. Marts.



\*Note: If elected as Vice President for 2011, in accordance with the current Bylaws, the Board may appoint a Director to serve in that office for the remainder of the year and the office will be filled in next year's election.



Genetics Society of America Published three times a year and distributed by The Genetics Society of America

#### Volume 7, Number 3

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### continued 1 Yeast Poster Award Winners Recognized

in phosphoinositide phosphatase regulation," (238).

- Thomas J. Pohl, University of Washington, Seattle, "Do Saccharomyces cerevisiae centromeres influence the activation time of nearby origins of replication?" (279).
- Emily M. Mazanka, Northwestern University, Evanston, IL, "A sequence of counteracting phosphorylations restricts an asymmetric gene expression program to early G1," (400).
- Randal Halfmann. Whitehead Institute for

Biomedical Research and MIT. Cambridge, MA, "[MOT3+], a priondriven phenotypic capacitor of social behaviors," (525).







Thomas J. Pohl



Emily M. Mazanka



dosage lethality as a method to discover novel therapeutic cancer targets," (545). To read the complete abstract of these

• John C. Dittmar, Columbia

posters, see http://www.yeast-meet. org/2010/abstracts/fulltext/index.shtml and insert the program number in the search line.

University, New York, NY, "Synthetic

### continued 1 GSA Award Sites Are Open

Thomas Hunt Morgan Medal, the George W. Beadle Award, the Elizabeth Jones Award for Excellence in Education, and the Edward Novitski Prize. Deadline for nominations is September 30.

Students and postdoctoral fellows are invited to **apply** at **http://www.** genetics-gsa.org/pages/delill.shtml for one of 12 DeLill Nasser Career **Development Awards** to be made this fall. These **awards**, of **\$1,000 each**. defray the cost of travel and accommodations for the recipient to attend a conference, meeting, or course that will significantly contribute to the recipient's career in genetics. Deadline for application is September 30.

The honorable mentions are:

 Jayme M. Johnson, Duke University, Durham, NC, "Chemotropic reorientation utilizes a mobile polarity patch," (227).

• Jessica J. Hsu, Fred Hutchinson Cancer Center and University of Washington, Seattle, "A cell biological approach to understanding the aging process in replicatively aged cells," (253).

Vicki Elizabeth MacDonald,

University of British Columbia, Vancouver, Canada, "Acetylation of H3K14 protects against demethylation of H3K4me3 by [hd2," (333).

• Karen Chinchilla, University of Wisconsin, Madison, "Yeast Senlp binds to the Ser<sub>2</sub>- and Ser<sub>7</sub>phosphorylated C-terminal domain of Rpblp in a network of interactions with transcription, DNA repair, and RNA processing/assembly factors," (364).





### MOHB: Changing the Way We Do Science

A very long time ago I was invited to a relatively small meeting of chromosome biologists at a place called Airlee House in Virginia. I was introduced to cell biologists, cytologists, and yes, even molecular biologists. All of these scientists came with tool kits that I was almost entirely unaware of, having been raised in a tradition of studying meiosis solely by doing Drosophila crosses. With all those different perspectives, I left that meeting feeling humbled, but greatly empowered. It changed the way I did my science and it changed the direction of my career.

I had a similar experience a few years ago at a small meeting in Portugal, which was devoted entirely to a single enzyme, polo kinase. The meeting brought together scientists across a wide range of disciplines, each with her or his own way of addressing this topic. Once again, I flew home impressed with the enormity of my own ignorance and anxious to apply what I had learned to my lab's research. Like the Airlee experience, I do my science differently because of that meeting.

Both of those conclaves were small meetings with reasonably proscribed focuses, but that cross-pollination of ideas from different life science disciplines stimulated a sense of discovery and excitement. It was with this intent — to provide an environment of discovery and excitement where ideas could be stimulated among geneticists and magnified to cover all aspects of genetic analysis from yeast to humans

— that the GSA Board of Directors developed the Model Organisms to Human Biology Meeting (MOHB). Held biennially since 2006, and most recently in June in Boston, MOHB was planned with the goal to bring together the best research physicians and research scientists and let their talks draw the connections between basic research in model organisms and critical problems in human biology. And this year, as in the past, the meeting succeeded in doing exactly that.

No doubt each 2010 MOHB meeting attendee left with a favorite session. In my case, it was the one on Sex and Gene Expression, which began with a beautiful talk on sex and meiotic recombination determination in C. elegans by Barbara Meyer (UC-Berkeley), and on the human Y chromosome by David Page (Whitehead Inst), flowed through talks on the molecular biology of human sex determination by Nirao Shah (UCSF) and Vincent Harley (Prince Henry's Inst, Australia), and ended with talks by Eric Vilain (UCLA) and Melissa Hines (Univ of Cambridge, UK) on the biology and genetics of sexual orientation and on the biology of gender.

Each of the other sessions could be praised for having an equally polished flow. The Neurogenetics session began with the elegant discussions of genetic dissection in C. elegans and Drosophila by Erik Jorgensen (Univ of Utah, SLC), Barry Ganetzky (Univ of Wisconsin, Madison), and James Rand (Oklahoma Med Res Fdn) and connected to the molecular genetics of psychiatric disease in talks given by Pamela Sklar (Harvard Med Sch), Li-Huei Tsai (Harvard Med Sch), and Adam Harrington (Univ of Alabama, Tuscaloosa). I should wax euphoric about all the other sessions because each was amazing, but these are two that stick in my mind three months after the meeting. Moreover, all the sessions were wrapped around truly beautiful keynote talks by Jeremy Berg (NIGMS, NIH), Carol Greider (Johns Hopkins Univ Sch of Med), and Gary Ruvkun (Harvard Med Sch and Mass Gen Hosp).

Perhaps most importantly, as much science was discussed off the podium as was being discussed from it. This was the third biennial MOHB meeting, which set a record of more than 400 attendees. Through posters, questions and conversation, everyone contributed to the meeting.

One of the new components of the meeting was to reach out to substantially more undergraduates and, for the first time, high school students, by making the meeting accessible and understandable to them. This was coordinated by GSA's new education programs manager, Elizabeth Ruedi. Recently, Daron Barnard, a professor from Worcester State University (Mass), who brought his undergraduate class to the meeting, e-mailed me, "Now that the summer teaching session is over, I have had a bit of time to reflect on the experience. I was impressed by my students' excitement at the opportunity to attend the meeting and the welcoming response from the GSA."

He noted that the students "came away excited and wished that they could have stayed longer. For most of them it was the first time that they had a chance to interact with scientists who were not their professors, and the first time to see how scientists interact with each other." He ended his note by saying that, "I could not have asked for a better way for the students to be introduced to a scientific community."

This is a terrific outcome. My thanks and congratulations go out to Beth Ruedi and to many of the speakers and attendees who made this opportunity possible. None of this 'just happened.' The tireless efforts of our Past President Fred Winston (Harvard Med Sch) and his ''kitchen cabinet,'' — Allan Spradling (Carnegie Inst), Trudi Schüpbach (Princeton Univ), Mike

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# **Conversations and Collaborations Mark Third MOHB Meeting** by Beth Ruedi, GSA Education Programs Manager

The third installment of the GSA Model Organisms to Human Biology meeting, held biennially since 2006, was in Boston this year from June 12-15. This vital conference is designed to enhance the flow of communication between model organism geneticists and human geneticists. The more than 400 geneticists who attended the conference had their choice of over 50 talks, 200 posters, two workshops, and many chances to form new collaborations.

