



Environmental science and pollution research

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Received: 30 July 2019 / Accepted: 16 August 2019 / Published online: 10 September 2019
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ISTA18 editorial

The 18th International Symposium on Toxicity Assessment ISTA18 (<https://wordpress.ft.unicamp.br/ista18/>) was held for the first time in Brazil from 17 to 21 of July of 2017. We selected Limeira, Sao Paulo State, as the location for our symposium and the event took place at the School of Technology, part of the University of Campinas, UNICAMP. The organization involved a large team, composed of professors, students, and administrative staff. It was a whole year of hard work, but at the end, we were all happy with the outcome.

A total of 135 participants attended the symposium, represented by 13 different countries (Fig. 1).

We had several activities, including pre-symposium courses: (1) synthetic dyes—structural, chemical, and environmental properties instructor, Dr. Harold Freeman, from the USA. (2) The use of zebrafish embryos in ecotoxicology, instructors, Dr. Rhaul de Oliveira and Dr. Thayres Andrade from Brazil.

During ISTA18, we had 117 presentations divided into keynote lectures (Table 1), platform presentations, flash presentations (i.e., 5-min platform talks), and poster presentations (Fig. 2).

Types of presentations

The abstracts were published in the Conference proceedings of Applied Research in Toxicology (ISSN) 2359–4721 volume 2/Suppl 1, 2017 (<https://wordpress.ft.unicamp.br/ista18/wp-content/uploads/sites/37/2015/12/Proceedings-ISTA18-ART.pdf>).

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In this special issue, we present eight very interesting papers on a range of issues including: the toxicity of natural products (“Phytotoxicity and cytogenotoxicity of hydroalcoholic extracts from *Solanum muricatum* Ait. and *Solanum betaceum* Cav. (Solanaceae) in the plant model *Lactuca sativa*”); treatment options for antibiotic degradation (“Advanced oxidation processes on doxycycline degradation: monitoring of antimicrobial activity and toxicity”); three papers on toxicity and genotoxicity related to fuels (“Toxicity evaluation of process water from hydrothermal carbonization of sugarcane industry by-products”), plus (“Can we use Cd-contaminated macrophytes for biogas production?”) and the aluminum industry (“Spent Pot liner from aluminum industry: genotoxic and mutagenic action on human leukocytes”). There was also a paper on the toxicity of illicit drugs such as cocaine in the marine environment (“Detoxification, oxidative stress, and cytogenotoxicity of crack cocaine in the brown mussel *Perna perna*”). Environmental contamination assessment included a manuscript on nail polish waste (“Toxicological evaluation of nail polish waste discarded in the environment”), and another one showing the genotoxic effects of impaired waters “Genotoxicity of water samples from an area of the Pampean region (Argentina) impacted by agricultural and livestock activities.”

We believe that this special issue, with its broad variety of research topics, embodies the spirit of ISTA, which is to provide a forum for dissemination and discussion of new and integrative ideas, and working to provide tools for better assessments of environmental and human health.

Gisela de Aragão Umbuzeiro is graduated in Biology from the State University of Campinas, UNICAMP (1979), got her master’s and in Genetics and Molecular Biology from UNICAMP (1985) and Ph.D. in Genetics and Molecular Biology from UNICAMP (1990). Visitor Professor at NIEHS and USEPA. Full professor at the School of Technology, UNICAMP. She worked for 22 years for the Environmental Protection Agency of the São Paulo State of Brazil (CETESB). She was president of the Mutagen and she is in the Editorial Board of Environmental Molecular Mutagenesis journal and Environmental Science Europe. She is an expert and a member

