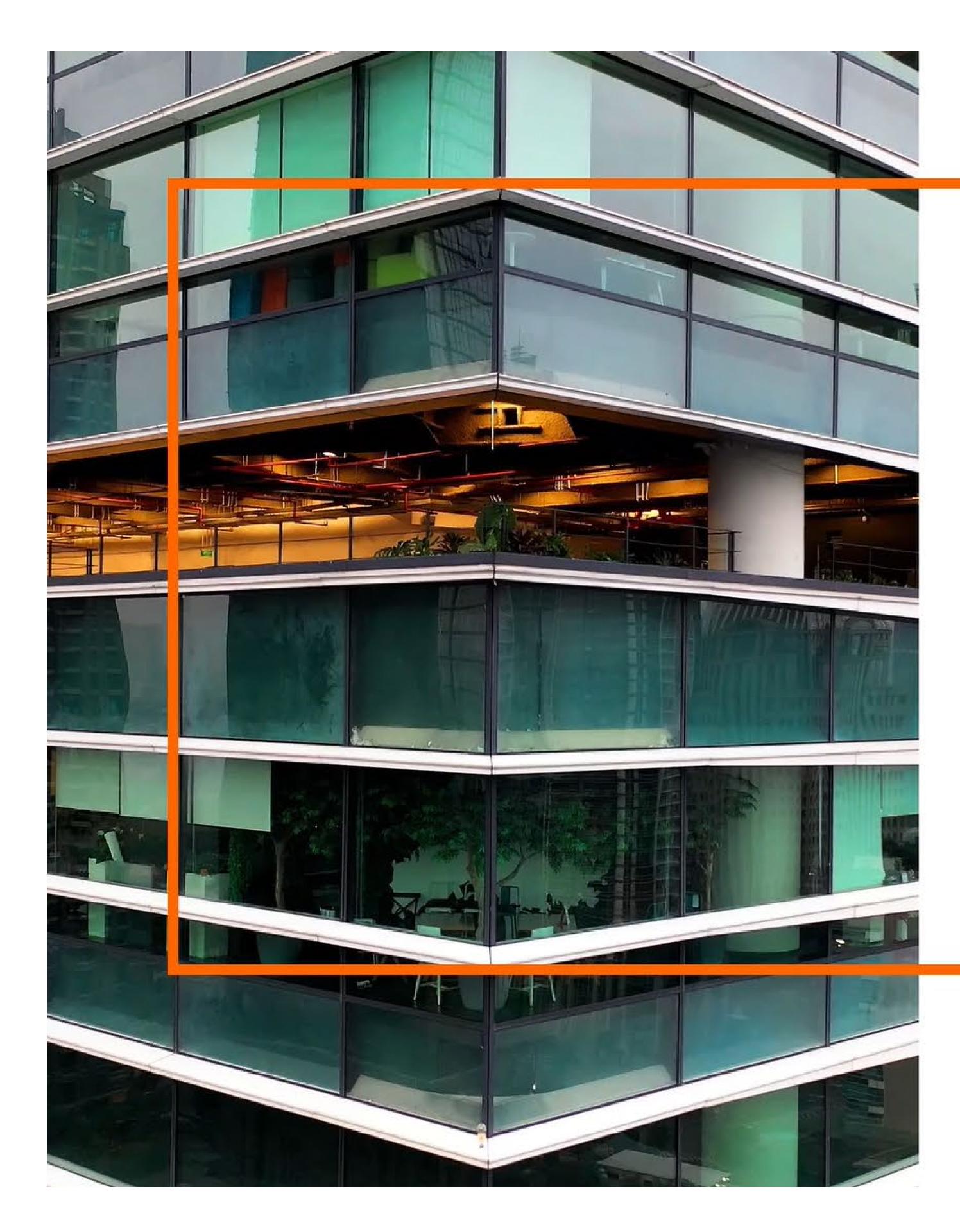
# AILICEEXP2021

Advancing Worker Health & Safety -

Online May 24–26

### VIRTUAL FINAL PROGRAM

The premier conference and exposition for occupational and environmental health and safety professionals



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### General Information

Conference events are held entirely virtually, in the comfort of your office, home, or setting of your choice. All events are held on Central Time, unless otherwise noted.

### **Behavior Standards**

AlHce EXP is a professional conference. AlHA reserves the right to take any action deemed necessary and appropriate, including immediate removal from the meeting without warning or refund, in response to any incident of unacceptable behavior, and AlHA reserves the right to prohibit attendance at any future meeting. Examples of unacceptable behavior include, but are not limited to:

- Harassment, intimidation, or discrimination in any form
- Physical or verbal abuse of any attendee, speaker, volunteer, exhibitors, AIHA staff member, service provider, or other meeting guest
- Verbal comments related to gender, sexual orientation, disability, physical appearance, body size, race, religion, national origin, inappropriate use of nudity and/or sexual images in public spaces or in presentations, or threatening or stalking any attendee, speaker, volunteer, exhibitor, AIHA staff member, service provider, or other meeting guest
- Disruption of presentations at sessions, in the exhibit hall, or at other events organized by AIHA.

AlHA has zero-tolerance for any form of discrimination or harassment, including, but not limited to, sexual harassment by participants or staff at conferences. If you experience harassment or hear of any incidents of unacceptable behavior, AlHA asks that you inform Larry Sloan, CEO or Franky Spangler, Director, Human Resources, or 703-849-8888 so that we can take the appropriate action. For more information on AlHA's Member Code of Conduct and Reporting Form, visit www. aiha.org/membership and search AlHA Code of Conduct Acknowledgement.

### CIH Requirements

For detailed information about CIH requirements, contact Board for Global EHS Credentialing (BGC) directly at <a href="https://www.abih.org">www.abih.org</a>.

### Education Credits

AlHce EXP 2021 attendees can earn up to 22 contact hours by attending one session virtually in every time block, Monday through Wednesday, including the daily Lunch and Learns. NOTE: While the virtual platform will remain available online through June 4, a maximum of 22 contact hours may be earned. Additional CM contact hours may be earned from mid-July through December 31, 2021 by attending sessions OnDemand.

### Going Green!

To help reduce waste and our footprint on the environment, AIHA and our suppliers have partnered on the following initiatives:



- Transitioning the printed Advance Program and Final Program to fully digital, eliminating paper product, fuel, and emissions used to transport programs via mail.
- Reducing the final program page count by listing session descriptions and exhibitor company descriptions online.

To help us "green" the conference, we encourage you to:

 Go digital (rather than print). Download to your computer any presentations and handouts and take notes digitally.

### General Information

### **Evaluations**

Virtual AlHce attendees can access education session and PDC evaluations via <a href="http://bit.ly/AlHceDailyEval">http://bit.ly/AlHceDailyEval</a>. You will receive a daily reminder at the end of each session day to complete the daily evaluations. Your feedback is appreciated and will be used to improve AlHce.

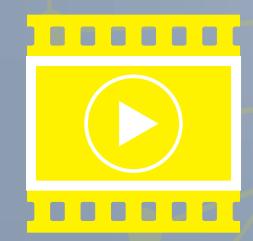
### Ехро

When it comes to staying current in the IH/OEHS field, the Virtual AlHce Expo Hall is where you need to be! It's the **best** place to discover new, cost-effective solutions to your current challenges, evaluate new technologies, and discuss emerging trends in the OEHS field, all while making valuable connections.

Make the most of your time in the Expo:

- 1) Review the Exhibitor Directory to see who is exhibiting.
- 2) View your profile in the virtual platform and check out the product or service providers that match your interests.
- 3) Connect with the exhibitor contacts by booking a meeting, video calling, or direct messaging.

### **OnDemand**



AlHce EXP OnDemand is the package of session recordings included with full conference registrations. PDC Registrations include access to that PDC recording as well. Sessions scheduled to be part of

the OnDemand package are noted with this icon in the Final Program but are subject to change. Recordings will be available 6-8 weeks after the conference through December 31, 2021. Credit is available for viewing the recordings. Once available, you will receive an email with access and detailed credit instructions.

### Proof of Attendance and PDC Completion

For the main conference, each attendee will receive a transcript update indicating their verified participation for up to 22 contact hours. For each PDC, each attendee will receive a transcript update indicating the total number of contact hours for that specific PDC. AlHce EXP 2021 and PDC transcript updates will be available no later than July 16, 2021.

### Disclaimer

The viewpoints and opinions expressed in the presentations, sessions, and discussions at AlHce EXP have not necessarily been approved or endorsed by AlHA.

### Schedule Changes

The Virtual AlHce EXP 2021 schedule is correct at the time of publication. AlHce reserves the right to change or cancel sessions, presentations, or speakers without notice due to circumstances beyond its control.



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AlHce EXP 2021

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### Special Events



### **NEW!**

AlHce EXP is proud to introduce EXP+, the home of some of the "extras" you know and love about the conference. Some of these prerecorded presentations are included as part of the overall conference schedule and focus on OEHS-specific topics (Pop-Up Education, Learning Pavilions, and Lunch and Learns). You'll also find the popular Health & Wellness track, focused on ways to stay mentally and physically healthy on the job and in life. These sessions will be available at their scheduled time and any time thereafter for the duration of the conference and will feature live chats with the presenters, which will also remain open for the duration of the conference.

Additionally, we are featuring a new AIHA Main Stage program, showcasing AIHA services, programs, and products to assist OEHS professionals in their daily work and on their career journey. The AIHA Main Stage will also host bonus videos, interviews, and other promotions, available to watch at any time.

### Nexus Lounge for Students and Early Career Professionals



- Monday, 12:15 p.m.–2:00 p.m.
- Tuesday, 12:15 p.m.–2:00 p.m.
- Wednesday, 11:15 a.m.–1:00 p.m.

Network, recharge, learn, and relax in The Nexus, a virtual lounge specifically designed for students and early career professionals! You'll be treated to a "Lessons in Leadership" series of meet and greets with our two keynote presenters, Mark of Excellence Award winners, and other IH/OEHS luminaries.

### AIHA's Total Exposure Health/ Total Worker Health Track

The Total Exposure Health/Total Worker Health (TEH/ TWH) track was developed in consultation with AIHA's TEH/TWH Advisory Group. This year's track features 20 sessions (5 PDCs and 15 education sessions, including the Fellows SIG Debate on Monday, May 24; 10:00 a.m. CT, which tackles the question of how far our profession can and should dive into the topics of TEH/TWH while still staying close to our swim lane.) These sessions explore different perspectives on how industrial hygienists can expand their everyday practice to include Total Worker Health (TWH), Total Worker Exposure (TWE), and Total Exposure Health (TEH). For more information on the TEH/ TWH track, visit the AlHce website.

### 35th Annual **AIHF Virtual** Fun Run

May IO-June 8

Lace up your shoes and get ready to run 5K, walk 2K, or bike 10K... and support the future of OEHS professionals through your donation to the AIH Foundation.

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AlHce EXP 2021



## AIHF Virtual Fun Run

May 10-June 8, 2021 #AIHFVirtualFunRun

Join us for a virtual 5k that benefits AIHF scholarship recipients.

Now that we've gone virtual, anyone can participate in the fun and give back!

- Register to donate \$40 for individuals/up to \$170 for groups
- Run or walk wherever you like (mind your social distancing)
- Submit your time
- Share your accomplishment on AIHF's Facebook page

Help us meet our goal of raising \$20,000 in scholarships for IH/OH students. Sign up today!

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### AIHA® Fellows

The AIHA Fellows designation recognizes those who are AIHA members in good standing, have 15 years of continuous Full membership, and have made recognized contributions to industrial hygiene or related disciplines, either through research, leadership, publications, education, or service to AIHA. Fellows are nominated by an AIHA local section, special interest group, committee, or peers. The Fellow designation is limited to no more than five percent of the membership.



### Daniel H. Anna, PhD, CIH, CPS, FAIHA

Nominated by Cheryl DuBois, CIH

Dr. Daniel Anna has been a member of the AIHA since 1992 and has been

an active supporter of the association and the industrial hygiene profession throughout this career. Dan has demonstrated his commitment with his 10 years on the AIHA board including his 2015-2016 term as president. In addition to holding these AIHA offices, Dan also served as the editor for the third edition of the AIHA publication, "The Occupational Environment—Its Evaluation, Control, and Management," and is currently serving as editor for the fourth edition. Dan also demonstrated his commitment and engagement to the profession through his service on the Protective Clothing and Equipment Committee and through his local AIHA sections. Dan has impacted and inspired the lives of many industrial hygienists through is

nearly 15 years of teaching at Millersville University and now at Johns Hopkins.

In addition to his teaching at the college level, Dan has been an active presenter and writer of industrial hygiene topics in a variety of settings. Dr. Anna has been a dedicated industrial hygiene professional who has clearly demonstrated his commitment to the profession, leadership, the AlHA, and the future of the profession.

### Curtis W. Hintz, CIH, CSP, FAIHA

Nominated by Cheryl DuBois on behalf of the AIHA Protective Clothing and Equipment Committee

Curtis has been a CIH since 1988 and a CSP since 1993. He has been a current and active member of AIHA for over 35 years. Throughout that time, Curtis has been actively supporting both local and national AIHA work including AIHF, officer and volunteer committee involvement as detailed in his resume and other parts of this application.

Additionally, Curtis has been a technical and management leader for his employer, the Dow Chemical Company, for 24 years. In his most recent role, he served as the corporate SME for PPE and respiratory protection.

Furthermore, Curtis has been actively contributing to education within the IH profession for well over a decade in the form of PDCs and presentations at the AlHce, Synergist articles and his Protective Clothing and Equipment Committee participation.



David P. Kelly, FAIHA

Nominated by Robert Nocco, MS, DABT, CIH, CSP, RRPT on behalf of the AIHA Emergency Response and Planning Committee

Dave's story is inspiring—he is a silent giant, plugging away on contributing over the decades to good science that has been applied to the larger OEHS space. Something he continues to do to this day well into his senior years—as he approaches 80 years of age, Dave is a current active prolific contributor to the ERPC.

Working his way up through the ranks starting as a research laboratory technician back in 1961 and then as a clinical laboratory technician while serving his country in the US Army during the Vietnam era, Dave found his calling in toxicology. These early career experiences peaked Dave's interest in chemistry and toxicology, and he pursue academic training in these areas while holding a job and raising a family.

On the heels of Union Carbide Company's Bhopal, India tragic, catastrophic release incident in 1984, Dave's employer, DuPont, called upon him to participate in an industry- and government-related response initiative to address preventive response measure here in the US. Dave was well-suited for this because his expertise as an inhalation toxicologist and his commitment to sound science.

Dave has served the OEHS profession for over 50 years. His contributions are significant. He is a silent giant in developing and applying emergency response exposure

values. He is a thought leader in applying sound scientific, health-based, and evidence-based toxicological principles. Dave is a role model who has paved the way for future generations of OEHS professional.

### AIHA® Named Awards

AlHA values the profession and our members by providing opportunities and resources to share their work and recognize those who exemplify excellence and leadership. AlHA Named Awards are given to industrial hygienists and other occupational and environmental health and safety professionals who have gone above and beyond the call of duty in contributing to the growth and development of the profession.

AlHA members have a chance to recognize and elevate their peers for their dedicated commitments to health and safety in the workplace. In many cases, some of those recognized are not AlHA members. The overriding factor is that these individuals' efforts significantly strengthen IH/ OEHS professionals' capabilities and improve the health and safety of workers around the world because that kind of work needs to be recognized, valued, and honored.

### Edward J. Baier Technical Achievement Award



Perry W. Logan, PhD, CIH
Nominated by Jennifer Sahmel, MPH, CIH,
CSP, FAIHA

Without a doubt, Perry Logan has been one of the top technical contributors to the

profession. He obtained his PhD in Environmental Health and Industrial Hygiene at the University of Minnesota in 2010. While he has made many impressive technical contributions to AIHA and the profession including in the academic study and application of leadership to industrial hygiene roles (something he has successfully practiced himself as the Global Director of Environment, Health, Safety, and Management at 3M Corporation), his most important technical contributions are in the critical arena of professional judgement by industrial hygienists. This topic is a fundamental, yet often misunderstood or misinterpreted aspect of the practice of industrial hygiene.

During his doctoral research, Perry took on the critical analysis and research needed to better scientifically characterize and statistically improve the process of industrial hygiene professional judgment, something most of us in the profession use in some way nearly every day. Though this research, he helped to highlight the critical parameters surrounding the appropriate application of qualitative professional judgment. He also demonstrated the limitations to professional judgment, and identified what information was necessary to make accurate professional judgments.

A key tool in the appropriate use of professional judgment has also been the use of Bayesian Data Analysis, and Perry has been an important promoter of this critical tool for industrial hygiene decision-making.

He has written book chapters and served as a presenter in many training courses and seminars on this important tool. Some of Perry's key publications and contributions on this topic include: "Desktop study of occupational

exposure judgments: Does education and experience influence accuracy?" in the Journal of Occupational and Environmental Hygiene, "Occupational Exposure Decisions: Can Limited Data Interpretation Training Help Improve Accuracy?", published in the Annals of Occupational Hygiene, and "Rating Exposure Control using Bayesian Decision Analysis" published in the Journal of Occupational and Industrial Hygiene.