#### **Stellar Keynote Addresses**

The keynote addresses at MOHB 2010 showcased a stunning body of work.

and her colleagues have found that knocking down or knocking out the telomerase enzyme causes a progressive shortening of telomeres over several generations. Malfunctions in telomerase and/or the TERT protein component of telomerase are associated with a shortening of telomere length, and are related to human diseases such as dyskeratosis congenita, idiopathic pulmonary fibrosis, and liver disease, among many others. Without the pioneering research first accomplished with model organisms, Greider notes that we could not have understood the role of telomere length in human disease.





Alexander Tzagoloff, 2010 Thomas Hunt Morgan Medal recipient.

Gary Ruvkun, giving his Keynote Address

Carol Greider (Johns Hopkins Sch of Med) presented the first keynote address of the conference, providing an overview of her elegant research on telomere length and telomerase. Greider walked the audience through the history of telomere research, starting with model organisms such as Tetrahymena, yeast, and mice, and ending with humans. Greider Gary Ruvkun (Harvard Med Sch and Mass Gen Hosp) noted that geneticists studying model organisms are the "beacons of genetic analysis" in humans. Without model organisms and comparative genetics/genomics, we would not understand the underlying functions of certain crucial pathways that are now being studied in relation to human genetics and disease. Ruvkun

eloquently supported these claims while leading the audience through his research with *C. elegans* and their physiology, metabolism, and response environmental cues. Using the nematode, Ruvkun is investigating variation in the response to drugs that block highly conserved, vital cellular processes. His research demonstrates that responsiveness of stress reporter genes (i.e., in the endocrine system) may be related to the longevity of an organism as well as its response to poisons. This fundamental research in the worm will be very important to human pharmacogenetics as well, as variation in the endocrine system stress response seems to be related to such problems as chronic nausea, drug resistance, and anorexia nervosa.

The final keynote address of the conference was given by the Jeremy Berg, director of the National Institute of General Medical Sciences at the National Institutes of Health. Telling the story of the drug Warfarin, he stressed the importance of research with model organisms relating back to human genetics. Warfarin research in rats and humans has led us to understand genetic variation in a common biochemical pathway (vitamin K-dependent glutamate carboxylation). The fundamental knowledge gained by studying the genetics of model organisms and Warfarin resistance allows us to better understand and control the drug dosage in humans, an extremely important aspect of personalized medicine.

#### Focus on Education

MOHB 2010 also afforded GSA with the opportunity to focus on genetics education. An education workshop, held before the official start of the meeting, allowed genetics educators to hear about new methods and techniques, network with other educators, and learn about the Education Special Interest group. MOHB 2010 also provided a venue for GSA to launch a new program, "The Undergraduate Experience." This program allows an undergraduate genetics class to see cutting-edge genetics research firsthand by attending a GSA conference session with guided discussion before and after the session. The pilot program was a success (See the President's Letter on page 3), and GSA hopes to institute this program at all of its conferences.

Overall, the buzz was that Genetics 2010: Model Organisms to Human

Biology was a great success. GSA and its organizers, Past President Fred Winston and President Scott Hawley, hope that many new collaborations were formed between model organism and human geneticists, which will result in new and innovative research plans. With that in mind, preliminary plans are already underway for MOHB 2012.

**1** From L to R: Jef Boeke (Johns Hopkins Univ Sch of Med), Phil Beachy (Stanford Univ Sch of Med), keynote speaker Carol Greider (Johns Hopkins Sch of Med) and Fred Winston (Harvard Med Sch). **2** Hakeem Lawal (UCLA) and Michael Olaopa (Indiana Univ Sch of Med), socializing during the poster session. **3** GSA President Scott Hawley, R, with Sister Mary Jane Paolella and her students from the Sacred Heart Academy in Hamden, CT, Meghan Zwahlen, R, and Katherine Lee, L. **4** Barbara Meyer (UC-Berkeley), 2010 recipient of the Genetics Society of America Medal with GSA Executive Director Sherry Marts. **5** From L to R: GSA Past Secretary Jim Haber, Past President and Chair of the 2010 MOHB Meeting Fred Winston (Harvard Med Sch), Matthew Warman (Harvard Med Sch) and keynote speaker Gary Ruvkun (Mass Gen Hosp & Harvard Med Sch) listening to one of the talks. **6** Phil Hieter (Univ of British Columbia, Vancouver) listening to poster presenter Catherine Potenski (NYU Sch of Med). **7** Stuart Kim, L, and Joanna Wysocka (both of Stanford Univ Sch of Med) at the Career Luncheon **8** Susan Dutcher (Washington Univ Sch of Med), L, with students at the Career Luncheon. **9** Tom Cline (UC-Berkeley), 2010 recipient of the Edward Novitski Prize and GSA President Scott Hawley (Stowers Inst).





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#### **Annual Review of Genetics**

Volume 44, December 2010 | Available Online & In Print | http://genet.annualreviews.org ISSN: 0066-4197 | ISBN: 978-0-8243-1244-2 | Regular Price (WORLDWIDE): \$84

#### Editor: Allan Campbell, Stanford University

The Annual Review of Genetics, in publication since 1967, covers significant developments in the field of genetics. These include biochemical, behavioral, cell, and developmental genetics; evolutionary and population genetics; chromosome structure and transmission; gene function and expression; mutation and repair; genomics; immunogenetics; and other topics as related to the genetics of viruses, bacteria, fungi, plants, and animals, including humans.

This journal is ideal for all geneticists, as well as those in the fields of cell and developmental biology, biochemistry, microbiology, and other life sciences.

#### **Annual Review of Genomics and Human Genetics**

Volume 11, September 2010 | Available Online & In Print | http://genom.annualreviews.org issn: 1527-8204 | ISBN: 978-0-8243-3711-7 | Regular Price (WORLDWIDE): \$84

#### Co-Editors: Aravinda Chakravarti, Johns Hopkins University, School of Medicine Eric D. Green

The Annual Review of Genomics and Human Genetics, in publication since 2000, covers significant state-of-the-art developments in the field of genomics as they relate to human genetics and the human genome. We have particular interest in the areas of genome technology, genome structure and function, human variation, population genetics and human evolution, and, importantly, all aspects of human genetic disease, including how genomics is applied to medicine.

This journal is ideal for genome scientists, human and mammalian geneticists, and physicians, as well as those in the fields of cell and developmental biology and other life sciences.

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### 2010 GSA Ballot: Bylaw Revisions and Board Member Elections

#### 2010 GSA Bylaw Revisions

The bylaws have been edited and rearranged to make them easier to reference. In addition, provisions in the bylaws have been deleted, added, or changed to bring the bylaws into compliance with current state and federal laws and regulations and with current best practices in nonprofit governance. The current bylaws are available on the GSA website at http://www.genetics-gsa.org/pages/ gsabylaws.shtml. The complete text of the bylaw revisions is available at http://www.genetics-gsa.org/election/ bylaws.shtml.

#### The substantial changes are:

#### Article 2. Purpose

The previous bylaws stated: "The Genetics Society of America is organized to provide facilities for association and conference among students of genetics, to promote the communication and publication of scientific knowledge, to promote education and research in genetics, and to encourage interaction between workers in genetics and those in related sciences."

This phrase "to provide facilities for association and conference among students of genetics" was removed because it could be interpreted as GSA developing buildings or conference centers. The phrase "... by providing conferences, scholarly journals, and otherwise facilitating the communication and sharing of knowledge among researchers, educators, and students in genetics" was added.

