

-NEWSLETTER-

Reproductive & Developmental Toxicology

A Specialty Section of the Society of Toxicology



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PRESIDENT'S MESSAGE

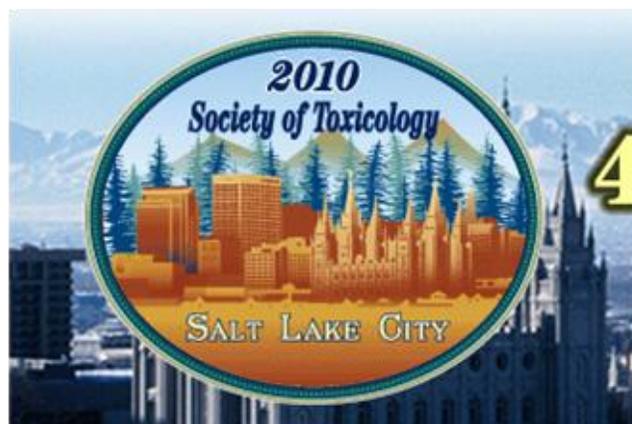
Greetings fellow RDTSS members: I hope you all had a wonderful summer with time spent enjoying family and outdoor pursuits. If you are like me, the end of summer isn't received very well, as it reminds me that winter is not far away. I therefore reluctantly welcome the changes that fall brings with this newsletter.

The Reproductive and Developmental Toxicology Specialty Section had another outstanding year as seen in our presence at the SOT Annual Meeting in Baltimore. I know that many of you were able to participate in the RDTSS sponsored symposia, CE course, and numerous workshops. At the 2009 Annual Meeting our SS delivered a basic continuing education course on evaluation of male and female reproductive toxicology, two well attended symposia, three workshops, and a roundtable discussion on the National Children's Study. Since the meeting in March, we were also very busy in getting a record number of proposals submitted for consideration for the 2010 meeting. In addition to the CE course, two symposia, three workshops, and a roundtable that were accepted for presentation at the meeting, we also submitted an additional five proposals that were not accepted. There was only room for about 68 presentations from the well over 140 submitted for consideration. Our efforts to help drive the content of the meeting speak volumes about the importance of our SS to the Society. I look forward to seeing our proposals in full bloom in Salt Lake City this coming March.

I would like to personally thank Sally Darney on behalf of the RDTSS for all her efforts on the Program Committee. In addition, I want to acknowledge Paul Foster for his willingness to succeed Sally as our liaison to that committee. I am not sure we really appreciate the amount of work this committee puts in during such a short time to develop the program for the meeting. Thanks again!

It was great getting to see many of you at the RDTSS annual reception in Baltimore. Your attendance and participation is the lifeblood of our Specialty Section. Alan really looks forward to your program ideas for 2011! Let's put the kind of enthusiasm and energy forward for 2011 that we saw in the 2010 proposals. Please join me at our RDTSS reception in Salt Lake City, where we will continue to drive the science of reproductive and developmental toxicology within the Society and finalize plans for the 2011 meeting. Please contact any of the RDTSS officers with your ideas and suggestions for the 2010 Annual Meeting. I look forward to seeing you all in Salt Lake City.

Mark E. Hurtt
mark.e.hurtt@pfizer.com



SOT ANNUAL MEETING 2010

It is time to begin planning to attend the 49th annual meeting of the Society of Toxicology to be held in Salt Lake City, Utah, March 7-11, 2010. Please note that the **annual RDTSS reception and meeting** is expected to be held on Wednesday this time, from 6:00 to 7:30 p.m. Check the final meeting program schedule for the specific location.

Our specialty section was once again successful in having an impact on the SOT program. For 2010 we will sponsor or co-sponsor the following:

Continuing Education Course

AM07-Basic: Reproduction and Regulatory Impact

Chairperson(s): Robert E. Chapin, Pfizer Global Research & Development, Groton, CT, and Jeffrey S. Moffit, Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT

Endorsed by:

Regulatory and Safety Evaluation Specialty Section

Most new compounds destined for commerce, and all compounds intended for human consumption, need to be assessed for developmental and reproductive toxicity (DART). However, the underlying biology can be confusing because the jargon employed by the cognoscenti can be impenetrable and the implications of findings in these studies are often difficult to appreciate quickly. Our panel will begin this course with an open dialogue designed to lift the veil of uncertainty around many of these issues. After a quick review of some of the key biology, we will touch on the characteristic study designs which generate the necessary data. A point of focus will have the panel examine the typical effects seen in adults and juveniles, and what impact these can have on the registration and use of the compound in Europe and the U.S., respectively. Although the focal point for this course will be on environmental compounds, the final presentation will highlight drug candidates and how reproductive or developmental findings affect their journey to the marketplace. It is our goal to leave students with a better understanding of the impacts that reproductive or developmental findings have on the registration and use of environmental and pharma compounds.

