Message from the President

November 4, 2020

Dear IRSS Members,

As you all know, 2020 has been a year of unprecedented challenges for the world. COVID-19 turned our world upside down practically overnight. Any big conferences, such as our annual meeting, were canceled. Research activities were shut down and everything was moved to virtual. Through all of these changes, our frontline and essential workers dealt with sickness and death, and involved in laboratory work around the clock; thanks to you all.

COVID-19 was not the only dilemma as tensions boiled over with the national racial intolerance movement, and the climate was ravaged with wild-fires and hurricanes. Nevertheless, we endured and persisted on. Thanks to Elise and Colette for including this information on the updated poster (page 4).

Although not the same, teaching, mentoring, and research continued on through virtual means. We learned new skills in zoom, google meets, teams, webex, skype and the like. And to some degree, the pace of our lives slowed down and we found appreciation for the things we once took for granted.

This year has brought to light some of the challenges in the field of inhalation and respiratory toxicology, but it is with a grateful heart I’d like to thank everyone for their membership and for contributing to our diverse and inclusive IRSS. Likewise, we appreciate the innovative ideas that have come to us like the webinars hosted by Judith Zelikoff and Holger Behrsing on inhalational/respiratory effects of COVID-19 (thanks to presenters, page 3). Not to mention the marvelous and much needed cheering up that the virtual retreat put together by Judy (congratulations to all winners) was spectacular. A vast array of dynamic sessions were programmed virtually by our members (page 2), which I greatly enjoyed.

Thank you to our members, our new officers, and everyone who participated in the IRSS activities. We embrace equity, gender, and diversity in our specialty section. We recognize the efforts our members make for the enrichment of our Specialty Section. We will have webinars and other educational activities coming soon!

Stay tuned and be hopeful,

Irfan

Irfan Rahman, PhD
President, Inhalation and Respiratory Specialty Section
SOT 2020 Program Webinars hosted by IRSS
Members: Thank you to all.
https://www.toxicology.org/events/am/AM2020/program.asp

SYMPOSIA/WEBINARS
Electronic Cigarettes and Cardiovascular Toxicity: New Friend or Old Foe?
Chairs: Ivan Mark Olfert, West Virginia University School of Medicine; and Daniel J. Conklin, University of Louisville.

Resolution of Inflammation in Chemical Toxicity/Tissue Injury: What’s Emerging?
Chairs: Kymberly Gowdy, East Carolina University; and Srikanth Nadadur, NIEHS.

Protecting Public Health and the Environment during Wildfire Recovery
Chairs: Shelley DuTeaux, California Department of Pesticide Regulation; and Shoba Iyer, California Environmental Protection Agency.

CONTINUING EDUCATION COURSE: In Vitro Approaches to Assess the Toxicity of Inhaled Substances
Chairs: Amy J. Clippinger, PETA International Science Consortium Ltd., United Kingdom; and Emily Reinke, Army Public Health Center.

Sex, Lungs, and Air Pollution
Chairs: Meghan E. Rebuli, University of North Carolina at Chapel Hill; and Robert M. Tighe, Duke University.

Lung Function: It's Not Just Breathing
Chairs: Andrew Gow and Angela Groves

HOT TOPIC seminars was a huge success!

- E-cigarette and Vaping Product Use-Associated Lung Injury (EVALI)
Webinar Series 2020-2021 Part #1
“COVID-19: Impact of Inhalation Based Exposures on Respiratory System” Wednesday, August 5, 2020, at 1:00 – 2:00 PM EDT

Gagandeep Kaur, PhD
Postdoctoral Associate,
University of Rochester Medical Center

Robert Foronjy, MD
Chief, Pulmonary and Critical Care Medicine SUNY Downstate Medical Center