#### Article 3. Membership

This article now includes definitions of the terms used later in the bylaws (eligible members, members in good standing). **Article 3, Section 6.** Maryland law requires that we hold at least one meeting of the membership each year.

Article 4, section 5. Election and Terms

Under the current bylaws, the Treasurer is appointed by the Board. This has been changed so that the Treasurer will be elected by the membership. This is considered a governance "best practice" for membership associations.

Article 5, Section 3a. The bylaws require that the Board meet three times a year, which is currently considered the best practice for associations.

**Article 5, Section 3b**. This article requires that meetings be conducted pursuant to Robert's Rules of Order.

**Article 6, Section 1d.** A new standing committee is described, the Audit Committee. Federal law now requires that the boards of for-profit corporations have an audit committee that is separate and independent from the finance committee and does not include the Treasurer. This is now considered a best practice for nonprofit corporations as well.

**Article 7.** The description of how the journal is managed has been deleted. This will become a Board policy instead.

**Article 10.** Federal law requires that the Conflict of Interest policy be included in the bylaws of for-profit corporations. This is now considered a best practice for nonprofit corporations as well.

If you have any questions or concerns about these changes, please feel free to contact Sherry Marts, GSA Executive Director, at smarts@ genetics-gsa.org.

# 2011 GSA Board of Directors

#### **VICE PRESIDENT** (vote for one)



#### **Philip Hieter, PhD**

Professor, Michael Smith Laboratories, and Department of Medical Genetics, University of British Columbia, Vancouver.

Candidacy Statement: I welcome the opportunity to serve the GSA in a leadership role and am committed to working hard with the Board to maximize GSA's impact in supporting genetics research, in stimulating collaborative interactions among geneticists and with other scientific disciplines, in enhancing genetics training at all levels, in fostering public outreach and education, in articulating the value of science in society, and in advocating the needs and opportunities for supporting genetics research to government. I am impressed with the upward trajectory of the "new GSA", including efforts to raise the profile of our journal, GENETICS, and expanding online publishing of genetics research through a new journal vehicle that emphasizes high-throughput data. I will work together with the journal editors to reach the highest standards in genetics research publication. I will also seek opportunities to establish joint programs with the American

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Society of Human Genetics, in order to raise and maintain awareness of the value of model organism genetics in deciphering the functional consequences of genetic variation in humans.

The GSA exists to serve geneticists, genetics trainees, and the public at large. I will work to maintain the financial sustainability of GSA through increased membership, and identifying sources of revenue from publishing and fundraising. The use of GSA resources in support of strategic programs needs to be catalytic, creative and collaborative in order to maximize benefit to its constituents and to inspire government and the general public about the importance of genetics research. GSA support of meetings exemplifies this, and I would like to see an expansion to include support of smaller workshops on focused topics leading to white papers, recommendations, and plans of action in support of genetics research, teaching, publishing, and advocacy. Finally, I will support the on-going improvement and expansion of the GSA website as a means for disseminating genetics information, resources, and tools to students, teachers, scientists, and citizens.

Advanced Degree(s): PhD,

Biochemistry (with Phil Leder), Johns Hopkins University (1981).

**Career Summary:** Postdoctoral Fellow (with Ron Davis), Stanford University (1982-85); Asst. Prof., Assoc. Prof., and Prof., Department of Molecular Biology and Genetics, Johns Hopkins University School of Medicine (1985-97); Professor, Department of Medical Genetics, University of British Columbia (1997 — ); Director (2001-08) and Professor (2001 — ), Michael Smith Laboratories, University of British Columbia.

Honors and Awards: Killam Research Prize (2007); International Research Scholar, Howard Hughes Medical Institute (2006 — ); Fellow, Royal Society of Canada (2005); Fellow, American Association for the Advancement of Science (2005): Canadian Institutes for Health Research, Senior Scientist Award (2000); Fellow, American Academy of Microbiology (1998); Faculty Research Award, American Cancer Society (1991); Pew Scholar in the Biomedical Sciences (1986-90); Fellow, Damon Runyon Cancer Fund (1982-85); Council of Graduate Schools/University Microfilms International Dissertation Prize (1981).

#### **Professional Service Activities:**

Medical Review Panel, Gairdner Foundation (2008 — ); Board of Scientific Counselors for the National Human Genome Research Institute, NIH (2001-06, Chair, 2004-06); Advisory Board, Saccharomyces Genome Database (1994 — ); Advisory Board, NRC/NIH Resource Center for Comprehensive Biology, Univ. of Washington (1997 — ); Institute Advisory Board, Institute of Genetics, CIHR (2001-05); Genome Research Review Council, NIH (1997-2001); Board of Directors, Genetics Society of America (1994-97). Editorial Boards: Chromosoma (1990 — ), Human Molecular Genetics (1992-97), and Genome Research (1995-2001). Selected Meetings: Chair, "Yeast Genetics and Human Disease'' (1996, 1999); Chair, "Genetics 2000: Visions of the Future", a joint meeting of the GSA and Genetics Society of Canada (2000, GSA/GSC co-sponsored); Chair, Special Symposium at the ASHG annual meeting: "Model Organism Genetics and Human Disease" (2009, GSA/ASHG co-sponsored); Chair, "Yeast Genetics and Molecular Biology'' biennial meeting (2010, GSA sponsored).

#### **Major Research Interests:**

Molecular genetics, chromosome transmission, centromere function, mitosis, cell division cycle, mechanisms of aneuploidy, genome analysis, model organism genetics and human biology.

**Websites:** http://www.msl.ubc.ca/ faculty/hieter http://www.hhmi.org/ research/international/hieter\_bio.html http://www2.cifar.ca/research/geneticnetworks-program/program-membersgenetic-networks/?i=320



#### Utpal Banerjee, PhD

Irving and Jean Stone Professor and Chair, Department of Molecular, Cell and Developmental Biology, University of California, Los Angeles.

Candidacy Statement: Several issues are close to my heart and based on my experience as past president of the Drosophila board and as a current director on the GSA Board, will benefit the community at large. First, the GSA distinguishes itself from many other professional societies in making education at the undergraduate and graduate level a priority. I will further promote genetics education by creating more opportunities for students, postdocs and members of primarily teaching institutions to attend meetings. Innovative research-based genetics curricula will be supported

in journals. Creating a new journal that allows publication of high quality genetic, bioinformatics and educational data will be a priority. Communitybased research programs and collections of generated reagents need to be highlighted with funding agencies as support for such enterprises is dwindling while the need for such centers is exploding. In general, the importance of model system research needs to be highlighted with funding agencies, including support for genome-based projects. Despite past successes, it has become increasingly difficult to gain this support. Finally, I strongly believe that GSA should lead an effort to create more interactions and collaborations internationally. We need to contact and encourage leaders in genetics from Asia, the Pacific Rim, Europe, and South America to coordinate their efforts with GSA in finding common solutions to problems, which could be extremely beneficial for all.

**Advanced Degree(s):** PhD, Chemistry (1984), Postdoctorate, Biology (1984-88), California Institute of Technology.

**Career Summary:** Co-director, Broad Stem Cell Center (2007 — ); Howard Hughes Professor (2002 — ); Chair, (2001 — ), Professor (1994 — ), Asst. Professor (1988-94) MCDB Department; Professor of Biological Chemistry, Geffen School of Medicine (1997 — ); Member, Molecular Biology Institute, (1988 — ).