Basic Biology and Study Designs, Chad Blystone, NIEHS/NTP, Research Triangle Park, NC

The Regulatory Impact of Reproductive Development: The European Perspective, Aldert Piersma, RIVM, Bilthoven, Netherlands

The Regulatory Impact of Reproductive Findings: The U.S. Perspective, Vicki Dellarco, U.S. EPA, Washington, DC

The Impact of DART Findings on Drug Candidates, Tracey Zoetis, Sciluent, Herndon, VA

Symposia

 Phthalate Reproductive and Developmental Toxicity and Risk Assessment

 The Fetal Basis of Adult Disease

Workshops

 Understanding nonlinearities at the low end of the dose-response curve: Insights from molecular network analysis

 Current Thinking and Experiences Related to Developmental and Reproductive Safety Assessment of Biotherapeutics

 Research Advances and Enduring Needs in Children's Environmental Health Protection

Roundtable

The Evolution of the Extended One-Generation Study Design for Agricultural and Industrial Chemical Hazard Identification

CALL FOR NOMINATIONS

The RDTSS is calling for nominations for the following positions for the 2010-2011 Executive Committee:

 [Vice President-Elect](#)

 [Secretary-Treasurer](#)

 [Councilor](#)

 [New Career Councilor](#)

Questions regarding the duties associated with any of these positions should be addressed to Lori

Dostal, chair of the Nominating Committee. Self nominations are welcomed if you are personally interested in serving the RDTSS. Please send names and contact information for nominees to Lori at Lori.Dostal@aptuit.com by November 1.

PLANNING FOR SOT 2011

Believe it or not, it is time to start planning ideas for the 2011 meeting! I know it seems like a long way off, but having ideas outlined for symposia, workshops, roundtables, and continuing education courses is crucial for ensuring a meeting that includes topics of interest to YOU. We can't complain about the lack of interesting sessions at the meeting if we don't submit good proposals. As you know, proposals are due to the SOT Program Committee soon after the 2010 Annual Meeting in Salt Lake City. Proposals should be well-developed, with proposed speakers, titles of presentations, and an abstract of the session. Although not required, sessions that also appeal to members of other specialty sections are attractive to the Program Committee, as they are of interest to larger numbers of people. With that in mind, our goal is to assemble proposals (with rough outlines, etc.) for 2011 well before the 2010 meeting so we can present them at our RDTSS business meeting. With the experience of Paul Foster as a member of the SOT Program Committee, we can help you develop your idea into a winning proposal. As RDTSS VP, Alan Hoberman will be organizing a committee to work with him to review program ideas. If you would like to be on the planning committee or you have a great idea, send it to Alan at alan.hoberman@crl.com.

THE EDITOR'S CALL FOR NEWS

During the course of the following year, please send any newsworthy items for inclusion in the 2010 RDTSS Newsletter to the editor, Ron Hood, at the email address listed on the cover page. Email is the preferred way to send news, either in the body of the message or as an

attachment. Also, please be sure to describe the purpose of your message in the subject line of your email, so your editor won't assume it is just more spam and delete it without opening it!

See you in Salt Lake City!

Ron

RDTSS SCIENTIFIC ACHIEVEMENT AWARD

Recognize Your Distinguished Colleagues With the RDTSS Scientific Achievement Award!

Perhaps while relaxing at the beach this summer you've pondered the impressive achievements of an RDTSS colleague and thought that some recognition of this colleague is due. If so, translate that thought into action by submitting a nomination for the 2010 RDTSS Scientific Achievement award. Although not officially due until **December 1**, it's not too early to start thinking about possible nominations. This award, for which all RDTSS members are eligible, is presented to an RDTSS member for lifetime achievement or for contribution of a particularly influential body of work to the field of reproductive and developmental toxicology. Awardees will receive a plaque from the RDTSS, and will be invited to give a short presentation at the RDTSS annual reception. All that is required is a short narrative or list of the accomplishments upon which the nomination is based. Nominations should be sent to Past-President Lori Dostal, at: Lori.Dostal@aptuit.com. All nominees will be forwarded to the Executive Committee, who will choose the 2010 awardee.

**PAST SCIENTIFIC ACHIEVEMENT AWARD
WINNERS WERE: 2006, CAROLE KIMMEL; 2007,
JIM SCHARDEIN; 2008, THOMAS F. X. COLLINS;
2009, MILDRED CHRISTIAN.**



ENCOURAGE YOUR STUDENTS TO JOIN RDTSS!



Mentors of graduate students, please encourage them to join our specialty section. Our students and

postdocs are the future of the RDTSS.

RDTSS Website Update

One of the RDTSS initiatives for 2009 was to update our specialty section website. Aside from major aesthetic modifications, we hope to continue making the RDTSS website a resource for our members. A notable addition to the website is the “Reference Links”, listing a number of valuable websites relevant to reproductive and developmental toxicology. If you have any suggestions for reference websites or general additions for the webpage, please contact the RDTSS officers with your request.

You can find the RDTSS website at:

<http://www.toxicology.org/ISOT/SS/repdevtox/index.asp>

SOME WEBSITES OF INTEREST

Medpedia (submitted by Ron Hood)—More than a year ago I was made aware of the newly developed Internet site known as Medpedia (<http://www.medpedia.com/>).

