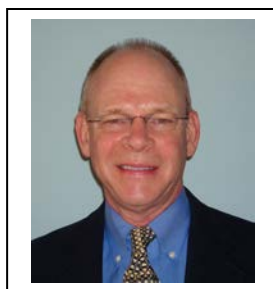


Molecular Biology Specialty Section



President's Message

I enjoyed seeing many of you at the 51st Society of Toxicology Annual Meeting in San Francisco. The great turnout at the specialty section meeting reflects the continued growth of the membership (now over 200 members). The officers are working to make MBSS as relevant as possible for all members but especially the graduate students and postdoctoral fellows who we support through our MBSS-sponsored awards. I was especially impressed by the quality of the submissions for our MBSS

awards. As in past years the awards were highly competitive, and it is an honor for the recipients who receive them. Many thanks to those who contributed their time to submit and judge the awards.

I would like to personally thank Craig Rowlands and his colleagues for organizing the first ever MBSS-sponsored Contemporary Concepts in Toxicology (CCT) meeting (see details below about the FutureTox meeting). Not only did the meeting highlight molecular toxicology and the MBSS but set the stage for the possibility of MBSS receiving additional funds through profit sharing. We hope this can translate into benefits to the graduate students and postdocs who receive awards.

The 2012 Nobel Prize in chemistry was recently awarded to Robert Lefkowitz at Duke University and Brian Kobilka at Stanford University for their work in uncovering the function of G-protein coupled receptors. There are close to 800 of these receptors but only 200 are functionally characterized. Not only are these receptors the targets of ~60% of all prescription drugs, but they are potential targets of environmentally-relevant chemicals. As molecular biologists we can take some pride in the fact that we belong to a group of scientists with the skills that made possible the elucidation of key features of these receptors. Many of the techniques that were used in these studies such as cloning and mutagenesis, we now take for granted. However, in this age of "omics" and reverse engineering, it is often overlooked that systems toxicology is only as good as our molecular understanding of the component parts of the system. What is needed now and far into the future are molecular biologists who can devise clever ways to more quickly elucidate adverse outcomes and determine human relevance. As a specialty section my hope is that we can continually increase our impact in toxicology by encouraging the training and providing inspiration for new generations of molecular biologists for the tasks ahead.

Officers

President

Chris Corton
*U.S. Environmental
Protection Agency*

Past President

Russell Thomas
*The Hamner Institutes for
Health Sciences*

Vice President

Nancy Denslow
University of Florida

Vice President-Elect

Craig Rowlands
Dow Chemical Company

Secretary-Treasurer

Aaron Rowland
*New Mexico State
University*

Councilors

Kristie Willett
University of Mississippi

Scott Auerbach
*National Institute of
Environmental Health
Sciences*

Student Representatives

Jessica Krystle Roberts
University of Utah

Britton Goodale
Oregon State University

Postdoctoral Representative

Igor Korturbash
NCTR

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In closing, it has been an honor for me to work on behalf of the membership this past year, and I will continue to support MBSS in the future. Feel free to contact me with your concerns and suggestions for strengthening the MBSS.

Sincerely,

Chris Corton (corton.chris@epa.gov)

Treasurer's Report

It is my pleasure to report that MBSS had a surplus of **\$2,645** from last year's meeting in San Francisco. This can be attributed to increased MBSS membership as well as conservative budgeting and spending practices. In the current report, I will highlight our funding sources for the general fund.

MBSS general funds are derived from three major sources: i) rollover from the previous year (\$5,073), ii) membership dues (\$2,520), and iii) registration fees (\$1,769). In addition, this year MBSS sponsored a Contemporary Concepts in Toxicology Workshop entitled "*FutureTox: Building the Road for 21st Century Toxicology and Risk Assessment Practices.*" Due to the success of this workshop, we anticipate some of the profits to come back to the MBSS general fund. We should be able to report the exact amount at the annual meeting. Overall we are in excellent financial shape going into the 2013 annual meeting. The most recent financial statement is listed below (for the 12 months ending June 30, 2012):