Honors and Awards: Howard Hughes Medical Institute Professors Award (2010; 2006; 2002); Genetics Society of America Elizabeth W. Jones Award for Excellence in Education (2010); Elected Fellow, American Association for the Advancement of Science (2009); Elected Fellow, American Academy of Arts and Sciences (2008); Elected President, Drosophila Board (2006); Gold Shield Faculty Prize, UCLA (2000); Top 20 Professors of the Bruin Century, UCLA Today (2000); Margaret E. Early Award (1998); Harriet and Charles Luckman Distinguished Teaching Award, UCLA (1997); Eby Award for the Art of Teaching (1997); Investigator Award, McKnight Endowment Fund (1996); ACS Faculty Research Award (1993); Distinguished Teaching Award (1992); Alfred P. Sloan Award (1990-92); McKnight Scholars Award (1989); Life Sciences Research Foundation Award (1986-88); Del E. Webb Fellowship (1983-86).

**Professional Service Activities:** 

Director, Genetics Society of America Board (2010 — ); Editorial Board, Current Opinion in Genetics and Development (2008 — ); Journal of Genetics (1995 —); Advisory Committee, Hillblom Islet Research Center (2008); HHMI College Review Panel (2008); President, Drosophila Board (2007); Ad Hoc Member, Cell Biology Review Panel F05 (2007), Genetics Study Section, (2002); NINDS study section (2002); Biol2 study section (1996) National Society to Prevent Blindness study section (1995), NHGRI intramural section; Genetics Study Section (1997-2001) NIH; Member, Management Board, National Center for Biological Sciences, India (2003 — ); Organizing Committee, Crete workshop, EMBO (2001-08); Scientific Board, Hereditary Disease Foundation (1999-2003).

**Major Research Interests:** Signal Transduction and metabolic control in Hematopoietic Development, stress response and cancer.

1. **Blood Stem Cell Maintenance** Hematopoietic stem cells are maintained within a microenvironment where signals from a niche are important for the maintenance of quiescence and "stemness" within a precursor population. We study this phenomenon in the Drosophila hematopoietic organ using genetic technologies available in this model organism (reviewed in Martinez-Agosto et al., Genes & Devl., 2007). The "stemness" of these cells is maintained through the combined action of a Niche Signal, generated by Hedgehog (Hh) (Mandal et al., Nature, 2007), a local signal generated by Wingless/Wnt (Sinenko et al., Dev. Cell., 2009) and a reverse signal from the differentiated cells to the stem cells that we have termed the Equilibrium Signal.

#### 2. Stress Response Systems

Myeloid blood cells are ideal for the study of response to many kinds of stresses. Hypoxia-related factors and free radicals known as reactive oxygen species (ROS) play a role both in hematopoietic development and in stress response (Owusu-Ansah and Banerjee, Nature 2009). Similarly, the NF-kB derived inflammatory response plays a major role in the way blood cells respond to injury at distant sites. The emerging view from these studies is that basic developmental mechanisms are co-opted again for stress, injury and inflammatory responses by the myeloid hematopoietic system.

#### 3. Metabolic Control in Cancer Pathways

In the past, our laboratory has identified components of signal transduction pathways that participate in oncogenesis (see Bonfini et al., Science, 1991; Flores et al., Cell 2000 for examples). We have also studied the role of the mitochondrion in controlling cell-cycle (Owusu-Ansah et al., Nature Genetics, 2008; Mandal et al., Dev. Cell, 2005). When cells become transformed, they choose alternate means of metabolism. We study how signal transduction pathways control the proper balance between cellular growth and metabolism.

#### **DIRECTOR** (vote for one)



#### Judith Berman, PhD

Distinguished McKnight University Professor, Genetics, Cell Biology & Development, University of Minnesota.

Candidacy Statement: As a researcher and teacher who has worked with a premier model organism (S. cerevisiae) as well as with a human pathogen (Candida albicans), membership on the GSA Board will allow me to serve the genetics community and to become involved in important issues that concern geneticists, the broader community of scientists and society in general. In addition to the publication of GENETICS and the organization of meetings that strengthen our discipline and are critical to GSA members, the GSA needs to support the teaching of genetics at all education levels, to provide policymakers and the general public with a balanced view of issues relevant to genetics and geneticists, and to promote genetics research by advocating for fair and stable research funding mechanisms.

**Advanced Degree(s):** BS with Honors and Distinction, Cornell University (1979); PhD, Weizmann Institute of Science (1984).

**Career Summary:** *Postdoctoral Training:* Cornell University (1984-

86). Faculty Appointments: Assistant Professor (1986-93), Associate Professor (1993-99) Department of Botany/Plant Biology; Professor (2000 — ), Department of Genetics, Cell Biology & Development; Adjunct Associate Professor (1999-2000), Adjunct Full Professor (2000 — ), Department of Microbiology, University of Minnesota. Visiting Scientist (2004), Dept. of Molecular Genetics; Weston Visiting Professor, Dept of Computer Science and Applied Mathematics (2010), Weizmann Institute of Science.

Honors and Awards: Distinguished McKnight University Professor (2008); Elected Fellow, American Academy of Microbiology (2007); Elected Fellow, American Association for the Advancement of Science (2007); Senior Scholar in Molecular Pathogenic Mycology, Burroughs Wellcome (1997); Established Investigator, NIH Child Health Research Center (1996), *National Science Foundation:* Career Advancement Award (1994); Weizmann-Bantrell Postdoctoral Fellowship (1984).

#### **Professional Service Activities:**

Meeting Organization: Gordon Conference on Molecular and Cellular Biology of Fungi (Vice-Chair 2010; Chair 2012); (2009); GSA Yeast Genetics and Molecular Biology Meeting, Co-chair, Workshop on 'Other' Yeasts, (2000-08); ASM Candida and Candidiasis Meeting (Co-chair 2008, Chair, 2010); ASM General Meeting, Organizer, Drug resistance in pathogenic Fungi Session (2007). Organizing Committee Member: GSA Yeast Genetics and Molecular Biology Meeting, (2000-04), International Yeast Meeting, Prague, CZ, Minisymposium, Chair (2001); FEBS Advanced Course on Human Fungal Pathogens, Scientific Advisory Board (2007-09), Genomics Workshop organizer (2009); Drug resistance workshop organizer (2007). Editorial Boards: Editor, (2004-09);

Assoc. Editor, (2003-04) *Microbiology;* Member: Yeast, (2006 — ); *Eukaryotic cell*, (2007-12); mBio, (2010-13). *Peer Review Service*: <u>NIH</u> study section member: NIH IRG AOIC, (2008-13); Director's Pioneer Award Program (2009); ZRG-HIBP (2009); IRG BIOL1, (1999-2001); ACS, Genetic Mechanisms of Cancer (1999-2001); NSF, Committee of Visitors: Genetics and Molecular Biology Division (1999).

#### **Major Research Interests:**

Mechanisms that establish and maintain genome and chromosome integrity with a focus on aneuploidy and centromere identity, using the pathogenic yeast *Candida albicans* as a model genetic system. Current interests include the generation of aneuploidy in response to stress and the formation of neocentromeres upon loss of native centromere function; major processes that result in loss of heterozygosity and effects of chromatin structure on genome integrity.

**Website:** http://www.cbs.umn.edu/ labs/berman/



#### Kevin P. White, PhD

James and Karen Frank Family Professor, Department of Human Genetics and Dept. of Ecology & Evolution; Director, Institute for Genomics & Systems Biology; Director, Chicago Center for Systems Biology (NIH/NIGMS National Center for

Systems Biology), The University of Chicago.

