



Genetics Society  
of America

Sept | Oct 2009



Volume 6, Number 3

9650 Rockville Pike  
Bethesda, MD 20814-3998

Tel: (301) 634-7300

Fax: (301) 634-7079

Email:

[society@genetics-gsa.org](mailto:society@genetics-gsa.org)

[www.genetics-gsa.org](http://www.genetics-gsa.org)

# GENETICS

## From the President's desk:

### The Increasing Importance of Model Organism Research

I'm sure you know this scenario: You're at a party, and someone hears you're a biologist, and asks, "What do you work on?" When this happens to me, and I respond that I study yeast, I frequently get the follow-up question that you have probably already anticipated: "Are you learning how to make better beer?" At that point, I offer my explanation about the value of studying model organisms, which includes the statement that my daughter, now 17, learned to repeat with me by the time she was 3: "Yeast are actually a lot like people."

If you study a model organism, whether it's yeast, bacteria, phage, flies, worms, fish, plants, or something else, you probably have been in a similar situation when talking to someone who is not a scientist. There is little understanding among the general public about the value of studying a model organism. This is also true among some who we might think would better understand this issue. While you wouldn't be surprised to learn that the person at this party was a lawyer or a businessperson, you might also not be too surprised if that person turned out to be a physician, or even a human biologist.

Even among some biologists who understand the history of model organisms, there may be a lack of appreciation for what model organism research can contribute to future scientific understanding. For these scientists, model organisms appear to be in the twilight of their usefulness with the advent of new sequencing technologies and other genome-wide, high-throughput approaches that can be used in human studies. This view is reinforced by the high visibility that accompanied the completion of the human genome project and now accompanies other human studies, including stem cell advances and genome-wide association analyses. Indeed, in many research institutions, there is an increasingly strong emphasis placed on pursuing translational research that can be directly applied to human disease.

The GSA believes that model organism research is as important today as ever. Genetic analysis of model organisms has played essential roles in our current understanding of all fundamental aspects of cell growth and development, and in the development of functional genomics and bioinformatics. While it might take some time to explain to a lay person, GSA members understand why it was critical to study *E. coli* mutants that are unable to grow on lactose, yeast that are unable

*Continued on page 23*



Fred Winston  
GSA President

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

#### OFFICERS

Fred Winston, President  
R. Scott Hawley, Vice-President  
Trudi M. Schüpbach, Past-President  
Trudy F. Mackay, Treasurer  
James E. Haber, Secretary  
Mark Johnston, *GENETICS*, Editor-in-Chief

#### BOARD OF DIRECTORS

Victor Ambros, Nancy M. Bonini, Sally A. Camper, Jay C. Dunlap,  
Douglas A. Koshland, Charles H. Langley, Susan T. Lovett, Tim Schedl,  
Susan R. Wessler

#### EXECUTIVE DIRECTOR

Sherry A. Marts

#### MANAGING EDITOR

Phyllis R. Edelman

Copyright ©2009 by the Genetics Society of America. All rights reserved.



# Getting a Job at an Undergraduate Institution

by Leilani Miller (Santa Clara University, CA) Jennifer Miskowski (University of Wisconsin, LaCrosse), and Laura Vallier (Hofstra University, Hempstead, NY)

“What is Life Like at a Predominantly Undergraduate Institution (PUI) and How Can I Get a Job at One?” may sound like the title of an off-off-Broadway play. But for more than 100 attendees, mostly graduate students and postdoctoral fellows, this workshop at the *C. elegans* meeting was to help them focus on the next phase of their lives. The attendees listened to four panelists: Chris Gissendanner (University of Louisiana at Monroe), Greg Hermann (Lewis and Clark College, OR), Rebecca Lyczak (Ursinus College, PA), and Vida Praitis (Grinnell College, IA) outline the different expectations for teaching, research, and service at their PUIs, followed by “dos and don’ts” from the perspective of an academic search committee.

## A Foot in the Door

Logistics of the application process were briefly outlined by the panelists with other veteran faculty in the audience providing commentary. Job listings for PUIs are found in publications like *Science*, *The Chronicle of Higher Education*, HigherEdJobs.com, and at individual school websites. Applications are usually due in the fall and consist of four items: 1) a cover letter 2) a teaching philosophy 3) a research statement, and 4) letters of reference.

The cover letter and accompanying documents provide the “foot in the door” and panelists offered advice for increasing the success of an application leading to an interview. The candidate should know and understand the mission of the institution. This information should be clearly communicated in the cover letter, which needs to be tailored specifically to each school. Candidates were also encouraged to match their strengths and career goals with appropriate institutions. Panelist Praitis said, “I love my job... it’s the perfect mix of teaching and research and service... you need to find that perfect mix for *you*, and every school is going to be a little different in how they break down teaching, research and service.”

The teaching philosophy should convey the candidate’s enthusiasm for teaching, his/her pedagogical style, and related experience and expertise that have shaped their development as an instructor. To prepare for a career at a PUI, attendees were urged to seek out teaching experience in addition to serving as a teaching assistant. Giving guest lectures, team-teaching a course or a seminar, teaching at a nearby community college, or filling in as a one-year sabbatical replacement were all suggestions made for ways of increasing one’s experience and expertise.

The research statement must succinctly describe both the broad context of the research as well as specific aims that will be achieved. Be sure to describe how undergraduates and master’s students, if applicable, will fit into the research program.

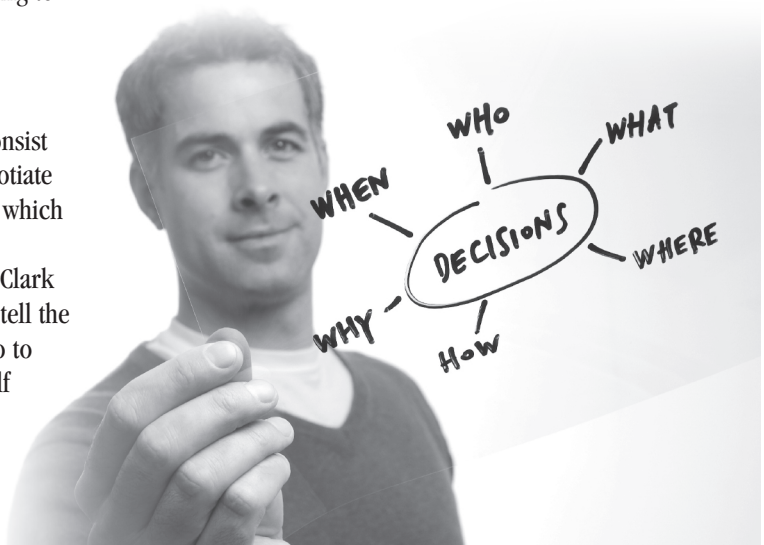
Most schools will conduct phone interviews with top-tier candidates, followed by on-site interviews of the top two-to-four candidates, where candidates will typically be expected to give both a research seminar and a mini-class. For both these interviews, candidates should be prepared to discuss courses they would be interested and capable of teaching, and equipment and supplies required for their research program. Lectures should be understandable and exciting to undergraduates and faculty from diverse scientific disciplines.

## If an Offer is Made

If offered a position as an assistant professor, it will usually consist of a base salary and start-up funds. The candidate can try to negotiate both of these amounts, but might only have one-to-two weeks in which to make a final decision.

With regard to research, panelist Greg Hermann of Lewis and Clark College advised, “Do excellent research because that is going to tell the [search] committee how you think, what your aspirations are. Go to the best places, work for the best people [and] challenge yourself as much as you can. These are not second-rate places. These are places where we want to hire — and we do — people

*Continued on page 20*





## GSA Education Special Interest Group Forming

The GSA is forming a new Education Special Interest Group (SIG) for members with a significant interest in undergraduate and graduate education. The Education SIG will provide a venue for information exchange and mutual support among its members. Members of the group may take on activities such as:

- Writing textbook reviews for the GSA newsletter and website.
- Reviewing and developing material for the education section of the website.
- Interacting with the education committee of the American Society for Human Genetics.
- Developing education goals, objectives, and action plans for consideration by the GSA Board.
- Planning sessions on genetics education for the GSA conferences.
- Helping the *GENETICS* editors identify promising manuscripts for the education section of the journal.

The GSA Education SIG will support the work of the GSA Education Committee of the GSA Board of Directors. The Education Committee develops program, resource, and policy recommendations for action by the Board of Directors. Current members of that committee are: Susan Lovett (Brandeis University, Waltham, MA), Chair; Scott Hawley (Stowers Institute for Medical Research, Kansas City, MO); Jay Dunlap (Dartmouth Medical School, Hanover, NH); and Susan Wessler (University of Georgia, Athens).

GSA members who are interested in joining the Education SIG should send an email to Sherry Marts, GSA Executive Director, at [smarts@genetics-gsa.org](mailto:smarts@genetics-gsa.org).

## GSA Membership Dues Updates

Beginning in 2010, the Genetics Society of America is pleased to announce a new category of membership for undergraduate students. For \$25 (USD) annually, an undergraduate student will be entitled to membership benefits including an online subscription to the GSA Journal *GENETICS* and reduced registration fees for The GSA Conferences. "Undergraduate education is part of the core mission of the Genetics Society of America, and it is fitting that we recognize the financial constraints that many undergraduates face," said Fred Winston, GSA president in announcing this new membership category.

This reduced-rate membership category for undergraduates is part of an overall GSA initiative to encourage young people to explore the field of genetics, which began years ago with reduced-rate membership dues for graduate students, now at \$60 per two-year membership, and postdoctoral fellows at \$85 per two-year membership.

In addition, GSA has established a new group membership discount rate. The group discount rate is available when a minimum of five individuals from the same institution want to renew their membership or join the Society for the first time, and where at least one of those memberships is in the regular membership category. For information and applications for group membership, please contact the GSA Membership Manager, Mary Shih at (301) 634-7309; or at [mshih@genetics-gsa.org](mailto:mshih@genetics-gsa.org).

For more information on membership, see the GSA website at <http://www.genetics-gsa.org/>.

## 2010 Awards Nomination Deadline Approaching

The GSA awards online nomination site at [http://www.genetics-gsa.org/pages/award\\_apps.shtml](http://www.genetics-gsa.org/pages/award_apps.shtml) is open until October 30th to accept nominations for the five GSA awards to honor outstanding researchers in our field. The five awards are:

- The **Thomas Hunt Morgan Medal** for lifetime contributions in the field of genetics.
- The **Genetics Society of America Medal** for outstanding contributions to the field of genetics in the last 15 years.
- **George W. Beadle Award** for outstanding contributions to the community of genetics researchers.
- **Elizabeth W. Jones Award for Excellence in Education** in recognition of significant and sustained impact on genetics education.
- **The Edward Novitski Prize**, funded by the Novitski family and named in honor of *Drosophila* geneticist Edward Novitski (1918-2006), and designed to recognize an extraordinary level of creativity and intellectual ingenuity in solving significant problems in genetics research.