The Medpedia Project is described as follows: “a long-term, worldwide project to evolve a new model for sharing and advancing knowledge about health, medicine, and the body among medical professionals and the general public. This model is founded on providing a free online technology platform that is collaborative, interdisciplinary, and transparent.” According to its website, “Users of the platform include physicians, consumers, medical and scientific journals, medical schools, research institutes, medical associations, hospitals,

for-profit and non-profit organizations, expert patients, policy makers, students, non-professionals taking care of loved ones, individual medical professionals, scientists, etc.” As Medpedia grows, it is intended to “become a repository of up-to-date unbiased medical information, contributed and maintained by health experts around the world, and freely available to everyone.”

The Medpedia Project has been developed in association with a number of reputable organizations, including Harvard Medical School, Stanford School of Medicine, Berkeley School of Public Health, and the University of Michigan Medical School. Although its Internet platform is technically the same as that used by Wikipedia, Medpedia differs from Wikipedia in a crucial aspect. You can obtain privileges to directly edit or add to the knowledge base *only* if you are a physician or if you have a PhD in a biomedical field. Other medical professionals can “suggest changes” to the medical knowledge base.

Any editor can claim lead editorship of a Medpedia article and become responsible for keeping track of all edits to that article page. Responsibility begins at the moment an editor takes on the role of Lead Editor (on behalf of an organization or on his/her own), and the editorial control is by article, rather than by broad area. Many groups have responsibility for a number of articles in their topic areas. The more articles they add, and for which they claim lead editorship, the more different topics within their area they control. Any Editor can add any article.

Translating Time (submitted by Bob Parker)—Because clinicians and researchers rely on neurodevelopment data obtained from a variety of non-human species, it is essential to be able to relate studies across the different experimental animals, and ultimately to humans, in an easily accessible format. This web site is based on a mathematical model originally described by Finlay and Darlington (*Science*, 268:1578-84) that predicts post conception dates by using log transformations. It integrates hundreds of empirically-derived neural events to compare neurodevelopment of hamsters, mice, rats, rabbits, spiny mice, guinea pigs, ferrets, cats, rhesus monkeys, and humans. <http://www.translatingtime.net/>

Critical Windows of Development (submitted by Sue Fenton)—This web page lays out critical windows of *in utero* development per system of organs/tissue in humans, mice, and rats in a fine resolution timeline, with options to overlay endocrine disruptor targets where relevant: http://www.criticalwindows.com/go_disp_lay.php

World Library of Toxicology (submitted by Ron Hood)—Toxipedia, in partnership with the National Library of Medicine (NLM), the International Union of Toxicology (IUTOX), and the Institute of Neurotoxicology and Neurological Disorders (INND), is proud to announce the launch of the

[World Library of Toxicology, Chemical Safety, and Environmental Health, briefly referred to as the World Library of Toxicology \(WLT\) \(http://www.wltox.org\).](http://www.wltox.org)

This free global Web portal provides the scientific community and public with links to major government agencies, non-governmental organizations, universities, professional societies, and other groups addressing issues related to toxicology, public health, and environmental health. The World Library of Toxicology works directly with a network of country correspondents consisting of respected toxicologists and other scientists who maintain their own country-specific pages with accurate and up-to-date information. Over 45 countries from all 7 continents are represented in the WLT, with the goal of ultimately including all interested nations.

Along with serving as a portal to key resources, the WLT sets the stage to connect research scientists from government and industry, academia, non-governmental organizations, the environmental advocacy community, and interested laypeople from around the world with each other. By making these diverse stakeholder groups aware of each others' activities, the World Library of Toxicology will

serve as a catalyst to encourage global collaborations and minimize duplicative efforts. Its goal is to serve as a resource to improve global public health.

SOT AWARDS AVAILABLE



In recognition of distinguished toxicologists and students, SOT presents several prestigious awards each year. Award recipients receive a plaque and a generous stipend, are listed in the annual Membership Directory, posted on the SOT Web site, and are honored at a special Awards Ceremony at the SOT Annual Meeting. Information regarding the individual awards and mandatory application forms are available at the SOT Web site at www.toxicology.org/ai/af/awards.aspx.

The deadline for most nominations for the 2010 SOT (not RDTSS) awards is October 9, 2009.

Best Reproductive or Developmental Toxicology Paper Published in Toxicological Sciences

RDTSS gives an award each year for the best paper related to reproductive and developmental toxicology in *Toxicological Sciences*. A committee reviews the previous year's publications and selects the best paper in each journal.

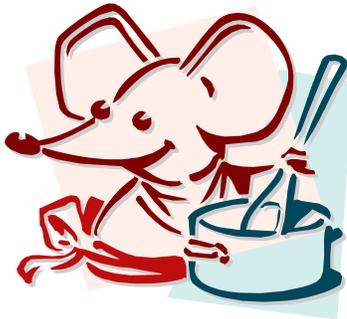
Eligibility: Papers published during the previous calendar year in *Toxicological Sciences*. At least one author must be an SOT member. Papers are judged based on originality, scientific quality, and contribution to the field. The lead author of the winning paper receives an achievement plaque and

any co-authors receive certificates.

