Message from the President

April 08, 2021

Dear IRSS Members,

I am glad to put my thoughts for this Spring 2021 newsletter that we are almost there towards the end of pandemic caused by SARS-CoV-2. We have had our fill of Zoom calls, mask wearing, social distancing, elbow bumps, streaming service binging, and a whole lot more with cancellation of two in-person SOT meetings and joining via Zoom. Our members deserve a lot throughout this turmoil, as it is well earned that we celebrate the achievements of our members and focus on our virtual meeting.

First, it was a great pleasure hosting the evening reception of our Specialty Section on Wednesday, March 17, 2021 which was well-attended with a great success. I’d like to say thank you again to our presenters, moderators, and attendees of this year’s webinar series focusing on COVID’s effects on the respiratory system. The insights gained from both discussions were truly eye-opening. Second, congratulations to all of this year’s award winners: Samantha Snow, Gagandeep Kaur, Eva Vitucci, Carmen Lau, John Morris, Keith Rogers, and Meghan Rebuli. We, as a society, are very proud of your endeavors and continued strive towards excellence in this field. And last, but certainly not least, congratulations to our incoming Executive Committee and our incoming IRSS President, Judy Zelikoff and Vice President Melanie Doyle-Eisele. I am certain that even though the current state of the world will throw more trials your way, you all will not only overcome but thrive in your endeavors.

I hope you all enjoyed the SOT Virtual Meeting with wide variety of sessions/posters and found a free moment to attend some of our sponsored events too. Perhaps, like one of my mentees, you even learned something excitingly new that you plan to implement in your upcoming research. And if you are like me and find it difficult to attend anywhere near as many sessions as you desire to, do not fret. We have a forthcoming seminar by Dr. James McGrath and Dr. Eliseo Castillo. Discussing microplastics, and their association with pulmonary risk is sure to be an enlightening conversation and one I personally look forward to. Thanks to Holger Behrsing to continue the legacy of this important component of the IRSS.

Finally, thank you all for your membership in IRSS! You all have contributed to making our Specialty Section inclusively diverse and I could not feel more honored to have been your President during this challenging year. I look forward to assisting you all in my new capacity as Past President and all the discussions/webinars we shall have in the future. Best of luck to you all!

Respectfully yours,

Irfan
Irfan Rahman, PhD
President, Inhalation and Respiratory Specialty Section
Executive Committee 2020-2021

President: Irfan Rahman
Vice President: Judy Zelikoff
VP-elect: Melanie Doyle-Eisele
Sec/Treas: Mehdi Saeed Hazari
Past President: Matt Campen

Sr Councilor: Amie Lund
Sr Councilor: Christopher Reilly
Jr Councilor: Holger Behrsing
Jr Councilor: Marusia Popovech
Postdoc: Colette Miller
Grad student: Elise Hickman
Incoming Executive Committee 2021-2022

President: Judy Zelikoff
Vice President: Melanie Doyle-Eisele
VP-elect: Kym Gowdy
Sec/Treas: Meghan Rebuli
Past President: Irfan Rahman
Sr Councilor: Holger Behrsing
Sr Councilor: Marusia Popovech
Jr Councilor: Robert Tighe
Jr Councilor: Natalie Johnson
Postdoc: Thivanka Muthumalage
Grad student: Michael Yaeger
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. IRS sponsors webinars and other educational opportunities.

Issues of Interest
- Indoor and outdoor air pollution
- Occupational exposure to airborne contaminants
- Therapeutic drug delivery by inhalation
- Deposition and pharmacokinetics of inhaled materials
- Interactions between inhaled materials and allergic stimuli
- Airway injury from systemic toxins
- 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 selective specialty sessions.
- Mentoring junior members.

Reception and Awards Meeting
Wednesday, March 17, 2021
4:30 PM – 6:30 PM ET
Virtual Meeting via Webex/Zoom
Please join us to honor our award winners and discuss member involvement.

Executive Committee 2020-2021/22
President: Howard R. Zelikoff, M.D.
President-elect: Debra Miller, Ph.D.
Vice President: Rayack, M.D.
Vice President-elect: Matthew A. Padgett, Ph.D.
Secretary: Elizabeth Hadley
Treasurer: Susan Casamento
Student Rep: Arinze Enechigo

Sponsored Events at SOT Virtual Meeting
- "From Inhaled Particles to Neurodegeneration and Toxicity: Evidence from Studies in Volunteers, Experimental Animals, and Cell-Based Systems" (3/16/21 at 11:15 AM EST)
- "Is Not Just Air: Exposure to Indoor Air Pollution, Diagnostic Tools, and Evaluation of Health Effects" (3/17/21 at 11:30 AM EST)

Workshops
- "Standardization of In Vitro Inhalation Exposure for Regulatory Acceptance" (3/15/21 at 11:15 AM EST)
- "Precision-Cut Lung Slices: A Versatile Tool for Pulmonary Toxicology" (3/16/21 at 11:15 AM EST)
- "New Approaches for the Identification and Evaluation of Chemical Respiratory Sensitizers" (3/22/21 at 11:15 AM EST)

Continuing Education:
- "Establishing Confidence in Organ-on-a-Chip Systems for Toxicology Testing: Lung-on-Chips as an Example" (3/29/21 at 11:00 AM EST)

IRS 2021 Award Winners
Paper of the Year Award: Shalini Netravali, University of Texas
Postdoctoral Award: Gagandeep Kaur, University of Rochester
Mary Amidor Student Award: Eva Vithi
Student Award: Carmen Lau, Texas A&M University
Career Achievement Award: John Morris, University of Connecticut
Donald E. Gardner Inhalation Toxicology Education Award: Keith Rogers, University of North Carolina
Young Investigator Award: Meghan Rebuli, University of North Carolina

