

Reproductive and Developmental Toxicology

ANNUAL REPORT: 2016-2017

July 1, 2016 to July 18, 2017

I. Officers/Committees:

<u>Officers</u>	<u>2016-2017</u>	<u>2017-2018</u>
President:	Christopher J Bowman	Kary E Thompson
Vice President:	Kary E Thompson	Vicki Sutherland
Vice President-Elect:	Vicki Sutherland	Aileen F. Keating
Secretary/Treasurer:	Nancy D Denslow	Nancy D Denslow
Past President	Jeffrey S Moffit	Christopher J Bowman
Councilors:	Sarah Champion	Jason L Blum
	Jason L Blum	Zelieann R Craig
	Bethany R Hannas	Bethany R Hannas
PDA Representative:	Natasha Rene Catlin	Kristin R Di Bona
GSLC Representative:	John Thomas Szilagyi	John Thomas Szilagyi

II. Activities:

2017 SOT Annual Meeting Reception was held in Baltimore, Maryland on March 14.

Approximately 180 people were in attendance.

The RDTSS President called the meeting to order at 6:30PM.

President's Report (Chris Bowman):

Ed Carney Trainee Award Overview

Dr. Bowman provided an overview of the Ed Carney Trainee Award explaining that the Award is organized as a joint award between RDTSS and the Teratology Society. This was the second year of the award and that it is distributed as two separate awards each year (with deadlines in the fall and spring and respective awards given at the SOT and Teratology annual meeting). The Ed Carney Trainee Award fall deadline received 13 graduate and 2 post-doctoral submissions requesting travel to the SOT Meeting. Judging criteria were based upon the applicant's meeting abstract, letter of recommendation, and personal statement about career objectives. The judges included a balanced panel of SOT and Teratology Society Members: Chris Bowman, Janee Gelineau-van Waes, Aileen Keating, Jeff Moffit, Sonja Rasmussen, Dana Shuey, and Kary Thompson. Chris Bowman and Alan Hoberman (Vice President of the Teratology Society) jointly presented the **award to Karilyn Sant** of the University of Massachusetts, Amherst for travel to the 2017 SOT Annual Meeting.

Vice-President's Report (Kary Thompson):

Dr. Thompson reviewed the RDTSS endorsed program offerings at the 2017 Annual meeting.

2017 Annual Meeting Scientific Sessions

Dr. Bowman summarized the efforts of the RDTSS to contribute scientific sessions to the 2017 meeting. A total of 15 scientific session proposals were submitted for endorsement and 8 were accepted by the PRC for the Annual Meeting. The following proposals were organized and/or sponsored by RDTSS and presented at the 2016 annual meeting:

Title	Format
Reproductive Toxicity: Challenges and Practical Approaches to Determine Risk	Continuing Education
Assessment of Developmental and Reproductive Toxicity (DART) Risks from Chemical Exposures	Continuing Education
Evaluating the Reproductive and Developmental Effects of Botanical Dietary Supplements	Symposia
Novel in vitro and in silico platforms for modeling developmental and reproductive toxicity	Symposia
Early Life Inorganic Arsenic Exposures and Later in Life Effects	Symposia
Implementing Developmental Thyroid Toxicity Guidance into Practice: What's Working, What's Not, and How do we do better?	Roundtable
Advances in Preclinical Safety Testing: Progress in Implementation of ICH Guidances	Workshop
Cardiopulmonary consequences of gestational toxicant exposure: Getting to the Heart of the Matter	Workshop
Challenges & novel approaches evaluating developmental & reproductive toxicity of biotherapeutics	Workshop
Incorporating In Vitro Reproductive and Developmental Assays into Regulatory Risk Assessment	Workshop
New findings on pyrethroid developmental neurotoxicity: an alternate approach to charactering age-related differences to hazard identification	Workshop
Improving Public Health through Innovations in Exposure Science	Workshop

Dr. Thompson created and led the RDTSS Program Committee comprised of 17 RDTSS officers and other members. Dr. Thompson coordinated receipt and pre-review amongst the committee of available proposals to the RDTSS. These activities resulted in the request for endorsement of 2 CE Courses, 10 Symposia, and 4 Workshops provided by SOT HQ, along with the instructions for providing scoring and comments, as well as potential suggestions for a proposal for guaranteed acceptance into the 2018 SOT program. The members of the RDTSS Program Committee then emailed Dr. Thompson their scores and comments. Individual comments were consolidated for each proposal, along with a final RDTSS score. Overall discussion and decision for the proposal for guaranteed acceptance in the 2018 SOT program was made at a program committee teleconference. Dr. Thompson entered the final scores and comments on the SOT proposal ranking website.