Winners of the 2009 Award for Best Paper in Toxicological Sciences

Congratulations to the winners of the Best Paper award.

Jason P. Hogaboam, Amanda J. Moore, and B. Paige Lawrence. 2008. The aryl hydrocarbon receptor affects distinct tissue compartments during ontogeny of the immune system. *Toxicol Sci.*, Mar; 102(1):160-70.
(Department of Pharmaceutical Sciences, Center for Reproductive Biology and Biotechnology Training Program, Washington State University, Pullman, Washington)

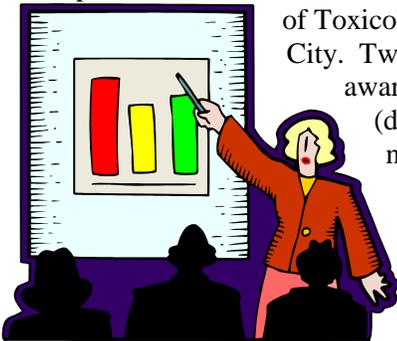


CALL FOR APPLICATIONS FOR RDTSS GRADUATE STUDENT and POSTDOCTORAL RESEARCH AWARDS

Applications for RDTSS Graduate Student/Postdoctoral Awards are now being accepted for the 49th Annual Meeting of the Society of Toxicology in Salt Lake City. Two or three cash

awards will be given (depending on the number of submissions) along with an SOT certificate/plaque. Budget permitting, travel

stipends may also be awarded to other students



competing for these best student presentation awards.

The awards will be given for the best presentation of research at the SOT annual meeting in any of the following areas:

- a) **Male or Female Reproductive Toxicology, or**
- b) **Teratology/Developmental Toxicology**

The student presentations will be judged at a special poster session on Monday evening. Alan Hoberman will chair the awards committee and will present the awards at the RDTSS Reception on Wednesday evening.

Details are also posted on the Awards and Fellowships page of the SOT website:

<http://www.toxicology.org/ISOT/SS/repdevtox/index.asp#awards>.

Applications for the awards must be submitted by January 31, 2010, and should consist of: (a) an abstract of the student's presentation, (b) a letter of support from student/ postdoctoral fellow's sponsor, and (c) a cover letter outlining significance of work to field of reproductive toxicology.

Electronic submissions are strongly encouraged. Applications should indicate whether the presenter is a student or a postdoctoral candidate and should be submitted to:

Janee Gelineau-van Waes, DVM, PhD

Associate Professor, Dept. of Pharmacology

Creighton University

2500 California Plaza

Omaha, NE 68178

E-mail: JaneeVanwaes@creighton.edu

Winners of the 2009 Student Presentation Awards



In 2009 RDTSS continued the format for the student presentation awards implemented in 2006. Candidates for student awards made their presentations in a special session on Monday evening of the meeting. This allowed for judges Alan Hoberman, Jeffery Moffit, and Eve Mylchreest to interact with the students and judge

them based on their actual presentations. The students appreciated the opportunity to interact with the judges and meet members of the specialty section. Feedback on this format continues to be positive. There were 14 applicants, and winners of cash awards were as follows:

First Place - \$500

Nicholas Heger – Brown University:

Sponsor – Kim Boekelheide

Title: *Interspecies approach to the assessment of human susceptibility to phthalate induced endocrine disruption*

Nick Heger from Brown University was the RDTSS Student Award winner at the 48th Annual Society of Toxicology Meeting in Baltimore, MD. His poster presentation was selected by a panel of three judges from nearly 20 excellent posters and presentations. The following is a synopsis from the winning poster presentation:

According to the Testicular Dysgenesis Syndrome hypothesis, alterations to the in utero or perinatal environment, possibly because of exposure to endocrine disrupting chemicals, may result in subsequent dysgenesis of the reproductive tract, due to the hormonally-sensitive nature of the developmental events. Previous studies have observed a species-dependent response to endocrine active phthalates, with rats exhibiting a suppression of fetal testicular steroidogenesis following in utero exposure, and mice remaining unaffected. This striking difference in species sensitivity complicates risk assessment and determining human susceptibility. Accordingly, a rodent host bioassay consisting of human and rodent fetal testicular xenografts was developed to examine toxicant-induced alterations in testicular development. Using this comparative biology approach, rat, mouse and human fetal testis xenografts were exposed to di-n-butyl phthalate and evaluated for alterations in Leydig cell steroidogenesis and seminiferous cord histopathology. While all species have shown induction of multinucleated gonocytes, a morphological hallmark of phthalate exposure of the seminiferous cords, steroidogenesis was inhibited in the rat, with mouse and human fetal testis remaining resistant to this antiandrogen effect. Further studies will seek to identify differential pathway responses among rat, mouse and human to improve both mechanistic understanding and risk assessment of developmental phthalate exposure.