Ordinary Income/Expense

Income

Contributions	300
Membership Dues (\$15/member)	2,520
Registration	1,769
Interest	368

Total Income	4,956
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Expense

Awards - Sections	350
Reception	1,961

Total Expense	2,311
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Excess (Deficiency) of

Revenue over Expenses	2,645
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Net Assets Beginning of year	5,073
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Net Assets End of Year	7,718
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Dues Reminder

The annual Society of Toxicology membership deadline for dues is December 15th. Please remember to renew your membership to the Society of Toxicology and to the MBSS. Also, please encourage your graduate students, postdoctoral fellows, and colleagues to become members of MBSS.

2012 Annual Meeting Sessions Sponsored By MBSS

The MBSS was the primary sponsor of 4 scientific sessions at the 2012 Annual Meeting, as well as a secondary or tertiary sponsor of many more. We wish to thank the chairs, co-chairs and speakers in these sessions.

Symposia/Workshops:

Realizing the vision of 21st Century Toxicity Testing: Genetic approaches to pathway analysis. Co-Chairs: Chris Corton, U.S. Environmental Protection Agency and Lyle Burgoon, U.S. Environmental Protection Agency

Cross-Species Analysis of Toxicogenomics Data: Approaches for Assessing Differences in Sensitivity and Conservation of Mode-of-Action. Co-Chairs: Rusty Thomas, Hamner Institutes for Health Sciences and Craig Rowlands, Dow Chemical Company

The thick and thin of Nuclear Receptors and Nrf2 in Diabetes and Obesity. Co-Chairs: Angela Slitt, University of Rhode Island and Lauren Aleksunes, Rutgers University

How useful are liver in vitro models for toxicity and mode of action prediction? Co-Chairs: Chris Corton, U.S. Environmental Protection Agency and Wolfgang Decant, University of Würzburg

MBSS Endowment Fund Status and Contributors

In 2007, the Molecular Biology Student Award Fund was established and the initial goal of \$25,000 was met in order to make it a Permanently Restricted Net Asset Fund to support student and postdoctoral awards for future SOT meetings. At the end of 2011, our net assets reached \$32,420. Despite fluctuations in the financial markets and allocation of awards (\$1,300), the fund is fairly stable at \$32,707 as of June 30th, 2012. SOT has allotted 4% of this fund for the 2013 awards (\$1308.28), which are sufficient to fund the 2013 MBSS graduate student and postdoctoral awards. Thank you to all who have contributed so generously. For those who have not yet done so, please consider donating to continue supporting this award program. It provides recognition for the future leaders of the MBSS and the Society of Toxicology.

The 2012 – 2013 contributors to the Molecular Biology Student Award Fund were:

- Rusty Thomas
- J. Christopher Corton
- Ronald N. Hines and D. Gail McCarver

2012 Graduate Student and Postdoctoral Fellow Awards

The highlight of the MBSS reception at the annual meeting is the recognition of the graduate student and post-doctoral fellow award winners. The awards are extremely competitive and are an excellent way to enhance career development and become involved in the society. The awards were covered by our Molecular Biology Student Award Fund.

2012 Graduate Student Award Winners

- 1st Place: Laura MacPherson, University of Toronto, “2,3,7,8-tetrachlorodibenzo-p-dioxin-inducible poly(ADPribose) polymerase is a negative regulator of dioxin-induced aryl hydrocarbon receptor transactivation and a mono-ADP-ribosyltransferase,” Advisor: Jason Matthews.
- 2nd Place: Rachel Tanos, Penn State University, “The Ah receptor exerts a regulatory role in homeostatic control of cholesterol synthesis,” Advisor: Gary Perdew.
- 3rd Place (Tie): Britton Goodale, Oregon State University, “Polycyclic Aromatic Hydrocarbons Induce Distinct mRNA Expression Profiles in Developing Zebrafish,” Advisor: Robert Tanguay and Hong Loan Nguyen, Penn State University, “Peptide-mediated translational regulation of human microsomal epoxide hydrolase (Ephx1),” Advisor: Curt Omiecinski.