To view past award recipients, please check our website at <http://www.genetics-gsa.org/pages/pastawards.shtml>.

Please be sure to make your nominations online at [http://www.genetics-gsa.org/pages/award\\_apps.shtml](http://www.genetics-gsa.org/pages/award_apps.shtml) before Friday, October 30th, 2009.



# Lineal Descendents of Sydney Brenner Celebrate *C. elegans*

by David Greenstein (University of Minnesota) and Chris Li (City College of New York), 2009 Meeting Co-Organizers

The 17th International *C. elegans* Meeting held June 24-28, 2009 at UCLA coincided with the 35th anniversary of Sydney Brenner's landmark paper in *GENETICS* that launched the field ("The Genetics of *Caenorhabditis elegans*," *GENETICS* 77: 71-94, 1974). Since then, the field has grown from 57 people at its first meeting at Woods Hole to this year's attendance of 1650 participants, most of whom can trace their scientific lineage back to a single founder, Brenner.

The meeting kicked off in high gear with a keynote address delivered by Barbara Meyer (U.C.-Berkeley) on the regulation of sex determination and dosage compensation. She presented exciting new work on how a small group of proteins swaps partners to affect either sex determination, dosage compensation, chromosome segregation, or meiotic recombination. Another highlight was from Martin Chalfie (Columbia University), 2008 Nobel Laureate in Chemistry, who gave a special lecture that showcased his keen wit and sense of humor when discussing his seminal work on the genetics of mechanosensation and how it led to the discovery and widespread use of the green fluorescent protein as an in vivo reporter for gene expression and function. Chalfie also emphasized how basic science research can revolutionize biology and have countless translational applications.

The *C. elegans* field has always placed a premium on mentoring and training its junior scientists; hence, graduate students and postdoctoral fellows gave most of the 258 plenary and parallel session talks. The session topics spanned the gamut of *C. elegans* biology from the genetic analysis of developmental processes, to evolution, ecology, and aging. Over 1000 posters were presented in three poster sessions. GSA Poster Awards were presented to 103 graduate students (See page 6 for a list of First Place Awardees). The full meeting program with abstracts can be accessed at <http://www.celegans.org/pages/abstracts.shtml#6>. The GSA sponsored three separate mentoring socials, which were organized by Eleanor Maine (Syracuse University), to foster career development of students, postdoctoral fellows, and junior faculty. The addition of a mentoring social for postdoctoral fellows was particularly timely, as the economic downturn has caused many junior faculty searches to be put on hold.

As the field has grown, a series of topical and technical workshops have become an important feature of this biennial meeting. This year's workshops included Advanced Microscopy [organizers: Harald Hutter (Simon Fraser University), Steve Grill (MPI-CBG, Dresden, Germany), and Benjamin Podbilewicz (Technion, Haifa, Israel)], Evolution and Genomics [organizers: Ron Ellis (UMDNJ-SOM, Stratford, NJ), Ilya Ruvinsky (University of Chicago), and Erich Schwarz (Cal Tech)], Microfluidics [organizer: Nikos Chronis (University of Michigan)], Metabolism [organizer: Amy Walker (Massachusetts General Hospital)], Resources for Protein Localization Analysis [organizer: Mihail Sarov (MPI-CBG, Dresden, Germany)], WormBase [organizer: Erich Schwarz], Dynamic Imaging of Neurons [organizers: Sandhya Koushika (NCBS-TIFR, Bangalore, India) and Bill Schafer (UCSD)], The National Science Foundation: Funding Opportunities, Evaluation Criteria, and Successful Strategies [organizers: Jo Anne Powell-Coffman (Iowa State Univ) and Aixa Alfonso (Univ of Illinois, Chicago)], Whole Genome Sequencing for Mutant Identification [organizer: Oliver Hobert (Columbia Univ)]. In addition, Jennifer Miskowski (University of Wisconsin-La Crosse) organized a series of three teaching workshops dealing with issues such as teaching at predominantly undergraduate institutions, post-tenure faculty career development, and pedagogical techniques for large lecture classes. (See page 2 for a summary of the teaching at a predominantly undergraduate institution workshop.)

Other highlights included the Worm Art Show [organized by Ahna Skop (Univ of Wisconsin, Madison), Diana Chu (San Francisco State Univ), and Kirsten Hagstrom (Univ of Mass. Med School, Worcester)] and the always hilarious Worm Comedy Show featuring the multitalented Morris Maduro (UCRiverside) and Curtis Loer (University of San Diego).

Meera Sundaram (University of Pennsylvania) and Oliver Hobert (Columbia University) will be the co-organizers for the 18th International *C. elegans* Meeting in June 2011.





L to R: Tom Blumenthal (Univ of Colorado, Boulder) with Barbara Meyer (Univ of California-Berkeley), a keynote speaker.



L to R: Gary Ruvkun (Harvard Medical School, Boston, MA), with David Hall (Albert Einstein Col of Med, Bronx, NY) and David Greenstein (Univ of Minnesota, Minneapolis) and a co-organizer of the meeting.



L to R: Cynthia Kenyon (Univ of California, San Francisco) talking with Richard Parenteau, a graduate student at UCSF.



L to R: Kirsten Hagstrom (Univ of Mass Med School, Worcester) with Diana Chu (San Francisco State Univ).



L to R: Ding Xue (Univ of Colorado, Boulder) with Marty Chalfie (Columbia Univ, NY) and Monica Driscoll (Rutgers Univ, Piscataway, NJ).



L to R: Piali Sengupta (Brandeis Univ, Waltham, MA) with Chris Li (City College of New York) and a meeting co-organizer.



L to R: Beginning second from left, Gary Ruvkun talking with Heidi Tissenbaum (Univ of Mass Med School, Worcester), David Greenstein, and Andrew Vaughn Samuelson (Mass General Hosp, Boston) during a break in the sessions.



Participants at the GSA Student Mentoring Luncheon.



Monica Driscoll with David Zarkower (Univ of Minnesota, Minneapolis)



L to R: Meeting co-chairs, David Greenstein with Chris Li.



Victor Ambros (Univ of Mass Med School, Worcester), center, at the Junior Faculty Mentoring Social.



L to R: Curtis Loer (Univ of San Diego, CA) with Morris Maduro (Univ of California -Riverside), the infamous duo of the Worm Comedy Show.



Participants at the GSA Student Mentoring Luncheon.



# Congratulations to *C. elegans* Poster Awardees

The Genetics Society of America congratulates the 103 poster award recipients at the 17th International *C. elegans* meeting. Eighteen posters in 17 different topics from among the 375 graduate posters reviewed were presented with first awards by the selection committee and received \$55 (USD). Second place recipients received a DVD volume of "Conversations in Genetics," GSA's oral history of conversations with some of the founding leaders of genetics. Third place awardees received a *C. elegans* meeting t-shirt.

The graduate students who received first awards represent schools in the United States, Canada, Portugal, France, The Netherlands, Japan and Malaysia. In addition to those countries, second and third place awardees also represent institutions in Belgium, Germany, Greece, Mexico, South Korea, Switzerland, and the United Kingdom.

The first place award recipients, their topic, institution and the title of their research abstract are listed below. For a complete list of all awardees, please go to [http://www.genetics-gsa.org/pdf/09Worm\\_poster.pdf](http://www.genetics-gsa.org/pdf/09Worm_poster.pdf).

## First Award Recipients

### AGING AND STRESS:

**Daniel Czyz, (378C), Northwestern University, Evanston, IL**  
Tissue-specific Proteostasis Networks in *C. elegans*.

**Marco Gallo, (278B), University of British Columbia, Vancouver, BC, Canada**  
The longevity gene *misc-1* modulates apoptosis in *C. elegans* and human cell lines.

### BEHAVIOR:

**Kursheed A. Wani, (613A), University of Massachusetts at Amherst**  
Genetic analysis of dopamine signaling in *C. elegans*.

### CELL CYCLE:

**Gary Riefler, (1066A), MD Anderson Cancer Center, Houston, TX**  
Cyclin B3 is necessary for the generation of functional microtubule-kinetochore attachments.

### CELL DEATH:

**Michael Chiorazzi, (696C), Rockefeller University, New York, NY**  
The non-canonical cell death program governing tail-spike cell death requires the F box protein DRE-1.

### CELL FATE:

**Brian M. Farley, (640A), University of Massachusetts Medical School, Worcester, MA**  
Post-transcriptional regulation of early development by multiple RNA-binding proteins.

### EVOLUTION:

**Fabien Duveau, (817A), Institut Jacques Monod - CNRS & University of Paris, France**  
Characterization of the cryptic genetic variation in the vulva system of *C. elegans*.

### GENE EXPRESSION:

**Teije C. Middelkoop, (834C), Hubrecht Institute, KNAW, University Medical Center Utrecht, The Netherlands**  
Dissecting the spatiotemporal expression patterns of Wnt and Frizzled genes to obtain insight into Wnt-dependent processes in *C. elegans*.

### GENOMICS:

**Ting Han, (966C), University of Michigan, Ann Arbor**  
A rich diversity of 3' UTR isoforms revealed by deep sequencing.

### MORPHOGENESIS:

**Sihui Zhang, (1056C), Virginia Polytechnic Institute and State University, Blacksburg**  
Isolation and Culture of Motile *C. elegans* Sex Myoblast Cells for High-resolution Microscopy.

### NEURONAL DEVELOPMENT:

**Grace S. Kim, (469A), Albert Einstein College of Medicine, Bronx, NY**  
*unc-3* is necessary for axon pioneering and guidance in *C. elegans*.

### ORGANELLES:

**Hyeon-Cheol Lee, (1148B), University of Tokyo, Japan**  
*mboa-7* is required for selective incorporation of polyunsaturated fatty acids into phosphatidylinositol in *C. elegans*.

### PATHOGENESIS:

**Song-Hua Lee, (413B), Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia**  
A genome scale gene expression analyses reveals that *Burkholderia pseudomallei* suppresses *Caenorhabditis elegans* immunity via targeting a GATA transcription factor.

### POLARITY:

**Dorian C. Anderson, Skirball Institute and Sackler Program for Biomedical Studies, New York University School of Medicine, New York, NY**  
Investigating PAC-1 asymmetry and the molecular control of radial polarity in the *C. elegans* early embryo.