Candidacy Statement: As a member of the Genetics Society of America Board of Directors, I would bring more than 15 years of experience working in the areas of genomics and systems biology. Thanks to ever improving technology, we are entering a time of "ubiguitous genomics" that will change both science and society. The day where genome sequencing is cheap and accessible to both researchers and clinical geneticists is soon approaching. However, without advances in genetics that include advances in theory, computation and integration with other disciplines, this data deluge will be under-utilized. More and more students are attracted to, and seek training in, interdisciplinary programs where the teaching of genetics is of key importance. More and more research investigators engage in interdisciplinary research to attack important and longstanding problems in development, evolution, physiology, behavior, and human disease using the tools of genomics and systems level analysis. Thus, technology and a wave of interdisciplinary thinking are allowing us to push the envelope on understanding the relationships between genotype and phenotype in almost every context imaginable. I see a strong role for GSA in promoting and shaping dialog and pedagogy as this wave proceeds forward into the next decade and beyond. The dialog will be among scientists, as well as between scientists and the lay public. The pedagogy will be needed in the context of training the next generation of scientists and educating the public about the implications of life in the age of "ubiquitous genomics." I would seek to promote the role of the GSA in helping to guide this new integrative era which so heavily depends on genetic research as a lynchpin of

understanding complex biological systems.

**Advanced Degree(s):** BS, MS, Biology, Yale University (1993), mentor: Jeffrey R. Powell; PhD, Dept. Developmental Biology, Stanford University (1998), mentor: David S. Hogness.

**Career Summary:** Postdoctoral Fellow, Dept. Biochemistry and Stanford Genome Technology Center (1998-2000). Asst. Professor (2001), Assoc. Professor (2004), Visiting Professor (2006), Department of Genetics and Department of Ecology and Evolution, Yale University; Director, Institute for Genomics & Systems Biology (IGSB), The University of Chicago and Argonne National Laboratory (2006 — ), James and Karen Frank Family Professor, Department of Human Genetics and Department of Ecology and Evolution, The University of Chicago (2006 — ).

Honors and Awards: Yale University Belknap Award for Outstanding Graduating Senior in the Natural Sciences, Magna Cum Laude, Phi Beta Kappa (1993); HHMI Predoctoral Fellow (1993-98); Helen Hay Whitney Fellow (1998-2000); NHGRI Genome Scholar (2000-05); W.M. Keck Distinguished Young Investigator in Medical Sciences (2003-06); Arnold and Mabel Beckman Young Investigator (2004-08); Investigator, Searle Chicago Biomedical Consortium (2006-09); Pritzker Fellow, Pritzker School of Medicine, The University of Chicago (2006 — ).

#### **Professional Service Activities:**

Advisory Activities: Drosophila Genomic Resource Center (2001-08), FlyBase Advisory Board (2002); NHGRI planning (Arlie I and Arlie II meetings) "After the Genome: The Next 5 years of the Genome Project" (2001, 2002); BBSRC Advisory Council, IGF Genome Centers, United Kingdom (2002-04); Scientific Advisory Board, The Rothberg Institute for Childhood Diseases (2003-07); NSF Advisory Panel on Systems Biology (ad hoc, 2006); Chicago Biomedical Consortium (CBC) External Advisory Board and Proteomics and Informatics Services Board (2007-09); NIH CTSA Translational Steering Committee (2007 — ); External Advisor, NCIfunded Physical Sciences - Oncology Center, Northwestern University (2009 — ). Conference organizer (selected): Chairman, Gordon Genomics Research Conference: Structural, Functional, Evolutionary Genomics (2005), Co-Chair, NIH Systems Medicine Workshop (2007); Co-Chairman, Gordon Research Conference on Hormone Action in Development and Cancer (2009); GSA Drosophila Conference, 2012 Organizer (2010 — ).

#### **Major Research Interests:**

Combining experimental and computational techniques to understand the networks of factors that control biological systems during development, evolution and disease, with emphasis on transcriptional regulatory networks.

**Websites:** http://www.genes.uchicago. edu/white.html, http://www.chicagocenter-for-systems-biology.org/ and http://www.igsb.org

**DIRECTOR** (vote for one)



Bonnie Bartel, PhD continued on page twelve

Ralph and Dorothy Looney Professor, Department of Biochemistry and Cell Biology, Rice University, Houston, Texas.

#### Candidacy Statement: I am an

Arabidopsis geneticist who trained as a yeast geneticist in graduate school, and service on the GSA Board of Directors would provide a mechanism for me to give back to the genetics community that has nurtured and shaped my scientific development. As a GSA director, I would welcome the opportunity to promote understanding, by both the funding agencies and the public, of the importance of model organisms in general and plants in particular. In addition, I would continue to seek new ways to foster the effective participation of undergraduates in genetics research.

**Advanced Degree(s):** BA, Biology, Bethel College (1983); PhD, Biology, Massachusetts Institute of Technology (1990).

**Career Summary:** Postdoctoral Training: Whitehead Institute for Biomedical Research (1991-95). Faculty Appointments: Assistant Professor (1995-2002), Associate Professor (2002-05), Professor (2005 — ), Department of Biochemistry and Cell Biology, Rice University, Houston, TX.

Honors and Awards: Fellow, American Association for the Advancement of Science (2007); HHMI Professor Award (2006); Goshen High School Alumni Hall of Fame (2006); Charles Duncan Award for Outstanding Academic Achievement, Rice University (2005); Young Alumni Award, Bethel College (2001); American Cancer Society Postdoctoral Fellowship (1991-93); National Science Foundation Graduate Fellowship (1984-87).

#### **Professional Service Activities:**

*Editorial Boards:* Associate Editor, *GENETICS* (2003 — ); Associate Editor, *Plant Physiology* (2003 — ); Monitoring Editor, *Plant Physiology* (2001-03);

Guest Editor, Current Opinion in Plant Biology (Oct 2008). Elected AAAS Council Delegate, Section on Biological Sciences (2010-13); Executive Committee Member, Bethel College STEM Advisory Council (2006 — ); Elected Executive Committee Member, American Society of Plant Biologists (2004-07); Scientific Advisory Board, Arabidopsis Biological Resource Center, Ohio State University (2002-05); Elected Member, North American Arabidopsis Steering Committee (2001-05). NSF Grant Review Panels: Molecular and Cellular Biosciences (2010), NSF 2010/German AFGN Joint Panel (2007), IGERT (2005), Metabolic Biochemistry (2004, 2003), Site Visit Team for NSF Plant Genome Research Program (2002). NIH Study Sections (ad *hoc*): Membrane Biology and Protein Processing (2010, 2009), Molecular Biology CDF-1 (2003). HHMI Grant Review Panel: Canada and Selected Countries of Latin America Initiative (2006). NASA Grant Review Panels: Plant Biology (2001, 2000, 1999). DOE Grant Review Panel: Microbial and Plant Science (2000). Conference Program *Committees:* International Plant Growth Substances Association Conference (2010), International Workshop on Plant Peroxisomes (2009), 5th Symposium on Post-Transcriptional Regulation of Plant Gene Expression (2005), 15th International Conference on Arabidopsis Research (2004), 14th International Conference on Arabidopsis Research (2003).

**Current Research Interests:** My lab uses *Arabidopsis* genetics to study basic processes contributing to plant development. We have taken forward genetic approaches to understanding regulation of the plant growth hormone auxin, and reverse genetic approaches to understanding microRNA functions. Currently, we are using a collection of *Arabidopsis* mutants to elucidate how proteins enter and are removed from peroxisomes, organelles housing processes essential to plant and animal development.