2012 Postdoctoral Award Winners

- 1st Place: Kristy Kutanzi, National Center for Toxicological Research (NCTR), “Epigenetic and miRNA



**1st Place Graduate Student
Laura MacPherson**



**2nd Place Graduate Student
Rachel Tanos**



**3rd Place Graduate Student
Britton Goodale**



**3rd Place Graduate Student
Hong Loan Nguyen**



**1st Place Postdoctoral Fellow
Kristy Kutanzi**



**2nd Place Postdoctoral Fellow
Indira Jutooru**

Dysregulation in Liver Non-genotoxic and Genotoxic Tumorigenesis,” Advisor: Igor Pogribny.

- 2nd Place: Indira Jutooru, Texas A&M University, “STAT3 regulation by Sp protein transcription factors in pancreatic cancer cells,” Advisor: Steve Safe.

MBSS Sponsors FutureTox: Building the Road for 21st Century Toxicology and Risk Assessment Practices

MBSS sponsored a two-day SOT-hosted Contemporary Concepts in Toxicology (CCT) Workshop called “*FutureTox: Building the Road for 21st Century Toxicology and Risk Assessment Practices*,” which was held October 17-18 in Arlington, VA. The over 200 attendees at FutureTox were from the academic, government, industry, and NGO sectors and came from as far away as Canada and the United Kingdom to participate. The two-day workshop was divided into four session themes that included (1) risk assessment roadmaps and methods for using 21st century methods, (2) toxicology testing in the 21st Century approaches for safety assessments and expectations for effective integration into and potential transition of existing safety assessment practices, (3) approaches for exposure assessments and links to toxicity test dosimetry with a particular focus on relationships to contextual dose-exposure considerations associated with high throughput *in vitro* evaluation systems and (4) reframing risk assessment practices with an emphasis on how emerging sciences can best impact and reshape current risk assessment practice. Attendees heard 32 presentations that spanned the gamut of these four topic areas.

Although the meeting finances are not yet complete, it is expected that FutureTox will meet or even exceed its financial objectives and any additional revenue will be co-shared between SOT and the sponsoring Molecular Biology Specialty Section.

For MBSS Postdoctoral Members

PDA Luncheon: All postdoctoral scholars are invited to this casual luncheon during the SOT meeting in San Antonio sponsored by the PDA. Highlights include: recognition of the Best Postdoctoral Publication awardees and postdoc recipients of Specialty Section and Regional Chapter awards, introduction of PDA board members for 2012-2013, overview of PDA accomplishments, and networking. The cost is \$10 to sign up. More information on this and other postdoctoral events during the SOT annual meeting can be found at <http://www.toxicology.org/AI/MEET/AM2013/studevent.asp>.

Joint PDA and GSLC Symposium: “Role of Systems Biology in Characterizing Risk of Developmental Origins of Disease.” This symposium will be held during the “Cellular and Molecular Mechanisms of Toxicity Gordon Research Conference” at the Proctor Academy in Andover, New Hampshire (August 10-16, 2013). Students and Postdoctoral Fellows are encouraged to submit their research. More information can be found at <http://www.grc.org/programs.aspx?year=2013&program=toxicity>.

For MBSS Graduate Students

YouTox Video Challenge: Why did YOU become a Toxicologist??????

The Graduate Student Leadership Committee is hosting a video contest! Students are asked to make a 5 minute video, answering the question, “Why did YOU become a Toxicologist?” Videos will be judged for creativity, originality and how well they answered the question. **CASH PRIZES** will be awarded to the 1st (\$300), 2nd (\$200) and 3rd (\$100) place videos! These videos will be showcased on the SOT website and at the annual meeting in March at the graduate student mixer. Video submissions can be in any format (i.e., PSA, music video, sitcom, soap opera, interview, etc.) as long as they are appropriate and the general public can understand the concept. Videos **SHOULD NOT** be summaries of student projects. Entries are due at **12:00 noon on Tuesday, January 15th 2013**. Contact Martha Lindauer at Martha@toxicology.org to submit your entry. If students have any questions, please contact Joy Cavagnaro (jcavagnaro@accessbio.com), Chrissy Grabinski (cmg98@case.edu) or Holly Hewitt (holly.hewitt@my.und.edu).