Second Place - \$300

Sheung Ng – New York University

Sponsor – Judith Zelikoff

Title: *Prenatal exposure to cigarette smoke suppresses antitumor cytotoxic T-lymphocyte activity possibly via changes in T-regulatory cell number and TGF- β level*

Third Place - \$200

Chengya Liang – Virginia Tech

Sponsor – M Renee Prater

Title: *The effect of high fat diet induced gestational diabetes on mouse metabolic disorder and skeletal malformations.*

Congratulations to the winners, and we look forward to more great student/post doctoral posters and presentations in Salt Lake City!



2009 Student Travel Awards

A total of \$2100 was budgeted for 2009 to support student travel. The money was divided evenly among all students applying for the student presentation awards. This year we had 14 applicants. Ultimately, the RDTSS gave \$150 awards to each of the four scientific presentation awardees listed above and also to these additional ten contestants: *C.R. Blystone, Sarah Campion, Yvonne Hoang, Maria Isabel Hernandez Ochoa, Prajakta Palkar, Helen Badham, Arjun Basaravajappa, Bethany Karman, Jackye Peretz, Julian Perstin and Emily Tung.*

News for Students

**Student/Postdoctoral Fellow Mixer
Sponsored by the Student Advisory
Council:**

Sunday, March 7, Time: 7:30 PM–8:30 PM
(Ticket Required)

The Student Advisory Council and Graduate Committees host this opportunity for students and postdoctoral fellows to gather, to meet new colleagues, and to reestablish relationships in an informal atmosphere at the beginning of the SOT annual

meeting. Tickets can be obtained at no cost by registering for this event on the Annual Meeting Registration Form. Ticket and meeting badge are required. Complimentary refreshments and a cash bar will be available.

In Vitro Toxicology Lecture and Luncheon for Students, Sponsored by the Colgate-Palmolive Company
Monday, March 8, Time: 12:15 PM–1:30 PM
(Ticket Required)

The purpose of this lecture is to discuss the importance of animal research to biomedical sciences and toxicology and the ethical obligations of the scientific community to follow the "3R's" of animal testing (refine, reduce, replace) whenever it is feasible. Graduate students, undergraduates, postdoctoral scholars, and recipients of Colgate-Palmolive awards are among the guests at the In Vitro Toxicology Lecture and Luncheon. The goal of the In Vitro Toxicology Lecture series is to feature important research using in vitro and alternative techniques to study basic mechanisms and to illustrate how these test methods benefit animal welfare by refining and reducing animal use. Students and postdocs can reserve a ticket for the luncheon with a \$5 deposit when they register for the SOT Annual Meeting. Lunch is served at the beginning of the event, and service concludes before the talk/main program begins. Meal service may not be available to guests who arrive after 12:30 PM.

Lunch with an Expert

Date and time varies by group (Meet at Bulletin Board in Registration Area)

These events are informal gatherings of small groups of students, each with a toxicology expert. Sign up *via* the [Student Services](#) section of the SOT Web site. The groups are matched by research interests, and the Expert for each group identifies a time and place to assemble. Details for the group meeting will be sent in advance of meeting. LWAE is not limited to a lunchtime meeting. The Expert will determine the restaurant and whether the group will meet for breakfast, lunch, dinner, or for a social

hour! Students and postdocs will be matched with Experts during February.

NEWS FROM THE POSTDOCTORAL ASSEMBLY (PDA)

Yvonne Hoang, our RDTSS PDA Rep, sent us the following items:

Check Out The Post-y Newsletters:

The Post-y is published twice a year. It includes topics relevant to the postdoctoral experience. PDA welcomes and encourages members to provide or suggest a topic or an article. The Post-y Spring 2009 is available:

<http://www.toxicology.org/AI/SPD/SOTPDAnewslettersspring2009.pdf>

Ready to Switch Membership Status?

Perhaps it's time for you to switch from Graduate Student to Postdoctoral status?!? It is easy and takes just minutes online. There are many postdoc benefits. Application due dates: Jan, May, and Sept 1st.

Apply for the "Best Postdoc Publication Award":

Due Oct 9th!!! This is to recognize talented postdoctoral researchers who have recently published exceptional papers in the field of toxicology. Three awards (plaque and a \$100 cash award) will be presented at the PDA Luncheon during the SOT Annual Meeting. More info:

<http://www.toxicology.org/ai/spd/PD-PubAwardAnn.asp>

Interested in Online Mentoring Program?

It is a service that matches mentees with potential mentors from the SOT membership to provide advice on career path selection and success and life/work balance issues. More info:

<http://www.toxicology.org/ai/newcrad/mentormatch.asp>

Look Out for 2010 Meeting Postdoc Events:

- ✂ Postdoc luncheon
- ✂ Student/postdoc mixer
- ✂ Postdoc workshops:

- 1) Gene-environment interactions: epigenetic pathways in chronic disease promotion and progression
- 2) Career opportunities and transitions in toxicology

Please check out the PDA's website, <http://www.toxicology.org/ai/spd/PD.asp>, for more information and a current listing of what is happening in the PDA.