Moderators:
• Irfan Rahman, PhD, Professor, University of Rochester, Rochester, NY
• Judith Zelikoff, PhD, Professor, New York University School of Medicine
• Holger Behrsing, PhD, Principal Scientist & Head: Respiratory Toxicology Program, IIVS, Inc.
• Chris Reilly, PhD, University of Utah, Dept. of Pharmacology and Toxicology

Webinar Series 2020-2021 Part #2
“A respiratory look into COVID-19 pediatric health and adolescent health risks of behavior” Wednesday, November 18, 2020, at 2:00 – 3:00 PM EST

Ilona Jaspers, PhD
Professor, Depts. of Pediatrics, Microbiology & Immunology, and Environmental Sciences and Engineering
University of North Carolina at Chapel Hill

Matthew McGraw, MD
Assistant Professor - Department of Pediatrics, Pulmonology (SMD)
University of Rochester Medical Center

Moderators:
• Irfan Rahman, PhD, Professor, University of Rochester, Rochester, NY
• Judith Zelikoff, PhD, Professor, New York University School of Medicine
• Holger Behrsing, PhD, Principal Scientist & Head: Respiratory Toxicology Program, IIVS, Inc.
**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
- Indoor and outdoor air pollution
- Occupational exposure to airborne contaminants
- Therapeutic delivery by inhalation
- Deposition and pharmacokinetics of inhaled materials
- Interactions between inhaled materials and allergic stimuli
- Airway injury from systemic toxicants
- Systemic injury from airway exposure
- Biomarkers of exposure and disease

### Membership Benefits
- Network with inhalation and respiratory toxicologists from industry, government, and academia.
- Present your work in sponsored and selectivity sections.
- Mentoring junior members.

### Reception and Awards Meeting
**Thursday, May 21, 2020**
2:30 PM – 4:00 PM EDT
Virtual Meeting via Webex
Please join us to honor our award winners and discuss member involvement.

### Executive Committee 2020-2021
- President: Behrsing
- Past President: Ahima
- President-Elect: Land
- Vice President-International Branch Operations: Steverson
- Secretary/Treasurer: Smith
- President and Rep Center: Miller
- Student Rep: Hickman

### Sponsored Events at SOT Virtual Meeting
- “Electronic Cigarettes and Cardiovascular Toxicity: New Friend or Old Foe?” (4/28/2020)
- “Resolution of Inflammation in Chemical Toxicity/Tissue Injury: What’s the Therapeutic?” (5/12/2020)
- “Sex, Lung, and Air Pollution?” (6/11/2020)
- “In vitro approaches to assess the toxicity of inhaled substances” (5/15/2020)

### Upcoming hot topic seminar topics will focus on the outbreak of e-cigarette, or vaping-associated, lung injury (EVALI), including epidemiology, clinical perspectives, forensic evidence, and potential mechanisms.

### IRSS 2020 Award Winners
**Career Achievement Award:** Urmila Kodavanti, US EPA
Young Investigator Award: Phoebe Stapleton, Rutgers/SUNY
Donald E. Gardner Education Award: Cody Smith, Rutgers
Mary Amudr Student Award: Elise Hickman, UNC Chapel Hill
Graduate Student Award: Christina Amdur, US EPA
Postdoctoral Awards: Tosa Post, University of Utah
Paper of the Year Award: Meghan Reubi, UNC Chapel Hill