### RNAI:

**Daniel Chaves, (937A), University of Massachusetts Medical School, Worcester, MA and Institute of Molecular Medicine, University of Lisbon, Portugal**  
PIR-1 is a 5' RNA phosphatase that interacts with Dicer and is essential for *C. elegans* development.

### SEX AND GERMLINE:

**Sarah Brisbin, (786C), Queen's University, Kingston, ON, Canada**  
A Role for *C. elegans* Eph RTK Signalling in PTEN Regulation.

### SYNAPTIC FUNCTION:

**Alyson L. Sujkowski, (523A), The University of Toledo, Ohio**  
Homeostatic regulation of GABA neuromuscular synapses.

### TIMING AND DAUER:

**Victor L. Jensen, (718A), University of British Columbia, Vancouver, BC, Canada**  
The novel cilia protein DAF-25 is required for DAF-11 cilia localization.

The abstracts of the titles listed here can be found at:  
<http://www.genetics-gsa.org/celegans2009/abstracts/>. Search by abstract number in parenthesis.





The Genetics Society of America Conferences

## **GENETICS 2010: model organisms to human biology**

**June 12 – 15, 2010 • Boston, Massachusetts • Sheraton Boston**

### **KEYNOTE SPEAKERS:**

**Jeremy Berg** NIGMS/NIH

**Carol Greider** The Johns Hopkins University

**Gary Ruvkun** Harvard | Massachusetts General Hospital

### **PLENARY SESSIONS:**

Personal Genomics

Cancer as a Genetic Disease

Models of Disease

Sex and Gene Expression

Neurogenetics: From Synapses to Senescence

Modern Approach to Pathogenesis and Infectious Disease

Analyzing Genomes

Organismal Architecture and Developmental Disabilities

Stem Cells: The Genetics of Commitment

### **SPEAKERS:**

Church Langley

David Altshuler

Leonid Kruglyak

Carlos Bustamante

Angelika Amon

Phil Beachy

Kathryn Anderson

Richard Kolodner

Susan Lindquist

Rick Lifton

Eric Olson

Phil Hieter

Barbara Meyer

Melissa Hines

David Page

Eric Vilain

Barry Ganetzky

Pamela Sklar

Li-Huei Tsai

Erik Jorgensen

Gerry Fink

Joe DeRisi

John Mekalanos

Peter Palese

Barbara Wold

Joe Ecker

Rick Young

Stuart Kim

Olivier Pourquié

Matt Warman

Denis Duboule

Nicholas Katsanis

Minx Fuller

George Daley

Anjana Rao

Joanna Wysocka

### **PROGRAM CO-CHAIRS:**

Fred Winston R. Scott Hawley

Abstract Submission Opens: February 17, 2010 • Registration Site Opens February 24, 2010

**For additional information visit [MOHB.org](http://MOHB.org)**



# The Life Sciences Research Foundation: **2<sup>nd</sup>** **MOVING** Into Its Second Generation

by Phyllis Edelman, *GENETICS*, Managing Editor

It's no surprise that Donald D. Brown, an embryologist, is familiar with the formation, growth and development of living organisms. His lab in the Embryology Department at the Carnegie Institution of Washington in Baltimore, Maryland, studies how thyroid hormone controls complex developmental programs in frog and toad metamorphosis. But for most of the 40 years that Brown has been at Carnegie he has done more than study amphibian development; he has also nurtured more than 400 scientists through the Life Sciences Research Foundation (LSRF), a postdoctoral fellowship program, which he founded in 1981 for scientists doing research in all areas of the life sciences.

Brown hatched the idea of matching biologists working on basic science at non-profit academic institutions with for-profit research-oriented companies just as for-profit companies like Genentech and others were luring promising research biologists from academia. Thinking about how these organizations could form partnerships that would be mutually beneficial resulted in the LSRF. The idea is that an LSRF sponsor can choose to support an outstanding young researcher who most closely matches its interests. However, the research takes place in nonprofit institutions, the sponsor receives no patent rights for the research, nor any influence on the future job that the fellow takes. About 80% of LSRF alumni are currently employed in academic institutions.

## The GSA Connection

For the past several years, Doug Koshland, a colleague of Brown's at Carnegie, and a member of the GSA Board of Directors, has been working closely with Brown on the LSRF. The idea, says Brown, "is for me to step away and for Doug to take over." After 40 years, Brown is retiring and is closing his lab at Carnegie. The LSRF, which has been his "rewarding hobby" for the past 28 years, will move into Doug's hands. "I'm certain that Doug will see that the organization survives," Brown adds.

GSA's connection with LSRF doesn't end with Koshland. Koshland serves as vice-president of the Foundation and GSA members James Broach and Thomas Silhavy (both at Princeton), serve as co-directors. In addition, 10 of the 25 peer reviewers – those researchers who read and review the more than 800 applications the LSRF now receives annually – are GSA members. And, in any one year, from 5 to 10 percent of the LSRF alumni are GSA members. GSA members who are also LSRF alumni include Utpal Banerjee (UCLA), a 1986 fellow and more recently, Weng Mang (Harvard Medical School), a 2007 fellow.

## The Funding Challenge

Despite its 28 years of existence and the quadrupling of its applications from 200 in 1983 to more than 800 today, on average only 14 fellowships are funded by LSRF each year. Finding the nearly \$180,000 needed for each three-year fellowship that is awarded is always a concern for Brown. The LSRF is run almost entirely by volunteers and Brown proudly states, "We have the lowest indirect costs of any organization that exists." But the low overhead – less than 2% of what the organization takes in – also means that Brown does a lot of legwork in finding funding sources. Each fall he "calls each Board member personally to pick their brain for whom to contact for funding." The variety of LSRF sponsors has grown over the years to include foundations, one government granting agency, the Howard Hughes Medical Institute, and individual philanthropists. But as companies merge or as they begin to offer their own fellowships, Brown says it gets more and more challenging to find sponsors.

## The Application Process

Until October 1, applications are being accepted at the LSRF website, [www.lsrf.org](http://www.lsrf.org). "Merit," says Brown, "is the key ingredient" in the selection of the 40 or 45 finalists. But, in addition to merit, reviewers are also looking for "diversity," targeting young researchers at institutions "who generally do not receive fellowships." Brown says the letters of recommendation, the work an applicant has already done and the quality of the research proposal, are all very important to the reviewers. Brown ideally would like to fund all 40-45 finalists, not just 14. "A lot of the fellowships from companies and foundations "are very targeted," so they can "select from among the 40-45 finalists who will receive their fellowship the one who best fits their interests," Brown explains. "We need non-targeted fellowships so we can support areas of basic biology like genetics."

*Continued on page 21*





# Vote Online Now for 2010 GSA Board Members

On the next few pages are brief bios and photos of the 2010 candidates for the GSA Board of Directors. All members in good standing have been sent e-mail notification of the online ballot. You will be voting for a vice-president (who will be president in 2011), a secretary (elected every third year), and four directors (one in each section). This represents an addition of one director to the Board whose primary focus is on education.

We thank all GSA members who, for the first time, were able to nominate their colleagues for Board offices. This slate of candidates is a result of careful deliberations by the Nominating Committee guided by Aaron Mitchell as chair, with members Sankar Adhya, Mitzi Kuroda, and John Schimenti and with *ex officio* members, James Haber, GSA Secretary and Sherry A. Marts, Executive Director.

We thank Past President Trudi Schüpbach, Secretary James Haber and Directors Victor Ambros, Nancy Bonini, and Tim Schedl for their service on the Board, which will end this year. Continuing on the Board are: Fred Winston, who will become past president in 2010; Scott Hawley, who will become president; Trudy Mackay as treasurer; Mark Johnston as *GENETICS* Editor, and Directors Sally Camper, Jay Dunlap, Douglas Koshland, Charles Langley, Susan Lovett and Susan Wessler.

**The ballot deadline is Friday, October 30th.**

## VICE-PRESIDENT (vote for one)

### • Paul W. Sternberg, Ph.D. •

Thomas Hunt Morgan Professor of Biology, California Institute of Technology, and Investigator, Howard Hughes Medical Institute.

**Candidacy Statement:** My vision is that GSA will assume a leadership role in the organization of information about genetics, exploiting the flexibility of electronic publishing. The GSA has access to superb information generated by our Society, including teaching materials, databases, policy perspectives, and most importantly, the content of our flagship journal *GENETICS*, and we can make better use of these resources. On the policy side, I would lead the GSA membership in an effort to help solve the postdoctoral employment crisis, in particular to work with other institutions to create new types of positions for geneticists so that our field expands in the future.

**Advanced Degree(s):** Ph.D., Biology, Massachusetts Institute of Technology (1984).

**Career Summary:** Graduate training: *C. elegans* development with H. Robert Horvitz, M.I.T.

Post-doctoral training: yeast genetics with Ira Herskowitz, Univ. Calif. San Francisco (1984-87).

Employment: Asst. Prof. (1987), Assoc. (1992), Prof. (1996); T.H. Morgan Prof. (2004), Division

of Biology, California Institute of Technology. Asst., Assoc. and Investigator, Howard Hughes Medical Institute (1989 — ); Adjunct Assistant Professor of Cell Biology, University of Southern California School of Medicine (1989 — ).





**Honors and Awards:** Fellow, Jane Coffin Childs Foundation (1984-87); Searle Scholar (1988-91); Presidential Young Investigator of the National Science Foundation (1988-93); Fellow of the American Association for the Advancement of Science (1992 — ); Member of the American Academy of Arts and Sciences (2000 — ); Member of the National Academy of Sciences (2009 — ).

**Professional Service Activities:** Genetics Society of America: Member, Board of Directors (2001-04), Senior Editorial Board (2005-06), Website committee (2009 — ); PI, WormBase (1999 — ); co-founder WormBook (1994). Editorial Boards: *Cell*, *Genome Biology*, *BMC-Genomics*. Advisory Boards and Councils: National Advisory Council for Genome Research (NHGRI Council; 2007-09); FlyBase Advisory Board (2002 — ); *C. elegans* Knockout Consortium (2004 — ); American Society for Cell Biology: Council (2008-10); mod/ENCODE External Consultant Panel (2007 — ). Meetings: Organizer, International *C. elegans* Meeting 2001 (moved it to GSA sponsorship).

**Major Research Interests:** Genetic specification of nematode development and behavior. Nematode genomics and genome informatics.

**Websites:** [www.its.caltech.edu/~wormlab/](http://www.its.caltech.edu/~wormlab/); [www.wormbase.org](http://www.wormbase.org); [www.textpresso.org](http://www.textpresso.org); [www.wormbook.org](http://www.wormbook.org)

## • Carol S. Newlon, Ph.D. •

Professor and Chair, Department of Microbiology & Molecular Genetics, UMDNJ-New Jersey Medical School, Newark.