This award is given to the individual or group of individuals, company, organization, or association that has made the most significant contribution to industrial hygiene in recent years through technical expertise, innovations, or scientific advancement.

### Distinguished Service to AIHA Award



Chris Laszcz-Davis, MS, CIH, COH, FAIHA, AIC Fellow

Nominated by S. Zack Mansdorf, PhD, CIH, CSP, QEP, FAIHA and Lynn O'Donnell, CIH, FAIHA

As Founder & President of The Environmental Quality Organization (EQO) LLC, Chris Laszcz-Davis has over 35 years of executive management, professional, operational, technical, and consulting experience in occupational safety & health, environmental affairs, operational integrity, risk management, product stewardship/product quality, strategic planning, auditing, and corporate acquisitions/divestitures in industry and government.

Chris is a Fellow of both the AlHA and American Institute of Chemists (AIC), a recipient of the AlHA Kusnetz

AlHce EXP 2021

Award, the AIHA Alice Hamilton Award, the AIHA-Yuma Pacific Southwest Section Clayton Award, and the AIHA-Northern California Section Dr. Christine Einert Award. As Past President, American Academy of Industrial Hygiene (AIH), Chris was instrumental in having the profession sponsor its first major Fall Conference on Risk Assessment in Vancouver, British Columbia, Canada back in the early 1990s.

Service to the global professional community has earmarked Chris's career. Over the years, she has served as a Director, American Conference of Governmental Industrial Hygienists (ACGIH), American Industrial Hygiene Association (AIHA), and the American Board of Industrial Hygiene (ABIH); Trustee, American Industrial Hygiene Foundation (AIHF); Appointee to both the International Occupational Hygiene Association (IOHA) and American Association for the Advancement of Science (AAAS); US Department of Commerce appointed member, Board of Examiners, Malcolm National Quality Award; President, AlHA's Northern California and Yuma Pacific Southwest Local Sections; President, California Industrial Hygiene Council (CIHC), a consortium of California's local sections; Board Member, NIOSH's Federal Board of Scientific Counsellors (BSC), one of 15 nationally appointed scientists; and appointee to ASSP's strategic Council on Professional Affairs (COPA).

This award recognizes distinguished service in the advancement of industrial hygiene, unique technical contributions to the aims and goals of AIHA, proven leadership in the industrial/occupational hygiene profession, influence on public policy or social reform, or public and community service.

### Donald E. Cummings Memorial Award



Alan Leibowitz, CIH, CSP, FAIHA
Nominated by Celia A. Booth, CIH, CSP
on behalf of the AIHA Leadership and
Management Committee

Drawing on his three-year tenure as the Chief Ethics Officer for ITT, Alan also

serves as the Chair of the Joint Industrial Hygiene Ethics Education Committee, a group that advises ACGIH, AIHA, and BGC. In this position, he has authored a series of Synergist articles on ethics case studies to stimulate thought and conversation about ethics in our profession.

Alan's earlier contributions to the profession include leading the development of the first edition of the American National Standards Institute (ANSI) Z10 – "Safety and Health Management System Standard" from 2001 to 2005. He has written or co-authored the Management, Ethics, and Emergency Response chapters for the 2021 update to Patty's Industrial Hygiene and the AIHA "White Book." Alan also served as the editor for the first AIHA auditing manual Industrial Hygiene Auditing: A Manual for Practice (2007).

A Director in the Occupational Hygiene Training Association (OHTA) since 2016, Alan was a member of a team that published a new module on Health and Safety Awareness (2020). Alan's participation in OHTA ensures that safety training curricula and materials are shared around the world to workers and employers who might not otherwise have access to this support. OHTA was formed to promote better standards of occupational hygiene practice throughout the world. The mainly volunteer-driven

organization develops training materials and makes them freely available for use by students and training providers. It also promotes an international qualifications framework so that all hygienists are consistently trained to a high standard, recognized in all participating countries.

Alan's contributions to the knowledge and practice of the profession of industrial hygiene, his demonstrated practical application of industrial hygiene knowledge to protect worker health, and the acknowledgement of these contributions outside the field of industrial hygiene are an inspiration and challenge us to continue to improve to our profession.

This award is bestowed upon an individual who has made outstanding contributions to the knowledge and practice of industrial hygiene and who has been acknowledged for his/her contributions outside of the field of industrial hygiene.

### Alice Hamilton Award



Lydia Renton, B.Sc., CIH, ROH, FAIHA

Nominated by Steven Thygerson, PhD, CIH

With over 40 years of OHS work
in Canada and throughout the world,
Lydia Renton sets the bar very high for exceptional work in this noble profession.

A native of Canada, Lydia has travelled the world as an OHS volunteer to offer expert services and training to build OHS capacity in developing countries. As an AlHA Fellow, she has passionately dedicated any spare time she has to serving on various AlHA and other organization's committees and working groups. She is well-deserving

of the Alice Hamilton Award as an outstanding example of one committed woman making a difference.

This award is presented to an outstanding woman who has made a definitive, lasting achievement in the field of occupational and environmental hygiene through public and community service, social reform, technological innovation, or advancements in the scientific approach to the recognition, evaluation, and control of workplace hazards.

#### Kusnetz Award



### Jennifer Lynn Holliday, CIH

Nominated by Crystal C. Brown, CIH, CSP
Jennifer Holliday is an exemplary
young Industrial hygienist and advocate.
Still under the age of 40 she has been a
member of AIHA since 2016, has a Bachelor

of Science in Environmental Health, has earned the title Certified Industrial Hygienist, and is currently preparing and striving to earn the title of Certified Safety Professional. She has served AlHA in several positions including as a student section member in 2013 and 2014, and Local Prairie Section President twice: once in 2017 and from 2019 to present, among additional Local Prairie Section board member positions. She has also chaired the Leadership and Advocacy subcommittee for the Women in Industrial Hygiene since 2018, working on the WIH Leadership Scholarship and the 2021 AlHce WIH summit. Additionally, she has written several articles for publications including *The Synergist* and BOHS *Exposure Magazine* and was selected to attend the Future Leaders Institute in 2018.

Sponsored by Florence Kusnetz, this award honors a certified industrial hygienist who has reached his/her 40th birthday by May 1 of the year in which the award is presented, is currently employed in the private sector, exhibits high ethical standards and technical abilities, has provided for the highest standards of health and safety protection, and shows promise of leadership in the industrial hygiene profession.

### Henry F. Smyth, Jr. Award



### S. Zack Mansdorf, PhD, CIH, CSP, QEP, FAIHA

Nominated by Celia A. Booth, CIH, CSP on behalf of the AIHA Leadership and Management Committee

During his distinguished career, Zack has consistently made substantial, evidence-based solutions and contributions in recognizing the diverse needs of the industrial hygiene profession, thereby making a major impact on, and the improvement of, the public welfare. His continuing contributions to our profession are an inspiration and will guide us into our future.

His contributions to the topic of sustainability include the authoring of the new chapter in Patty's Industrial Hygiene, "Sustainability and the Role of the Safety and Health Professional," (2021) and the Center for Health Sustainability's "CSHS Best Practice Guide for Occupational Health and Safety in Sustainability Reports" (2016).

Drawing on his extensive career experience, Zack's served as editor and as a contributing author of the

Handbook of Occupational Safety and Health, 3rd Edition, Wiley (2019). This book was the culmination of over seven years of effort working with the authors, many of whom are pioneers in their fields, and the update has been described as "an ideal, go-to resource for those who need to anticipate, recognize, evaluate, and control conditions that can cause injury or illness to employees in the workplace."

Zack is a current Director in the Occupational Hygiene Training Association (OHTA). He led the team that published a new module on Health and Safety Awareness (2020). OHTA was formed to promote better standards of occupational hygiene practice throughout the world. The mainly volunteer-driven organization develops training materials and makes them freely available for use by students and training providers. It also promotes an international qualifications framework so that all hygienists are trained consistently to a high standard, recognized in all participating countries.

A former Managing Principal Consultant with BSI EHS Services and Solutions (formerly EORM), Zack led a wide variety of safety, health and environmental projects ranging from process safety hazard analysis to evaluation to plume dispersion risk assessments for accident releases. His work included frequent travel to Asia for assessments. Prior to BSI, Zack was Senior Vice President of Safety, Health, Environment, for L'Oréal Worldwide. In this role, he had overall responsibility for safety, occupational health, and environment for 42 worldwide manufacturing sites, over 70 distribution sites and over 100 administrative centers around the world. L'Oréal has annual sales of approximately 25 billion dollars with

more than 65,000 employees worldwide. Zack worked and lived in Paris, France. Prior to this work, he has held several other senior level positions in the US Army (retired Lt. Col.), Goodyear, Midwest Research Institute, Clayton Environmental Consultants, Liberty International Risk Services and Arthur D. Little Company. Zack spent almost 15 years as head of Mansdorf & Associates which was sold to Clayton Environmental Consultants in 1994.

Zack has a PhD, in Environmental Engineering from the University of Kansas, School of Engineering, with Masters' degrees in EHS and Safety from the University of Michigan and Central Missouri State. He has certifications (by examination) in all three areas as well (QEP, CSP and CIH). He is a Past President of both the Academy of Industrial Hygiene and the AIHA, as well as a past Board member of the Board of Certified Safety Professionals (BCSP).

This award is presented to an individual who has recognized the needs of the industrial hygiene profession and has made major contributions to fulfill those needs, thereby contributing to the improvement of the public welfare.

### Social Responsibility Award

Back to Work Safely Task Force— Allan K. Fleeger, CIH, CSP, FAIHA and team lead; Hamid Arabzadeh,



CIH, CSP, CHMM, FAIHA; David Beatty, MPH, CSP, CCEP; Corey Boles, PhD; Elizabeth Bussman, CIH; Mark Drozdov, MS, SSM, FSM, BSI, RSO, CAI, CMA, GPRO; Carter Ficklen, CIH, CSP; Bernard L. Fontaine, Jr., CIH, CSP, FAIHA; Shannon Gaffney, PhD, MHS, CIH; Thomas G. Grumbles, CIH, FAIHA; John Henshaw, MPH, CIH, FAIHA; Dana Hollins, MPH, CIH; Catherine Hovde, CIH, CSP; Neva Jacobs, MSPH, CIH; Perry Logan, PhD, CIH; Heather Lynch, MPH; Eric Miller, MPH, CIH; Amber Hogan Mitchell, DrPH, MPH, CPH; Melanie D. Nembhard MSPH, CIH; Justine Parker, CIH, CSP, CHMM, CPH; Jennifer S. Pierce, MS, PhD; Aaron Schoemaker, CSP; Jack Springston, CIH, CSP, FAIHA; Ken Unice, MS; Rachel Zisook MS, CIH; Matt Zock, CIH

Nominated by Celia Booth, CIH, CSP

The Coronavirus SARS-CoV-2 (COVID-19) pandemic brought global shutdowns of businesses starting in March 2020. Anticipating the need to reopen American businesses and non-profit organizations safely for employees and customers alike, the ad hoc task force members developed practical solutions for businesses in the United States and several Latin American countries to assist the economies of these countries to return to work with confidence that following these reopening guidelines would provide a healthy environment for employees, customers and other stakeholders of the operations described. More importantly, these guidelines assisted in

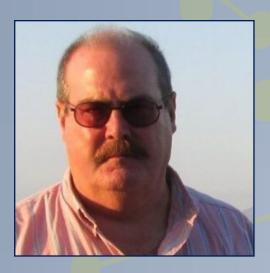
the emotional recovery for these operations to societies that were traumatized by the uncertainly of infection and developing information on the spread and consequences of contracting the COVID-19 Coronavirus.

The AlHA-sponsored BacktoWorkSafely.org website launched May 1, 2020, with the first eight guidelines, which were made available to the public. Within a month of the web site's inception, another ten guidelines were added. By July, the team had prepared 27 guidelines for small business, public (schools and libraries) and nonprofit (places of worship) entities and 10 posters, many of which were translated into Spanish, to help with sound occupational health and safety advice for those workplaces. Many of these guidelines were available within months of the initial lockdowns to assist business owners with the challenge of getting their employees, customers, and other stakeholders back to work promptly once lockdowns were loosened. Within the first seven months of the web site being open to the public, the guidelines were downloaded nearly 1.2 million times in both English and Spanish. Over 30 OEHS professionals contributed to the writing, reviewing, publishing, and translating into Spanish of these critical economic recovery documents.

BacktoWorkSafely.org earned the attention of OSHA as a resource for recovery and is listed on the OSHA web site as a resource for reopening.

This award is presented to an individual, entity, group, or organization who works inside organizations to develop and promote practical solutions to social responsibility issues related to industrial hygiene or environmental health and safety issues.

#### **Yant Award**



Sean Mahar, PhD, CIH, CSP, PE
Nominated by J. Slavin, CIH, CSP, CSHM,
CPEA, FAIHA

Dr. Sean Mahar solves industrial hygiene problems by providing services such as workplace evaluations for ergonomic,

chemical, noise and vibration hazards, training, and indoor air quality investigations. He has taught occupational health and environmental management at the University of Wolverhampton and environmental health and industrial hygiene at Ohio University. He has resided in the UK for more than 20 years and prior to that he served as an industrial hygiene officer in the US Navy for 9 years, managing and performing environmental and occupational health program elements in international settings. He holds an LLB with honours (British Law Degree) from the University of Wolverhampton, a PhD in Environmental Health and Preventive Medicine from the University of Iowa, an MS in Industrial Hygiene from Texas A&M University, and a BS in Chemistry from Sacred Heart University. He is a Certified Industrial Hygienist (CIH), Certified Safety Professional (CSP), and a licensed Professional Engineer (PE). He is also a Chartered Member of the Institution of Occupational Safety and Health (CMIOSH) and a Chartered Member of the Faculty of Occupational Hygiene (CMFOH). His research has been included in both US and international publications.

This award is presented to an individual residing outside the United States for their outstanding contributions to industrial hygiene or allied fields through academic research, teaching, professional practice, solving major Industrial Hygiene issues, and service to professional societies.

### President's Award

This award is presented annually to an individual, task force, special interest group, or local section for outstanding contributions to efforts to achieve the mission

of AlHA during the presidency year.

Back to Work Safely Task Force—

Allan K. Fleeger, CIH, CSP, FAIHA

and team lead; Hamid Arabzadeh,



CIH, CSP, CHMM, FAIHA; David Beatty, MPH, CSP, CCEP; Corey Boles, PhD; Elizabeth Bussman, CIH; Mark Drozdov, MS, SSM, FSM, BSI, RSO, CAI, CMA, GPRO; Carter Ficklen, CIH, CSP; Bernard L. Fontaine, Jr., CIH, CSP, FAIHA; Shannon Gaffney, PhD, MHS, CIH; Thomas G. Grumbles, CIH, FAIHA; John Henshaw, MPH, CIH, FAIHA; Dana Hollins, MPH, CIH; Catherine Hovde, CIH, CSP; Neva Jacobs, MSPH, CIH; Perry Logan, PhD, CIH; Heather Lynch, MPH; Eric Miller, MPH, CIH; Amber Hogan Mitchell, DrPH, MPH, CPH; Melanie D. Nembhard MSPH, CIH; Justine Parker, CIH, CSP, CHMM, CPH; Jennifer S. Pierce, MS, PhD; Aaron Schoemaker, CSP; Jack Springston, CIH, CSP, FAIHA; Ken Unice, MS; Rachel Zisook MS, CIH; Matt Zock, CIH

Nominated by Lindsay Cook, CIH, CSP, FAIHA

### Alha Volunteer Group Awards Lila Albin Award

Since 1997, the AIHA Indoor Environmental Quality Committee has recognized a peer reviewed article in the Journal of Occupational and Environmental Health. The article must (a) provide practical information and expand the knowledge base of IEQ professionals; (b) address a critical IEQ issue; and (c) present the topic clearly and engagingly. The year's recipients are Benjamin L. Augenbraun, Zack D. Lasner, Debayan Mitra, Sridhar Prabhu, Shivam Raval, Hiromitsu Sawaoka and John M. Doyle for Assessment and mitigation of aerosol airborne SARS-CoV-2 transmission in laboratory and office environments.

### Birkner Leadership Award

The AIHA Leadership and Management Committee presents this award to honor the legacy of Ruth McIntyre-Birkner and Larry Birkner. It is proudly awarded to an individual exemplifying extraordinary leadership and management. This year's recipient, **Aileen Yankowski**, **MPH**, **CIH**, will present the Birkner Award Lecture, *Powerful Leadership Lessons That Get Overlooked* during AIHce EXP 2021 on Monday, May 24; 2:00 p.m.—3:00 p.m. CT.

#### Rachel Carson Award

The AlHA Environmental Issues Committee awards this honor in recognition of the recipient's environmental advocacy in the spirit of Rachel Carson. This award is bestowed upon an environmental health and safety (EH&S) professional who has attained outstanding success and distinction in his or her environmental and industrial health and safety business, profession, or life's work. This year's recipient is **Sharon K. Beard, MS**. Sharon was nominated by John Thomas Pierce, MD, PhD, FAIHA.