### Inhalation Toxicology Through the Ages

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>75 CE: Mount Vesuvius Erupts</td>
<td>79 AD</td>
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<tr>
<td>79 CE: Air is a Birthright</td>
<td>79 AD</td>
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<tr>
<td>79 CE: Romano Emperor Aurelian, first U.S. soldier to wear a gas mask during the War between the Two Empires</td>
<td>79 AD</td>
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<tr>
<td>1000-1700: Industrial Revolution</td>
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<td>1700-1800: Industrial Revolution</td>
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<td>1800: Northwest Company</td>
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<td>1812: War of 1812</td>
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<tr>
<td>1850: Smoking &amp; Lung Cancer</td>
<td>1850</td>
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<tr>
<td>1860: Breathing and Lung Cancer</td>
<td>1860</td>
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<tr>
<td>1874: First Air-Conditioning</td>
<td>1874</td>
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<td>1877: St. Louis Post Wins Pulitzer</td>
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<tr>
<td>1890: Theodore Roosevelt, First President</td>
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<td>1900: First U.S. Post Office</td>
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<td>1902: First Flight</td>
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<td>1910s: B.HasValue?</td>
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<td>1921: First American Nuclear Reactor</td>
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<td>1927: Spain conquers the Incas</td>
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<tr>
<td>1930: Second World War</td>
<td>1930</td>
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<td>1940s: Gas mask used</td>
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<td>1941: U.S. Post Office</td>
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<td>1942: Tokyo &amp; Hiroshima</td>
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<td>1945: Manhattan Project</td>
<td>1945</td>
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<td>1948: B Nice-Cold Ban</td>
<td>1948</td>
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<td>1950s: Tobacco in Europe</td>
<td>1950s</td>
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<td>1955: U.S. PMR Ban</td>
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<td>1960s: SOT Established</td>
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<td>1960s: First U.S. National Cancer Center</td>
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<td>1961: Vietnam War</td>
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<td>1962: Stainless Steel</td>
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<td>1963: Sot's IRSS Established</td>
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<td>1965: B Baby Powder</td>
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<td>1968: B Baby Powder</td>
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<tr>
<td>1970s: B Baby Powder</td>
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<td>1980s: World Trade Center Attacks</td>
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<td>1990s: Wildfire Fires</td>
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<td>2000s: Kingston Coal-Ash Spill</td>
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### Current & Future Challenges
- COVID-19
- Waterfowl Fires
- Burn Pit Emissions
- FASD
- E-Cigarettes
- Climate Change

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**Postdoc Rep:** Colette Miller (EPA)  Miller.Colette@epa.gov

**Student Rep:** Elise Hickman (UNC)  ehickman@email.unc.edu

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**Thanks to Elise and Colette for updating this poster!**
Member Highlights

Communication Activities –
Other Specialty Section 2019-2020 Activities

Irfan Rahman, PhD (then VP-elect and VP) served as a member for Specialty Section Collaboration and Communication Group (SS CCG) of the SOT from 2018-2020 where he worked with other Specialty Section groups on increasing the membership, visibility of webinars and seminars, nominating key speakers and suggesting proposals, ethical aspects of members, diversity and inclusion and communicated the exchange of ideas to IRSS.

Marusia Popovech, PhD (IRSS councilor) is now a member of SS CCG on Ethical, Legal, Forensics, and Societal Issues for 2019-2021.

Congratulations to Amie Lund, PhD (our IRSS councilor) who is recognized as
- Lone Star Society of Toxicology (LSSOT) Regional Chapter- President (2020-2021)
- SOT Regional Chapter Communication and Collaboration Committee (RC4) - co-Chair (2020-2021)
- LSSOT - FUTURE Liaison (2020-2021)
Dear members,

We would like to acknowledge and thank all of our Executive Committee and IRSS members for their contributions.

Awards Committee:
Judith Zelikoff, PhD (Chair)
Judith.Zelikoff@nyulangone.org
All EC members

Program Committee:
Judith Zelikoff, PhD (Chair)
Judith.Zelikoff@nyulangone.org
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ehickman@email.unc.edu

Thank you for your involvement and commitment. Please be a part of our endeavors, and contact us for feedback and involvement!
NEW BUSINESS AND ANNOUNCEMENTS

- Please apply for IRSS awards
- Please suggest topics of webinars

IRSS Elections are coming...
Interested candidates must contact the current officers

Annual meeting deadline abstract submission
December 1, 2020.

Join us in Virtual San Diego, CA March 27-31, 2022!

Donate to the Endowment Fund!

Support IRSS!