Fig. 1 Countries represented in ISTA18, Brazil

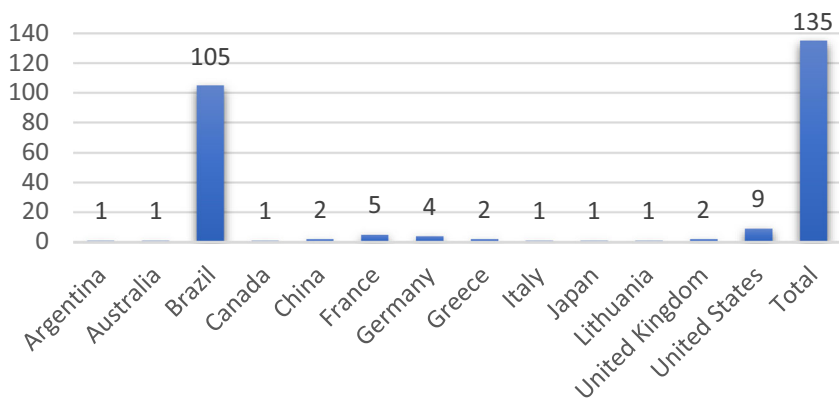


Table 1 Keynote information of ISTA18, Brazil

Researcher	Institution	Title of the talk
Tracy Collier	Salish Sea Studies Institute, Western Washington University, Bainbridge Island, USA	Global developments in environmental toxicology: protecting complex ecosystem functions and provisioning of ecosystem services
Toshihiro Horiguchi	National Institute for Environmental Studies, Tsukuba, Ibaraki, Japan	Critical appraisal and perspectives on gastropod imposex studies
Susan Richardson	Department of Chemistry and Biochemistry, University of South Carolina, Columbia, SC, USA	Emerging unregulated disinfection byproducts: new discoveries, new sources, and insights into toxicity
Nathaniel Scholz	National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service, Northwest Fisheries Science Center, Seattle, Washington, USA	Pesticide impacts on Pacific salmon—a commercial, ecological, and cultural resource in western North America
Werner Brack	UFZ—Helmholtz Centre for Environmental Research, Leipzig, Germany	Solutions for present and future emerging pollutants in land and water resources management

of the UNESCO-IHP INTERNATIONAL INITIATIVE ON WATER QUALITY—IIWQ Experts Advisory Group. Her main experience is on environmental and regulatory toxicology, mutagenesis, ecotoxicology, and toxicology of dyes and pesticides in water. She coordinates the Laboratory of Ecotoxicology and Genotoxicity (LAEG) from the School of Technology, UNICAMP.

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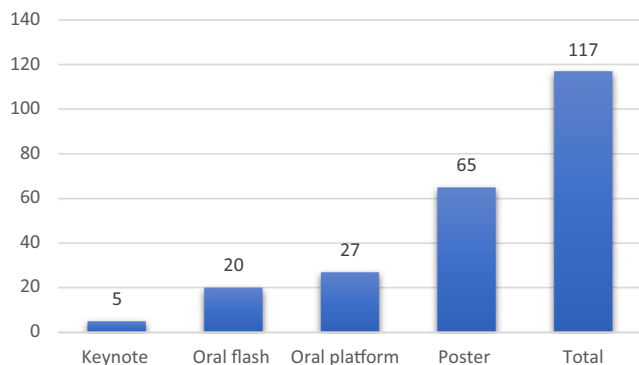


Fig. 2 Breakdown of the number/type of presentations during ISTA18, Brazil



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worked for 22 years for the Environmental Protection Agency of the São Paulo State of Brazil (CETESB). She was president of the Mutagen and she is in the Editorial Board of Environmental Molecular Mutagenesis journal and Environmental Science Europe. She is an expert and a member of the UNESCO-IHP INTERNATIONAL INITIATIVE ON WATER QUALITY - IIWQ Experts Advisory Group. Her main experience is on environmental and regulatory toxicology, mutagenesis, ecotoxicology, toxicology of dyes and pesticides in water. She coordinates the Laboratory of Ecotoxicology and Genotoxicity (LAEG) from the School of Technology, UNICAMP.



Tracy K. Collier is an environmental scientist in the United States who worked for that country's National Oceanic and Atmospheric Administration (NOAA) from 1972 until 2010, and served as the Director of the Environmental Conservation Division of NOAA's Northwest Fisheries Science Center from 2003 to 2010. In that role he supervised a research enterprise of approximately 100 staff, covering environmental toxicology, chemistry, algal toxins, and watershed

processes. Since retiring from NOAA, Dr. Collier has served as a technical expert for NOAA on the Deepwater Horizon Oil Spill (2010-2016), the LCP site in coastal Georgia (2015-present), and Portland Harbor/Lower Duwamish River sites (2017-present). He also served as NOAA's Science Advisor to the Oceans and Human Health Initiative (2010-2014), and as the Science Director for Washington State's Puget Sound Partnership (2012-2014). Tracy currently is a Senior Associate with Ocean Associates, Inc., an Associate with Research Planning, Inc., a member and past chair of the Delta Independent Science Board in California, and a Fellow of the Salish Sea Institute and Affiliate Faculty of Western Washington University. He has over 170 scientific publications. He received his Ph.D. in Fisheries Science from the University of Washington in 1988.