### Chaffin Award

By encouraging conference participation and recognizing excellence in the field of ergonomics, the AIHA Ergonomics Committee presents the Chaffin Award to the best ergonomic related technical session at AIHce EXP. Established in 2008, the award honors Dr. Donald B. Chaffin's many contributions to the field of ergonomics and to AIHA.

### Rochelle Crew Memorial Award

This award is given by the AIHA Construction
Committee to honor the memory of Rochelle Crew, a
long-time construction safety PDC presenter and former
member of the committee. The award is given to the best
construction-related paper, technical session, or PDC
presentation at the previous year's AIHce. This year's
recipient is **Donald J. Garvey, CIH, CSP, CHMM, FAIH**A.

#### H. Kenneth Dillon Memorial Award

This award is presented by the AIHA Biosafety and Environmental Microbiology Committee to honor the memory of Dr. Ken Dillon, a former AIHA Fellow and the principal instructor for several years of the popular PDC, *Prevention, Determination, and Remediation of Biological Contamination in Indoor Environments.* The award is given to the recipient of the best student poster on biosafety or microbiology at AIHce EXP.

### Donna Doganiero Award

The AIHA Safety Committee presents this award to the presenter of the best safety-related crossover technical session at AIHce EXP in 2020. The award honors a truly outstanding individual whose achievements and vision continues to move the field of industrial hygiene and safety forward, Donna Doganiero, CIH, FAIHA. This year's recipient is **Vahid Ebadat, PhD** for the session entitled, *How to Identify and Control Flash Fire and Explosion Hazards*.

#### The Golden Seed Award

Established in 2007 by the AIHA Students and Early Career Professional Committee, this award recognizes an individual who has mentored and/or demonstrated a commitment to promoting industrial hygiene to students and early career professionals. This year's recipient is **Evan Floyd, PhD, CIH**. Evan was nominated by Richard O'Mara, CIH, CIHC, FAIHA.

### Hazard Prevention and Engineering Controls Committee Best Paper

This award is given by the AIHA Hazard Prevention and Engineering Controls Committee to the best paper that focuses on the use of engineering principles for the prevention and control of health hazards. The awardee is selected by a committee of peers from papers published in the *Journal of Occupational and Environmental Hygiene* (JOEH) during the calendar year that precedes AIHce EXP.

### John A. Leonowich Award

This award is given by the AIHA Non-lonizing Radiation Committee for educational excellence in nonionizing radiation, honors students who are actively pursuing NIR initiatives through research or education, and recognizes the achievements made by current students in advancing both theirs and the profession's understanding of nonionizing radiation. This year's recipient is **Sayoojya Saju**.

### Nano and Advanced Materials Working Group Ogle-Baron Best Paper

The AlHA Nano and Advanced Materials Working
Group Ogle-Baron Best Paper recognizes an article from
the Journal of Occupational and Environmental Hygiene
(JOEH) on peer-reviewed research on nanotechnology.
The working group is proud to present this award to
Sébastien Bau, Davy Rousset, Raphaël Payet, and
François-Xavier Keller for Characterizing Particle
Emissions from a Direct Energy Deposition Additive
Manufacturing Process and Associated Occupational
Exposure to Airborne Particles.

AlHce EXP 2021 • Exposure to Airborne Particles. 15

### Margaret Samuays Memorial Student Poster Award

This award honors the memory of Margaret Samways, past chair and long-time member of the AlHA Communication and Training Methods Committee. The award will be given to the best student poster at AlHce that focuses on communication and training methods.

#### David L. Swift Award Memorial Award

This award honors the memory of Dr. David L. Swift for his outstanding contributions to aerosol and industrial hygiene research. Aerosol research papers published during the previous year in the *Journal of Occupational and Environmental Hygiene* are reviewed by the AlHA Aerosol Technology Committee. This year's recipients are David Leith, ScD; Christian L'Orange, PhD, PE, PMP; John Mehaffy; and Dr. John Volckens (2020) for Design and Performance of UPAS Inlets for Respirable and Thoracic Mass Sampling.

### Upton Sinclair Lecture Award

The Upton Sinclair Memorial Lecture on EHS
Investigative Reporting is hosted by the AIHA Social
Concerns Committee. Rachel Axon, an award-winning
investigative reporter for USA TODAY and Sky Chadde,
Midwest Center for Investigative Reporting, will co-present
How Pork Plant Execs Sacrificed Safety for Profits on
Monday, May 24; 3:15 p.m.—4:15 p.m. CT.

#### John M. White Award

The John M. White Award was established by the AIHA Respiratory Protection Committee to encourage scientific and application-oriented research in respiratory protection. This year's award is presented to **Scott Duncan**, **Paul Bodurtha**, **Cara Bourgeois**, **Eva Dickson**, **Cheryl Jensen**, and **Syed Naqvi**, **PhD**, **CIH**, **CPE** (2020) for *The Impact of Extreme Reuse and Extended Wear Conditions on Protection Provided by a Surgical-style N95 Filtering Facepiece Respirator*.

#### 2020 AIHA Bestseller

This award is presented to the editor(s) of a new publication that sold the most copies during the year. The 2020 best seller is presented to Ling-Ling Hung, PhD, RAC; Steven M. Caulfield, PE, CIH, LEED® AP; and J. David Miller, PhD, FAIHA for the Recognition, Evaluation, and Control of Indoor Mold, 2nd edition.

#### 2020 Critics' Choice Award

The Critic's Choice Award honors a publication completed in 2020. The Content Portfolio Advisory Group (CPAG) evaluates all publications and selects one to recognize for its impact on the profession, originality, and quality of writing. This year's recipients are Erica J. Stewart, CIH, FAIHA, HEM and Robert Smith, RN, CIH, MSPH, CIC, COHN-S for the Guidelines for the Selection and Use of Environmental Surface Disinfectants in Healthcare, 2nd edition.

### AIHA Outstanding Volunteer Groups (2020)

Confined Spaces Committee—Chair Bonnie J. Lockhart, CIH; Vice Chair Caroline Switzer, CIH, CSP; Secretary Janet L. Keyes, CIH, FAIHA; Secretary-elect Kenneth C. Eck, CIH, CSP, CFPS, DABFE, FACFE; and Past Chair Stacy Barnett.

AlHA Green Color Council Committee.

Construction Committee—Chair Janet L. Keyes, CIH, FAIHA; Vice Chair Daniel T. Woody, CIH; and Secretary Shelley R. Shortes, CIH, CSP. AIHA Green Color Council Committee.

Ergonomics Committee—Chair Gary Downey; Vice Chair Penney M. Stanch, CIH, CSP, CPE; Secretary Emily Macomber Driggers, AEP; and Past Chair Catherine White, CIH, CSP, CPE. AIHA Yellow Color Council Committee.

Fellow SIGs—Chair John "Jack" P. Springston, CIH, CSP, MS, FAIHA; Vice Chair Jennifer Sahmel, MPH, CIH, CSP, FAIHA; Secretary Martin L. Jones, Ph.D., CIH, CSP, FAIHA; and Past Chair Cheryl Lynn Marcham, PhD, CIH, CSP, CHMM, FAIHA. AIHA Teal Color Council Committee.

Government Relations Committee—Chair Mark Drozdov, MS, SSM, FSM, BSI, RSO, CAI, CMA, GPRO; Vice President Anthony Oliveri, PhD, MPH; Secretary Charles W. Calmbacher, Ph.D., CIH; Past Chair Monica Nicole Netherly, MPH, CSP, CIH. AIHA Orange Color Council Committee.

Healthcare Working Group—Chair Michelle C. Rosales, CIH; Vice Chair Paul Lilley, CIH; Secretary Stephanie Caler, MPH, CIH, CSP, REHS; and Past Chair Jeffrey C. Nesbitt, CIH, CSP. AIHA Yellow Color Council Committee.

Incident Preparedness and Response Working
Group—Chair Laura H. Weems, CIH, CSP, CHMM;
Secretary Brian Harvey; Secretary-Elect Alva Amaker,
M.Ed. CAA, AIC, CSVS; Past Chair Antonio Cofresi, CIH.

AIHA Orange Color Council Committee.

Indoor Environmental Quality Committee—Chair George Gerald McCaslin, B.S.; Vice Chair Timothy F. Froehlig, CIH; Secretary Alex LeBeau, PhD, MPH, CIH; Past Chair John D. Krause, CIH, MSPH, PhD. AIHA Orange Color Council Committee.

International Affairs Committee—Chair Lydia N.
Renton, B. Sc., CIH, ROH, FAIHA; Vice Chair Steven
Verpaele; Secretary Laurence Svirchev, MA, BSc, CIH; Past
Chair Steven M. Thygerson, Ph.D., CIH. AIHA Yellow Color
Council Committee.

Laboratory Health and Safety Committee—Chair Garth Graham, CIH; Vice Chair Marian Lee Poore, CIH; Secretary David A. Acker, CIH; Secretary-Elect Ashwani Shukla, CIH, CSP, SMS; Past Chair James Stubbs. AIHA Blue Color Council Committee.

Leadership and Management Committee—Chair Bradley W. Rodgers, MS, CIH, CSP; Vice Chair Celia A. Booth, CIH, CSP; Secretary Eltaneice V. Bolden, CIH, CHMM; Past Chair Joy Erdman, MS, CIH, CSP, FAIHA. AIHA Violet Color Council Committee.

Mentoring and Professional Development
Committee—Chair Melanie D. Nembhard, CIH; Vice Chair
Justin D. Hoover, MS, CSP; Secretary Anthony Uliano, Jr.,
CIH, CHMM; Past Chair Michelle Coutu, MSPH, CIH.

AIHA Violet Color Council Committee.

Museum and Cultural Heritage Working Group—Chair Kathryn A. Makos, MPH, CIH; Vice Chair Jeffrey R. Sotek, CIH, CSP, PE; Secretary Ralph A. Froehlich, MS, CIH, CSP, QEP, FAIHA. AIHA Blue Color Council Committee.

Non-lonizing Radiation Committee—Chair Mona Shum, MSc, CIH; Vice Chair Brandon Jensen, MS, CSP; Secretary Seth Satorius, CSP, CLSO; Past Chair Margaret L. Phillips, PhD, CIH. AIHA Red Color Council Committee.

Protective Clothing and Equipment Committee—Chair Cheryl K. S. DuBois, CIH; John J. Hill, CIH, CSP; Secretary Paul E. Allen, CIH, CSP, ARM; Secretary Kevin Joseph Mahoney, CIH, CSP; Past Chair Mark S. Tartaglia, MSPH, CIH. AIHA Red Color Council Committee.

Sampling and Laboratory Analysis Committee—Chair Evan Floyd, PhD, CIH; Secretary Derek J. Popp; Secretary Anand Ranpara; Past Chair Nicola M. Watson, PhD, MChem. AlHA Blue Color Council Committee.

Social Concerns Committee—Chair Enjoli C. DeGrasse, MSPH, CIH; Vice Chair Kathie A. Lavaty, CIH, CSP; Secretary Leo T. Old, CIH, CSP, PE. AIHA Teal Color Council Committee.

Teen Workplace Health and Safety Committee—Chair Jennifer L. Maclachlan; Vice Chair Brian Czarnecki, CHST, CSP, CIH; Secretary Michaela A. Hall, MPH. *AIHA Violet Color Council*.

Women in IH (WIH) Committee—Chair Crystal C. Brown, CIH, CSP; Vice Chair Joy Jacobsen, MS, CIH, CSP, CRSP, EP; Secretary Diana Harrington Peroni, CIH; Past Chair Stacey M. Croghan, CIH. AIHA Teal Color Council Committee.

### AIHA Local Section Awards

### Michigan Industrial Hygiene Society Best Paper Award

The Michigan Industrial Hygiene Society Best Paper Award was established by MIHS in 1957 for recognition of an outstanding publication in the *American Industrial Hygiene Association Journal*. In 1989, the MIHS board of directors voted to also recognize the authors of the best paper in applied industrial hygiene from the *Applied Occupational and Environmental Hygiene Journal*. The journals combined in 2004 to form the current *Journal of Occupational and Environmental Hygiene* (JOEH). MIHS continues to present a Best Paper Award each year. This year's recipients are Lee Ann Greenawald, Kent C. Hofacre, and Edward M. Fisher for *Fentanyl and Carfentanil Permeation through Commercial Disposable Gloves*.

### #IAMIH Challenge Winners (2020)

The #IAmIH Challenge is an easy way for you, our IH leaders, to inspire others, hone your leadership and presentation skills, and be part of a larger, ongoing movement to raise the public awareness of industrial hygiene among our newest generation.

1st Place—Timothy Paz, CIH of the AIHA Potomac Local Section

2nd Place—Michaela Hall, MPH of the AIHA Tennessee Valley Local

3rd Place—Michael D. Starr, CIH of the AlHA Rio Grande Local Section



## CAREER

### Education on the AIHA Main Stage

With live chat during the scheduled broadcast or available to watch at any time after in EXP+:

### Career Portfolio: How to Stand Out in an Interview or Performance Review

Monday, May 24, 11:00 a.m.-11:45 a.m.

Isabel Bacarella, MPH, CIH, CSP

William Pockels

William Nichols, CIH, CHMM

Have you ever been to a job interview where you were one of many candidates and left feeling like you needed an extra "something?" If so, a career portfolio is the perfect solution! This document collection showcases your characteristics, experience, accomplishments, knowledge, and skills with a more personal and unique approach. Not only can you use a career portfolio in an interview, but it is often useful when seeking a promotion, during performance reviews, and when changing careers or industries. It is best to start this collection early in your career; however, it is never too late. This session will review how to build your portfolio and is geared toward industrial hygienists and safety professionals at all career stages.

### Looking for That First Job or Internship? What You Need to Know

Monday, May 24, 2:30 p.m.-3:15 p.m.

Franky Spangler, PHR, SHRM-SCP

Nancy F. Lawrence, PhD

Looking for your first job or an internship can be challenging. Having guidance on how to prepare for your search and how to prepare for an interview is invaluable. What is essential? How do you find the right fit? Learn what you need to know from a variety of perspectives: employer, human resources, and academia. Develop your search skills, and gain a competitive advantage over your peers by joining this informative panel discussion for all you need to know to enhance your Job and internship knowledge.

> The #1 Job **Board for** IH/OEHS Professionals.

### Networking and One-on-One Engagement

Reserve your slot to participate by contacting Wanda Barbour.

#### **Virtual Resume Critiquing**

Monday, May 24, 9:00 a.m.-11:00 a.m. and 1:00 p.m.-2:00 p.m. Tuesday, May 25, 9:00 a.m.-10:00 a.m. and 1:00 p.m.-3:00 p.m. Wednesday, May 26, 9:00 a.m.-Noon and 1:00 p.m.-3:00 p.m. Get helpful feedback from an experienced hiring director about your resume's style, length, focus, use of accomplishments, keywords, and more.

### Virtual Mock Interviewing

Tuesday, May 25, 10:00 a.m.-Noon

See yourself through an employer's eyes when you meet virtually with an experienced hiring director during a mock interview. You will receive helpful feedback and learn the most effective presentation of skills, abilities, and professionalism.

### **Virtual Speed Networking**

Tuesday, May 25, 3:00 p.m.-4:00 p.m.

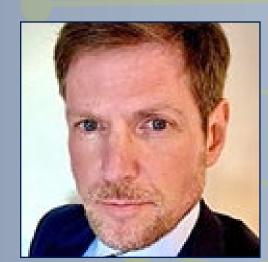
Connect with other professionals during this virtual speed networking session. This is an opportunity to learn about AlHA's Career and Employment Services Committee while interacting with those looking for employees and/or new opportunities. There will be prizes for the top networkers!

### aihacareeradvantage.org

### ACGIH® Awards

Each year, ACGIH honors individuals who have made significant contributions to the profession through their leadership and dedication. These prestigious awards are presented at the annual AIHce, and past winners comprise a virtual "Who's Who" in ACGIH and industrial hygiene overall.

### Herbert E. Stokinger Award



#### **Dr. Robert Landsiedel**

Dr. Robert Landsiedel is vice president of experimental toxicology and ecology at BASF SE (Ludwigshafen am Rhein, Germany). His research interests focus on developing new toxicological methods,

investigating the effects of solid particles (including nanomaterials) on human health, and improving methods for risk assessments. He has published 124 highly cited manuscripts, 42 review papers, and 15 book chapters and has edited 4 books. In 2015, he was listed among the top 10 most-cited German toxicologists.

Dr. Landsiedel and his team at BASF perform more than 500 regulatory toxicological studies per year under GLP and ISO 17020, as well as screenings for product development. In addition, they perform toxicological research and have received numerous internal BASF research grants, as well as 20 external grants funded by the German or European governments.