Secretary/Treasurer's Report (Nancy Denslow):

Membership statistics from the current and previous year are shown below. Overall membership trends seem to have decreased by 5% in the last year.

Member type	As of 7/18/2017	As of 7/12/2016
Full	261	272
Associate	34	31
Emeritus	1	2
Student	47	59
Postdoctoral fellow	31	31
Total	372	395

A summary of RDTSS finances as of financial year July 1, 2016 through June 30, 2017:

Net assets at beginning of year		\$21,423
Income:	Donations	\$5,500
	Registration	\$3,410
	Membership	Data not available
	Interest	Data not available
Expenses :	Awards/Plaques	\$6,296
	Reception	\$10,540
Net assets as of May 30, 2017		\$13,497*

**before end of financial year income is expected from membership & interest*

A summary of the RDTSS Endowment funds that include the Edward Carney Award and Angelo Furguele, ending March 31, 2016 is presented below.

The Edward Carney Award reached Permanently Restricted Net Asset Fund status in 2016.

Net Assets Beginning of Year	\$81,728
Ordinary Income/Expenses	
Income	
Contributions	850
Employer Matching Funds	50
SOT Matching	900
Total Income	1,800
Gain (loss) on Investments	
Interest & Dividends	\$6,669
Expense	
Awards	\$1,500
Total Expense	\$1,500

Excess (Deficiency) of	
Revenue over Expenses	\$6,969
Net Assets End of Year	\$88,697

The Angelo Furgiuele Fund lapsed on June 30th, 2014, such that matching funds from SOT are not be available and RDTSS is spending this fund down through awards.

Net Assets Beginning of Year	\$12,231
Ordinary Income/Expenses	
Income	
Contributions	-
Employer Matching Funds	-
SOT 50th Anniversary Matching	-
Total Income	-
Gain (loss) on Investments	
Interest & Dividends	\$1,002
Expense	
Awards	\$5,500
Total Expense	\$5,500
Excess (Deficiency) of	
Revenue over Expenses	(\$4,498)
Net Assets End of Year	\$7,734

Vice-President-Elect's Report (Vicki Sutherland)-Student/Postdoctoral Fellow Awards:

In 2017 the RDTSS continued the student presentation award program, which was first implemented in 2006. There were 25 post-doctoral and graduate student entries this year. The submission process required submission of the Annual Meeting abstract, a cover letter outlining the significance of the work to reproductive or developmental toxicology, and the applicant must be a SOT member or have applied for membership. The deadline for all supporting documents was February 15, 2015.

Judging took place on Monday March 13th. Judges were broken into small groups (~2-3 judges per group) and each group reviewed a select number of posters. They spent at least 5 min per candidate, with each candidate was ranked by each individual judge and given an overall ranking by the small group of judges. The total scores were then tallied and checks were obtained from SOT HQ after the RDTSS Annual Meeting Reception.

Post-Doctoral Award winners:

1 st place poster, Kristin Bircsak	\$1000
2 nd place poster, Natasha Catlin	\$600
3 rd place poster, Brian Johnson	\$350

Graduate Student Award Winners:

1 st place poster, Jennifer Panlilio	\$1000
2 nd place poster, Yichang Chen	\$600
3 rd place poster, Jessica Meyers	\$350

In addition to the money presented to the award winners following the RDTSS Annual Meeting Reception, \$100 travel stipends were presented to all participants who didn't win an award.

The following judges were thanked for their efforts:

Aileen Keating	Jessica LaRocca	Subbu Karanth
Alicia Timme-Laragy	Brandy Riffle	Tal Tamara
Amera Remick	Jessica Plavicki	Tracie Baker
Angela Stermer	Karma Fussell	Alison Suen
Asok Dasmahapatra	Kimberley Treinen	
Bethany Hannas	LaRonda Morford	

Senior Councilor's Report (Sarah Champion) - Best Paper Award:

Papers published during the previous calendar year in *Toxicological Sciences* were eligible. Papers in the areas of reproductive or developmental toxicology are automatically eligible. Publication under the Reproductive and Developmental Toxicology Table of Contents subheading is not required. At least one author must be a member of RDTSS.