**Candidacy Statement:** The Genetics Society of America has played a vital role in facilitating communication among geneticists by sponsoring model organism meetings and publishing *GENETICS*, in promoting research through its participation in the Coalition for Life Sciences, and in fostering the education of both the public and the next generation of geneticists about exciting advances in genetics and the opportunities and challenges that are posed by them. As we move forward, I would like to see the GSA continue its excellent work in all of these areas, with increased emphasis on educational outreach to high school and undergraduate students, and public policy as it relates to federal and private funding for science.

**Advanced Degree(s):** Ph.D., Cell Biology, Massachusetts Institute of Technology, Cambridge (1971).

**Career Summary:** Postdoctoral Training: American Cancer Society Fellow, Department of Genetics, University of Washington, Seattle (1972-73). Employment: Asst. Prof., Department of Zoology, University of Iowa (1974-79); Assoc. Prof., Department of Biological Sciences, University of Iowa (1979-85); Assoc. Prof., Department of Microbiology, UMDNJ-New Jersey Medical School (1985-87); Professor, Department of Microbiology & Molecular Genetics, UMDNJ-New Jersey Medical School (1987 — ); Chair, Department of Microbiology & Molecular Genetics, UMDNJ-New Jersey Medical School (2004 — ).

**Honors and Awards:** American Cancer Society Postdoctoral Fellowship (1972-73); NIH Research Career Development Award (1976-81); University of Iowa Faculty Scholar Award (1984-87); University Excellence Award in Biomedical Sciences (UMDNJ 1990); NIH Senior Fellowship (1991); Elected Fellow, American Academy of Microbiology (1998); Burroughs Wellcome Scholar Award in Pathogenic Microbiology (2001-06); Fellow, Executive Leadership in Academic Medicine (2003-04); Elected to Membership in UMDNJ Master Educators' Guild (2005); Elected Fellow, American Association for the Advancement of Science (2006).

**Professional Service Activities:** Genetics Society of America: Member, Board of Directors (1985-88); Treasurer (1990-95). American Association for the Advancement of Science: Secretary, Section G (Biological Sciences). Organizer: FASEB Summer Research Conference on Chromosome Replication and Segregation in Yeast (1990). Peer review panels: NIH Genetics Study Section (1980-84); NSF Eukaryotic Genetics Panel (1986-87); NIH Molecular & Cellular Basis of Disease Review Committee (1987-90); ACS Virology & Molecular Genetics Review Panel (1991-95); NIH Microbial Physiology & Genetics (2) Study Section (1996-2000); HHMI Predoctoral Fellowship Evaluation Panel, Genetics and Molecular Biology (1996, 2001-03). *Editorial Activities:* Editorial Board, *Yeast* (1985 — ); Editorial Board, *Molecular and Cellular Biology* (1986-2009).

**Major Research Interests:** Mechanisms of eukaryotic chromosomal DNA replication, including replication origin structure and regulation and mechanisms of maintaining chromosomes lacking replication origins, using *Saccharomyces cerevisiae* as an experimental system.

**Website:** [http://njmsmicro.umdnj.edu/index.php?option=com\\_content&task=view&id=58&Itemid=73](http://njmsmicro.umdnj.edu/index.php?option=com_content&task=view&id=58&Itemid=73)



## SECRETARY (vote for one)

### • Mariana Federica Wolfner, Ph.D. •

Professor of Developmental Biology, and Stephen H. Weiss Fellow, Dept. of Molecular Biology and Genetics, Cornell University, Ithaca, NY.

**Candidacy Statement:** The GSA plays many important roles that support, interconnect and foster the expanding community of geneticists. I am eager to work again with other Board members to facilitate and enhance GSA's ability to help geneticists communicate the excitement and findings of our research to one another, to other scientists and to the general public – and to convey its importance to funding agencies and policy makers. I would also like to explore online and interpersonal mechanisms to help GSA to disseminate resources for research, teaching (college/university, K-12) and careers in genetics. I would be happy to carry out the organizational/administrative duties of Secretary that assist the Board, such as serving as its liaison to nominating committees.

**Advanced Degree(s):** B.A., in Genetics & Development, Chemistry, Cornell University (1974); Ph.D., in Biochemistry, Stanford University (1981).

**Career Summary:** Damon-Runyon-Walter Winchell Cancer Fund Postdoctoral Fellow (1981-82), American Cancer Society Senior Postdoctoral Fellow (1983), University of California, San Diego; Assistant Professor, Associate Professor, Professor, Associate Chair of Department (2001-05), Cornell University (1983 — ); Cornell/Stephen H. Weiss Presidential Fellow (2003 — ).

**Honors and Awards:** DuPont Young Faculty Award (1983); Basil O'Connor Starting Research Scholar (1985-86); NSF Career Advancement Award (1988); American Cancer Society Faculty Research Award (1989-94); NSF/POWRE Award (1997-98), S. H. Weiss Presidential Fellow (Cornell, 2003 — ), R.A. and D.B. Paul Award for excellence in advising (Cornell, 2006), Fellow of AAAS (elected 2006), Wilhelmine Key Lecturer (American Genetic Assn., 2008), S. & M. Russell Distinguished Teaching Award (Cornell, 2009).

**Professional Service Activities:** GSA, or GSA-related: GSA summer undergraduate research fellowships selection committee (1986-87), co-Chair (1987); National Drosophila Board, Great Lakes Rep (1990-93), President (1993-94), Elections Committee member (2004); Larry Sandler Lectureship Committee [1991-1994; Chair (1993-94), and 2006-08; Chair (2007)]; Program co-Chair and member of Organizing Committee, 42nd Annual Drosophila Conference (2001); member, GSA Board of Directors (2006-09; chaired Board's newly created Education/Outreach committee 2008-early '09). Selected Other: Chair (-elect, -active, -retiring), Biology Section (Section G) AAAS (2007-10), member of Organizing Committee, 4th and 5th International Symposia on Molecular Insect Science (2002-03; 2005-06). Grants/fellowships panels (selected): NIH/NIMH regular or special-emphasis Study Sections in Genetics (1993-97, 2002); Molecular, Cell and Developmental Neurobiology (1995-97), for NICHD (2004-05) and BIOL-1, ZRG-1 (1999-2001; 2003, respectively); CMIR [(2008 — ) as charter member; previously as ad hoc]. NSF panels: Developmental Mechanisms (1997, 1998, 2000); Integrative Animal Biology (2001); HHMI predoctoral fellowships panels (1993-94 and in late 1980s). Editorial advisory boards: *FLY* (2006 — ); *Insect Biochemistry and Molecular Biology* (2001 — ); *Journal of Insect Science* (2003 — ), Associate Editor for its genetics submissions: 2007 — ).

**Memberships:** GSA, AAAS, Society for Developmental Biology.

**Major Research Interests:** Nature, actions, pathways and evolution of *Drosophila* seminal proteins and their targets. Genes and regulatory cascades that mediate the egg-to-embryo transition in *Drosophila*.

**Website:** <http://www.mbg.cornell.edu/faculty-staff/faculty/wolfner.cfm>







## • Susan K. Dutcher, Ph.D. •

Professor, Department of Genetics, Washington University, St. Louis, Missouri.

**Candidacy Statement:** The Genetics Society of America plays multiple roles. It sponsors the journal *GENETICS* and the biennial “Genetic Analysis: Model Organisms to Human Biology” meeting, provides information to its members, as well as to the public and Congress. It is important for the GSA to continue in these roles. In particular, it is critical to inform Congress about the importance of basic science research for making new and unpredictable discoveries as well as applying our knowledge to human disease. The GSA should play a key role in disseminating and explaining genetic discoveries to the public.

**Advanced Degree(s):** B.A., Colorado College (1974); Ph.D., University of Washington (1980).

**Career Summary:** Postdoctoral Fellow, Rockefeller University (1980-83); Assistant-Full Professor, Molecular, Cellular, and Developmental Biology, University of Colorado, Boulder (1983-99); Visiting Scientist, Fred Hutchison Cancer Center, (1995-96); Full Professor, Department of Genetics, Washington University (1999 — ); Chair, Department of Genetics, Washington University (2006-09).

**Honors and Awards:** Andrew W. Mellon Award (1982); Searle Scholar's Award, Chicago Community Trust (1984); NSF Faculty Award to Women Scientists and Engineers (1991); Governor's Commendation for Achievement (Colorado, 1992); University of Colorado Faculty Fellowship (1995); William Trager Award for Outstanding Paper of the Year, Society of Protozoology (2004); Harvey Lecture (2006).

**Memberships:** Genetics Society of America (1978 — ); American Society of Cell Biology (1982 — ); American Society of Nephrology (2006 — ).

**Professional Service Activities:** Nominating Committee, Genetics Society of America, (1991, 2003); Board of Directors, Genetics Society of America (2005–07); Council, American Society of Cell Biology (2007-09); NIH Genetics Study Section (1990-94); National Research Council / Howard Hughes Predoctoral Fellowship Selection Committee Member (1994–95); National Research Council / Howard Hughes Predoctoral Fellowship Selection Committee, Chair (1995–97); NIH BRT Training Grant Study Section (1998-2002); American Cancer Society Cell Cycle Study Section (2000-03); Polycystic Kidney Foundation Grant Study Section (2004-07); Scientific Advisory Board, Children's Discovery Institute (2006 — ); Organizer, 12th International Conference on Cell and Molecular Biology of *Chlamydomonas* (2006); NIH Nuclear and Cellular Structure and Dynamics Study Section (2008-10); Executive Advisory Board, K12 Mentored Clinical Scientist Training Grant, Washington University (2007 — ); Chair, Gordon Conference (Plant and Fungal Cytoskeleton) (2008); Co-organizer, 1st and 2nd EMBO Conference on Centrosomes and Spindle Pole Bodies (2008, 2011). *Editorial Activities:* Associate Editor, *PLoS Genetics* (2004 — ); Associate Editor, *GENETICS* (2006-08); Guest Editor, *GENETICS* Special Issue on *Chlamydomonas* Genomics (2008); Senior Editor, *GENETICS* (2008 — ).

**Major Research Interests:** We use *Chlamydomonas reinhardtii* to study centrioles/basal bodies and cilia/flagella using genetics, biochemistry, microscopy, and computational biology techniques to understand how they are assembled and function. *Chlamydomonas* serves as an outstanding model for numerous human ciliopathies.