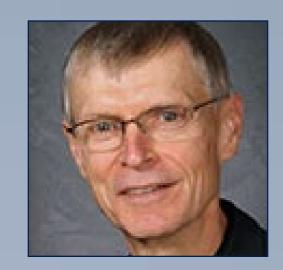
His work has been recognized by several awards including the German Research Award for the

development of alternative methods (2014), the animal welfare award of the state of Rhineland-Palatinate (2013), the BASF Innovation Award (2012), the German Toxicology Societies (GT) Toxicology Award (2016), and, as part of BASF's NanoTeam, the Responsible Care Award of the European Chemical Industry Council (Cefic) in 2018.

Dr. Landsiedel received a Diploma degree in food chemistry from the University of Kaiserslautern, Germany in 1992, a postgraduate degree in toxicology (Fachchemiker für Toxikologie) from the Medical School of the University of Leipzig; he accomplished his PhD dissertation at the Johannes Gutenberg University in Mainz and the German Institute for Human Nutrition (DIfE) in Potsdam, Germany and earned a PhD degree in chemistry (Dr. rer. nat.) graduating summa cum laude in 1997. In 2017, he received a Habilitation in pharmacology and toxicology from the Free University of Berlin. Dr. Landsiedel became a Diplomate of the American Board of Toxicology (DABT) in 2003 and a Fellow of American Academy of Toxicological Sciences (FATS) in 2013. Since 2008, he has served on the board of the German Toxicology Society and is currently its vice president. He also represents the European Chemical Industry at the European Center for the Validation of Alternative Methods (ECVAM Stake Holder Forum, ESTAF) and is a member of the German expert pool on OECD test guidelines.

This award is given each year to an individual who has made a significant contribution in the broad field of industrial and environmental toxicology.

#### Meritorious Achievement Award



### Thomas J. Armstrong, PhD, CIH, FAIHA

Dr. Armstrong is a Professor of Industrial and Operations Engineering and of Biomedical Engineering at the University of Michigan. He holds degrees in Aerospace Engineering, Industrial Health and Industrial

and Operations Engineering, and Industrial Health and Physiology, all from the University of Michigan.

The major research focus of his 40+ year research career has been, and still is, concerned with biomechanical aspects of work. Much of his research involved the development of tools analyzing work activities and studying mechanical and physiological tissue responses to repetitive loads. He has collaborated with outstanding engineers, physicians, and students to conduct both laboratory and field studies to describe the dose-response relationship between work patterns and work-related musculoskeletal disorders of the upper limb such as carpal tunnel syndrome, hand-wrist tendonitis, and nonspecific pain. Field studies have taken his team to a range of sites including auto parts and vehicle assembly, food production, medical services, and office work, here and abroad to identify and describe common musculoskeletal disorder risk factors.

Dr. Armstrong is a Certified Industrial Hygienist and Certified Professional Ergonomist. He is a fellow in the AIHA, the Human Factors and Ergonomics Society, the International Ergonomics Association, and the American Institute for Medical and Biological Engineering. He is a long-standing member of ACGIH. He is particularly proud

of his work as a member of the ACGIH Physical Agents Committee to help develop the original TLVs® related to ergonomics and musculoskeletal disorders. He is grateful for his early acquaintance with the late Warren Cook, who planted the seed for a TLV® concerned work-related musculoskeletal disorders, for his many collaborators and students, and his many colleagues from around the world who helped to make these TLVs® possible.

Dr. Armstrong continues to teach courses concerned with biomechanics and work design, develop web tools, and conduct research related to medical procedures and climbing and musculoskeletal disorders.

This award is given to members of ACGIH who have made outstanding, long-term contributions to the field of occupational health and environmental hygiene.

### William Steiger Memorial Award



Mona Hanna-Attisha, MD, MPH, FAAP

Mona Hanna-Attisha, MD, MPH, FAAP is founder and director of the Michigan State University and Hurley Children's Hospital Pediatric Public Health Initiative, an innovative and model public health

program in Flint, Michigan. A pediatrician, scientist, activist and author, Dr. Hanna-Attisha has testified three times before the United States Congress, was awarded the Freedom of Expression Courage Award by PEN America, was named one of *Time* magazine's 100 Most Influential People in the World, and most recently, was recognized as one of *USA Today's* Women of the Century for her role in uncovering the Flint water crisis and leading recovery

efforts. She has appeared on CNN, MSNBC, BBC, and countless other media outlets championing the cause of children in Flint and beyond. She is founding donor of the Flint Child Health and Development Fund (flintkids. org). A COVID-19 survivor, Dr. Hanna-Attisha has donated her convalescent plasma three times while continuing to advocate for health and racial equity.

With concentrations in environmental health and health policy, Dr. Hanna-Attisha received her bachelor's and Master of Public Health degrees from the University of Michigan and her medical degree from Michigan State University College of Human Medicine. She completed her residency at Children's Hospital of Michigan in Detroit where she was chief resident. She is currently an Associate Professor of Pediatrics and Human Development and a C.S. Mott Endowed Professor of Public Health at Michigan State University.

This award honors individuals from the social/political sphere whose efforts have contributed to advancements in occupational safety and health.

#### John J. Bloomfield Award



Elizabeth Angus, CIH

Elizabeth Angus, CIH earned her BS degree in Microbiology with a minor in History from Virginia Tech. After briefly working in medical and research laboratories, she went on to earn her

MPH in Environmental and Occupational Health, with an emphasis in Industrial Hygiene, from the University of Arizona. She is an Industrial Hygienist with Safex, Inc., in Ohio, where she performs qualitative and quantitative industrial hygiene assessments for multiple industries. Her specialties include developing industrial hygiene sampling plans, area and personal exposure assessments for chemical and physical hazards, and ventilation system assessments. She also conducts trainings on hazard communication, respirator fit testing and use, and emergency response, and assists with instructing the Alha's Fundamentals of Industrial Hygiene and Beyond Industrial Hygiene Fundamentals courses. Ms. Angus joined ACGIH in 2020. She has been a member of AIHA since 2013 and served as Secretary for the Central Ohio Local Section from 2016–2019. Ms. Angus has also served on the Chemical Committee for the Ohio Safety Congress since 2015. She is a Certified Industrial Hygienist (CIH).

This award is presented to a young industrial hygienist who pursues the problem of occupational health hazards primarily by doing fieldwork.

### William D. Wagner Awardee



#### John Cocker, PhD

Dr. Cocker is a retired Research Fellow of the UK Health & Safety Executive. He has 45 years of experience in biological monitoring and over 100 peer-reviewed publications. In 1973, he began working for

the UK Employment Medical Advisory Service analyzing blood samples for lead. In 1974, the laboratory became the Occupational Medicine and Hygiene Laboratory, part of the newly formed UK Health & Safety Executive. Dr. Cocker was awarded an MSc in General Biochemistry from the University of London in 1976.

After a period in the drug metabolism department of a pharmaceutical company, Dr. Cocker returned to the Occupational Medicine and Hygiene Laboratory to research the metabolism and elimination of industrial aromatic amines and was awarded a PhD from the Royal Postgraduate Medical School, University of London in 1988. From then until his partial retirement in 2013, he led a biological monitoring team of 7-9 graduates and postgraduates developing and applying new biological monitoring methods, conducting volunteer and workplace studies.

Dr. Cocker became a member of ACGIH and joined the Biological Exposure Indices (BEI) Committee in 2000. In 2015, Dr. Cocker was appointed to the European Scientific Committee on Occupational Exposure Limits. He was also a member of the Council of the British Occupational Hygiene Society and an occasional advisor to the World Health Organization. Dr. Cocker was an assistant editor

for the Annals of Work Exposures and Health (formerly the Annals of Occupational Hygiene) and a passionate advocate of biological monitoring. Dr. Cocker is also the 2017 recipient of the Stokinger Award, highlighting a career of service to the field.

Established in 2003, this award is presented annually to a person in the field of national and international worker health and safety who is an outstanding example of commitment and dedication to the creation and dissemination of occupational exposure values (OEVs).

### Robert T. Hughes Memorial Award



### William (Bill) Cleary

Mr. Cleary earned his Bachelor of Science degree in Mechanical Engineering from what was then Michigan State College in 1952. He then entered the US Army as a Second Lieutenant in July 1952 and

left the service as a First Lieutenant in March 1954. Upon leaving the Army, he became employed by the Michigan Department of Public Health, Division of Occupational Health. While with the Division, Bill also obtained an MBA from Michigan State University in 1989. Bill served the Division for nearly 40 years in various capacities as both a Certified Industrial Hygienist and licensed Professional Engineer, retiring as its Deputy Chief in 1993. In his retirement, Bill consulted on various industrial ventilation projects and also performed energy audits.

Highlights of Bill's career with the Division included serving as a first responder to and investigator for the Lake Huron Water Supply Project tunnel explosion in Port

Huron in December of 1971; twenty-two employees died in this event and its remains one of the deadliest industrial accidents in Michigan history. Bill also served as part of the team that compared existing Michigan occupational safety and health regulations against those enacted by the newly created federal Occupational Safety and Health Administration in 1971. His work was instrumental to the creation of the Michigan Occupational Safety and Health Administration (MIOSHA), enacted in January 1975 and administered by both Michigan's Departments of Labor and Public Health.

Both in his employment with the Division and in his retirement, Bill was professionally active. He served as a member of the ACGIH Industrial Ventilation Committee for 29 years from 1976 through 2006. During his time with the committee, Bill served as its Chairperson from 1978 through 1984. Bill was also active with the Michigan Industrial Hygiene Society for more than 50 years and served in numerous administrative positions during that time. Additionally, he served several other organizations including the Michigan Safety Conference; annual industrial ventilation conferences in Michigan, Washington, and Alabama; and his church. Bill also authored both industrial hygiene and ventilation articles for numerous professional and trade publications, lectured at many trade events and conferences, and mentored many industrial hygienists and engineers.

Founded in 2015 to honor Mr. Hughes who passed away in late 2014, this award is presented annually to recognize outstanding individuals in the field of industrial ventilation.

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**Low** Flow Air Sampling Pump **Medium** Flow Air Sampling Pump

High Flow Air Sampling Pump





- High Flow 12L/min with a filter
- Great battery life
- Innovative slotting design to allow easy carrying of multiple pumps at once
- Robust design, IP65 rated
- Controlled via the Airwave App

Vorte:3 launches May 24



Simply inquire at our virtual stand about any of our products and get entered into a raffle. The winner will be annouced on the last day of the

event!

**Real-Time Dust Monitors** 

Air Sampling Pumps

**Noise Dosimeters** 

Sound Level Meters







### Saturday/Sunday At A Glance



All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

### Saturday, May 22

#### 8:00 a.m.-Noon

- PDC 201: Aerosol Sampling Update — NEW!
- PDC 202: A Study in Comparative Ethics in the Flint Water Crisis
- PDC 203: A
  Comprehensive Look
  Into Laser Accidents
- PDC 206: Focus on
  Health and Safety —
  An HSE Photographic Audit
  for IHs
- PDC 207:
  Strengthening Skills
  in Decision Making in
  Managing Risk

#### 8:00 a.m.- 5:00 p.m.

- PDC 101: 8 Skills for Conflict Management and Resolution **NEW!**
- PDC 102: Identifying Exposures and Controls of Welding Fume
- PDC 105: Introduction to Big Data and Data Analytics **NEW!**
- PDC 107: Advanced
   Application of 4-Gas/PID
   Sensor Technology
- PDC 702:
  Communicating Risk
  Pathways From EHS
  Hazards Identification
  to Enterprise Risk
  Management NEW! —
  Day 1

#### 1:00 p.m. – 5:00 p.m.

- PDC 301: Respirator
   Selection and Use
   for Biological Aerosol
   Exposures
- PDC 302: Fire and Explosion Hazards in the Process Industries NEW!
- PDC 303: Old Theories and New Concepts in Nanotechnology

### Sunday, May 23

#### 8:00 a.m.-Noon

- PDC 501: Introduction to New Knowledge for Real-Time Detection
  Systems Equipment —
  NEW!
- PDC 505: Utilizing
  Regulations,
  Standards, Guidelines, and
  Common Sense to Ensure
  Safe Entry in Confined
  Spaces

#### 8:00 a.m.- 5:00 p.m.

- PDC 403: Identifying and Quantifying Post-Fire and Post-Urban Wildfire Hazards
- PDC 404: Optimizing Ventilation Systems for Labs
- PDC 405: Women in IH
   Leadership Summit —
   Managing Change and
   Creating a Culture of
   Innovation
- PDC 408:
  Understanding the
  Challenges of Exposure
  Variability in the Workplace
- PDC 409:
  Classification and
  Management of Hazardous
  Waste
- PDC 410: Total
  Worker Health® 101
  and Beyond Workplace
  Solutions NEW!
- PDC 702:
  Communicating Risk
  Pathways From EHS
  Hazards Identification to
  Enterprise Risk Management NEW! Day 2

#### 1:00 p.m. – 5:00 p.m.

- PDC 602:

  Mitigation Through
  Decontamination NEW!
- PDC 603: How to Assess and Manage Nano and Advanced Material Risks
- PDC 604:
  Introduction to IH
  Mod 2.0 Exposure
  Modeling With Monte Carlo
  Simulation



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.

Are you paying the price for noise?



### We can help.

- Noise control design
- Plant noise surveys
- Noise source ranking
- Budgetary estimates

Implementation support

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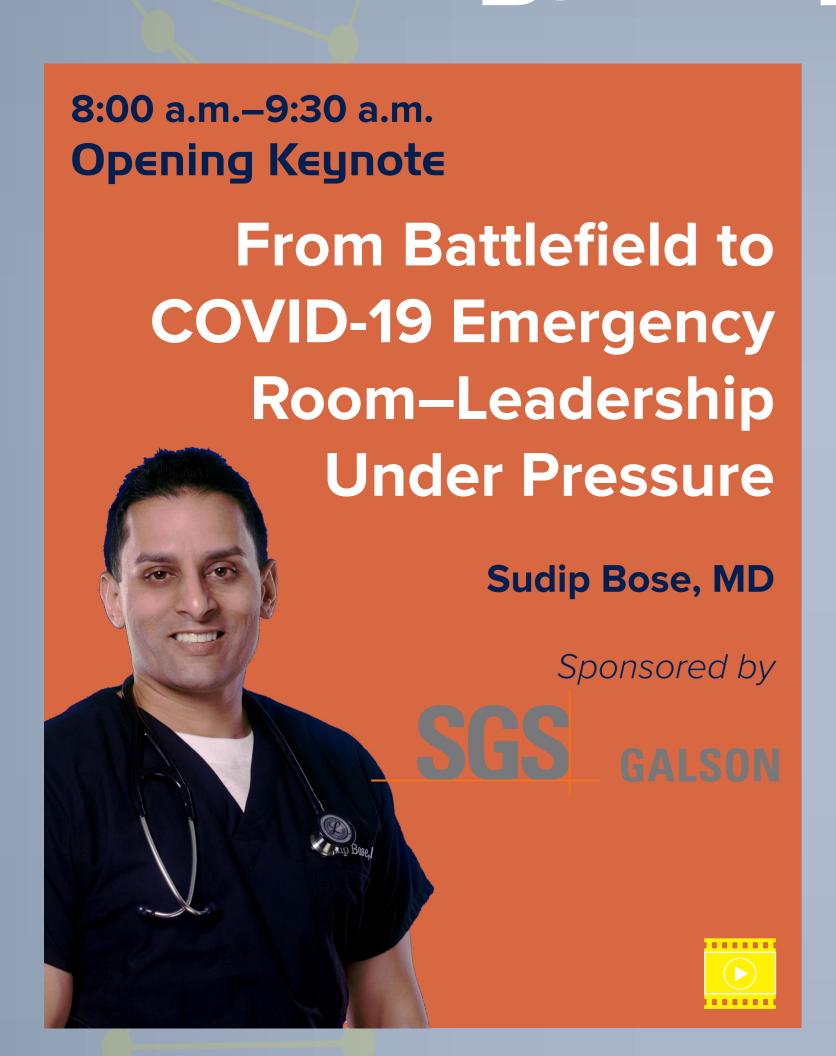
PDF Introduction to Noise Control basics

978.670.5339 noise-control.com



### Monday, May 24 At A Glance





#### 9:45 a.m.-10:10 a.m.

Exhibitor Learning Pavilion by Velocity EHS: How Smart Companies Reduce Occupational Illness with VelocityEHS Industrial Hygiene

#### 10:00 a.m.-10:25 a.m.

Education Pop-Up: Heat Stress Risk
Model for Officials and Assignors
Working Summertime Sports

#### 10:00 a.m.-11:00 a.m.

- A1: Research Roundup Aerosols 1
- A2: Research Roundup
  Ergonomics
- A3: The Challenges of Using Real-Time Detection Systems, Part 1 — Data Gathering to Actionable Information
- A4: HearWell A Participatory
  Approach to Hearing Protection Use and Training
- A5: Semi-Quantitative Risk Analysis to Derive Controls Using Layer of Protection Analysis (LOPA)
- A6: COVID-19 Response Inventing a New Science
- A7: Fellows SIG Debate TEH/TWH: What Should Be the Width of Our Swim Lane?
- A8: Ask the Expert
  With Dr. Sudip Bose