MBSS Needs You... To Serve as an Officer or Representative!

The MBSS election is held prior to the Annual Meeting. This year we will need to elect a new Vice President-Elect (total of 4 year commitment, VP-Elect, VP, President, Past President), a Jr. Councilor (2 year commitment), a Secretary-Treasurer (2 year commitment), a Junior Student Rep. (2 year commitment), and a Postdoc rep (1 year commitment). If you are interested in running for an officer position or would like to nominate someone please contact Nancy Denslow (ndenslow@ufl.edu) who will be coordinating the election this year. Anyone interested in running for office will need to submit a brief bio by December 15, 2012.

MBSS now elects Student and Postdoctoral Representatives through the annual ballot. This is a great opportunity for students and postdoctoral fellows to become more involved with the specialty section. The MBSS has two student positions, a junior and senior representative. Student Representatives therefore commit to a two-year term with the MBSS, with the Junior Representative also serving as the MBSS representative to the SOT Graduate Student Leadership Committee (GSLC). The GSLC facilitates the scientific and professional development of graduate students through networking, scientific programs and other SOT activities. Student Representatives are eligible to run for office within the GSLC and serve on its executive board following completion of service within their specialty section. If you wish to be considered for the MBSS Student Representative, you must be a full-time graduate student in good standing that can fulfill the two-year commitment of the position, and have interest in SOT policy and initiatives. The Postdoc Rep position is for one year and you must be a postdoctoral fellow from ~May 2013-May 2014.

Feel free to contact any of the MBSS officers with questions or visit the following website for details on officer responsibilities: <http://www.toxicology.org/ISOT/SS/molecular/MBSS.html>

2013 Annual Meeting Reception

The 2013 Annual Society of Toxicology Meeting is in San Antonio, Texas from March 10 – 14. The MBSS reception is on Wednesday evening, March 13th. Please plan on attending and supporting the specialty section and our graduate student and postdoctoral award winners.



2013 Annual Meeting Sessions Sponsored by MBSS

The MBSS is sponsoring two Symposia and one Workshop and is happy to endorse five additional chosen symposia, one workshop and two continuing education courses.

Sponsored Symposia

1. Toxicoeptigenomics, Disease Susceptibility and Implications for Risk Assessment, Co-Chairs: Kristi Kutanzi, FDA and Mukesh Verma, NIH
2. Understanding Toxicities of Abnormal Lipid Metabolism: Alcoholic, Nonalcoholic and Toxicant-Induced Fatty Liver Disease, Co-chairs: Mayur Mitra, Bristol-Myers Squibb and Min You, University of South Florida

Sponsored Workshop:

1. Biology of Low-Dose Response for DNA-Reactive Chemicals, co-chairs: Lynn Pottenger, Dow and Joanna Klapacz, Dow

Please add these Symposia, workshops to your schedules for the conference. They will be very interesting!

A Plea from the Vice President-Elect...

Although 2014 may seem like a long way off, the Society of Toxicology requires session proposals to be submitted shortly after the 2013 meeting. It is not too early to start thinking about innovative sessions that may contribute to the 2013 meeting. Please be aware that the MBSS officers are there to provide suggestions and assist you with the development and sponsorship of the proposals. We especially want to remind you that coordinating your submission early with the VP elect (Craig Rowlands, JCRowlands@dow.com) will allow us to provide feedback on the proposal prior to submission. This practice has proven invaluable over the past few years in terms of success rates for acceptance by the Program Committee. The MBSS leadership notes that one of the 2012 sessions was co-chaired by junior faculty members demonstrating that a winning symposium/workshop/CE course does not depend on the seniority of the co-chairs. Students and Postdocs are also strongly encouraged to communicate with the MBSS officers to develop any ideas they may have.

If you need more information on our specialty section,
please check out our web site:

<http://www.toxicology.org/ISOT/SS/molecular/MBSS.html>