Angelo Furgiuele Young Investigator Technology Award

The Angelo Furgiuele Young Investigator Technology Award Fund was created with an initial generous gift from Angelo and Christine Furgiuele. Proceeds from the Fund will be used for an Award to be presented to a Young Investigator in the field of reproductive and developmental toxicology to purchase technological enhancements such as computer hardware, software, or analytical equipment that will facilitate the conduct of research by the Award Recipient. Angelo and Christine Furgiuele recognize that the availability of modest funds to purchase key technology for a young investigator in a non-profit institution can significantly increase the potential of the investigator achieving a successful research outcome. Thus, they have initiated this fund as a means of facilitating research in reproductive and developmental toxicology, an area that was of interest to Dr. Furgiuele as a young scientist. The first Angelo Furgiuele Award will be given after the Fund has achieved assets of \$25,000.

In Memorium: Mildred Christian

Mildred Christian passed away on March 26, 2009, in Mechanicsville, Pennsylvania. Originally from Philadelphia, Dr. Christian obtained B.Sc. and M.S. degrees from Penn State University and her Ph.D. in developmental anatomy (teratology) from Thomas Jefferson University. After 14 years with McNeil Laboratories, she founded Argus Research

Laboratories in 1979, Argus International in 1980, the Center for Photobiology at Argus in 1989, and Argus Health Products, LLC, in 2003. During the transition following the acquisition of Argus, she served as Executive Director of Science and Compliance of the Discovery and Development Division of Charles River Laboratories, where she was responsible for scientific integrity and regulatory compliance on a corporate-wide basis.

Over the last 35 years Millie was involved in the conduct, evaluation, and submission of over 1300 toxicological studies. She has also reviewed data for risk assessments, performed literature reviews for clients on potential hazards, and appeared as an expert witness in cases involving potential reproductive and developmental risks.

Millie was an active member of 20 professional organizations, serving on or chairing numerous committees. She is a past-president of the Teratology Society, the American College of Toxicology, the Thomas Jefferson University Alumni Association, and the Academy of Toxicological Sciences, as well as a founding member of the RDTSS. She is founding editor of the International Journal of Toxicology and was its Editor-in-Chief for 10 years. She has edited and/or contributed to several major textbooks and was author of over 110 published papers and abstracts.

Dr. Christian was also Adjunct Associate Professor in the Department of Anatomy and Developmental Biology at Jefferson Medical College, Thomas Jefferson University, and an Adjunct Professor in the Department of Pharmacology and Toxicology, the University of Arkansas for Medical Sciences.

Dr. Christian's numerous honors included the "Life Services Award" of the American College of Toxicology in 2004; the Alumni of the Year award by Thomas Jefferson University for her contributions to development of the International Conference for Harmonization Guidelines for Toxicity in Reproduction, and an Honorary Membership in the Society for Quality Assurance in recognition of her efforts in bringing together the fields of toxicology and quality assurance. She also received the 2009 RDTSS Scientific Achievement award and the 2008 International Achievement Award from the International Society of Regulatory Toxicology and Pharmacology.

THE RDTSS OFFICERS AND EDITOR AND THEIR MAIN DUTIES

President—General oversight and prepares agenda and makes arrangements for Officers meeting at SOT and RDTSS reception at SOT, writes annual report for SOT, oversees agenda for the RDTSS contribution to the SOT annual meeting



Mark Hurtt. Mark completed his formal education at the University Of Cincinnati College Of Medicine. He completed a post-doctoral fellowship at the Chemical Industry Institute of Toxicology in

Research Triangle Park, North Carolina. Following a brief stay at Warner-Lambert in Ann Arbor, Michigan, Dr. Hurtt joined the DuPont Company. He held various roles over his 11 years at Haskell Laboratory for Toxicology and Industrial Medicine in Newark, Delaware, prior to joining Pfizer. Currently, Dr. Hurtt is Global Head of Developmental and Reproductive Toxicology at Pfizer, with overall responsibility for developmental and reproductive toxicology testing and consulting offerings as well as an investigative laboratory. He also is serving as Interim Global Head of Immunotoxicology. Mark is a Past President of MARTA and is past chair of the Teratology Society's Publication Committee.

Vice President—Chairs the Program Committee for the next SOT meeting, develops list of proposals for activities to be sponsored and coordinates cosponsorships, by the RDTSS, acts for the president in his/her absence



Alan Hoberman. Alan has worked in toxicology for over 37 years, specializing in reproductive and developmental toxicology for over 28 years. A Diplomat of the American Board of

Toxicology and a Fellow of the Academy of Toxicological Society, Alan's current research interests include development of the immune response and assessment of compounds in young animals. Alan was trained in anatomy and embryology at the University of Virginia and in toxicology at the University of Arkansas and the NCTR. He was Head of Reproductive and Genetic Toxicology at Hazleton Laboratories, America for two years prior to joining Argus Research Laboratories. He was also responsible for management of Charles River Laboratories Preclinical Services, Arkansas (formerly CRL-DDS Redfield Laboratories) from 1994 to 2002. Currently, Alan is General Manager and Director of Research, Charles River Laboratories Preclinical Services, Pennsylvania, where he is responsible for designing, supervising and evaluating reproductive and developmental toxicity, neurotoxicity, inhalation, and photobiology studies, while managing budget and personnel projections and strategic plans for the facility.