Inhalation Toxicology Through the Ages

17th-18th Century
- Industrial Revolution
- Factory Act of 1802
- Steam-powered text and textile factories

19th Century
- Cholera epidemic in London
- Yellow Fever epidemic in New Orleans
- cholera epidemic in New Orleans
- Tobacco use in Europe
- Smoke from tobacco use

20th Century
- Atomic bomb in Hiroshima
- Nuclear power plants
- Space exploration
- Environmental legislation

21st Century
- Climate change
- Air pollution
- Global warming
- Public health

References
- "A striking difference in air quality is observed after Beijing achieves clear blue skies in time for a military parade." (SOT 2021)
- "Air pollution is a major contributor to respiratory diseases." (SOT 2021)
- "Signs of air pollution swiftly rise once the Spanish conquer the Incas in 1533." (SOT 2021)
Awards: Winners of 2020-2021

Paper of the Year Award: Samantha Snow, US EPA

Postdoctoral Award: Gagandeep Kaur, University of Rochester

Mary Amdur Student Award: Eva Vitucci

Student Award: Carmen Lau, Texas A&M University

Career Achievement Award: John Morris, University of Connecticut

Donald E. Gardner Inhalation Toxicology Education Award: Keith Rogers, University of North Carolina

Young Investigator Award: Meghan Rebuli, University of North Carolina
Symposia:

- “From Inhaled Particles to Neurodegeneration and Toxicity: Evidence from Studies in Volunteers, Experimental Animals, and Cell-Based Systems” (3/16/2021 at 11:15 AM ET)
- “It Is Not Just Air: Exposure to Indoor Air Pollution, Diagnostic Tools, and Evaluation of Health Effects” (3/17/2021 at 11:30 AM ET)

Workshops:

- “Standardization of In Vitro Inhalation Exposure for Regulatory Acceptance” (3/15/2021 at 11:15 AM ET)
- “Precision-Cut Lung Slices: A Versatile Tool for Pulmonary Toxicology” (3/16/2021 at 11:15 AM ET)

Continuing Education:

- “Establishing Confidence in Organ-on-a-Chip Systems for Toxicity Testing: Lung-on-a-Chip as an Example” (3/26/2021 at 11:00 AM ET)
Webinar Series 2020-2021
“Microplastics and pulmonary risk: Environmental prevalence, exposure and mechanisms of pulmonary action”
Tuesday, April 13th, 2021 at 2:00 – 3:00 PM EDT.

James McGrath, PhD
Professor of Biomedical Engineering
University of Rochester

Eliseo Castillo, PhD
Assistant Professor, Department of Internal Medicine
University of New Mexico Health Sciences Center

Moderators:
• Irfan Rahman, PhD, Professor, University of Rochester, Rochester, NY
• Judith Zelikoff, PhD, Professor, New York University School of Medicine
• Holger Behrsing, PhD, Director & Head: Respiratory Toxicology Program, IIVS, Inc.

For nominations and suggestions-

Please contact:

Holger P. Behrsing, PhD
Director – Respiratory Toxicology
Office: 301.963.4946
hbehrsing@iivs.org
Specialty Section-Collaboration and Communication Group (SS-CCG)

Mission: Facilitate the exchange of ideas across Specialty Sections

Seeking Input:
- Co-sponsored events (webinars, etc.)
- Best Practices

Forthcoming Meetings

The 23rd Congress of the International Society for Aerosols in Medicine (ISAM) will be held in Boise, Idaho from 22nd to 26th May 2021.
https://www.isam.org/website/2021%20Congress/congress

The International Society for Aerosols in Medicine (ISAM)
office@ISAM.org

Call for Proposals for the International Congress of Toxicology 2022 Scientific Program
https://www.eventclass.org/contxt_ict2022/welcome/index

The International Congress of Toxicology is a joined meeting of IUTOX and EUROTOX (www.ict2022.com). The theme of the 2022 ICT “Uniting in Toxicology”, reflects our desire to address topics dealing with different disciplines. Submit your scientific proposals via the submission platform making sure to include the organiser details, the recommended speakers, and a brief presentation for the proposal.

https://www.eventclass.org/contxt_ict2022/welcome/index

The 10th International Conference on Nanotoxicology (virtual program) is just around the corner. Registration is open, and the conference runs from April 20-22. The program is available online. There are 212 presentations consisting of, 7 Keynotes, 86 Abstract Oral Presentations, and 119 Poster Presentations with presenters from over 28 countries. Further information on this conference can be found in the attached flyer link or at 10th International Conference on Nanotoxicology (nanotox2021.org)
Dear members,

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

**IRSS Awards Committee:**
Melanie Doyle-Eisele (Chair 2020-2021) and All EC members
Incoming Chair: Kym Gowdy

**Education, Technical, Outreach, Endowment and Webinar Committee (2020-2021)**
Judith Zelikoff, PhD
Judith.Zelikoff@nyulangone.org
Irfan Rahman, PhD
Irfan_Rahman@urmc.rochester.edu
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Colette Miller, PhD (EPA)
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Elise Hickman, PhD (UNC)
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**Program Committee:**
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Christopher A. Reilly, PhD
Chris.Reilly@pharm.utah.edu

**Membership and Endowment**
Incoming Chair: Meghan Rebuli

**Technical**
Judith Zelikoff; Melanie Doyle-Eisele; Holger Behrsing and others

Thank you for your involvement and commitment. Please be a part of our endeavors and contact us for feedback and involvement!
All slides will be available from

www.toxicology.org/groups/ss/IRSS