**Website:** <http://www.genetics.wustl.edu/sdlab>



vote

## DIRECTOR (vote for one)

### • Elizabeth (Beth) A. De Stasio, Ph.D. •

Raymond J. Herzog Professor of Science, Professor and Chair of Biology, Lawrence University, Appleton, Wisconsin.

**Candidacy Statement:** I have in my files an article from *Organic Gardening* magazine that lists the top 10 reasons that genetically modified foods should not be used. One of these reasons states that people should not eat DNA! Public misunderstandings such as thinking that only GMOs contain DNA motivate my outreach activities and my teaching of undergraduate students, both those who plan to be biologists and particularly those who may only take one college level biology course. I will bring my passion for genetics education and outreach to the board of the GSA. It is our responsibility to be sure that education evolves along with genetic technologies and their applications.

**Advanced Degree(s):** Ph.D. Biology and Medicine, Brown University (1988).

**Career Summary:** Postdoctoral Training: University of Wisconsin-Madison (1989-92). Faculty

Appointments: Department of Biology, Lawrence University, Assistant Professor (1988-89; 1992-98), Associate Professor (1998-2009), Director of Freshman Studies, Lawrence University (2002-04); Faculty Associate to the President, Lawrence University (2006-07); Faculty Director, Lawrence University London Centre (2008); Professor (2009 — ), Biology Department Chair (2009 — ). Post-Postdoctoral Training (sabbatical research): Massachusetts Institute of Technology, Lab of H. Robert Horvitz (2000-01) and Karolinska Institute (Sweden), Lab of Peter Swoboda (2009).

**Honors and Awards:** Barry J. Rosen Memorial Award in Molecular Biology for Doctoral Dissertation of Outstanding Merit, Brown University; Robert G. Sampson Neuromuscular Disease Fellowship (Muscular Dystrophy Association Post-doctoral Fellowship); Award for Excellence in Teaching Freshman Studies (Lawrence University, 1994); Excellent Young Teacher Award (Lawrence University, 1996); Fulbright Fellowship for Research (2009).

**Professional Service Activities:** Textbook content reviewer (high school and college level biology texts) for WH Freeman, Prentice Hall/Simon & Schuster, Houghton Mifflin (1988 — ); Member, NSF Cell Biology panel (1997-2000) ad hoc reviewer 1993-2003; Panel member, Developed and taught laboratory courses (AP Summer Institutes) for high school teachers on subjects ranging from evolution to molecular genetics (1997, 2003, 2005); NSF minority post-doctoral program (2006-08); GRE Biochemistry, Cell & Molecular Biology Test Development and Review (2008 — ). My main professional service is the training of undergraduate students, both students who work in my lab and go on in science and those who take my non-majors course and become more conversant and comfortable with recent advances in biology. To date, 71 students trained in my lab for periods ranging from one summer to five years. Of those students, 86% have gone on to earn an advanced degree; 70% have earned terminal degrees (PhD or MD).

**Major Research Interests:** Using molecular genetic approaches to learn how muscle contraction is controlled in *C. elegans* and, just recently, how synapses are maintained as *C. elegans* age. I maintain a fondness for any work being done on genetic and catalytic roles of RNA from my graduate work on ribosomal RNA structure and function. I also have a strong interest in creating investigative labs for undergraduate courses that meet pedagogical and course content needs.

**Websites:** <http://www.lawrence.edu/fast/destasie/>

[http://www.lawrence.edu/dept/biology/biology\\_department/faculty\\_pages/beth\\_de\\_stasio.shtml](http://www.lawrence.edu/dept/biology/biology_department/faculty_pages/beth_de_stasio.shtml)





## • Patricia Jean Pukkila, Ph.D. •

Professor of Biology, Member, Curriculum in Molecular Biology and Genetics, and Director, Office for Undergraduate Research, University of North Carolina at Chapel Hill.

**Candidacy Statement:** I welcome the opportunity to contribute to the Genetics Society of America by serving on the Board of Directors. I am particularly interested in the educational mission of our Society because I believe that the GSA could become even more influential in three key areas: the Genetics Education section of our journal, the education sessions we organize at GSA-sponsored conferences, and public outreach, particularly for conveying the excitement and value of science to our elected officials.

**Education:** B.S. with honors, University of Wisconsin (1970); Ph.D., Yale University (1975).

**Career summary:** Postdoctoral Fellowships: National Institute for Medical Research, London, England (1975-77); Harvard University (1977-79). Faculty Appointments: Department of Biology, University of North Carolina at Chapel Hill: Assistant Professor (1979-86), Associate Professor (1986-2006), Professor (2007 — ).

**Honors and Awards:** Phi Beta Kappa (1969); Chancellor's Tanner Award for Excellence in Undergraduate Teaching (1990); Bowman and Gordon Gray Associate Professorship for Excellence in Undergraduate Teaching (1993-96); Fellow, American Association for the Advancement of Science, 2005; American Society for Cell Biology, Bruce Alberts Award for Excellence in Science Education, 2007.

**Professional Service Activities:** GSA Nominating Committee (1985); NSF Cell Biology Advisory Panel (1988-93); British Mycological Society Vice President (1997); NSF Microbial Genetics Advisory Panel (1998-99); Founding Director, Office for Undergraduate Research, UNC-Chapel Hill (1999 — ); Fungal Genome Initiative Advisory Board (2001-03); University of North Carolina System, Undergraduate Research Consortium (2001 — ) (organized biannual undergraduate research symposia for the NC state legislature 2001, 2003, 2005, 2007, planned for 2011); American Society for Cell Biology Education Committee (2002-05); Council on Undergraduate Research, At-Large Division/Program Director's Division Councilor (2002 — ), Co-organized a concurrent session on education at the biannual Fungal Genetics conference (2003, 2005, 2007, 2009), GSA Education Committee (2004-07), Biology Scholars Program Writing Residency Advisory Committee, 2007-10. *Editorial Board(s):* *GENETICS* (1990 — ); Editor, Genetics Education section (1999 — ).

**Major Research Interests:** Mechanisms in meiosis and chromosome pairing; fungal genomics.

**Website:** <http://www.bio.unc.edu/Faculty/Pukkila/>; <http://www.unc.edu/depts/our/>



## DIRECTOR (vote for one)

## • Thomas J. Silhavy, Ph.D. •

Warner-Lambert Parke-Davis Professor of Molecular Biology, Princeton University.

**Candidacy Statement:** I am a bacterial geneticist and as a GSA director I would like to increase the visibility of bacterial genetics in the GSA. I would also like to advocate for stable funding for genetics research, particularly through the time-proven method of investigator-initiated research.

**Advanced Degree:** Ph.D. Biochemistry, Harvard University (1975).

**Career Summary:** Postdoctoral Training: Harvard Medical School (1975-77). Instructor: Harvard Medical School (1977-79); Laboratory Director, NCI-FCRF (1979-84); Professor, Princeton University (1984 — ).

**Honors and Awards:** Summa cum laude, Ferris State College (1971); Honorary Doctor of Science Degree, Ferris State College (1982); President's Award for Distinguished Teaching, Princeton University (1993); Fellow of the American Academy for Microbiology (1994); Division H Lecturer, American Society for Microbiology (1995); NIGMS MERIT Award (1999); Graduate Microbiology







Teaching Award, American Society for Microbiology (2002); Graduate Advising Award, Princeton University (2003); Fellow of The American Association for the Advancement of Science (2004); Fellow of the American Academy of Arts and Sciences (2005); Member of the National Academy of Sciences (2005); The Novitski Prize for Extraordinary Creativity, Genetics Society of America (2008); Associate Member of the European Molecular Biology Organization (2008).

**Professional Service Activities:** Instructor, Advanced Bacterial Genetics, Cold Spring Harbor Laboratory (1981-85); Member, NIH Microbial Physiology and Genetics Study Section (1985-89); Member, Peer Review Committee, Life Sciences Research Foundation (1985 — ); Member, Board of Trustees, Cold Spring Harbor Laboratory (1987-90); Program Director, Genetics & Molecular Biol. Predoctoral Training Grant, NIH (1987-2003); Co-Director, Life Sciences Research Foundation, (1989 — ); Director, Graduate Studies, Molecular Biology Dept., Princeton University (1989-2003); Division Chair, Genetics and Molecular Biology, American Society for Microbiology (1992); Chair (1996-98), Member, NIH Genetic Basis of Disease Study Section (1993-98); Chair, Bacterial Cell Surfaces, Gordon Research Conference (1996); Editor, *Journal of Bacteriology* (1999 — ); Organizer, Molecular Genetics of Bacteria & Phages Meeting, Madison, WI (2000-02); Committee on Election to Fellowship, American Academy of Microbiology (2008-13). *Editorial Boards:* Member, *Journal of Bacteriology* (1988-90); Member, *Journal of Biological Chemistry* (1989-94); *Proceedings of the National Academy of Sciences* (2006 — ).

**Major Research Interests:** Protein targeting and signal transduction in bacteria, especially *E. coli*. Current work is focused on the mechanisms of outer membrane biogenesis and the regulatory systems that sense and respond to envelope stress and trigger the developmental pathway that allows cells to survive starvation.

**Website:** <http://www.molbio.princeton.edu/index.php?option=content&task=view&id=236>

## • Mary Ann Osley, Ph.D. •

Professor, Department of Molecular Genetics and Microbiology, University of New Mexico School of Medicine, Albuquerque, New Mexico.

**Candidacy Statement:** After reading a commentary about the “challenge of model organisms,” I was struck anew about the need to overcome the perception that molecular genetic research involving organisms such as my favorite, budding yeast, has seen its best days. I firmly believe that model organism research will continue to provide new insights into chromosome structure and function, and particularly in the areas of gene, protein, and metabolic networks. As Director, I will work with other GSA Board members to develop approaches to keep the focus on organisms that have provided us with a deep understanding of fundamental cellular mechanisms.

**Advanced Degrees(s):** Ph.D. Microbiology, Yale University (1974).

**Career Summary:** Postdoctoral Training: Princeton University (1974-79); Research Associate, Dana Farber Cancer Institute, Harvard Medical School (1979-87). Faculty Appointments: Assistant Member (1987-91), Associate Member (1991-2000), Molecular Biology Program, Sloan

Kettering Cancer Center; Professor, Department of Molecular Genetics and Microbiology, University of New Mexico School of Medicine (2000 — ); Co-Director, Cancer Biology and Biotechnology Program, University of New Mexico Cancer Center (2004 — ).