#### 10:30 a.m.-10:55 a.m.

**Exhibitor Learning Pavilion** by Nematic Technologies:

Wireless Multi-Gas
Technologies for Personal
Exposure Monitoring

**H&W:** Just Breathe: Visualization Meditation

#### 11:00 a.m.-11:25 a.m.

Education Pop-Up: Occupational Exposure to Crystalline Silica in Wet Paint

#### 11:00 a.m.-11:45 a.m.

AIHA Main Stage: Career Portfolio: How to Stand Out in an Interview or Performance Review

#### 11:15 a.m.-11:40 a.m.

Exhibitor Learning Pavilion by Magid:

Magid® Cool Powered by

Mission® — A New Era of Cooling

Gear

Safety at work®

### 11:15 a.m.–12:15 p.m.

- B1: Research Roundup
  Construction 1
- B2: Research Roundup
  Chemical Hazards 1
- B3: The Challenges of Using Real-Time Detection Systems, Part 2 — Case Studies in Real-Time Detection Measurements
- B4: The Chicken or the Egg of Legionella and Public Water Supplies
- B5: Lessons Learned From 9/11/2001 20th Anniversary Review
- B6: Prevention Through Design An Integrated Approach to Hazard Analysis
- B7: Leading Health Metrics

B8: Effect of Extended Use/Reuse of Masks and Filtering Facepiece Respirators on Fit and Filtration Efficiency

- B9: Getting the Right Data in Dust Explosion Testing
- Poster Session 1 Author Attend Time

#### 11:30 a.m.-11:55 a.m.

H&W: Lean on Wellness to Lead Mindfully

#### 12:15 p.m.-2:00 p.m.

Nexus Lounge/Lessons in Leadership Series for Students and Early Career Professionals sponsored by Liberty Mutual Liberty Mutual Insurance

### 12:30 p.m.-12:55 p.m.

Exhibitor Learning Pavilion by Gasmet: FTIR Gas Analyzer Identifies and Quantifies "Unknown" Toxic Quantifies "Unknown" Toxic Gases

#### 12:30 p.m.-1:30 p.m.

- Lunch and Learn by SKC
  Inc.: Covering Your Bases:

  OEHS Sampling Solutions for Biomonitoring,
  Air, and Surface/Dermal
- Lunch and Learn by Industrial Scientific Corporation: Bridging INDUSTRIAL SCIENTIFIC SCIENTIFIC Operations

### Monday, May 24 At A Glance



All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

### 1:15 p.m.-1:40 p.m.

Exhibitor Learning Pavilion by Gas Clip
Technologies: Gas Clip Products and
the Gas Detection Industry

State of the Company o

#### 2:00 p.m.-2:25 p.m.

- Education Pop-Up: Five Methods for Applying OELs for Multinational Corporations
- Exhibitor Learning Pavilion by

  Assay Technology: Changing Times:

  Leveraging Personal

Exposure Monitors & Information Tools



### 2:00 p.m.-3:00 p.m.

- C1: Research Roundup Sampling and Analysis 1
- C2: Research Roundup Safety 1
- C3: The Challenges of Using Real-Time Detection Systems, Part 3 Case Studies of Continuous Hazard Monitoring Network Deployment and Interpretation
- C4: The Navy's Safety Process for Entering Challenging Confined Spaces on Ships and in Shipyards
- C5: Powerful Leadership Skills That
  Often Get Overlooked
- C6: Laboratory
  Best Practices
- C7: A Total Worker Health® Approach to Address Emerging OSH Needs in a Changing Workforce

- C8: The Crossroads of Science and Regulations in Glyphosate and Cancer
- C9: Increased Ergonomic Issues in Office Workers Sent Home Due to the COVID-19 Pandemic

#### 2:30 p.m.-2:55 p.m.

H&W: Moving Mindfully at Work: Chair Yoga

### 2:30 p.m.-3:15 p.m.

AIHA Main Stage: Looking for That First Job or Internship? What You Need to Know

#### 3:00 p.m.-3:25 p.m.

- Education Pop-Up: Four Tips for Improving Change Management in Your Ergonomics Initiative
- Exhibitor Learning Pavilion by TSI Inc.:
  How Respirator Fit Testing Protects
  Essential Workforces

#### 3:15 p.m.-4:15 p.m.

- D1: Research Roundup

  Protective Clothing and Equipment 1
- D2: Research Roundup Hazard
  Recognition and Exposure Assessment 1
- D3: The Challenges of Using Real-Time Detection Systems, Part 4
  — Implications for Real-Time Sensors

Deployment Toward Big Data

- D4: Focus on Soft Skills for Improved Collaboration and Communication
- D6: Interesting and Unusual NIOSH Health Hazard Evaluations
- D7: Case Studies in Participatory Action
   Research and Its Role in Total Worker Health
- D8: Upton Sinclair Memorial Lecture How Pork Plant Execs Sacrificed Safety for Profits
- D9: OELs and Their Relationship to Limits for the General Public
- Student Poster Session Author Attend Time

#### 3:30 p.m.-3:55 p.m.

**H&W:** Balance Your Meal Anywhere

#### 4:00 p.m.-4:25 p.m.

Abatement Oversight and Exposure
Mitigation During the Demolition of a Water
Tower

#### 4:30 p.m.-5:30 p.m.

Alha Main Stage: The Role of the Occupational and Environmental Health & Safety Professional in Improving the Health of Our Schools \*LATE BREAKING\*

### 5:30 p.m.-6:30 p.m.

Sunset Session: Increasing Risk
Awareness and Leveraging Risk
Management to Catalyze a Culture of
Learning and Health



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.



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8:00 a.m.-9:30 a.m. Opening Keynote

### From Battlefield to COVID-19 Emergency Room-Leadership Under Pressure



Sudip Bose, MD

Leading physician, combat veteran, philanthropist, professor, and entrepreneur

As a battalion surgeon during Operation Iraqi Freedom, Dr. Bose knows a thing or two about working under extreme pressure. During the Second Battle of Fallujah, he provided medical care in the streets while protected by overhead snipers.

> Dr. Bose takes the extreme life situations he faced during deployment in Iraq and in chaotic emergency rooms and applies them to today's typical work-life setting. He provides insights on making tough decisions in high pressure situations.

Find your grit with help from Dr. Bose; be the leader you want to be!

Sponsored by

9:45 a.m.-10:10 a.m.

Exhibitor Learning Pavilion by Velocity EHS Velocity EHS®

How Smart Companies Reduce Occupational Illness with VelocityEHS Industrial Hygiene

10:00 a.m.-10:25 a.m.

Education Pop-Up: Heat Stress Risk Model for Officials and Assignors Working Summertime Sports

**Presenter:** Bernard Fontaine Jr., The Windsor Consulting Group, Inc.

10:00 a.m.-11:00 a.m. Al: Research Roundup Aerosols I

10:00 a.m.-10:30 a.m.

NIOSH FAST Method on RCS in Iron and Copper Mines and Beyond. Winnie Chu, Nanozen Industries, Canada. 10:30 a.m.-11:00 a.m.

**Assessment of Community Exposures** to Ambient Crystalline Silica Dust near Industrial Silica Sand Mining and Processing Facilities. Custodio Muianga, ATSDR.

A2: Research Roundup **Ergonomics** 

10:00 a.m.-10:30 a.m.

The Shoulder Tool: A New Risk **Assessment Tool for Shoulder MSDs.** Sean Gallagher, Auburn University

10:30 a.m.-11:00 a.m.

**Use of Remote Technologies to** Conduct a Hybrid On-site / Virtual **Ergonomic Risk Reduction Structured** Improvement Activity. Craig Torres, Lockheed Martin - Space

A3: The Challenges of Using Real-Time Detection Systems, Part I — Data Gathering to Actionable Information

Moderator: Dina Siegel, Los Alamos National Laboratory. Presenters: Dina Siegel, Los Alamos National Laboratory; Steven Jahn, Jahn Industrial Hygiene.

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10:00 a.m.-11:00 a.m.

A4: HearWell — A
Participatory Approach
to Hearing Protection Use and
Training

Presenter: Jennifer Cavallari, UConn School of Medicine.

## A5: Semi-Quantitative Risk Analysis to Derive Controls Using Layer of Protection Analysis (LOPA)

Moderator: Kelsey Forde, Parvati Consulting LLC. Presenters: Timothy Stirrup, Parvati Consulting LLC.; Kelsey Forde, Parvati Consulting LLC.

### A6: COVID-19 Response — Inventing a New Science

Moderator: Dalene Zabel, Lamb Weston.

Presenter: Steven Lipson, NV5, Inc.

### A7: Fellows SIG Debate — TEH/TWH: What Should be the Width of Our Swim Lane?

Moderator: Donald Weekes, Retired.

Presenters: Fred Boelter, Boelter
Risk Sciences and Engineering LLC;
Jennifer Sahmel, Insight Exposure and
Risk Sciences; Chris Laszcz-Davis, The
Environmental Quality Organization, LLC;
Deborah Nelson, Retired; Andrew Havics,
pH2, LLC; Kirk Phillips, Total Work Health
Advisory Group, AIHA; S. Zack Mansdorf,
Sustainability Consultants.

### A8: Ask the Expert With Dr. Sudip Bose

Moderator: Jonathan Rosen, National Clearinghouse for Worker Safety and Health Training. **Presenter:** Sudip Bose, The Battle Continues.

Sponsored by SGS Galson



GALSON

10:30 a.m.-10:55 a.m.

### Exhibitor Learning Pavilion by Nematic Technologies

Wireless Multi-Gas
Technologies for Personal
Exposure Monitoring



### H&W: Just Breathe: Visualization Meditation

- 11:00 a.m.–11:25 a.m.
- Education Pop-Up:
  Occupational Exposure to
  Crystalline Silica in Wet Paint

Presenter: Joseph Lohkamp, Chubb.

• 11:00 a.m.–11:45 a.m.

AIHA Main Stage: Career

Portfolio: How to Stand Out in an
Interview or Performance Review

- 11:15 a.m.-11:40 a.m.
- Exhibitor Learning Pavilion by Magid

Magid® Cool Powered by Mission® — A New Era of Cooling Gear



11:15 a.m.–12:15 p.m.

### BI: Research Roundup Construction I

11:15 a.m.—11:45 a.m.

Urinary Bio Monitoring of Occupational Exposures to Epoxy Resins Among Construction Painters in Metal Structure Coating. Anila Bello, UMASS Lowell.

11:45 a.m.-12:15 p.m.

Characterization of Personal Exposures to Epoxy Paints in Construction by LC- MS/MS and Ion Chromatography.

Dhimiter Bello, UMASS Lowell.

### B2: Research Roundup Chemical Hazards I

11:15 a.m.-11:45 a.m.

You Ordered What? End to End Chemical Management. Allison Davis, Mayo.

11:45 a.m.-12:15 p.m.

Updating your EAS to Better Inform the TSCA Risk Reviews. Kara Franke, ToxStrategies.



All events held on Central Time unless otherwise noted. Click the titles for full descriptions.

11:15 a.m.-12:15 p.m.

**B3**: The Challenges of Using Real-Time Detection Systems, Part 2 — Case Studies in Real-Time Detection Measurements

Moderator: Dina Siegel, Los Alamos National Laboratory. Presenters: Robert Henderson, GfG Instrumentation, Inc.; Corey Bender, Independence Safety & Industrial Hygiene; Kenia Fernandez-Ortiz, Miller and Long Co. Inc.

### **B4:** The Chicken or the Egg of Legionella and Public Water Supplies

Moderator: John Springston, ATC Group Services. Presenters: J. David Krause, HC3; Janet Stout, Special Pathogens Lab.

### **B5**: Lessons Learned From 9/II/2001 — 20th Anniversary Review

Moderator: Celia Booth, Booth McCaffery LLC. Presenters: Celia Booth, Booth McCaffery LLC; Frank Ehrenfeld III, International Asbestos Testing Laboratories (IATL).

### **B6**: Prevention Through Design - An Integrated Approach to Hazard Analysis

Moderator: Kelsey Forde, Parvati Consulting LLC. Presenters: Kelsey Forde, Parvati Consulting LLC; Timothy Stirrup, Parvati Consulting LLC.

### **B7**: Leading Health Metrics

Presenters: Alan Leibowitz, EHS Systems Solutions, LLC; Susan Viet, Westat.

### **B8:** Effect of Extended Use/Reuse of Masks and Filtering Facepiece Respirators on Fit and Filtration **Efficiency**

Moderator: Evan Floyd, University of Oklahoma. Presenters: Evan Floyd, University of Oklahoma; Devon Hahn, University of Oklahoma.

### B9: Getting the Right Data in **Dust Explosion Testing**

Moderator/Presenter: Vahid Ebadat, Stonehouse Process Safety.

### Poster Session I Author Attend Time

**Topics:** Aerosols, Engineering Controls and Ventilation, Hazard Recognition/Exposure Assessment, Indoor Environmental Quality/ Indoor Air Quality, Nanotechnology, Sampling and Analysis

- See page 55 for posters on these topics. For a full list of co-authors and detailed abstracts, see the AlHce EXP 2021 website.
- 11:30 a.m.-11:55 a.m. H&W: Lean on Wellness to Lead Mindfully
- 12:15 p.m.-2:00 p.m. Nexus Lounge/Lessons in Leadership Series for Students and Early Career Professionals

Sponsored by Liberty Mutual Liberty Mutual Insurance

- 12:30 p.m.-12:55 p.m.
- Exhibitor Learning Pavilion by Gasmet gasmet

FTIR Gas Analyzer Identifies and Quantifies "Unknown" Toxic Gases 12:30 p.m.-1:30 p.m. **Lunch and Learn** 



Covering Your Bases: OEHS Sampling Solutions for Biomonitoring, Air, and Surface/ Dermal

Moderator: Amber Lesko, SKC Inc. Presenters: Linda Coyne; Andy Bragg; Lucinette Alvarado, SKC Inc.

Lunch and Learn by Industrial Scientific Corporation: INDUSTRIAL

SCIENTIFIC Bridging the Gap Between Safety and Operations

Presenters: Aashima Dhankhar; Mike Russin, Industrial Scientific Corporation.

- 1:15 p.m.-1:40 p.m.
- Exhibitor Learning Pavilion by Gas Clip Technologies

Gas Clip Products and the Gas Detection Industry

gasci:

gascii

generalistical

2:00 p.m.-2:25 p.m. Education Pop-Up: Five Methods for Applying OELs for **Multinational Corporations** 

Presenter: Dave Risi, VelocityEHS.



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.

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All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

2:00 p.m.-2:25 p.m.

Exhibitor Learning Pavilion by Assay Technology

Changing Times: Leveraging Personal Exposure Monitors & Information Tools

2:00 p.m.-3:00 p.m.

### CI: Research Roundup Sampling and Analysis I

2:00 p.m.-2:30 p.m.

A New Diffusive Sampler for Screening a Wider Variety of Environmental Contaminants at Lower Levels.

Charles Manning, Assay Technology 2:30 p.m.—3:00 p.m.

Thermal Properties of Buckypaper Sorbent used in Newly Developed Volatile Organic Compound (VOC) Sampler. Claudiu Lungu, University of Alabama at Birmingham.

### C2: Research Roundup Safety I

2:00 p.m.-2:30 p.m.

Building A Safety Culture and Maintaining Employee Commitment to Safety. Joanna Wallace, Woodard & Curran.

2:30 p.m.-3:00 p.m.

Is Zero Accident Rate Achievable?

Al Laurie de Laski, Emilcott.

C3: The Challenges of Using Real-Time Detection Systems, Part 3 — Case Studies of Continuous Hazard Monitoring Network Deployment and Interpretation

Moderator: Dina Siegel, Los Alamos National Laboratory. **Presenters:** Alexander Brown, Savannah River Remediation; Emanuele Cauda, National Institute for Occupational Safety and Health (NIOSH).

## C4: The Navy's Safety Process for Entering Challenging Confined Spaces on Ships and in Shipyards

Moderator: Bonnie Lockhart, Ameren.

Presenters: Jennifer Rous, Department of the Navy; Alison Keeney, PSNS&IMF; Laura Vaughn, US Navy.

### C5: Powerful Leadership Skills That Often Get Overlooked

Moderator: Celia Booth, Booth McCaffery LLC. Presenter: Aileen Yankowski, SMS Solutions/The Brand of U.

### C6: Laboratory Best Practices

Moderator: Garth Graham, AdvanSix Inc. Presenters: Diana Peroni, BioMarin Pharmaceuticals, Inc.; Angela Dartt, Washington University in St. Louis; Mahdi Fahim, NC State University.

## C7: A Total Worker Health® Approach to Address Emerging OSH Needs in a Changing Workforce

**Presenter:** Jennifer Cavallari, UConn School of Medicine.

### C8: The Crossroads of Science and Regulations in Glyphosate and Cancer

Moderator: Robert Strode, C&IH, Inc.

Presenter: Andrey Korchevskiy, C&IH, Inc.

### C9: Increased Ergonomic Issues in Office Workers Sent Home Due to the COVID-19 Pandemic

Presenters: Thomas Gerding; Megan Syck, University of Cincinnati.

