NAME OF SPECIALTY SECTION ____Biological Modeling_____

ANNUAL REPORT: 2017-2018
May 1, 2017 to April 30, 2018

I. Officers/Committees:

Officers	2017-2018	2018-2019
President:	Jeffery M Gearhart	Jeffrey William Fisher
Vice President:	Jeffrey William Fisher	Brad Reisfeld
Vice President-Elect:	Brad Reisfeld	Miyoung Yoon
Secretary/Treasurer:	Martin B Phillips	Tammie Covington
Past President	Eva D McLanahan	Jeffery M Gearhart
Councilors:	Anne Elizabeth Loccisano	Anne Elizabeth Loccisano
	Andy Nong	Alicia Paini
PDA Representative:	Miao Li	Miao Li
GSLC Representative:	Axelle Marchand	Axelle Marchand

Committees: The BMSS 2017 Best Paper Award committee was formed by the officers from volunteers among the specialty section members and chaired by Jeff Fisher (BMSS Vice President). Committee members were BMSS President Jeffery Gearhart, VP-Elect Brad Reisfeld, Martin Philips (Secretary-Treasurer), Eva McLanahan (Past BMSS President), Anne Loccisano (Counsilor) and Andy Nong (Counselor). The review process involved electronic searches and nominations from the BMSS membership. The initial screening process resulted in approximately 75 abstracts, which were then reduced to 12 final papers for complete committee review, final voting taken to choose the best paper, for which this year there was a tie.

II. Activities:

2018 SOT Annual Meeting Reception was held in San Antonio, Texas on (Date). Approximately 75 people were in attendance. Dr. Jeffery M. Gearhart called the meeting to order at 6:00 PM on March 14th, 2018.
Business Meeting Speaker: N/A
Meeting Minutes: (see Attachment I)

Awards:
Dr. Yi-Hsien Cheng of Kansas State U., "**Probabilistic risk assessment of gold nanoparticles by integrating in vitro and in vivo toxicity with physiologically based pharmacokinetic modeling**" joint award of the Biological Modeling Specialty Section (BMSS) and the Risk Assessment Specialty Section (RASS) of the Society of Toxicology (SOT), for the **Andersen-Clewell Trainee Award**.

2017 Perry J. Gehring Award for Biological Modeling – Dr. Yi-Hsien Cheng, Postdoctoral Research Fellow at Kansas State University, mentored by Dr. Zhoumeng

Lin and Dr. Jim E. Riviere. "**A general physiologically based pharmacokinetic model for gold nanoparticles of different sizes with multiple administration routes in rats**".

2017 Trainee Award, made possible from a generous donation from Melvin E. Andersen – Dr. Miao Li, Postdoctoral Fellow mentored by Dr. Zhoumeng Lin and Dr. Jim E. Riviere in the Institute of Computational Comparative Medicine at Kansas State University. "**Application of Population Physiologically Based Pharmacokinetic Model for Penicillin G in Dairy Cows to Facilitate Food Safety Assessment**".

Both Student Awards also received from Simulations Plus (awarded by Mr. John DiBella) a cash award and a one year use of their simulation software.

2017 Best Paper Award (Tie):
Bois FY, Ochoa JGD, Gajewska M, Kovarich S, Mauch K, Paini A, Péry A, Benito JVS, Teng S, Worth A. **Multiscale Modelling Approaches for Assessing Cosmetic Ingredients Safety**. Toxicology. 2017 Dec 1;392:130-139.

Worley RR, Yang X, Fisher J. **Physiologically Based Pharmacokinetic Modeling of Human Exposure to Perfluorooctanoic Acid Suggests Historical Non Drinking-water Exposures Are Important for Predicting Current Serum Concentrations.** Toxicol Appl Pharmacol. 2017 Sep 1;330:9-21.

2018 SOT Annual Meeting Courses/Sessions:

CE Courses: Physiologically-Based Pharmacokinetic Modeling to Support Modernized Chemical Safety Assessment. Miyoung Yoon, ScitoVation, Research Triangle Park, NC; and Alicia Paini, European Commission Joint Research Centre, Ispra, Italy.

Uncertainty Characterization in 21st-Century Toxicology: Current Practice and Practical Methods Supporting Regulatory Risk Assessment. Kristi Muldoon-Jacobs, US Pharmacopeial Convention, Rockville, MD; and Andrea Richarz, European Commission Joint Research Centre, Ispra, Italy.

Workshops: Advancing the Adverse Outcome Pathway Framework: An International Horizon-Scanning Approach, Rory Conolly, US EPA, Research Triangle Park, NC; and Markus Hecker, University of Saskatchewan, Saskatoon, SK, Canada.

Platform Session: Pharmacokinetic Modeling: Development and Applications, Jeffery M. Gearhart, HFJ/USAF and Paul Schlosser, USEPA.

Endowment Fund Details: We are continuing our search for an endowment fund steward.
Andersen/Clewell Trainee Award fund as of March 31, 2018: Balance $54,601,
The Perry J. Gehring Biological Modeling Student Award fund as of March 31, 2018: Balance $ 52434.

Newsletters: Efforts to reactivate the publishing of Newsletters have been initiated and Dr. Pankajini Mallick, a post doc at Sitovation will be editor.

Teleseminars: Five BMSS teleseminars were conducted in 2017-2018, one of which was in collaboration with RASS.

July 21, 2017 – Dr. Zhoumeng Lin, Kansas State University School of Veterinary Medicine**, "**Performance Assessment and Translation of Individual or Population Physiologically Based Pharmacokinetic Models from acslX to Berkeley Madonna, MATLAB, and R language".

Sept 15, 2017 – Dr. Frederic Bois, Research Director at the *Institut national de l'environnement industriel et des risques* (INERIS), "TRAVitro – VIVO".

Oct 20, 2017 – Dr. Andrea Edginton, Associate Professor, School of Pharmacy, University of Waterloo, "An Introduction to PK-Sim: the Open Source Platform for PBPK Modeling".

Dec 13,2017 – Dr. James P. Sluka, Biocomplexity Institute Indiana University Bloomington, Liver-Centric Multiscale Modeling Framework (Joint RASS-BMSS Webinar).

April 11, 2018 – Drs. Jeff Woodhead and Lisl Shoda, scientists for DILIsym Services, Inc., "Quantitative Systems Toxicology as a Tool for Explaining and Predicting Drug-Related Organ Toxicity".

White Papers: N/A

Contributions to SOT website: Efforts were begun to update the BMSS website, a webmaster was chosen the summer of 2018 for the next year, Dr. Nan-Hung is a post-doc at Texas A&M.

Other Specialty Section 2017-2018 Activities: N/A