**Honors and Awards:** NSRA Fellowship.

**Professional Service Activities:** *Editorial Boards:* *Molecular and Cellular Biology* (1988-90; 2006-11); *BBA Gene Regulatory Mechanisms* (2006 — ). Meeting Organizer: Organizer, New York Area Yeast Molecular Biology and Genetics Meeting (1989-96). Review Activities: NIH Microbial Physiology and Genetics II (1994-97); NIH MBC (2008-11); NCI Special Manpower Training (2000-04); NSF Biochemistry of Gene Expression.

**Major Research Interests:** Genetics and molecular biology of chromatin structure and function in budding yeast during transcription, DNA repair, and replication.

**Website:** <http://hsc.unm.edu/som/micro/maryann.shtml>





## DIRECTOR (vote for one)

### Sue Jinks-Robertson, Ph.D.

Professor, Department of Molecular Genetics and Microbiology, Duke University Medical Center, Durham, North Carolina.

**Candidacy Statement:** Being elected to the board of the GSA will provide a unique opportunity to give back to the genetics community and to become involved in genetics-related societal issues. While the publication of *GENETICS* and the organization of meetings remain key functions that directly support GSA members, the impact of genetics has spread well beyond the scientific community during the last 20 years. It is important that the GSA continue to promote the teaching of genetics at all education levels and to provide an informed and balanced view of genetics-related issues to policymakers and to the general public.

**Advanced Degree:** Ph.D. Genetics, University of Wisconsin, Madison (1983).

**Career Summary:** Postdoctoral training: University of Chicago (1983-86). Faculty appointments: Department of Biology, Emory University, Assistant Professor (1987-93), Associate Professor (1993-99), Professor (1999-2006); Department of Molecular Genetics and Microbiology, Duke University Medical Center, Professor (2006 — ).

**Honors and Awards:** Phi Beta Kappa; NRSA postdoctoral fellowship; Albert E. Levy faculty research award (1992); Winship Distinguished Research Professor (2005).

**Professional Service Activities:** Meeting organization: Vice-chair (1999) and Chair (2001), *Recombination and Genome Rearrangements* FASEB Summer Research Conference; Vice-chair (2004) and Chair (2006), *Mutagenesis* Gordon Research Conference. Board member, Genetics Society of Georgia (1987-91). **Editorial Boards:** Associate Editor, *GENETICS* (1993-97); Editorial Board, *DNA Repair* (2001-08); Associate Editor, *DNA Repair* (2008 — ). **Review Activities:** NIH-BIOL-1 Study Section (1996-2000), Genetics Study Section (2002-04), MGC Study Section (2004-06, chair 2005-06), EUREKA Awards (2009).

**Major Research Interests:** Regulation of genome stability, using budding yeast as a model genetic system. Current interests include the regulation of mitotic recombination fidelity and outcome; molecular mechanisms of spontaneous mutagenesis; effects of high levels of transcription on genome stability.

**Website:** <http://jinks-robertsonlab.duhs.duke.edu/>

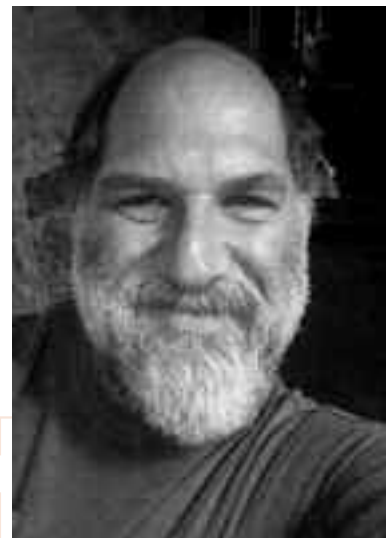


### Clifford F. Weil, Ph.D.

Professor, Dept. of Agronomy and Whistler Center for Carbohydrate Research, Purdue University, West Lafayette, Indiana.

**Candidacy Statement:** Genetics increasingly impacts everyday life, yet sequencing whole genomes is now easier than understanding how best to use the flood of information. Geneticists need to assume a much greater role in helping the public and our leaders understand our goals, our discoveries and the application of those discoveries. Along with current GSA programs, my aims are 1) making GSA the premiere resource the public turns to for understanding the uses of genetics, from government to schoolchildren, and 2) creating interdisciplinary ventures with other professional societies (“cross-fertilizing” symposia, joint lobbying efforts, etc.) to develop and support novel, collaborative research areas involving genetics.

**Advanced Degrees:** B.S., Genetics, University of California, Davis (1978); Ph.D., Genetics and Development, Cornell University (1984).





**Career Summary:** Postdoctoral Training, Ohio State University, genetics of cell biology and genetics of Archaea; Postdoc, Univ. of Georgia, maize transposon biology; Asst. and Assoc. Professor, University of Idaho, 1992-2001; Assoc and Full Professor, Purdue University, (2001 — ).

**Honors and Awards:** Elected Fellow, American Association for the Advancement of Science (2006); Seeds of Success Research Award (2003, 2006, 2008); University of Idaho Alumni Association Award for Faculty Excellence (student nominated) (1998).

**Professional Service Activities:** Reviewer activities: USDA NRI Plant Genetic Mechanisms Grant Panel (3X), Panel Manager (2X), NSF Eukaryotic Genetics Grant Panel (6X), Site review teams for NSF, USDA/CSREES, Ad hoc reviews for USDA-NRI, NSF, NIH, NSERC, Ontario (Eukaryotic Genetics, Developmental Biology, Integrative Plant Biology, Plant Genome Research, Microbial Genetics, Plant Genetic Mechanisms, Plant Development and Genomics Panels); Manuscript reviews for *GENETICS*, *Science*, *Plant Journal*, *The Plant Cell*, *Proceedings of the National Academy of Sciences*, *Mutation Research*, *Molecular Genetics and Genomics*, *BMC Genetics*, *BMC Plant Biology*, *Plant Physiology*, *Theoretical and Applied Genetics*, *New Phytologist*, *Photosynthesis Research*, *Planta*. Advisory Boards: NSF Maize Inflorescence Project (2008 — ); **Editorial Boards:** *Plant Genomes and Systems Biology* (2006-08), Bioenergy Research (2007 — ); Meeting co-organization: Maize Genetics Steering Committee (1998-2000), 1st and 2nd Int'l Conf. on Plant DNA Repair and Recombination (2007, 2010).

**Major Research Interests:** Genetics of DNA repair, recombination and transposons in plants; combining known mutants with natural genetic diversity to identify genetic networks; high throughput functional genomics in crop species; genetics of carbon partitioning in plants.

**Website:** <http://www.ag.purdue.edu/agry/Pages/cweil.aspx>

## DIRECTOR (vote for one)

### Utpal Banerjee, Ph.D.

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 will benefit the community at large based on my experience as Past President of the Drosophila board. First, the GSA could play an even more important role in education. Genetics, in its traditional and more modern form, is a powerful educational tool. I would like to propose promoting new programs, including the creation of a companion online Genetics Education Journal. Second, the acute need for support of community based research programs and collections of generated reagents needs to be highlighted. Funding agencies supporting such enterprise is dwindling while the need for such centers is exploding. Finally, I think GSA should lead an effort to create more interactions and collaborations at an international level to find common solutions.

**Advanced Degrees:** Ph.D., Chemistry (1984), Postdoctorate, Biology (1984-88), CALTECH

**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:** Elected Fellow, American Academy of Arts and Sciences (2008); Elected President, Drosophila Board (2006); HHMI Professors Award (2002; 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:** 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); 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:** Drosophila Developmental Biology; Signal Transduction, Metabolic Control and Cell fate determination in the Drosophila eye and in hematopoiesis. Metabolic control of stem cell fate.

**Websites:** Research: <http://www.mcdb.ucla.edu/research/Banerjee/> ; Education: <http://www.bruinfly.ucla.edu/>

## Kenneth Paigen, Ph.D.

Professor and Executive Research Scientist, Jackson Laboratory, Bar Harbor, Maine.

**Candidacy Statement:** Genetics is in the unusual position of absorbing both a new conceptual paradigm, the RNA coding genome, and the impact of high throughput technologies for analyzing DNA sequences and levels of gene expression. I hope to bring the benefit of my own experiences as a researcher across a variety of organisms (Lambda, *E. coli*, Drosophila, mice and humans) and as an administrator, to the GSA to help us face these special challenges by disseminating new information in ways that are targeted to a researcher's needs and by facilitating the human interactions among researchers that create synergistic collaborations.

**Education:** A.B. honors (Biology), Johns Hopkins University (1946); Ph.D. (Biology), California Institute of Technology (1950). LL.D., Bowdoin College (2004).

**Career Summary:** Postdoctoral Training: Cold Spring Harbor Laboratory (1950-52); Harvard Medical School (1952-53); University of California, Berkeley (1953-55). Faculty Appointments: Roswell Park Memorial Institute: Senior Scientist (1955-58), Associate Scientist (1958-62), Principal Scientist (1962-66), Associate Chief Scientist (1966-72), Chair (1972-82), Dept of Molecular Biology, University of California, Berkeley: Professor and Chair, Department of Genetics, Graduate Group in Genetics (1982-1989). Jackson Laboratory: Director (1989-2002), Professor and Executive Research Scientist (2002-09).

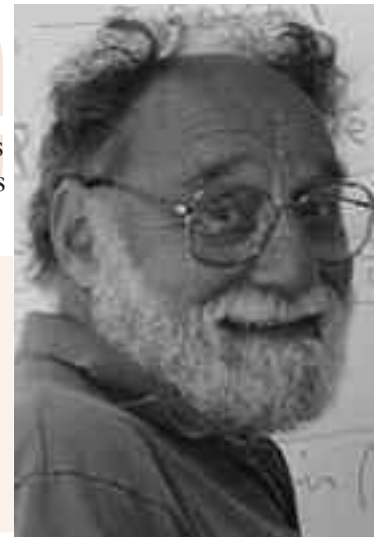
**Honors and Awards:** USPHS Pre- and Postdoctoral Fellowships; Fellow, AAAS; Visiting Professor, National University of Mexico; Visiting Scholar, University of Michigan; EMBO Lecturer, Pavia, Italy; Plenary Lecture, Gordon Conference on Lysosomal Biology; Lecturer, Evolutionary Processes and Theory, Jerusalem, Israel; Chapman Lecturer, International Mammalian Genome Society; Sr. Fulbright Fellow, Institut Pasteur.

**Memberships:** AAAS, American Association of Cancer Research; American Chemical Society; American Society Biol. Chemists; American Society of Microbiologists; Biophysical Society; Genetics Society of America; International Mammalian Genome Society; Human Genome Organization (HUGO).