**Website:** http://www.bioc.rice. edu/~bartel/



#### **Gregory P. Copenhaver, PhD** Associate Professor, Department of Biology and The Carolina Center for Genome Sciences, The University of North Carolina at Chapel Hill.

Candidacy Statement: Through service on the GSA Board, I would like to help the GSA maintain its status as the flagship genetics society, bolster membership, particularly among young geneticists, continue to be an engine for innovation in the rapidly evolving world of scientific publishing, and develop new ways for the Society to add value for its members. By publishing GENETICS, hosting a wide array of meetings, disseminating information on policy issues and offering financial assistance through prizes and awards, the GSA is already enormously influential. But science, and especially genetics, is changing so rapidly that each of these areas must be examined carefully to ensure that they remain as fresh and vibrant as possible. In addition, I would like to see the GSA continue to grow in the areas of outreach to K-12 and undergraduate students and advocacy for sustainable levels of federal and private funding for genetics.

**Advanced Degree(s):** PhD, Biology and Biomedical Sciences, Washington University in St. Louis (1996).

**Career Summary:** Graduate training: A. thaliana genetics with Craig Pikaard, Washington University in St. Louis. Postdoctoral training: A. thaliana genetics with Daphne Preuss, The University of Chicago (1996-2001). Employment: Assistant Professor (2001), Associate Professor (2008 — ), Director of Graduate Studies (2008), University of North Carolina, Chapel Hill.

Honors and Awards: Southern California Strawberry Growers Scholarship Award (1989); Bernarr J. Hall Scholarship (1989-90); James and Adelaine Wallace Annual Prize for Botany (1990); Botanical Society of America Young Botanist Award (1990); U.C. Riverside nominee for Rhodes-Marshall Scholarship (1990).

#### **Professional Service Activities:**

Editorial: Associate Editor, GENETICS (2008 — ); Deputy Editor-in-Chief, PLoS Genetics (2008 - ). Genetics Society of America representative at the USDA-CSREES stakeholders meeting (2002); Grant Panelists: NSF, Sigma Xi and Luce Scholarship (2004 - ); ad hoc BBSRC, French National Research Agency, Marsden Fund (New Zealand), US National Science Foundation, US Department of Agriculture and US founder, the biotechnology company Chromatin Inc (2000); Co-organizer, 16th International Conference on Arabidopsis Biology (2005); Elected Positions: North American Arabidopsis Steering Committee (2002-06) and organized its incorporation in 2006; President, The North Carolina Academy of Science (2004-05); Co-organizer, the Meiosis Gordon conference (2012, 2014).

#### **Major Research Interests:**

Regulation of meiotic recombination and chromosome dynamics including centromere structure and function. **Website:** http://www.bio.unc.edu/ faculty/copenhaver/lab/

#### **DIRECTOR** (vote for one)



### Jeannie T. Lee, MD, PhD

Investigator, Howard Hughes Medical Institute; Professor of Genetics (and Pathology), Harvard Medical School and the Massachusetts General Hospital.

Candidacy Statement: My interest in serving on the GSA Board stems from my desire to contribute to the Genetics community and the GENETICS Journal. The GSA and *GENETICS* have a long tradition of excellence in genetics research, especially in non-mammalian model organisms. If elected to the GSA Board, I would like to build on this existing excellence by boosting the representation of mammalian genetics. Two other areas that I believe could add significantly to the GSA are epigenomics and noncoding RNA regulation, which have become very topical and are interdependent on genetics for discovery and validation. I could help by recruiting high-impact mammalian studies for GENETICS and by raising their visibility at GSA meetings.

**Education:** AB, Harvard University (1986); MD-PhD, University Penn School of Medicine (1993).

**Career Summary:** Resident in Pathology (1993-94), Massachusetts General Hospital; Chief Resident in Clinical Pathology (1994), MGH/ Harvard; Research Fellow, Whitehead Institute (1995-97); Assistant Professor of Genetics (1997-2001), Associate Professor of Genetics (and Pathology) (2001-04), Professor of Genetics ( 2004 — ), Harvard Medical School; Associate Pathologist (2004), Pathologist (2004 —), MGH; Investigator, HHMI (2001 — ); Affiliate Member, Harvard Stem Cell Institute (2005 — ); Associate Member, Broad Institute (2009 — ).

Honors and Awards: Magna cum Laude, Biochemistry & Molecular Biology (1986), Harvard University; NIH Medical Scientist Training Program (MD-PhD) Award (1986-93); HHMI Postdoctoral Fellowship for Physicians (1995-97); Basil O'Connor Starter Scholar Award (1998-2003), March of Dimes Foundation; Pew Scholar Award (1999-2003), Pew Charitable Trusts; Elected to Co-chair (2007), Chair (2009), Gorden Conference in Epigenetics, Holderness, NH; Molecular Biology Award, National Academy of Sciences (USA), (2010).

#### **Professional Services Activities:**

Major Committee and Administrative Responsibilities: Founder and Organizer, Harvard Chromatin Club (1998-2000); Organizer, Departmental Seminar Series (2002-06); MGH Grant Review Panel (2003-05); Co-chair, Keystone Conference on Epigenetics (2004); Epigenetics Section Organizer, American Society of Human Genetics (ASHG) Meeting (2004); Program Committee Member, ASHG (2005-06); Member, MGB Study Section, NIH (2005 — ); Organizer, MGH Chromatin Journal Club (2006-07); Harvard Medical School Faculty Council (2007 - ). Associate or Scientific Editor for PLoS-Genetics (2006 - ), Epigenetics & Chromatin, BMC-Dev Biol, Epigenomics (2009 — ), and Transcription. Ad hoc

Reviewer for Cell, Nature, Science, Nature Genetics, G&D, Mol Cell, Dev Cell, Current Biol, PNAS, MCB, HumMolec Genet, Genome Research, Development, PLOS-Biol. Cell Stem Cell, etc. Guest Editor for Seminars in Cell & Dev Biol special volume on "X-chromosome inactivation," (2003); Current Op Genet & Dev, April 2010 issue (2009-10). Grant Review Boards for MGH Interim Support Grants (2002-05), NIH Section MGB (Molecular Genetics B) (2005-09), Charles King Trust Foundation (2009 - ), Seed Grant Committee, Harvard Stem Cell Institute (2009 — ).

Major Research Interests: My laboratory studies RNA-based chromatin regulation by using X-chromosome inactivation in the mouse as a model system. We are especially interested in the role of long noncoding RNA in shaping the epigenome. At the Xinactivation center, at least seven such RNAs have been identified. Several play roles in recruiting chromatin factors to the X. We believe that RNA-guided chromatin change will not be a peculiar feature of the X, but rather a genome-wide strategy to target chromatin modifiers to specific loci.

**Website:** http://genetics.mgh.harvard. edu/LeeWeb/



John C. Schimenti, PhD

Professor of Genetics, Dept. of Biomedical Sciences, Cornell College of Veterinary Medicine; Adjunct Professor, Dept. of Molecular Biology & Genetics, Cornell University; Director, Center for Vertebrate Genomics, Cornell University.

Candidacy Statement: Modern genomic technology is radically changing the discipline of genetics. We geneticists who work with model organisms have benefitted dramatically, and we constitute the majority of the GSA. As a user of a major model (mouse) and organizer of a course at Cornell called "Overview of model genetic organisms," I feel nevertheless that the greatest potential impact of genomic technologies will be for non-model organisms. An obvious example is human genetics, and enormous strides are being made for other organisms such as dogs, frogs, fish, and myriad non-vertebrates. If there is one thing I would resolve to push as a GSA Director is to expand our membership and exposure beyond the traditional genetic models. I would work to embrace and encourage those studying diverse species to join the Society, in the belief that we would benefit mutually from a more diverse community.