2:30 p.m.-2:55 p.m.

H&W: Moving Mindfully at Work:

Chair Yoga

2:30 p.m.–3:15 p.m.

AIHA Main Stage: Looking for That First Job or Internship?

What You Need to Know

3:00 p.m.–3:25 p.m.

Education Pop-Up: Four Tips for Improving Change Management in Your Ergonomics Initiative

Presenter: Blake McGowan, VelocityEHS | Humantech.

### Exhibitor Learning Pavilion by TSI Inc.

How Respirator Fit Testing Protects
Essential Workforces



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.



3:15 p.m.-4:15 p.m.

### DI: Research Roundup Protective Clothing and Equipment I

3:15 p.m.-3:45 p.m.

Speech Intelligibility Test Methodology for Powered Air-Purifying Respirators.
Susan Xu, NIOSH/NPPTL.

3:45 p.m.-4:15 p.m.

A Study of Protective Clothing to Prevent Nanoparticle Exposure and Surface Contamination. Aigerim Maksot, Colorado State University.

### D2: Research Roundup Hazard Recognition and Exposure Assessment I

3:15 p.m.-3:45 p.m.

What Does a Full Shift Sample Miss?
Tom Morris, Morris Innovative IH & Safety Soln.

3:45 p.m.-4:15 p.m.

Evidence of Absence: Bayesian Way to Reveal True Zeros Among Occupational Exposures. Jerome Lavoue, University of Montreal, Canada.

## D3: The Challenges of Using Real-Time Detection Systems, Part 4 — Implications for Real-Time Sensors Deployment Toward Big Data

Moderator: Dina Siegel, Los Alamos National Laboratory. **Presenters:** Philip Smith, U.S. Department of Labor – OSHA; John Engel, US Navy; Spencer Pizzani, Pepsi Beverages North America.

### D4: Focus on Soft Skills for Improved Collaboration and Communication

**Moderator/Presenter:** Jonathan Klane, BioRAFT.

### D6: Interesting and Unusual NIOSH Health Hazard Evaluations

Moderator: Kendra Broadwater, NIOSH.

Presenters: Jessica Li; Karl Feldmann;
Mark Methner, NIOSH.

### D7: Case Studies in Participatory Action Research and Its Role in Total Worker Health

Moderator: Jennifer Sahmel, Insight Exposure and Risk Sciences. Presenters: Zoe Philip; Abigail McEwen; Insight Exposure and Risk Sciences Group LLC; Silke von Esenwein, PhD, Emory University, Rollins School of Public Health.

## D8: Upton Sinclair Memorial Lecture — How Pork Plant Execs Sacrificed Safety for Profits

Moderator: Leo Old, EnSafe Inc.

Presenters: Rachel Axon, USA TODAY; Sky
Chadde, Midwest Center for Investigative
Reporting.

### D9: OELs and Their Relationship to Limits for the General Public

Moderator: Stacy Barnett, Siemens Healthineers. **Presenter:** Andrew Havics, pH2, LLC.

### Student Poster Session Author Attend Time

**Topics:** Aerosols & Airborne Particulates, Biosafety/Microbiology, Epidemiology, Hazard Recognition/Exposure Assessment, Healthcare, Nanotechnology, Noise/Hearing Loss Prevention, Protective Clothing and Equipment, Respiratory Protection, Total Exposure Health/Total Worker Health®

See pp. 55-56 for posters on these For a full list of co-authors and detailed abstracts, see the AIHce EXP 2021 website.

3:30 p.m.–3:55 p.m.



4:00 p.m.-4:25 p.m.

Education Pop-Up: Lead Paint
Abatement Oversight and
Exposure Mitigation During the
Demolition of a Water Tower

Presenters: Derek Koller; Michael Crandall, Terracon Consultants, Inc.

- 4:30 p.m.-5:30 p.m.
- AIHA Main Stage: The Role of the Occupational and Environmental Health & Safety Professional in Improving the Health of Our Schools \*LATE BREAKING\*
- 5:30 p.m.–6:30 p.m.
- Sunset Session: Increasing Risk Awareness and Leveraging Risk Management to Catalyze a Culture of Learning and Health

Moderator/ Presenter: Charles Redinger, Redinger 360, Inc.

AlHce EXP 2021

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### Tuesday, May 25 At A Glance



#### 8:00 a.m.-8:25 a.m.

- AIHA Main Stage: 5 on the Frontline: Vaccine Supershow
- Education Pop-Up: COVID-19 and Implications for the Accuracy of Qualitative Respirator Fit Testing Due to Anosmia and Hyposmia

#### 8:00 a.m.-9:00 a.m.

- E1: Research Roundup
  Big Data
- E2: Research Roundup Indoor Environmental Quality 1
- E3: Hazards of New Energy Storage/ Super Battery Storage
- E4: Effective Practices in Hearing Loss Prevention
- E5: Ethics in Risk Management,
  Part 1
- E6: Notable Confined Spaces Solvent Evaporation in an Isolated Subsurface Structure and a Fatal Case of Soil Gas Migration Into a Sampling Shed
- E7: OHS Strategies to Address COVID-19 Impacts in Minority Communities
- E8: A New Approach to Real-Time Respiratory Protection Assessment in the Workplace
- E9: Connecting Students and Career Professionals, Part 1

#### 8:30 a.m.-8:55 a.m.

H&W: Level Up Your Hydration Game

#### 9:00 a.m.-9:25 a.m.

AIHA Main Stage: How to Get Published: Tips for Early Career Researchers

#### 9:15 a.m.-9:40 a.m.

Exhibitor Learning Pavilion by VelocityEHS | Humantech: How Smart Companies Build World-Class Ergonomics Processes

#### 10:00 a.m.-10:25 a.m.

- Education Pop-Up: Professional Industrial Hygiene Consulting in the Gig Economy: What Is It?
- Exhibitor Learning Pavilion by PathCon
  Laboratories: A Leader in
  Environmental Microbiology

  PathCon
  Laboratories

#### 10:00 a.m.-11:00 a.m.

- F1: Research Roundup
  Noise 1
- F2: Research Roundup
  Respiratory Protection 1
- F4: How to Collect Viable Clostridioides difficile Endospore Aerosol Using Impingers
- F5: Ethics in Risk Management,
  Part 2

- F6: Comprehensive Exposure
  Assessments at the Hanford Site
- F8: NIOSH's Response to COVID-19, Part 1
- F9: Connecting Students and Career Professionals, Part 2
- F10: UAB Doctoral Student Research
   Presentations

#### 10:30 a.m.-10:55 a.m.

H&W: Moving Mindfully at Work: Small Space Stretches

#### 10:45 a.m.-11:10 a.m.

by SKC: SKC NoiseCHEK:
Ease, Expanded Value, and
Intrinsic Safety

#### 11:00 a.m.-11:25 a.m.

Education Pop-Up: Occupational
Health and Safety Issues in Natural
Disasters

#### 11:15 a.m.-12:15 p.m.

- G1: Research Roundup Emergency
  Preparedness and Response 1
- G2: Research Roundup Chemical Hazards 2
- G3: A Comprehensive Review of Ethics, Acceptability, and Data of Wearable Sensors

- G4: How to Develop Creative Narrative for Better Training and Retention
- G5: Changing the Paradigm of the Modern Day IH/OS Professional
- G6: Improving HazardIdentification
- G7: Building an Efficient and Sustainable In-House Software for OSHA Chemical Hygiene Plan (CHP) Compliance and Beyond
- G8: NIOSH's Response to COVID-19,
  Part 2
- G9: Perspectives on Preparation for the CIH Exam Version 15.0
- Poster Session 2 Author Attend Time

#### 11:30 a.m.-11:55 a.m.

Exhibitor Learning Pavilion by Sy-Klone International:
Reduce Occupational
Exposure in Operator Enclosures: ISO 23875

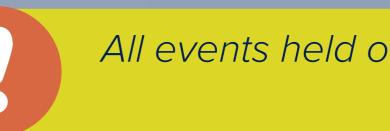
**H&W:** Portion Control on the Go

Performance Requirements

#### 12:15 p.m.-2:00 p.m.

Nexus Lounge/Lessons in Leadership Series for Students and Early Career Professionals sponsored by Liberty Mutual Liberty Mutual.

### Tuesday, May 25 At A Glance



All events held on Central Time unless otherwise noted. Click the titles for full descriptions.

### 12:30 p.m.-12:55 p.m.

**Exhibitor Learning Pavilion** by Draeger, Inc.: Introducing a New Multi-Dräger Gas Detection Technology: MicroTubes

#### 12:30 p.m.-1:30 p.m.

Lunch and Learn by Draeger: Keeping CSE Safe: OSHA 1910.146 Review & Best Practices

Lunch and Learn by DuPont: Get the Facts in 2021: Flame Resistant (FR) Face Coverings for Industrial Workers

### 1:15 p.m.-1:40 p.m.

**Exhibitor Learning Pavilion** by SafeTraces, Inc.: Aerosol Transmission: Breaking into the Black Box with Real World Data **safe**traces

### 2:00 p.m.-2:25 p.m.

**Education Pop-Up:** A Best Practice Approach to Managing Mold and Moisture in Rental Properties

**Exhibitor Learning Pavilion** by Simple Safety Coach, LLC: Breaking Free of the Safety Silo



#### 2:00 p.m.-3:00 p.m.

- H1: Research Roundup Aerosols 2
- H2: Research Roundup Noise 2
- H3: Comparisons of Exoskeleton Electromyography (EMG) Data to ACGIH Threshold Limit Values (TLV®s)
- H4: Implementation, Controls, and **Outcomes of COVID-Free Protection Zone Model**
- H5: Why We Can, Must, and Will Become Better Leaders
- H6: Interesting OSHA Health Cases Facts From the Field, Part 1
- H7: Changing the World One OHTA Course at a Time
- H8: Movie Matinee, Part 1 Waging Change (Film Viewing)
- H9: Mathematical Modeling Approaches to Managing Workplace Safety and Health

### 2:30 p.m.-2:55 p.m.

**H&W:** Lean on Wellness to Lead Mindfully

### 2:45 p.m.-3:55 p.m.

**Exhibitor Learning Pavilion** by Casella: Advances in High Flow Air Sampling Pumps

#### 3:15 p.m. – 4:15 p.m.

- I1: Research Roundup Sampling and Analysis 2
- 12: Research Roundup Management and Leadership
- 13: All About Leading, Lagging, and **Predictive Indicators**
- 14: Wisconsin's Use of UVGI for Decontamination of PPE During the **COVID-19 Pandemic**
- 15: Is Your Safety Training Good Enough?
- 16: Interesting OSHA Health Cases Facts From the Field, Part 2
- 18: Movie Matinee, Part 2 Waging Change (Film Discussion)
- 19: Development of Sustainability and Safety Metrics of Selected Greenhouses in the Continental United States

#### 3:30 p.m.-3:55 p.m.

**H&W:** Wine Down Wisely

#### 4:30 p.m.-5:30 p.m.

- J1: Research Roundup Hazard Recognition and Exposure Assessment 2
- J2: Advanced Hearing Conservation in Construction During Pandemics and Beyond
- J3: Whole-Body Vibration Exposure Onboard Coast Guard Small Boats

- J4: Mesothelioma in Taconite Ore Miners
- J5: Showing the Value of Industrial Hygiene Through Operational Risk Communication
- J6: How ANSI Standards Z117.1 and Z390.1 May Impact Your Confined Space Program
- J7: Comparison of Filtration Efficiencies of N95s and KN95s During the COVID-19 Pandemic
- J8: Leveraging Partnerships, Growing Local Grassroots Talent, and Delivering Results in Global OEHS Initiatives
- J9: COVID-19 Prevention Measures and Organizational Policies in the California **Grocery Store Industry**



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.

TSI® SOLUTIONS PROVIDE YOU WITH PRECISE INFORMATION TO IDENTIFY RISKS AND MAKE INFORMED SAFETY DECISIONS.

- + Respirable Dust Monitoring
- + Heat Stress Monitoring
- + Quantitative Respirator Fit Testing
- + Noise Detection for Hearing Safety
- + Real-Time Gas Monitoring
- + IAQ Monitoring

Learn More>>>







8:00 a.m.-8:25 a.m.

AIHA Main Stage: 5 on the Frontline: Vaccine Supershow

Education Pop-Up: COVID-I9 and Implications for the Accuracy of Qualitative Respirator Fit Testing Due to Anosmia and Hyposmia

Presenter: Robert Brauch, AccuTec-IHS.

8:00 a.m.-9:00 a.m.

El: Research Roundup
Big Data

8:00 a.m.-8:30 a.m.

The Role of Big Data in the EHS Profession. Monica Melkonian, ComplianceQuest.

8:30 a.m.-9:00 a.m.

Comparison Between OSHA-NIOSH
Heat Safety Tool App and WBGT
Monitor to Assess Heat Stress Risk
in Agriculture. Jo Anne Balanay, East
Carolina University.

### E2: Research Roundup Indoor Environmental Quality I

8:00 a.m.-8:30 a.m.

Mold Remediation: Naked Scope, Formal Scope, or Specifications. Andrew Havics, pH2, LLC.

0.20 at m = 0.00 at m

8:30 a.m.-9:00 a.m.

Eww, I touched that! A Review of Measured Microbial Dermal Transfer Efficiencies with Guidance on Incorporation into Microbial Risk Assessments. Heather Avens, Insight Exposure & Risk Sciences.

### E3: Hazards of New Energy Storage/Super Battery Storage

Moderator: David Duncan, ERM.

Presenters: David Duncan, ERM; Elizabeth
Thornhill, Geosyntec Consultants, Inc.

### E4: Effective Practices in Hearing Loss Prevention

Moderator/ Presenter: Thais Morata, CDC/ NIOSH.

### E5: Ethics in Risk Management, Part I

Moderator: Charles Redinger, Redinger 360, Inc. Presenters: Glenn Barbi, BD (retired); Fred Boelter, Boelter Risk Sciences and Engineering LLC; Mary O'Reilly, ARLS Consultants.

# E6: Notable Confined Spaces - Solvent Evaporation in an Isolated Subsurface Structure and a Fatal Case of Soil Gas Migration Into a Sampling Shed

Moderator: Caroline Switzer, EPCOR Drainage Service. **Presenter:** Neil McManus, NorthWest Occupational Health & Safety, Canada.

### E7: OHS Strategies to Address COVID-I9 Impacts in Minority Communities

Moderator: Subena Colligan, Kimberly-Clark. Presenters: Subena Colligan, Kimberly-Clark; Jennifer Hsu, BSI Group.

#### E8: A New Approach to Real-Time Respiratory Protection Assessment in the Workplace

Moderator: Thomas Peters, University of Iowa. Presenters: Kenneth Farmer II, TSI Incorporated; Paul Bodurtha, Defence Research and Development Canada, Canada; Margaret Sietsema, University of Illinois at Chicago.

### E9: Connecting Students and Career Professionals, Part I

Moderator: Jacob Shedd, University of Alabama at Birmingham. Presenters: Alessandra Pratt, University of Iowa; David McMahan, University of Alabama Birmingham; Vishal Nathu, University of Cincinnati.

8:30 a.m.-8:55 a.m.

H&W: Level Up Your Hydration

Game

9:00 a.m.-9:25 a.m.

AIHA Main Stage: How to Get

Published: Tips for Early Career

Researchers



All events held on Central Time unless otherwise noted. Click the titles for full descriptions.

9:15 a.m.-9:40 a.m.

Exhibitor Learning Pavilion by VelocityEHS | Humantech

How Smart Companies Build World-Class Ergonomics Processes humantech®

10:00 a.m.-10:25 a.m.

**Education Pop-Up:** Professional Industrial Hygiene Consulting in the Gig Economy: What Is It?

Presenter: Michael Zalle, YellowBird.

#### Exhibitor Learning Pavilion by PathCon Laboratories

A Leader in Environmental Microbiology

PathCon\* Laboratories

10:00 a.m.-11:00 a.m.

FI: Research Roundup Noise I

10:00 a.m.-10:30 a.m.

**Evaluation and Control of Ultrasound:** Ultrasonic Welding. Anthony DiMaggio, CIH, Chubb Global Risk Advisors.

10:30 a.m.-11:00 a.m.

**Preliminary Evaluation of a Wearable Consumer Noise Measurement Device** in the Laboratory and the General Indoor Environment. Benjamin Roberts, Cardno ChemRisk.

#### F2: Research Roundup Respiratory Protection I

10:00 a.m.-10:30 a.m.

10:30 a.m.-11:00 a.m.

Implementation of Respiratory **Protection Compliance Procedures** as part of the COVID-19 Control and **Prevention Program for a Global** Retailer. Benjamin Chandler, GHD Services, Inc.

**Identifying Substandard and Counterfeit International Respirators:** The National Institute for Occupational Safety and Health Experience. Angela Andrews, CDC/NIOSH, NPPTL.

#### F4: How to Collect Viable Clostridioides difficile Endospore Aerosol Using **Impingers**

Moderator: Evan Floyd, University of Oklahoma. Presenter: K. A. N. Aithinne, University of Oklahoma Health Sciences Center.