**Professional Service Activities:** *Editorial Boards:* GENETICS, Annual Reviews of Genetics, Journal of Bacteriology, Journal of Virology, Biochemical Genetics. *Advisory Boards:* Board of Directors Genetics Society of America (1984-86), National Center for Toxicological Research; USA-Israel Bi-National Science Foundation; NCCR Directors Review Committee. *Review Activities:* NIH Genetics Study Section; Reviewer for GENETICS, J. Bacteriology, J. Virology, Mammalian Genome, PNAS, PLoS Biology, PLoS Genetics, Nature.

**Major Research Interests:** Mammalian recombination, with a particular emphasis on the regulation of both regional and local recombination rates in mice, including identification of trans-acting factors controlling the location and activity of individual recombination hotspots. Also, computational analysis of the human and other genomes for the relationship between gene function and gene location.

**Website:** [http://research.jax.org/faculty/ken\\_paigen.html](http://research.jax.org/faculty/ken_paigen.html)



**A**nnual Reviews has offered comprehensive, timely collections of critical reviews written by leading scientists since 1932. Annual Reviews journals review 37 focused disciplines within the Biomedical, Life, Physical, and Social Sciences.

Consistently ranked within the top ten of journals for their disciplines as indexed by the ISI® Journal Citation Reports (JCR®), Annual Reviews journals are among the most highly cited in scientific literature.

**INSIGHTFUL  
RESEARCH IN  
GENETICS STARTS  
WITH ANNUAL  
REVIEWS**

**Genetic Society of  
America Members Save!**

**Order Today and  
Save on All Annual  
Reviews Journals.**

Discounted pricing available for GSA Members. Orders should be placed through the offices of the GSA.

Access these and all  
Annual Reviews journals  
immediately via your  
institution's subscription at:  
[www.annualreviews.org](http://www.annualreviews.org)

**Annual Review of Genetics**

VOLUME 43, DECEMBER 2009 | AVAILABLE ONLINE & IN PRINT | [HTTP://GENET.ANNUALREVIEWS.ORG](http://GENET.ANNUALREVIEWS.ORG)  
ISSN: 0066-4197 | ISBN: 978-0-8243-1243-5 | REGULAR PRICE (WORLDWIDE): \$84

**Editor: Allan Campbell, Stanford University**

*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**

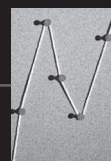
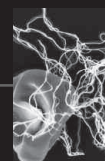
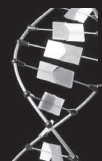
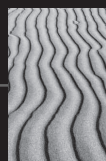
VOLUME 10, SEPTEMBER 2009 | AVAILABLE ONLINE & IN PRINT | [HTTP://GENOM.ANNUALREVIEWS.ORG](http://GENOM.ANNUALREVIEWS.ORG)  
ISSN: 1527-8204 | ISBN: 978-0-8243-3710-0 | REGULAR PRICE (WORLDWIDE): \$84

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

*Annual Review of Genomics and Human Genetics*, in publication since 2000, covers significant developments in the field of genomics as they apply to human genetics and the human genome. We have particular interest in the areas of genomic technology, genome structure and function, genetic modification, human variation and population genetics, human evolution and, importantly, all aspects of human genetic disease and including individualized 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.

*Institutional pricing and site license options available. Contact Annual Reviews for details.*





**G A** The Genetics Society of America Conferences

**51ST ANNUAL**

# **Drosophila Research Conference**

**April 7-11, 2010  
Marriott Wardman Park  
Washington, DC**

## **Important Dates:**

**November 30, 2009**  
Deadline for Workshop Request

**December 4, 2009**  
Deadline for Abstract Submissions

**February 18, 2010**  
Deadline for Early (Discounted)  
Conference Registration

**March 16, 2010**  
Deadline for Hotel Reservations

## **Plenary Speakers**

Eric Baehrecke	Elisabeth Knust
Lynn Cooley	Antonia Monteiro
Chiara Cirelli	Craig Montell
Elizabeth Chen	DJ Pan
Sharyn Endow	Ting Xie
Ken Irvine	Larry Zipursky

**[drosophila-conf.org](http://drosophila-conf.org)**

## **Getting a Job at an Undergraduate Institution:**

*Continued from page 2*

who can work anywhere, but they choose to go to a place where they can do teaching and research because they are really excited about the opportunity to completely blend research and teaching.”

In addition, attendees were warned of the rigor of the first year. Phil Meneely, of Haverford College, commented, “In your first year, you will work harder than you ever worked in your life! Now, can you balance your family? Yeah. That’s one of the great attractions – that they are more friendly to families. But you will work like a dog because you are not used to deadlines, that there’s an exam scheduled on Friday and you actually have to write the exam!”

Individuals interested in pursuing a career at a PUI were encouraged to consult the publication, “How to Get a Tenure-Track Position at a Predominantly Undergraduate Institution,” by Michelle M. Bushey, Ph.D., Deborah E. Lycan, Ph.D. and Patricia E. Videtich, Ph.D, available on the Council On Undergraduate Research website ([www.cur.org](http://www.cur.org)).

\* \* \* \*

This and two other workshops, and a teaching poster session at the *C. elegans* meeting were sponsored by the *C. elegans* Teaching Group, a community of research scientists who have a passion for and dedication to teaching undergraduates. Typically, the approximately 100 faculty members within the group have heavy teaching loads at their mostly liberal arts colleges, comprehensive state universities, and a few major research institutions.





# Thank You to Our Donors

The Genetics Society of America extends its thanks to the 25 members who have made a financial contribution to the Society from April to July 2009. These donations help the Society support travel grants and educational opportunities for graduate students and postdoctoral fellows at GSA-sponsored meetings.

Please join your colleagues in supporting the next generation of geneticists by making a donation to GSA with a check made payable to "The Genetics Society of America" with "donation" written in the memo and mailed to Sherry A. Marts, PhD, Executive Director, GSA, 9650 Rockville Pike, Bethesda, MD 20814. Or, donate online at the GSA website, [www.genetics-gsa.org/pages/donate\\_gsa.shtml](http://www.genetics-gsa.org/pages/donate_gsa.shtml) when you renew your membership for 2010. We thank you in advance for your generosity.

## Boosters (\$100+)

Corinne A. Michels, Queens College, City University of New York, Flushing  
 Jon A. Seger, Univ of Utah, Salt Lake City  
 Anne O. Summers, Univ of Georgia, Athens

## Supporters (\$50-99)

Perry B. Cregan, USDA, ARS, Beltsville, MD  
 Winifred W. Doane, Arizona State Univ, Tempe  
 Martha B. Fay, Savannah, GA  
 Yasumi Ohshima, Sojo Univ, Kumamoto, Japan

## Friends (\$1-49)

Mohammad Taissir Alnouri, Garden Grove, CA  
 Alexandre Benedetto, LCN, Univ College London, United Kingdom  
 Dean S. Dawson, Oklahoma Medical Research Foundation, Oklahoma City  
 Eric S. Haag, Univ of Maryland, College Park

Pamela Koo, Texas A&M, College Station  
 Anne Larencon, CGMC, UMR, Univ of Lyon, Villeurbanne, France  
 Patrick Laurent, MRC-LMB, Cambridge, United Kingdom  
 Robyn Lints, Texas A&M, College Station  
 Diana W. Martin, Rutgers Univ, Somerset, NJ  
 Miriam Meisler, Univ of Michigan, Ann Arbor  
 David M. Miller, Vanderbilt Univ School of Medicine, Nashville, TN  
 Junichi Nikawa, Kyushu Institute of Technology, Fukuoka, Japan  
 Corey Nislow, Banting & Best Institute, Univ of Toronto, Ontario, Canada  
 Sheila Cecily Ommeh, ILRI, Nairobi, Kenya  
 Sean M. O'Rourke, Univ of Oregon, Eugene  
 Dejerianne Ostrow, Univ of Florida, Gainesville  
 Pamela A. Padilla, Univ of North Texas, Denton  
 Olena K. Vatamaniuk, Cornell Univ, Ithaca, NY



## DROSOPHILA CHAMBERS

Drosophila chambers offer a comfortable and controlled environment for raising, breeding, or experimenting with fruit flies and other flies within the genus. These chambers have a 1.5-30°C temperature range, with digital control and display, and high/low temperature failsafes to protect in the unlikely event of a temperature excursion. Casters, four epoxy coated shelves per door, and Electrofin™ coated evaporator coils are standard features.

Because different fly species, or research with them, demand differing levels of temperature/humidity/lighting control, four levels of control are offered on most chamber sizes. When requesting a price quotation, please specify the chamber Model Number and the level that interests you.

**Level 1** - Chambers have glass door(s) for light penetration, interior door light(s) with on/off switch, and an RH meter. A pan of water can be placed on the stainless steel bottom of the chamber for moisture.

**Level 2** - Chambers have solid door(s), with one clock controlled light per shelf, and an RH meter. A pan of water can be placed on the stainless steel bottom of the chamber for moisture.

**Level 3** - Chambers have a stainless steel interior, solid door(s), one clock controlled light per shelf, RH meter, and a tap water fed humidistat to raise the relative humidity to a setting above chamber ambient.

**Level 4** - Chambers have a stainless steel interior, solid door(s), one clock controlled light per shelf, and microprocessor-controlled additive humidity with digital display. [Choice of tap water RH generator or ultra pure DI water RH generator.]

Options such as a temperature alarm, 60°C mite cycle, multiple point temperature control, clock controlled door lights, horizontal airflow, fresh air intake, higher intensity lighting, additional shelves, and stainless steel exterior are also available. Please check out our accessories sheet.



Model	Style	Levels Offered	Capacity cu ft/liters	Dimensions Exterior** in/cm	Dimensions Interior in/cm	# Shelves (Level 2, 3 & 4)	# Lights (Level 2, 3 & 4)	Electrical** (domestic)	HP Required	Shipping weight lbs/kg
DROS27SD		1, 2	6 / 170	32/81 W 24/61 29/74 D 19/48 30/76 H 24/61		2	2	115/60/1 15A	1/5	150 lbs
DROS33SD		1, 2, 3, 4	25 / 707	33/84 W 29/74 29/74 D 25/64 79/200 H 55/140		4	4	115/60/1 15A	1/3	350 lbs
DROT52SD		1, 2, 3, 4	30 / 850	52/132 W 29/74 31/79 D 25/64 75/190 H 69/175		4	4	115/60/1 15A	1/3	550 lbs
DROS52SD		1, 2, 3, 4	42 / 1190	52/132 W 48/123 31/79 D 24/61 79/200 H 55/140		8	8	115/60/1 20A	1/3	550 lbs
DROS72SD		1, 2, 3	55 / 1560	72/183 W 66/168 31/79 D 24/61 79/200 H 55/140		8	8	115/60/1 20A	1/2	700 lbs

\*Height without casters. Irreducible cabinet height is 75".  
 \*\*Electrical requirements will be greater for chambers requiring RH control [Levels 3 and 4].