**Advanced Degree(s):** PhD in Developmental Biology, University of Cincinnati Children's Hospital (1985).

**Career Summary:** Postdoctoral Fellow (1985-87), Princeton University; Assistant Professor (1987-92), Dept. of Genetics, Case Western Reserve University School of Medicine; Staff Scientist (1992-2004), The Jackson Laboratory; Professor, Cornell (2004 — ).

**Honors and Awards:** James Law Professor of Genetics at Cornell (2010); Fellow, American Association for the Advancement of Science (2009); Presidential Young Investigator Award, National Science Foundation (1991); Searle Scholars Award (1989); Basil O'Connor Award, March of Dimes (1988); American Cancer Society Fellow (1985-87).

#### **Professional Service Activities:**

Eukaryotic Genetics review panel, NSF (1993-98); Nominations and Elections Committee, International Mammalian Genome Society (IMGS, 1998-2000); Mammalian Genetics study section, NIH (1999-2003); Secretariat, IMGS (2001-04); NIH priority settings committees for mammalian and non-mammalian Genomic resources (1998, 1999); ad hoc reviewer for 24 review panels at NSF, ACS, NIH, and DOE; Advisory Board, Academia Sinica mouse mutagenesis program (2002-04); Organizing Committee, Intl. Congress of Genetics (2003, 2007); GSA nominating committee (2003, 2009); Advisory committee for mouse Collaborative Cross; Chair of Mammalian Genetics selection committee, International Congress of Genetics, Germany, 2008. Editorial Boards: Mammalian Genome (1992 -2008); Current Genomics (1999 — ); Genesis (1999 — ); Associate Editor, Editorial Board, *GENETICS* (2010 — ).

**Major Research Interests:** Genetics of mammalian meiosis and meiotic chromosome metabolism, with an emphasis on recombination and checkpoint control; genomics of germ cell development; mouse genetics; DNA replication proteins and effects of genetically-induced replication stress on genome stability and cancer.

**Website:** http://www.vet.cornell.edu/ BioSci/Faculty/Schimenti/



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# All the Ingredients for Success: Yeast 2010 Meeting

By Phil Hieter (Univ of British Columbia, Vancouver), Chair, and Mark Rose (Princeton), Co-chair, 2010 Yeast Genetics and Molecular Biology Meeting

The 2010 Yeast Genetics and Molecular Biology Meeting

The University of British Columbia campus, with beautiful views of snow-capped mountains, the Pacific Ocean and downtown

Vancouver

The dates: July 27 – August 1, 2010

From L to R, GSA Executive Director Sherry Marts, Jack Szostak (Mass Gen Hosp), who introduced 2009 Novitski Prize recipient Rodney Rothstein (Columbia Univ) with medal received and Yeast Meeting Chair Phil Hieter (Univ of British Columbia).

Right: Discovery, Research and Society Special Symposium speaker. Lee Hartwell (Fred Hutchinson Cancer Res Ctr). Below: Discovery, Research and Society Special Symposium speaker. Marc Garneau. Canadian astronaut and Member of Parliament.



Right: Discovery, Research and Society Special Symposium speaker, Paul Nurse (Rockefeller Univ).



Poster presenter Anna C. Brosius (Univ of Washington, Seattle) listening to Frank Rosenzweig (Univ of Montana).



he 2010 Yeast Genetics and Molecular Biology meeting, commonly known as the North American "Yeast Meeting," (held biennially in even years, to dovetail with the European Yeast Meeting held biennially in odd years) opened with Chair Phil Hieter presenting a slide that listed how five key ingredients mixed together create a great meeting. A great meeting is characterized by lots of interaction; lively discussion and exchange of ideas; learning about new technology; forging new collaborations; and, having fun (see Figure 1).

An official meeting Frisbee displayed the call to arms — "work hard, play hard" — challenging the participants to seize the opportunities both scientifically and socially, over the meeting's several days, and to take the view that "sleeping is highly overrated."

#### **The Five Ingredients**

The five basic ingredients which created the Yeast Meeting's success are:

#### **Ingredient #1, People:**

Approximately 800 engaged participants, from 38 countries, including ~300 faculty, ~ 350 graduate students and  $\sim$ 150 postdoctoral fellows. This turned out to be a perfect blend.

#### Ingredient #2, Program: In the

tradition of the meeting, the program included 94 short plenary talks spanning all areas of yeast biology and technology development. Their quality was outstanding. The program also included workshops on databases, imaging, synthetic biology, chemical biology, pathogenic yeast, industrial process, and education. The presentation of four prestigious Yeast Meeting awards, a tradition started in 2002, were highlights of the meeting: The Ira Herskowitz Award to Brenda Andrews (Univ of Toronto), the Lee Hartwell Award to Randy Schekman (UC-Berkeley), the Lifetime Achievement Award to Paul Nurse (Rockefeller Univ, NY), and the Winge-Lindegren Award to Jasper Rine (UC-Berkeley). Each awardee was presented with a First Nations talking stick, a traditional symbol of honor and integrity, carved by a local Musqueam First Nations artist. Each talking stick carried a thunderbird and a raven. and a unique symbol chosen for each awardee (wolf, owl, eagle, or orca).

As usual, a variety of new technologies were presented. For example, Rick Orij (Univ of Amsterdam, The Netherlands) and colleagues described a screen of the yeast deletion collection that measured cytosolic and mitochondrial pH, the first time this property has been examined in such a genome-wide context. Karen Founk (Univ of Toronto) and the Toronto group examined yeast mutants by high throughput confocal microscopy, assessing the morphology

continued on page sixteen



of multiple cellular compartments. Saumil Gandhi et al, showed that transcription can be analyzed by detecting single mRNA molecules using FISH. Chandra Tucker (Duke Univ) showed that light can be used to control protein interactions in a dosedependent manner. Dong-Uk Kim (Korean Res Inst of Biosci & Biotech) and colleagues reported on their construction of a genome-wide set of gene deletions in S. pombe. Fritz Roth (Harvard Med Sch) described Green Monster yeast that employ GFP as a quantitative marker for deleting multiple genes in the same cell... and the list goes on.

**Ingredient #3, Venue:** The UBC venue was simply *awesome*. If you were there, you know what this means.

#### **Ingredient #4, Special events:**

Special events included a symposium and panel discussion on Discovery, Research and Society, featuring Paul Nurse, Lee Hartwell (Fred Hutchinson Cancer Res Ctr) and Marc Garneau (Canadian astronaut and member of Parliament), who discussed the obligations of scientists to articulate the value of basic research. A special lecture by Jack Szostak (Mass Gen Hosp) described his work with Liz Blackburn in the early '80s that elucidated the mechanisms of telomere replication with its farreaching implications for cancer and aging. Rodney Rothstein (Columbia Univ Med Ctr) received the 2009 Novitski Prize, which recognizes an extraordinary level of creativity and intellectual ingenuity in solving significant problems in genetics. The opening reception in the Rose Garden provided spectacular views of the ocean and mountains painted with a lovely sunset and a chance to reunite with friends and colleagues. A beer festival featuring British Columbia microbreweries and the blue grass/roots sounds of Headwater was held at the meeting's midpoint. On the last evening, an outdoor

salmon barbeque (that was almost rained out!) on the grounds of the world renowned UBC Museum of Anthropology was followed by the music of a terrific local roots band, the Paperboys, which provided everyone the opportunity to "play hard" late into the night.