This year, given the number of judges and papers, judging was done in a matrix format where everyone received a different combination of papers in the first round to perform relative rankings. In the second round, another matrix was used such that at the end of the two rounds, each of the top papers was ranked by every judge on the list. Scores were then averaged and ranked. Papers were judged based on the originality, scientific quality and contribution to the field.

Third Place:

Establishing the "Biological Relevance" of Dipentyl Phthalate Reductions in Fetal Rat Testosterone Production and Plasma and Testis Testosterone Levels. Gray LE Jr, Furr J, Tatum-Gibbs KR, Lambright C, Sampson H, Hannas BR, Wilson VS, Hotchkiss A, Foster PM.

Second Place:

A Demonstration of the Uncertainty in Predicting the Estrogenic Activity of Individual Chemicals and Mixtures From an In Vitro Estrogen Receptor Transcriptional Activation Assay (T47D-KBluc) to the In Vivo Uterotrophic Assay Using Oral Exposure. Justin M. Conley, Bethany R. Hannas, Johnathan R. Furr, Vickie S. Wilson, and L. Earl Gray Jr.

The winning paper:

Sperm Molecular Biomarkers Are Sensitive Indicators of Testicular Injury following Subchronic Model Toxicant Exposure. Edward Dere, Shelby K. Wilson, Linnea M. Anderson, and Kim Boekelheide.

The following judges were recognized and thanked for their efforts:

Natasha Catlin	Michael O'Hara	Caitlin Murphy
John Szilagyi	Lauren Aleksunes	Jennifer Foreman
Bethany Hannas	Paul Foster	Alan Hoberman
Jodi Flaws	Louise Saldutti	Sarah Campion

Junior Councilor's Report-Scientific Achievement Award (Jason Blum):

Dr. Blum coordinated nominations for the Lifetime Scientific Achievement Award from the RDTSS membership. Nomination packages were reviewed by a 8-member RDTSS Sub-committee for overall ranking and selection of the awardee and presented for final approval to the RDTSS Executive Committee. The Scientific Achievement Award winner was selected based on lifetime contribution to the field of reproductive and developmental toxicology, contributions to the RDTSS and SOT, and role in mentoring new scientists. The award recipient for 2016 was **Dr. Barbara Abbott**. The committee also discussed the possibility of including past award winners to identify potential nominees and/or select the winner from among the nominees.

The members of the 2016 Achievement Award Sub-committee were:

Jason Blum	Nancy Denslow
Chris Bowman	Bethany Hannas
Sarah Campion	Kary Thompson
Natasha Catlin	John T. Szilagyi

New Career Councilor's Report- Angelo Furgiuele Young Investigator Technology Award Presentation and RDTSS website update (Bethany R Hannas):

Dr. Hannas led the process to evaluate and award the Angelo Furgiuele Young Investigator Technology Award. The Angelo Furgiuele Young Investigator Technology Award Fund provides proceeds to 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. The award stipulates that the recipient shall be a young investigator working in a non-profit institution such as a college or university. A young investigator for this purpose is defined as an individual at an early stage of their career, including graduate students, and the individual is less than 10 years post-receipt of a doctoral degree. Recipient(s) of this award are selected on the merits of the applicants proposed use of the award funds to impact on the applicant's research in reproductive and developmental toxicology. Deadline for applications was November 15th, 2016. This award was presented at the 2017 Society of Toxicology annual meeting for a value of \$5,500 to **Rachel Shaffer** of University of Washington, Seattle to

purchase a perfusion platform and microfluidics chips to transition from an in vitro 3D testicular co-culture system to a microphysiologic system (organ-on-a-chip) platform.

The New Career Councilor is also the RDTSS Website Liaison. Dr. Hannas lead the discussion of several ideas to update and modernize the RDTSS website with the help of SOT staff (including a new RDTSS logo and listing of previous RDTSS award winners), which was completed and activated in May 2017.

The GSLC and PDA Reports were provided by John Szilagyi and Natasha Catlin, respectively. Dr. Catlin and Mr. Szilagyi described several funding opportunities and mechanisms of professional participation that are relevant to the RDTSS student/post-doctoral membership at the RDTSS Reception.