#### F5: Ethics in Risk Management, Part 2

**Moderator:** Charles Redinger, Redinger 360, Inc. Presenters: Glenn Barbi, BD (retired); Fred Boelter, Boelter Risk Sciences and Engineering LLC; Mary O'Reilly, ARLS Consultants.

#### F6: Comprehensive Exposure Assessments at the Hanford Sit€

**Moderator:** Parker Jones, Washington River Protection Solutions. **Presenters:** Scott Clingenpeel; Jill Johnston; Michael Zabel, Washington River Protection Solutions.

#### F8: NIOSH's Response to COVID-19, Part I

Moderator: Lisa Delaney, NIOSH. Presenters: Michael Grant; Kyle Moller, NIOSH.

#### F9: Connecting Students and Career Professionals, Part 2

Moderator: Justine Parker, Cardno ChemRisk. Presenters: Melanie Nembhard, Cardno ChemRisk; Andrew Burgie, NYU GPH; Hope Heichel, Balchem.

#### FIO: UAB Doctoral Student Research Presentations

Moderator: David McMahan, University of Alabama at Birmingham. Presenters: Jacob Shedd; Margaret Summers; Nathan Chen, University of Alabama at Birmingham.

10:30 a.m.-10:55 a.m. H&W: Moving Mindfully at Work: Small Space Stretches

10:45 a.m.-11:10 a.m.

Exhibitor Learning Pavilion presented by SKC SKC

SKC NoiseCHEK: Ease, Expanded Value, and Intrinsic Safety

11:00 a.m.-11:25 a.m.

**Education Pop-Up:** Occupational Health and Safety Issues in Natural Disasters

**Presenter:** Bernard Fontaine Jr., The Windsor Consulting Group, Inc.



11:15 a.m.–12:15 p.m.

GI: Research Roundup
Emergency Preparedness
and Response I

11:15 a.m.—11:45 a.m.

**Effective Management of IH/OH Issues for Catastrophic Incident Recovery Projects.** Sarah Anderson, IFO Group.

11:45 a.m.–12:15 p.m.

Responding to PPE Shortage
During the COVID-19 Crisis: The
Massachusetts Emergency Response
Team (M-ERT) Experience. Michael Rein,
Advanced Functional Fabrics of America.

### G2: Research Roundup Chemical Hazards 2

11:15 a.m.—11:45 a.m.

Thermal Desorption Tube Analytical Method Development for Alphadiketones and Benzene. Dru Burns, CDC/NIOSH.

11:45 a.m.-12:15 p.m.

Diesel Engine Exhaust Exposure among Construction Workers in Ontario, Canada. Stephanie Ziembicki, Occupational Cancer Research Centre.

### G3: A Comprehensive Review of Ethics, Acceptability, and Data of Wearable Sensors

Moderator: John Snawder, CDC/NIOSH.

Presenters: Jennifer Sahmel, Insight
Exposure and Risk Sciences; Emanuele
Cauda; John Snawder, CDC/NIOSH.

### G4: How to Develop Creative Narrative for Better Training and Retention

**Moderator/ Presenter:** Jonathan Klane, BioRAFT.

### G5: Changing the Paradigm of the Modern Day IH/OS Professional

Moderator: Timothy Stirrup, Parvati Consulting LLC. **Presenter:** Kelsey Forde, Parvati Consulting LLC.

### G6: Improving Hazard Identification

**Presenters:** Doug Pontsler; Glenn Murray, COVE: Center of Visual Expertise.

# G7: Building an Efficient and Sustainable In-House Software for OSHA Chemical Hygiene Plan (CHP) Compliance and Beyond

Presenters: Mahdi Fahim, NC State
University; Rachael Perriello, University of
North Dakota - Energy & Environmental
Research Center; Angela Dartt, Washington
University in St. Louis.

### G8: NIOSH's Response to COVID-19, Part 2

Presenters: Chad Dowell; Maryann D'Alessandro; William Lindsley, CDC/NIOSH.

### G9: Perspectives on Preparation for the CIH Exam — Version I5.0

Moderator: Margretta Murphy, U of AZ Research Lab Safety Services. **Presenters:** Pamela Dopart-Morgan, Exponent; April Ames, University of Toledo.

### Poster Session 2 Author Attend Time

Topics: Biosafety, Chemical Hazards,
Engineering Controls and Ventilation,
Hazard Recognition/Exposure Assessment,
Healthcare, Respiratory Protection
See page 56 for posters on these topics.
For a full list of co-authors and detailed
abstracts, see the AIHce EXP 2021 website.

11:30 a.m.-11:55 a.m.

### Exhibitor Learning Pavilion by Sy-Klone International

Reduce Occupational **SY-KLONE**® Exposure in Operator Enclosures: ISO 23875 Performance Requirements

#### H&W: Portion Control on th∈ Go

12:15 p.m.-2:00 p.m.

Nexus Lounge/Lessons in

Leadership Series for Students

and Early Career Professionals

Sponsored by Liberty Mutual





12:30 p.m.–12:55 p.m.

Exhibitor Learning Pavilion by Draeger, Inc.

Dräger

Introducing a New Multi-Gas
Detection Technology: MicroTubes

12:30 p.m.-1:30 p.m.

Lunch and Learn by Draeger:
Keeping CSE Safe: OSHA
1910.146 Review & Best
Practices

Lunch and Learn by Draeger:

Keeping CSE Safe: OSHA

Dräger

Presenter: Mark Heuchert, Draeger.

Lunch and Learn by DuPont:
Get the Facts in 2021: Flame
Resistant (FR) Face Coverings
for Industrial Workers

Moderator: Daniel Hammel,
DuPont. Presenters: Allison Fletcher; Mark
Tartaglia, DuPont.

1:15 p.m.–1:40 p.m.

Exhibitor Learning Pavilion by SafeTraces, Inc.

Aerosol Transmission: Breaking into the Black Box with Real safetraces World Data

2:00 p.m.-2:25 p.m.

Education Pop-Up: A Best Practice Approach to Managing Mold and Moisture in Rental Properties

Presenters: Erin Bouttenot, Northeast Laboratory Services; Christine Crocker, Maine Indoor Air Quality Council.

Exhibitor Learning Pavilion by Simple Safety Coach, LLC

Breaking Free of the Safety Silo

2:00 p.m. – 3:00 p.m.

HI: Research Roundup

Aerosols 2

2:00 p.m.-2:30 p.m.

Monitoring of Respirable Dust in Taconite Mining using Ultrasonic Personal Aerosol Sampler and NIOSH NMAM 0600. Nima A-Mohajer, Gradient Co.

### H2: Research Roundup Noise 2

2:00 p.m.-2:30 p.m.

Hearing Protectors, Hearing Loss,
Noise Exposure, and Injury Risk Among
Mining Workers. Richard Neitzel,
University of Michigan School of Public
Health.

2:30 p.m.-3:00 p.m.

Retrospective Assessment of the Impact of Estimated Noise Exposure on Non-fatal and Fatal Injury Rates Among Miners in the US from 1983 to Present.

Lauren Smith, University of Michigan.

H3: Comparisons
of Exoskeleton
Electromyography (EMG) Data
to ACGIH Threshold Limit Values
(TLV®s)

Moderator: Paul Zoubek, Zoubek Consulting, LLC. Presenters: Terry Butler, Lean Steps Consulting Inc.; Jason Gillette, Iowa State University.

### H4: Implementation, Controls, and Outcomes of COVID-Free Protection Zone Model

Moderator: Karen O'Hara, WorkCare, Inc. Presenter: Anthony Harris, WorkCare, Inc.

### H5: Why We Can, Must, and Will Become Better Leaders

Moderator: Liz Vold, 3M. Presenters: Jason Kunz, 3M; Justin Hoover, Steel Dynamics, Inc.

### H6: Interesting OSHA Health Cases — Facts From the Field, Part I

Moderator: Lewis Daniel, US DOL - OSHA.

Presenters: Sean Tynes; Zachariah

Dapron, US DOL - OSHA.

### H7: Changing the World One OHTA Course at a Time

Moderator: Chris Laszcz-Davis, MS, CIH, COH, FAIHA, The Environmental Quality Organization, LLC. **Presenters:** Steven Verpaele, Nickel Institute, Belgium; Alan Leibowitz, EHS Systems Solutions, LLC; Lynn O'Donnell, OHTA.



### H8: Movie Matinee, Part I — Waging Change (Film Viewing)

Moderator: Kathie Lavaty, Engineering Systems, Inc. Presenters: Abby Ginzberg, Social Action Media; Yamila Ruiz, One Fair Wage.

### H9: Mathematical Modeling Approaches to Managing Workplace Safety and Health

Moderator: Gurumurthy Ramachandran, Johns Hopkins University. Presenters: Melissa Edmondson, NIOSH, Johns Hopkins University; Kelsey Babik, Johns Hopkins School of Public Health.

2:30 p.m.—2:55 p.m.

H&W: Lean on Wellness to Lead

Mindfully

2:45 p.m.-3:55 p.m.

Exhibitor Learning Pavilion by Casella CASELLA

Advances in High Flow Air Sampling Pumps

3:15 p.m.–4:15 p.m.

II: Research Roundup
Sampling and Analysis 2

3:15 p.m.-3:45 p.m.

Temporal and Spatial Variations of
Trichloramine and Trichloromethane
Levels in Four Indoor Swimming Pools
and Validation of New Trichloramine
8-hours Sampling Method. Elham
Ahmadpour, Montreal University
Montreal, Canada.

3:45 p.m.-4:15 p.m.

Stability Study and Improved
Method Development for Sampling
and Analysis of 1,3,5-Triglycidyl
isocyanurate (TGIC). Radha
Ukkiramapandian, OSHA.

### I2: Research Roundup Management and Leadership

3:15 p.m.-3:45 p.m.

Forces Influencing Small-Medium
Sized Employer Decisions on Worker
Protection. Bryan Seal, Indiana
University of PA.

3:45 p.m.-4:15 p.m.

WHOI's Response to Covid-19
Pandemic. Ronald Reif, Woods Hole
Oceanographic Institution.

#### I3: All About Leading, Lagging, and Predictive Indicators

Moderator/Presenter: Nik Seely, J.M. Huber Corporation.

### 14: Wisconsin's Use of UVGI for Decontamination of PPE During the COVID-19 Pandemic

Moderator: George Gruetzmacher, Wisconsin State Laboratory of Hygiene. Presenters: George Gruetzmacher; Kelli Rush; Robert Vercellino, Wisconsin State Laboratory of Hygiene.

### I5: Is Your Safety Training Good Enough?

Moderator: Carl Heinlein, American Contractors Insurance Group. Presenter: Daniel Snyder, Safety Mentor.

### 16: Interesting OSHA Health Cases — Facts From the Field, Part 2

Moderator: Lewis Daniel, US DOL - OSHA. Presenters: Amber Rose; Ryan Wolschleger, US DOL - OSHA.

### 18: Movie Matinee, Part 2 — Waging Change (Film Discussion)

Moderator: Kathie Lavaty, Engineering Systems, Inc. Presenters: Abby Ginzberg, Social Action Media; Yamila Ruiz, One Fair Wage.

## 19: Development of Sustainability and Safety Metrics of Selected Greenhouses in the Continental United States

Presenter: Jaime Thissen, University of Illinois Urbana Champaign.

3:30 p.m.−3:55 p.m.H&W: Win∈ Down Wis∈ly

4:30 p.m.-5:30 p.m.

### JI: Research Roundup Hazard Recognition and Exposure Assessment 2

4:30 p.m.-5:00 p.m.

Biomonitoring and Environmental Exposure Assessment for Unintentional Occupational Exposure to Illicit Drugs at State Police Laboratories. Kendra Broadwater, NIOSH.



5:00 p.m.-5:30 p.m.

NIEHS, Worker Training Program,
Opioids and the Workplace Leadership
Training Program. Jonathan Rosen,
National Clearinghouse for Worker
Safety and Health Training.

### J2: Advanced Hearing Conservation in Construction During Pandemics and Beyond

Moderator: Erik Johnson, 3M. Presenters: Sharath Smith; Pegeen Smith, 3M.

### J3: Whole-Body Vibration Exposure Onboard Coast Guard Small Boats

Moderator/Presenter: Ryan Butler, US Coast Guard.

### J4: Mesothelioma in Taconite Ore Miners

Moderator: Robert Strode, C&IH, Inc.

Presenters: Andrey Korchevskiy, C&IH, Inc.;

Linda Dell, Ramboll.

4:30 p.m.–5:30 p.m.

J5: Showing the Value of Industrial Hygiene Through Operational Risk Communication

Presenter: Dave Risi, VelocityEHS.

### J6: How ANSI Standards ZII7.I and Z390.I May Impact Your Confined Space Program

Moderator: Janet Keyes, CHESS, Inc. Presenters: Michael Palmer, Ensafe; William Walker, Battalion Oil.

### J7: Comparison of Filtration Efficiencies of N95s and KN95s During the COVID-I9 Pandemic

Moderator: K. A. N. Aithinne, University of Oklahoma Health Sciences Center.

Presenters: Evan Floyd; Changjie Cai, University of Oklahoma Health Sciences Center.

## J8: Leveraging Partnerships, Growing Local Grassroots Talent, and Delivering Results in Global OEHS Initiatives

Moderator: Chris Laszcz-Davis, The Environmental Quality Organization, LLC. Presenters: Richard Hirsh, Nektar Therapeutics; Thomas Fuller, Illinois State University; Mary O'Reilly, ARLS Consultants; Steven Verpaele, Nickel Institute, Belgium; Garrett Brown, Maquiladora Health & Safety Support Network; Lydia Renton, BluMetric Environmental Inc., Canada.

# J9: COVID-I9 Prevention Measures and Organizational Policies in the California Grocery Store Industry

**Presenter:** Constancia Dominguez, University of California, Berkeley.



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.

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### Wednesday, May 26 At A Glance 🤨



All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

#### 8:00 a.m.-9:00 a.m.

- K1: Research Roundup Exposure Banding/OELs
- K2: Modeling Exposure and Risks in Emissions of 3D Printer Nanoparticles
- K3: Sampling for SARS-CoV-2 and Deactivation of Aerosol Via 254 nm UVC
- K4: Emerging Issues and Impacts in Beryllium Regulations
- K5: Conducting Retrospective Exposure Profiling and the Role of the OH in Disease Claims for Workers' Compensation
- K6: Respirator Fit Testing With Controlled Negative Pressure
- K7: Challenges and Solutions for Flame Resistant (FR) Clothing Hazard Assessment and Selection, Part 1
- K8: Laboratory Accreditation Risk-Based Thinking
- K9: Key Topics in Addressing the COVID-19
  Pandemic, Part 1: The Varied International
  Experience

#### 8:30 a.m.-8:55 a.m.

Education Pop-Up: Using Condensation Growth Tube Capture for Collecting Coronavirus and Other Airborne Pathogens

#### 9:00 a.m.-9:25 a.m.

H&W: Lean on Wellness to Lead Mindfully

#### 9:15 a.m.-9:40 a.m.

Exhibitor Learning Pavilion by Equivital:
The Role of Biometric Wearables Within
a Connected Industrial Worker Platform to
Mitigate Incidents Caused
by Heat Stress and Fatigue

#### 9:15 a.m.-10:15 a.m.

- L1: Research Roundup
  Healthcare
- L2: XRapid Al for IH Analysis
- L3: Confined Space Challenges in the Wind Turbine Industry
- L4: The Role of the OHS Professional in TV, Film, and News Productions
- L5: Involving IHs in Consensus
  Standards in Pandemic Response
- L6: IHs The Greatest Salespeople in the World
- L7: Challenges and Solutions for Flame Resistant (FR) Clothing Hazard Assessment and Selection, Part 2
- L8: Accredited RT-PCR Analysis for SARS CoV-2
- L9: Key Topics in Addressing the COVID-19 Pandemic, Part 2: Scientific Issues and the Hierarchy of Controls

#### 9:30 a.m.-9:55 a.m.

Education Pop-Up: How the Evolution of Hazard Communication and Behavioral Science Has Impacted Today's Workplace Safety Cultures

#### 10:00 a.m.-10:25 a.m.

- Exhibitor Learning Pavilion by Larson

  Davis: Worker Noise
  Exposure: 3 Ways to Make

  Better Measurements

  Exhibitor Learning Pavilion by Larson

  LARSON DAVIS

  A PCB PIEZOTRONICS DIV.
- H&W: Healthy Snacking Throughout the Day

#### 10:30 a.m.-11:30 a.m.

- M1: Research Roundup
  Respiratory Protection 2
- M2: Sources of Error and Variability in Particulate Matter Sensor Network Measurements
- M4: Teaching Occupational Safety
  Through Slime
- M5: Evaluating Ventilation, Airflow, and Filtration in the Built Environment During the COVID-19 Pandemic
- M7: Role of the Safety, Health, and Environmental (SHE) Professional During Major Site Relocation
- M8: How OEHS Professionals Can Influence the Changing Workforce of the Future Workplace
- M9: Key Topics in Addressing the COVID-19 Pandemic, Part 3: Preventing SARS CoV-2 Among Essential Workers
- M10: Cloth Face Masks Containing Silver Evaluating the Status
- Poster Session 3, Author Attend Time

#### 10:45 a.m.-11:10 a.m.

Exhibitor Learning Pavilion by SGS

North America Inc.:

New SGS Galson

SmartSense with Sample Capture Technology

#### 11:15 a.m.-1:00 p.m.

Nexus Lounge/Lessons in Leadership Series for Students and Early Career Professionals sponsored by Liberty Mutual Liberty Mutual.