#### **Ingredient #5, Flawless logistics:**

Near flawless logistics were made possible by the expert staff of the Chan Centre, where the plenary sessions were held, and with the help of 24 UBC student volunteers, UBC housing staff, and especially GSA's own Anne Marie Mahoney.

On Sunday, at the close of the meeting the Co-chair Mark Rose presented the GSA poster awards to: Randal Halfmann (MIT), Andrew Manford (Cornell University), Emily Mazanka (Northwestern University) and Thomas Pohl (University of Washington) (See page 1). Mark also thanked Phil for putting together a meeting that will be hard to beat, and invited everyone to the next North American yeast meeting at Princeton University in the summer of 2012.



Figure 1: Yeast Genetics and Molecular Biology Meeting, July 27- August 1, 2010, University of British Columbia, Vancouver. A) Meeting logo; B) Opening slide: ingredients and outcomes for making a great yeast meeting



Phil Heiter (Univ of British Columbia) second from L, and chair of the 2010 Yeast Meeting with Student Travel Award Winners, from L to R: Cheen Fei Chin (National Univ of Singapore), Sabrina Cardillo (Facultad de Ciencias Exactas y Naturales, UBA) and Manivannan Yegambaram (Victoria Univ of Wellington, New Zealand).



Dan Lockshon (Univ of Washington) speaking with colleague Vivian MacKay (Univ of Washington Sch of Med) during a poster session.



From L to R: Mark Rose, Chair, 2010 Yeast Meeting, with Princeton colleagues David Bottstein and Jim Broach



Jasper Rine (UC-Berkeley) near L, award recipient of the Winge-Lindegren Address, relaxing with students and colleagues at the Beer Fest.

#### All photos courtesy of Neil Anderson

Below: Trisha Davis (Univ of Washington), center, chair of the 2014 Yeast Meeting, conferring with Mark Rose, 2012 Yeast Meeting chair.



### Dear Torn,

It is good that you are taking the time to grapple with this choice now as your relationship with your future adviser is crucial for your success and your general well-being. Ideally, you should find an adviser who will work well with your personality and work style, and who will help advance your studies and your future career smoothly.

Before choosing your program, determine how a potential adviser interacts with his or her students. You can observe this while visiting the lab and attending a lab meeting. But the most straightforward way to gauge the student-adviser relationship within a lab is to (tactfully) ask the students themselves. Ask a series of standard questions to students in all of your potential laboratories: How often do you meet with Dr. X? How involved is Dr. X with your experimental planning, execution, and write-ups? What is one word you would use to describe the lab atmosphere? What do you wish other graduate students had told you when you were interviewing?

You will also want to know the number of graduate students, postdocs, and research associates in the lab, as this ratio can be very telling. If there are many graduate students, is the potential adviser already stretched too thin? If there are few or no graduate students, but many postdocs and research associates, is he more interested in pure research than mentoring and guiding graduate students? If there are very few lab members of any sort, it can be a warning sign. Do your best to determine if the potential adviser is nearing retirement, having funding problems, or simply doesn't get along well with others.

It is also important for you to do some soul searching—know thyself! Do you do best with a great deal of guidance, or are you fairly independent? Some advisers meet with their students once a week; others do not arrange meetings at all, and it is up to the student to seek them out when they need advice, guidance, or to schedule committee meetings. You need to find an adviser with a style that matches your personality. If lab members mention repeatedly: "Dr. X is very busy, and self-disciplined, independent students thrive in this lab," then you must determine if you have the micromanagement skills to guide yourself. If the potential adviser seems to be hands-off, you should ask other students how promptly he or she responds to requests for a meeting and provides feedback on grant proposals and manuscripts.

And once you select the program you want to attend, the best way to determine how you would interact with an adviser is to collect preliminary data by doing rotations. If a graduate program does not offer (or require) them, I strongly suggest that you ask about the possibility of doing several laboratory rotations. This will give you up to six weeks to work with your potential adviser, including developing a research project, observing his or her interactions with other students, assessing laboratory dynamics, gauging how much funding the laboratory has, and determining whether or not you would thrive in that particular environment. Though this path requires you to choose a particular graduate program before you have chosen a lab, the experiences you have in a rotation can prove to be invaluable in your decision-making process. Remember: your adviser will always be a part of your academic life. The more thoughtful you are in choosing an adviser, the easier your graduate career will be.

Signed,

The Abbot

(a.k.a. Beth Ruedi, Genetics Society of America, eruedi@genetics-gsa.org)

#### Dear Abbot,

I have been accepted into several graduate programs, but...I don't know where I should go! How can I pick a program with an adviser who is right for me?

#### Sincerely,

Torn in Texas



## Thank You to Our Donors GSA Fund Donors: April-July 2010

The Genetics Society of America acknowledges and thanks the 20 members who have given donations to the Society from April to July 2010. These donations support numerous ongoing programs and activities of the Society, including student awards at the GSA Conferences, public policy activities, media and public outreach, and educational activities.

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Anonymous (1)

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#### **DeLill Nasser Fund 2010**

The recently expanded DeLill Nasser Fund provides 25 career development awards of \$1000 each to students and postdoctoral fellows to attend a meeting, conference, or course in genetics that will significantly enhance their careers.

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Please join your colleagues in supporting the GSA programs and especially, the next generation of geneticists. You can donate online when you join or renew your membership for 2011. You can also donate online at http://www.genetics-gsa. org/pages/donate\_gsa.shtml . Snyder (Stanford Univ), and Mark Johnston (Univ of Colo HIth Sci Ctr), — our session chairs, our Executive Director Sherry Marts, and our incredible meeting planner, Anne Marie Mahoney cannot be acknowledged loudly or often enough. On behalf of the Society, I thank them all. I also thank all of you who attended, presented posters, asked questions and made the meeting so exciting.

I have been asked if there will be a fourth MOHB meeting. Absolutely!

The MOHB meeting shows what the GSA membership with support from staff does best: providing programs and educational opportunities in genetics for everyone from high school students to PIs that are stimulating and thought provoking — like the Airlee House meeting I attended many years ago. Vice President Paul Sternberg (Cal Tech) has already taken on the responsibility of chairing the 2012 MOHB meeting and we expect another stellar program.

For those of you who attended this year, we hope to see you again in 2012. And for those who missed this year's opportunity, set your calendar reminder now to join GSA in 2012 for the next MOHB meeting. It may just change the way you do your science.

With best wishes,

Scott Hawley, President

rsh@stowers.org or society@genetics-gsa.org

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# GSA SEPTEMBER 2010-JANUARY 2011 CALENDAR

# SEPTEMBER

2010 GSA Voting Opens

### 22 52nd Drosophila Conference Abstract Submission Site Opens

30 Nominations for GSA Awards Deadline

#### 30 26th Fungal Genetics Conference Website Opens

30 DeLill Nasser Travel Awards Application Deadline

# OCTOBER

18th International C. elegans Meeting Website Opens

27 Fungal Genetics Conference Registration Site Opens

29 2010 GSA Voting Closes

# DECEMBER

#### 14

Fungal Genetics Conference Abstract, Registration and Housing Deadlines

#### 17

DROS Conference Larry Sandler Award Nomination Deadline

# NOVEMBER

8 DROS Conference Abstract Submission Deadline

> 11 DROS Conference **Registration** Opens

# JANUARY

20 DROS Conference Early Registration Deadline