INHALATION AND RESPIRATORY SPECIALTY SECTION

Description

The Inhalation and Respiratory Specialty Section provides a focus for members of the Society of Toxicology dealing with the impact of airborne chemicals and particles on the body. The Section meets regularly at the SOT Annual Meeting to promote a better understanding of inhalation and respiratory tract Toxicology, to recognize students and colleagues for notable contributions to research, and to address issues of importance to this field. IRSS sponsors webinars and other educational opportunities.

Issues of Interest

- Network with inhalation and respiratory toxicologists from industry, government, and academia.
- Present your work in sponsored and selective specialty sessions.
- Mentoring junior members.

Membership Benefits

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Inhalation Toxicology Through the Ages

1700-1900: Industrial Revolution
Mining and combustion of coal increases CO2 emissions from 1.7 million tons in 1700 to 350 million tons in 1900. During the Industrial Revolution, cities were born and the environment became more polluted.

1900-1930: A New Way to Kill
1910: Hawke's Nest Incident
Hundreds of American workers died between 1927-1930 due to asphyxiation by hydrogen cyanide gas.
1930: London's "Killer Smog"
Thousands of people died due to a toxic haze that blanketed London and lasted for days.

1930-1950: The Dawn of Modern Toxicology
1930: Smoking & Lung Cancer
Sir Richard Doll and Bradford Hill publish first paper linking smoking and lung cancer.
1950: US-EPA Established
In addition to establishing the EPA, the 1970 Amendments to the Clean Air Act, first passed in 1970, authorized for the regulation of industrial and mobile sources of air pollutants. In 1971, EPA names 4-0 cadmium as a carcinogen.

1950-1970: A New Era of Public Health
1954: Mary Amour
Researcher presents her work on how elevated levels of pollutants are associated with increased levels of asthma.

1993: Harvard Six Cities Study
Groundbreaking study found a strong link between air pollution and mortality, spurring improved U.S. regulations on fine particulate matter.
1995: Tokyo Subway Sarin Gas
A nerve agent was released in an underground subway, killing 12 and injuring 6.
1999: Library, MT Asbestos
The EPA warns that anyone living in the northeastern United States for more than six months may develop cancer before January 1991 was mostly likely exposed to harmful levels of asbestos.

1990-2000: The Dangers of the 21st Century
2000s: World Trade Center Attacks
9/11 Terrorist attacks result in the deaths of nearly 3000 people, releasing large amounts of dust containing asbestos, and other toxic substances.
2015: Beijing Air Pollution
A striking decrease in air quality is observed after China implements clear skies in time for the military parade. Less than 24 hours later, Beijing's AQI reached 16.

2016 & 2018: New Delhi Air Pollution
PM 2.5 reached up to 550 μg/m³ in November 2016, reaching to poor quality, increased mortality from respiratory diseases, and crooking of health.
2019: COVID-19
Outbreak of novel coronavirus, or severe acute respiratory syndrome primarily associated with SARS-CoV-2.

2020s +

Current & Future Challenges

Covid-19
Wildfire Fires
Burn Pit Emissions
PFAS
E-Cigarettes
Climate Change

Reception and Awards Meeting
Monday March 28, 2022
6:00 PM – 7:30 PM PST
Marriott Marquis San Diego Marina San Diego Ballroom B

Join the Inhalation and Respiratory Specialty Section for their Business Meeting and Reception. The event will include: a report of section activities in the past year, award announcements, introductions of the 2022-2023 officers, and ample networking opportunities to connect with colleagues. This event is open to all in-person Annual Meeting attendees interested in joining the section, regardless of current membership status with the hosting group.

Executive Committee 2021-2022

President
Judith T. Zelikoff
Vice President
Melanie Doyle-Eisele
Secretary/Treasurer
Meghan Rebuli
Councilor
Holger P. Behrsing
Councilor
Natalie M. Johnson
Councilor
Marusia Popovech
Councilor
Robert M. Tighe
Councilor
Thivanka Muthumalage
Grad Student Rep
Michael Yaeger

Sponsored Events at SOT Meeting

- Workshop: Bad Breath: Noninvasive Investigation into the Exhaled Biomarkers for Toxicological Research
Mar 28, 1:45 PM – 4:30 PM PST, CC Room 7
- Symposium - Safe and Sustainable Plastics: Can the Health Impact Be Reduced and Plastic Still Used
Mar 29, 8:00 AM – 10:45 AM, CC Ballroom 6B
- Symposium - Lung Lipids in Xenobiotic-Induced Tissue Injury and Disease Pathogenesis
Mar 31, 8:30 AM – 11:15 AM, CC Room 1
March 30, 1:45 pm – 4:30 pm CC Ballroom 6A

IRSS 2022 Award Winners

Career Achievement: M. Ian Gilmour, PhD
Donald E. Gardner Inhalation Toxicology Education Award: Satya Achanta, DVM, PhD
Mary Amour Student Award: Shyamali Srinivasan, DVM, PhD
Student Award: Elise Hickman
Young Investigator Award: Salik Hussain, DVM, PhD
Postdoctoral Award: Cody Smith, PhD
Grad Student Rep: Michael Yaeger

Upcoming committee for 2022-2023

- VP-Elect: Laura Van Winkle, PhD
- Councilor: Katherine Zychowski, PhD
- Councilor: Patricia Silveyra, PhD
- Postdoc Rep: Emma Karey, PhD
- Grad Student Rep: Michael Yaeger