Powers Scientific, Inc. Toll Free 800-998-0500 • Ph. 215-230-7100 • Fax 215-230-7200

# The Life Sciences Research Foundation: **MOVING** Into Its Second Generation

*Continued from page 8*

Through the years contact between the LSRF fellows and the sponsors has grown. The program has an annual fall meeting, which includes guest speakers; first and second year fellows give poster presentations, while third year fellows give 10-minute talks about their research. The meeting is also an opportunity for sponsors to recruit fellows for positions. In addition to attending the fall meeting, "Every fellow must agree to visit the sponsor at least one day each year at the sponsor's initiative," notes Brown.

## Future Directions

With an alumni roster of nearly 400 fellows, Brown is now looking to them to help with the program. An east coast alumni reunion is planned for Boston this fall and will include some short scientific talks and time for social networking. Brown is also hoping alumni will either help fund or provide contacts for LSRF fellowships. After pouring so much of his time and energy into the program, Brown is interested in seeing this "baby" survive after his retirement. And he's sure with Koshland at the helm it will. "If it's in good hands, that's all I care about. And, I feel very confident with Doug in charge that the LSRF will be."

THE AMERICAN  
SOCIETY FOR  
CELL  
BIOLOGY

49<sup>th</sup>  
ANNUAL  
MEETING

December 5–9, 2009

San Diego Convention Center  
San Diego, CA

WHERE ELSE CAN YOU FIND...

**SCIENTIFIC BREADTH**

From the cell biology of disease to what is life?

**SCIENTIFIC DEPTH**

From cell division to cell death, from cell signaling to intracellular trafficking

**SCIENTIFIC STARS**

From Rudolf Jaenisch on stem cells, pluripotency, and nuclear reprogramming to Jennifer Lippincott-Schwartz on organelles

**SCIENTIFIC EDUCATION**

Spotlighting the undergraduate biology curriculum in the 21st Century

**SCIENTIFIC FUN**

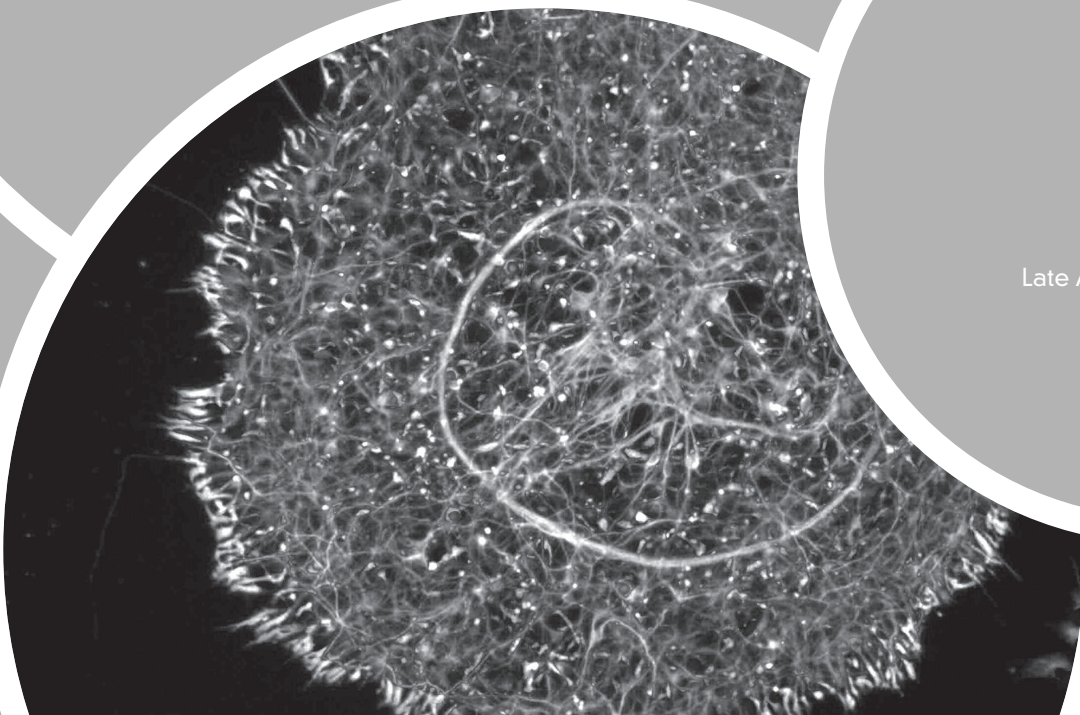
The one and only CellSlam...and Celldance: Only at the ASCB Annual Meeting  
Scientists explain their science and present their films; you *have* to be there!

**DON'T MISS IT!** | [www.ascb.org/meetings](http://www.ascb.org/meetings)

**IMPORTANT  
DEADLINES**

**OCTOBER 1**  
Early Registration

**OCTOBER 15**  
Late Abstract Submission





## Public Policy Update:

*Continued from page 24*

The NIH recently announced it will use ARRA funds to create jobs for early career scientists and increase the ranks of researchers and clinicians working in the global health field. With \$3 million in funding over the next 18 months, the NIH's Fogarty International Center will be able to support 23 additional participants in its Clinical Research Training Scholars and Fellows Program.

The scientific community has been presented with an unprecedented windfall that will truly advance our scientific knowledge. Yes, the scientific community will face challenges as a result of this windfall—there is truly no such thing as a free lunch. In the meantime, the community has an unprecedented opportunity to do some creative, visionary, and exciting new science.

The Coalition for the Life Sciences is now on Facebook! If you'd like to follow the news and information the CLS cares about, we encourage you to become a fan on our site. The Facebook site posts announcements regarding town hall meetings in congressional districts, alerts you to legislative action in Washington, D.C., that affects biomedical research, posts breaking news affecting biomedical research, and keeps you informed on the latest CLS activities.

---

## From the President's desk:

*Continued from page 1*

to mate, flies that have legs instead of antennae, and worms that have an abnormal cell lineage. Such studies created the foundation upon which virtually all current-day studies of human biology are based.

The development of new technologies makes it possible to understand model organisms at levels of unprecedented depth. Many topics of current interest, such as the high resolution analysis of transcriptomes and studies of complex traits, are common to model organisms and humans. Moreover, new technologies have allowed biologists to expand the set of model organisms that are studied in order to address new questions. Since genetic and functional studies that are common in model organisms are simply not possible with humans, model organism research will continue to play vital roles in major advances in our understanding of biology.

As part of our mission to support model organism research, the GSA is embarking on an effort to increase our dialogue with scientific officers at NIH. We will be asking for your help in this effort. While the NIH already believes that model organism research is important (see [http://www.nigms.nih.gov/Publications/modelorg\\_factsheet.htm](http://www.nigms.nih.gov/Publications/modelorg_factsheet.htm)), the GSA thinks that it is imperative to emphasize that model organism research is an essential part of the mission of the NIH. A subcommittee of the GSA board of directors is now drafting a document, to be presented to NIH officials, which will describe the areas of genetics research in model organisms that are most likely to lead to breakthroughs in understanding human biology and disease. This document will focus on genetics research on traditional model organisms, and on the potential from less commonly studied model organisms and newly emerging systems. Our hope is that the document and ensuing discussions will highlight the great value of model organism research in the post-genomic era, help to create more resources for our research, and contribute to the shaping of NIH study sections. Before presenting this document to NIH, we will be asking for your input and to share your visions of the impact of model organisms on human biology and diseases.

The GSA biennial meeting, "Genetics 2010: Model Organisms to Human Biology," also promotes the value of model organisms for understanding diverse aspects of human biology. We have just finalized the schedule for our next meeting, (<http://www.mohb.org>), which will be held June 12-15, 2010 in Boston. This meeting brings together investigators who study model organisms with those who study human biology and disease. It will be a dynamic forum for the exchange of results and ideas between scientists who do not normally interact. We already have a superb lineup of 39 speakers, with 18 more to be selected from among the submitted abstracts. The meeting site, the Sheraton Boston, has a huge space for poster sessions. We hope that you will attend. Whether you work on a model organism or human biology, your work is relevant and welcome.

Best regards,

Fred Winston  
President  
[society@genetics-gsa.org](mailto:society@genetics-gsa.org)





Genetics Society  
of America

9650 Rockville Pike  
Bethesda, MD 20814-3998

Non-Profit  
U.S. POSTAGE  
**PAID**  
Bethesda, MD  
Permit No. 4748

# Public Policy Update

*by Lynn Marquis, Director, Coalition for Life Sciences*

## In Defense of Stimulus Funding

After five years of flat funding for the National Institutes of Health (NIH), the NIH's funding outlook took a dramatic turn upward when it received \$10.4 billion in the American Recovery and Reinvestment Act (ARRA). The money is to be spent in the next two years, with the bulk designated for scientific research and educational programs. ARRA's principal goal, as it pertains to funds from the NIH, is to help stimulate the U.S. economy through the support and advancement of scientific research.

With such an unprecedented amount of money directed for use in biomedical research, questions and concerns abound: What will happen once the temporary funding is gone? Will the NIH be able to handle the large influx of grants this money has generated? Will any grant supported by ARRA be subject to renewal? Unlike other fields, such as those of infrastructure, road, and bridge construction, which also are in line to receive stimulus money, the scientific establishment is unaccustomed to such large, yet short-term infusions of funds.

Yet, even with the reservations regarding such an influx of funds, it is clear that the scientific community is embracing this opportunity, and the research-driven, economic engine is beginning to turn.

As universities and researchers apply for ARRA funding, every state and the District of Columbia are seeing ARRA-funded research grants create jobs, allow the purchase of equipment, and support science-related construction projects.<sup>1</sup>

Among the many research projects being funded in whole or in part by ARRA are:

- A study in Alaska to investigate obesity and chronic disease-related risk factors of Alaska Natives.
- A study in Oklahoma to investigate a clinic-based interdisciplinary intervention for parents of children with cancer.
- A study in Rhode Island to investigate electrical synapses in the mammalian brain.

And the applications keep rolling in. Secretary of Health and Human Service's Kathleen Sebelius proclaimed an explosion of grant applications through ARRA, including about 20,000 for the approximately \$1 million Challenge Grants—only 200–400 of which can be awarded.

<sup>1</sup> For a full list of projects, by state and congressional district, visit: <http://report.nih.gov/recovery/arragrants.cfm>