

President's Message

Welcome to the December issue of the Biological Modeling Specialty Section (BMSS) Newsletter. There are numerous opportunities in our discipline, as it is an integral part of the National Research Council's recommendations from "Toxicity Testing in the 21st Century". There are a number of new federal research initiatives in which modeling is an integral part. *In silico* activities at FDA/NCTR include: development of QSAR and SAR endocrine disruptor and liver toxicity databases; utilization of 3-dimensional protein and QSADockingR computations; development of BBDR modeling of the maturing thyroid axis; and construction of PBPK models for bisphenol A, methylphenidate and isoflavone. There are several new risk assessment initiatives involving biological modeling at the U.S.EPA involving the: Global to Genome (G2G) Project; Advancing to the Next Generation (NexGen) of Risk Assessment Project, the Virtual Liver Project; Virtual Embryo Tools and Models; and Developmental Toxicology (DevTox) Predictive Modeling.

I encourage you to log-in to ToXchange and to explore the resources now available to SOT/BMSS members. This past year BMSS first used ToXchange features including polling, surveying, announcements, and rapid distribution of E-Mails. The membership of BMSS was given the opportunity to propose professional activities at the 2011 SOT meeting reception, as well as to vote for the best modeling paper in 2010. Let's continue to increase the use of this resource to communicate about events, funding sources, planned and ongoing research projects, open modeling positions, modeling resources and other related announcements. Contact me (bruckner@rx.uga.edu) or Hisham El-Masri (el-masri.hisham@epa.gov) with information you would like to have included on ToXchange or in the next (February) BMSS Newsletter. Hisham is our Web Site Liaison and ToXchange Community Site Administrator.

Jim Bruckner
BMSS President

Election of New BMSS Officers

In 2012, we will elect three new BMSS Council members: (1) a Vice-President Elect (currently held by Cecilia Tan, who will become Vice President in 2012). Hisham El-Masri automatically becomes our President in the spring of 2012. (2) a Secretary Treasurer, to replace Jerry Campbell, who has done a fine job for the last two years; and (3) a Councilor, who will serve a 2-year term. BMSS members who would like to be considered to be a candidate for one of these offices are encouraged to send your name and a one-paragraph biosketch to Hisham El-Masri (el-masri.hisham@epa.gov) or Cecilia Tan (tan.cecilia@epa.gov) by Thursday, December 29, 2011. This is an extension of the December 20 deadline in a previous E-Mail from Hisham. The final list of candidates will be selected by a nominating committee of the BMSS Council, and voted on by the full BMSS membership in January, 2012.

Professional Activity at 2012 BMSS Reception

How did you like the tag-team presentations at the BMSS reception at the 2011 SOT meeting in Washington, DC? Jeff Fisher, Hugh Barton, Annie Jarabek, Lyle Burgoon, John Wambaugh and Nicole Kleinstrever each gave a short presentation on planned and ongoing modeling activities they were working on.

Ample food and drink will be provided at the 2012 reception as usual, so we can visit and get reacquainted, make new acquaintances, and even talk a little science. Members of the BMSS Council would appreciate your suggestion on a topic and speaker who is currently involved in interesting, innovative modeling work relating to risk assessment. Please contact Hisham (el-masri.hisham@epa.gov) or Cecilia (tan.cecilia@epa.gov) with your recommendation by **December 28, 2011**.

This year's BMSS reception at the SOT meeting in San Francisco, CA, is currently scheduled for Monday, March 12, from 6 – 7:30 pm at the Marriott Marquis Hotel.

2012 Perry J. Gehring Student Award for Excellence in Biological Modeling

If you are currently a graduate or postdoctoral student and presenting your research at the 2012 SOT meeting, consider applying for this award. It looks great on your C.V., beside the cash and plaque the winner receives. The 2011 winner was Anne Loccisano for her work entitled "Development of Human Gestation and Lactation PBPK Models for Perfluorooctonate (PFOA) and Perfluorooctonatesulfonate." Anne was a postdoctoral fellow under the direction of Mel Andersen and Harvey Clewell, at the Hamner Institute.

Each candidate, whose Abstract has been accepted for the 2012 SOT meeting, should submit the following: (1) a copy of the abstract; (2) a letter (2 page maximum) describing the significance and potential impact of the work on biological modeling and toxicology; and (3) a letter of support from the primary advisor. The application should be submitted as a single PDF file containing all supporting documentation. Candidates do not have to be a BMSS and/or SOT member to apply.

Research areas of interest include, but are not limited to: subcellular, cellular, tissue, organ, or whole body models of complex biological systems; PK and/or PD models; biological insights gained through model development and experimentation; statistical or quantitative computational approaches to predict toxicity or to estimate input parameters for dose response models. The winner will be selected by the BMSS Council. The deadline for submission of completed applications to Hisham El-Masri (el-masri.hisham@epa.gov) is **Monday, January 9, 2012**. This award is made possible by the Perry J. Gehring Biological Modeling Student Award Fund of the SOT Endowment.

2012 Best Modeling Paper Award

BMSS will give an award at the 2012 SOT Annual Meeting for the best biologically-based pharmacokinetic and/or pharmacodynamic modeling paper published in the peer-reviewed literature in hard copy or on-line in 2011. Papers will be judged on the basis of innovation, quality of modeling, quality of the manuscript, impact on the field, utility in toxicology/risk assessment, etc. The selection committee will search Medline and other databases to identify candidate papers. The top papers will be ranked and voted on by the selection committee. You are also encouraged to nominate a paper of your own or that of someone else you think will be competitive. Please E-mail a PDF of the published paper. If this is not possible, send its abstract and complete citation to Dr. Hugh Barton of Pfizer, Inc. at habarton@alum.mit.edu. The receipt deadline has been extended to **Thursday, December 29**.

BMSS Sponsor of CCT Workshop

BMSS will be a sponsor of a Contemporary Concepts in Toxicology (CCT) Workshop entitled "Breaking the Silos: Multiscale Integration Across Source to Outcome Pathways Using Computational Platforms. This workshop is being organized by the Mechanisms Specialty Section.

Contribute to the Perry J. Gehring Biological Modeling Student Award Fund

This is a "net asset restricted" endowment fund, which means that the net asset base cannot be spent. Only a percentage of the base is available each year to support and recognize students. In 2010 – 2011, SOT's Endowment Fund Board (EFB) authorized use of up to 4% (\$1,312) of the net assets of \$32,789. The most current balance is \$29,656, down from \$33,321 in July of 2011. The EFB authorized expenditure of \$1,332.83 in 2012.

The good news is that SOT/BMSS members can make tax deductible contributions to the fund to increase its net asset base, and thereby increase the funds available year each for student awards and support. As you review your tax deductible charitable contributions, please consider donating to this very worthwhile fund and to the future of our biological modeling graduate and postdoctoral students.

The 2011 BMSS Numbers Corner (as of 10/31/11)

Number of active members: 145 (increase of 5 over last year)
Operating Funds: \$11,783 (~ same as last year)
Gehring Fund Net Assets: \$29,656
Gehring Funds Available: \$1,332.83