Vice President elect—Chairs the review committee for student/postdoc awards, advertises the availability of such awards, obtains award plaques, etc., and presents the student awards at the annual meeting



Ed Carney. Edward W. Carney received a B.S. in Animal Science from Cornell University (1981), and graduate degrees in reproductive physiology from the University of Wisconsin-Madison (M.S., 1986) and Cornell

University (Ph.D., 1990). His postdoctoral research on molecular control of placental development was conducted at Mount Sinai Hospital Research Institute in Toronto. Dr. Carney joined the The Dow Chemical Company in 1992, and currently serves as Science & Technology Leader of Developmental, Reproductive, and Neurotoxicology and also leads Dow's research program on alternatives to animal testing. He has published 70 peer-reviewed papers, is a Past-President of Midwest Teratology Association and a former Councilor of the Teratology Society. He currently serves on the National Toxicology Program's Board of Scientific Counselors, the Board of Toxicology Forum, ILSI-HESI DART Subcommittee, the OECD Expert Group on the Extended One-Generation Reproductive

Toxicity study guideline and the editorial boards of *Reproductive Toxicology* and *Toxicological Sciences*. Ed also is an adjunct professor at The University of Michigan School of Public Health and is a regular lecturer in the University of Surrey Master's Programme in Toxicology.

Past President—Chair of Nominating Committee and serves on committee to determine candidates for Scientific Achievement Award, assists SOT office with RDTSS officer election



Lori Dostal. Lori is a consultant with Aptuit Consulting, Inc. since Nov 2007, providing nonclinical drug development support in toxicology for small and large pharmaceutical companies. She provides

nonclinical toxicology strategy, with a major focus on reproductive and developmental toxicology and juvenile animal studies, as well as IND/NDA support. Previously Lori was at Pfizer and Parke-Davis in Ann Arbor Michigan for 19 years in the toxicology department (Drug Safety Research and Development). For the first 15 years she held various positions in the Reproductive and Developmental Toxicology group and then spent four years supporting drug development by providing nonclinical safety support for new drug development candidates.

Secretary/Treasurer—Controls finances, reports on them to the SOT and at the RDTSS annual meeting, make arrangements for the officers' meeting and records the meeting minutes, and orders awards



Susan Lynn Makris.

Sue Makris has been with the US Environmental Protection Agency since 1991. She served for many years as a senior toxicologist in the Office of Pesticide Programs, where she evaluated hazard and risk characterization for numerous pesticides and

participated as a member of Health Effects Division peer review committees. Then in 2004 she joined the EPA's Office of Research and Development, National Center for Environmental Assessment, where she is currently a senior staff scientist in human health risk assessment. Her regulatory career has focused on Agency developmental and reproductive toxicity and immunotoxicity guidelines, guidance, and policy, with a focus on issues relevant to the evaluation of developmental neurotoxicity, developmental immunotoxicity, and children's health risk assessment. She has been a long-standing member of the Society of Toxicology, including the RDTSS and several other specialty sections, as well as the National Capital Area regional chapter.

Senior Councilor—Chairs the committee to determine best paper in *Toxicological Sciences* awards, orders plaque and certificates for the paper's authors, and presents the award at the annual meeting



Jane B. Gelineau-van Waes.

Jane Gelineau-van Waes is an associate professor in the Department of Pharmacology at Creighton University School of Medicine in Omaha, Nebraska. The primary focus of her research is the study of embryonic/

fetal development and the identification of teratogens. She is interested in determining the signaling pathways disrupted by gestational teratogen exposures, and in understanding how gene-nutrient-environment interactions impact pregnancy outcome. Of particular interest are the mechanism(s) by which maternal folate supplementation affords protection against neural tube defects and other neural crest cell-related congenital anomalies. Some of the environmental toxicants and/or pharmacological agents examined in her laboratory include anticonvulsant drugs, immunosuppressant drugs, arsenic, alcohol, and the mycotoxin fumonisin. Her laboratory has developed an in vivo mouse model of maternal fumonisin exposure and neural tube defects that enables mechanistic and translational studies. Fumonisin disrupts de novo sphingolipid metabolism, resulting in immunosuppression, abnormal formation of the placenta, and increased risk for pregnancy loss and/or fetal malformations.

Junior Councilor—Serves on the Program Committee and assist the VP in developing program ideas for next years SOT annual meeting, chairs committee to select the Achievement Award recipient, prepares or obtains the RDTSS poster for the student/postdoc mixer, attends that mixer, and selects/purchases “giveaways” for the mixer



Robert M. Parker.

Bob has worked in developmental and reproductive toxicology for over 30 years. He earned his M.S. (1975) and his Ph.D. (1980) in Human Anatomy, specializing in Teratology, at UC Davis School of Medicine. Bob was a Postgraduate

Research Morphologist at the California Regional Primate Center in 1981, where he was formally trained as a primate teratologist under Dr. Andy Hendrickx. He has served as study director on over 300 safety evaluation studies; including developmental and reproductive toxicity studies, developmental neurotoxicology studies, delayed neuropathy studies, dominant lethal studies, phototoxicity studies, photocarcinogenicity studies, and acute, subchronic and chronic toxicity studies. Recently, Dr. Parker was a project leader for oncology projects and non-clinical drug safety toxicologist on oncology, monoclonal antibody, and metabolic disease projects. Dr. Parker has served as Councilor and as chair of the Student Affairs and Membership Committees of the Teratology Society, and has served as President and Secretary of the Behavioral Toxicology Society. A Diplomate of the American Board of Toxicology, Dr. Parker is the Director of the Developmental and Reproductive Toxicology Division at Huntingdon Life Sciences' Princeton Research Center, New Jersey.

New Career Councilor—Serves on the committee for determining the Trainee Presentation Awards and assists the Vice President-Elect with program applications



Jeffrey S. Moffit.

Jeffrey Moffit is a Senior Scientist in Toxicology & Safety Assessment at Boehringer Ingelheim Pharmaceuticals. Jeff received his B.S. in biochemistry from Rutgers

University and continued his graduate work in pharmacology and toxicology at the University of Connecticut. His graduate research focused on mechanisms underlying the protective effects of peroxisome proliferators from liver toxicants. As a post doctoral fellow at Brown University, Jeff studied co-exposure synergy, using model testicular toxicants; specifically, how sensitization of the testicular seminiferous epithelium by 2,5-hexanedione exposure primes the testis for disruption by a second testicular toxicant. Furthermore, he investigated the reproductive implications of Raf kinase inhibitor protein (RKIP) on sperm capacitation and the regulation of transport proteins in the blood testis barrier following chemotherapy. Jeff served as a Post Doctoral Representative on the Education Outreach Committee for the Society of Toxicology, was a finalist for the Carl C. Smith Award in mechanistic toxicology, and holds an Adjunct Assistant Professorship at the Alpert Medical School of Brown University.

Student Representative—RDTSS representative to the SOT Student Activities Committee, serves on the review committee for the Best Paper Award, assists in preparing the RDTSS poster and representing the RDTSS at the student/postdoc mixer



Nick Heger. Nick Heger is a doctoral student in the Pathobiology Graduate Program at Brown University in the Department of Pathology and Laboratory Medicine. He works in the laboratory of Dr. Kim Boekelheide and is studying the effects of phthalate

exposure. Previous studies have demonstrated a species-specific sensitivity to developmental phthalate exposure, with rats exhibiting a suppression of fetal testicular steroidogenesis and mice remaining relatively unaffected. As such, this difference in sensitivity invites speculation as to the human

response. Nick is working to develop a bioassay consisting of fetal mouse, rat, and human testicular grafts in a rodent host to explore phthalate-induced alterations of testicular function and development.

Post Doctoral Assembly Representative—RTSS representative to the SOT Postdoctoral Assembly



Yvonne Hoang.

Yvonne has been a student member of SOT since 2005 and received her PhD in Environmental Toxicology in 2008 from the University of California, Irvine, where she studied the mechanism of gonadotropin hormone regulation of glutathione synthesis in the ovary. She is currently a post-doctoral fellow at the University of California, San Diego, in the Department of Reproductive Medicine.

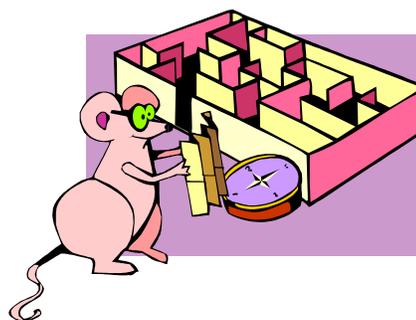
RTSS Newsletter Editor—Gathers information for the newsletter, reminds the RTSS officers to submit material related to their responsibilities (including the president's message), threatens the tardy contributors as needed ☺, distributes a draft for proofing by the officers, and prepares the final version for submission to SOT for distribution to the membership



Ronald D. Hood.

Ron spent 32 years on the faculty of the Department of Biological Sciences of The University of Alabama, and he also served a year as interim department chair. He retired from the faculty in 2000, but as an emeritus professor Ron continues to use his UA office and to collaborate in research and student mentoring. Ron acted as a toxicology consultant part-time for many years while on the faculty, and he now consults full-time, together with associates at other locations. In addition to his work as a consultant, a book editor, and an expert witness, Ron organizes and lectures in continuing education courses offered to regulatory personnel in the areas of developmental and reproductive

toxicology, and he is a fellow of the Academy of Toxicological Sciences.



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