#### 11:30 a.m.-11:55 a.m.

Exhibitor Learning Pavilion by Noise Control Engineering: Quieter is Better: Basics of Noise Control

#### 11:45 a.m.-12:45 p.m.

- Lunch and Learn by Velocity EHS: 7
  Steps to Improve Your
  Industrial Hygiene Program

  Velocity EHS: 7

  Velocity EHS: 7
- Lunch and Learn by ACS Chemical Safety: RAMP Up
  Your Safety Education and Practice

  Lunch and Learn by ACS Chemical Acs CENTER FOR Lab Safety

### 12:30 p.m.–12:55 p.m. Exhibitor Learning Pavilion by

Sensidyne: How to Gain
Efficiencies in Air Sampling
and Calibration

Industrial Health & Safety Instrumentation

#### 1:00 p.m.-1:25 p.m.

**H&W:** Tame Sweet & Salty Cravings

### Wednesday, May 26 At A Glance



All events held on Central Time unless otherwise noted. Click the titles for full descriptions.

#### 1:00 p.m.-2:00 p.m.

- N1: Research Roundup Indoor Environmental Quality 2
- N2: Capabilities and Limitations of the Latest LEL Sensors in Combustible Gas Measurement
- N3: Exposures, Toxicity, and Hazard Communication of Nanomaterials in Construction
- N4: An Evaluation of Ventilation **Engineering Controls and Surface** Cleaning Techniques on COVID-19 Risk Reduction Measures
- N5: Cultural Heritage Emergency Response Training
- N6: Protecting Employees Against Natural Hazards
- N7: The Permitting Process of Drinking Water Supplemental Disinfection Systems for Waterborne Pathogen Control and Prevention
- N8: Impact of COVID-19 on Work Transformation – Benefits and Challenges of Modifying the Workplace to Match Remote Work of the Future, Part 1

#### 1:15 p.m.-1:40 p.m.

**Exhibitor Learning Pavilion** by Industrial Scientific: Latest Technology Making

Confined Space Entries Safer and Smarter

INDUSTRIAL SCIENTIFIC

#### 2:00 p.m.-2:25 p.m.

**Exhibitor Learning Pavilion** by BSI Group America: Next-Gen Safety: Disrupting Industry With **Emerging Technology** 



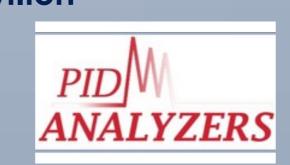
**H&W:** Make Time to Move More

#### 2:15 p.m.-3:15 p.m.

- O1: Research Roundup Chemical Hazards 2
- O2: Increasing the Usefulness of OSHA Sampling and Analysis Methods for Field Hygienists
- O3: The Impact of Workplace Musculoskeletal Disorders on the Opioid Crisis
- O4: Is Green Energy the New Safe Energy?
- **O5:** Data Management **Best Practices**

#### 2:45 p.m.-3 :10 p.m.

**Exhibitor Learning Pavilion** by PID Analyzers, LLC: Advances in Real-Time Gas **Detection Systems** 



- O6: Protecting Workers' Reproductive and Developmental Health
- O7: U.S. Army Corps of Engineers' Alternate Care Facilities COVID-19 Response
- O8: Impact of COVID-19 on Work Transformation – Benefits and Challenges of Modifying the Workplace to Match Remote Work of the Future, Part 2
- O9: Lessons Learned From Fatality Assessment and Control Evaluations (FACE) Investigations in Michigan

#### 3:00 p.m.-3:25 p.m.

**H&W:** Melt Tension Away



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.

3:30 p.m.-4:45 p.m. Workplace of the Futur∈ — New Rules for a N∈w World

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All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

8:00 a.m.-9:00 a.m.

KI: Research Roundup

Exposure Banding/OELs

8:00 a.m.-8:30 a.m.

Derivation of an Occupational Exposure
Limit for Diacetyl Using Dose-response
Data from a Chronic Animal Inhalation
Exposure Study. Evan Beckett, Cardno
ChemRisk.

8:30 a.m.-9:00 a.m.

Assessment of Impacts on the Lung of Long-term Exposure to Copper-Containing Dust at a Copper Smelter — Historical Spirometry Data, Examination via Body Plethysmography and Inflammatory Biomarkers in Blood and Sputum. Lisa-Marie Haase, Ramboll Deutschland GmbH, Germany.

### K2: Modeling Exposure and Risks in Emissions of 3D Printer Nanoparticles

Moderator: Robert Strode, C&IH, Inc.

Presenters: Andrey Korchevskiy; Dan Hall,
C&IH, Inc.; Cary Hill, NanoSafe, Inc.

### K3: Sampling for SARS-CoV-2 and D∈activation of A∈rosol Via 254 nm UVC

Moderator: Evan Floyd, University of Oklahoma Health Sciences Center.

Presenters: Evan Floyd; K. A. N. Aithinne, University of Oklahoma Health Sciences Center.

Center.

### K4: Emerging Issues and Impacts in Beryllium Regulations

Moderator: Michael Brisson, Savannah River National Laboratory. **Presenters:** Michael Brisson, Savannah River National Laboratory; Anthony Pierpoint, Department of Energy.

# K5: Conducting Retrospective Exposure Profiling and the Role of the OH in Disease Claims for Workers' Compensation

Moderator: James Miuccio, OHCOW, Canada. Presenters: James Miuccio; Sonia Lal, OHCOW, Canada.

### K6: Respirator Fit Testing With Controlled Negative Pressure

Presenters: Stephanie Lynch, OHD, LLLP.

# K7: Challenges and Solutions for Flame Resistant (FR) Clothing Hazard Assessment and Selection, Part I

Moderator: Mark Tartaglia, EHS Impact Solutions. Presenters: Cheryl DuBois, 3M; Allison Fletcher, DuPont; Curtis Hintz, Retired from The Dow Chemical Company; Georgi Popov, University of Central Missouri; Kevin Mahoney, PBF Energy -Paulsboro Refinery.

### K8: Laboratory Accreditation — Risk-Based Thinking

Presenters: Bob Lieckfield Jr., CRL HSE Consulting, LLC; Cheryl Morton; AlHA Laboratory Accreditation Programs, LLC.

### K9: Key Topics in Addressing the COVID-I9 Pandemic, Part I: The Varied International Experience

Moderator: Lawrence Sloan, AlHA.

Presenters: Laurence Svirchev, Svirchev
OHS, Canada; Vanessa De Greef,
Université Libre de Bruxelles, Belgium;
Steven Verpaele, Nickel Institute, Belgium;
David Michaels, George Washington
University School of Public Health.

- 8:30 a.m.-8:55 a.m.
- Education Pop-Up: Using Condensation Growth Tube Capture for Collecting Coronavirus and Other Airborne Pathogens

Presenter: Patricia Keady, Aerosol Devices Inc.

- 9:00 a.m.-9:25 a.m.

  H&W: Lean on Wellness to Lead

  Mindfully
- 9:15 a.m.-9:40 a.m.

### Exhibitor Learning Pavilion by Equivital equivital

The Role of Biometric
Wearables Within a Connected Industrial
Worker Platform to Mitigate Incidents
Caused by Heat Stress and Fatigue



Sessions scheduled to be part of the OnDemand package are noted with this icon throughout the Final Program but are subject to change.



All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

9:15 a.m.-10:15 a.m.

### LI: Research Roundup Healthcare

9:15 a.m.-9:45 a.m.

The Health and Safety Risks of Limited English-Speaking Home Care Workers and their Challenges in COVID-19 Pandemic. Jing Zhang, University of Illinois at Chicago.

9:45 a.m.-10:15 a.m.

Occupational Health and Safety
Practices among Dental Hygienists
Before and During COVID-19
Pandemic. Sean Banaee, Old Dominion
University.

### L2: XRapid - Al for IH Analysis

Moderator: Emily Adinolfi, xRapid Group.

Presenter: David Mendels, xRapid Group.

#### L3: Confined Space Challenges in the Wind Turbine Industry

Moderator: Caroline Switzer, EPCOR
Drainage Service, Canada. Presenters:
Jim Tyler, Vestas; Robert Siegel, University
of Wisconsin-Milwaukee & Southern
University.

### L4: The Role of the OHS Professional in TV, Film, and News Productions

Moderator: Melanie Nembhard, Cardno ChemRisk. Presenters: Justine Parker; Corey Boles; A. Michael Ierardi; Laura Hallett, Cardno ChemRisk.

### L5: Involving IHs in Consensus Standards in Pandemic Response

Moderator: Dan Hall, C&IH, Inc.

Presenters: Andrey Korchevskiy, C&IH,
Inc.; Mark Drozdov, The Cooper Union
University; John Suter, Assured Health and
Safety Solutions.

#### L6: IHs – The Greatest Salespeople in the World

Moderator: Justin Hoover, Steel Dynamics, Inc. Presenters: Jason Kunz; Perry Logan, 3M.

# L7: Challenges and Solutions for Flame Resistant (FR) Clothing Hazard Assessment and Selection, Part 2

Moderator: Cheryl DuBois, 3M. Presenters: Mark Tartaglia, EHS Impact Solutions; Allison Fletcher, DuPont.

### L8: Accredited RT-PCR Analysis for SARS CoV-2

**Presenter:** Joshua Birkebak, Assured Bio Labs, LLC.

## L9: Key Topics in Addressing the COVID-I9 Pandemic, Part 2: Scientific Issues and the Hierarchy of Controls

Moderator: Steven Verpaele, Nickel Institute, Belgium. **Presenters:** Lisa Brosseau, University of Minnesota; James Chang, University of Maryland Medical Center; Tom Smith, 3Flow.

- 9:30 a.m.-9:55 a.m.
- Education Pop-Up: How the Evolution of Hazard Communication and Behavioral Science Has Impacted Today's Workplace Safety Cultures

**Presenters:** Janet Carter, U.S. Department of Labor/OSHA; Thomas Cunningham, NIOSH.

- 10:00 a.m.–10:25 a.m.
- Exhibitor Learning Pavilion
  by Larson Davis

  \*\*Description\*\*
  \*

Worker Noise Exposure:

3 Ways to Make Better Measurements

### H&W: Healthy Snacking Throughout the Day

- 10:30 a.m.-11:30 a.m.
- MI: Research Roundup
  Respiratory Protection 2

10:30 a.m.-11:00 a.m.

Hydrogen Fluoride Service Life Testing with Surrogates for PAPR Cartridges.

Erik Johnson, 3M. 11:00 a.m.—11:30 a.m.

Setup, Real-Time Detection, and the Challenges of High Concentration Formaldehyde Vapor for Respirator Cartridge Testing. Maria Peralta, Assay Technology.

# M2: Sources of Error and Variability in Particulate Matter Sensor Network Measurements

Moderator: Kirsten Koehler, Johns Hopkins University. Presenters: Kirsten Koehler, Johns Hopkins University; Thomas Peters, University of Iowa.

### M4: Teaching Occupational Safety Through Slime

Moderator: Subena Colligan, Kimberly-Clark. Presenter: Jennifer Hsu, BSI Group.



All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

M5: Evaluating Ventilation, Airflow, and Filtration in the Built Environment During the COVID-I9 Pandemic

Moderator/ Presenter: Bernard Fontaine Jr., The Windsor Consulting Group, Inc.

M7: Role of the Safety,
Health, and Environmental
(SHE) Professional During Major
Site Relocation

Moderator/Presenter: Deepa Kundadka, DKK Safety and Environmental.

M8: How OEHS Professionals
Can Influence the Changing
Workforce of the Future
Workplace

Moderator: Silvia Maberti, ExxonMobil Biomedical Sciences. Presenters: Silvia Maberti, ExxonMobil Biomedical Sciences; Sheree Gibson, P.E., CPE, Sheree L Gibson, CPE; Justine Parker, Cardno ChemRisk.

# M9: Key Topics in Addressing the COVID-I9 Pandemic, Part 3: Preventing SARS CoV-2 Among Essential Workers

Moderator: Kevin Hedges, Workplace
Health Without Borders. Presenters:
Robert Harrison, University of California,
San Francisco; Amber Mitchell,
International Safety Center; Jonathan
Rosen, National Clearinghouse for Worker
Safety and Health Training.

### MIO: Cloth Face Masks Containing Silver — Evaluating the Status

Moderator: Candace Sujung Tsai, University of California, Los Angeles. Presenters: Hannah Mazzotta, Colorado School of Public Health; Melissa Blevens, Colorado State University.

#### Poster Session 3, Author Attend Time

**Topics:** Chemical Hazards, Ergonomics, Exposure Banding/OELs, Hazard Recognition/Exposure Assessment, Indoor Environmental Quality/Indoor Air Quality, Sampling and Analysis

See page 57 for posters on these topics. For a full list of co-authors and detailed abstracts, see the AlHce EXP 2021 website.

10:45 a.m.-11:10 a.m.

Exhibitor Learning Pavilion by SGS North America Inc.

New SGS Galson
SmartSense with
Sample Capture Technology

GALSON

• 11:15 a.m.–1:00 p.m.

Nexus Lounge/Lessons in

Leadership Series for Students

and Early Career Professionals

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**VelocityEHS**®

• 11:30 a.m.–11:55 a.m.

Exhibitor Learning Pavilion
by Noise Control Engineering

Quieter is Better: Basics of Noise Control

- 11:45 a.m.–12:45 p.m.
- Lunch and Learn by Velocity EHS:

7 Steps to Improve Your Industrial Hygiene Program

Moderator: Jennifer Sinkwitts, Velocity EHS. Presenter: Dave Risi, Velocity EHS.

Lunch and Learn by ACS Chemical Safety:



### RAMP Up Your Safety Education and Practice

Moderator: Molly Ferns, ACS. Presenters: Kali A. Miller; Tammy Hanna, ACS.

- 12:30 p.m.–12:55 p.m.
- Exhibitor Learning Pavilion by Sensidyne

How to Gain Efficiencies in Air Sampling and Calibration

- 1:00 p.m.—1:25 p.m.

  H&W: Tame Sweet & Salty

  Cravings
- 1:00 p.m.-2:00 p.m.

  NI: Research Roundup Indoor

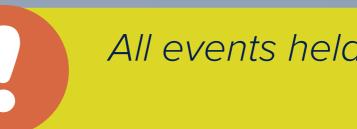
  Environmental Quality 2

1:00 p.m.-1:30 p.m.

Evaluation of Potential Exposure Risks from 3D Printing Operations Using Video and Direct Reading Instrument Datalogging. Rustin Reed, University of Arizona.

1:30 p.m.-2:00 p.m.

Emissions from Material Extrusion and Vat Photopolymerization 3D Printers Using a Chamber Study. Qian Zhang, Underwriters Laboratories Inc.



All events held on Central Time unless otherwise noted. Click the titles for full descriptions.

#### N2: Capabilities and Limitations of the Latest LEL Sensors in Combustible Gas Measurement

Moderator: Bonnie Lockhart, Ameren. Presenter: Robert Henderson, GfG Instrumentation, Inc.

#### N3: Exposures, Toxicity, and Hazard Communication of Nanomaterials in Construction

Moderator: Bruce Lippy, CPWR - The Center for Construction Research and Training. Presenters: Gavin West, CPWR -The Center for Construction Research and Training; Laura Boatman, State Building and Construction Trades Council of California; Aaron Erdely, CDC/NIOSH/HELD.

#### N4: An Evaluation of Ventilation Engineering Controls and Surface Cleaning Techniques on COVID-19 Risk Reduction Measures

Moderator: Ben Heckman, RHP Risk Management Inc. Presenters: Jacob Persky; RHP Risk Management Inc.; Fred Boelter, Boelter Risk Sciences and Engineering LLC; Frank Pagone, RHP Risk Management Inc.

#### N5: Cultural Heritage Emergency Response Training

Moderator: Kathryn Makos, Retired. **Presenters:** Katharine Wagner, Smithsonian Libraries and Archives; Elaina Gregg, American Institute for Conservation & Foundation for Advancement in Conservation.

#### N6: Protecting Employees **Against Natural Hazards**

Moderator/ Presenter: Joanna Wallace, Woodard & Curran.

#### N7: The Permitting Process of Drinking Water Supplemental Disinfection Systems for Waterborne Pathogen Control and Prevention

Moderator: Michael Castro, Special Pathogens Laboratory. **Presenters:** Alberto Comazzi, Sanipur US; Megan Canright, Forensic Analytical Consulting Services.

### N8: Impact of COVID-19 on Work Transformation - Benefits and Challenges of Modifying the Workplace to Match Remote Work of the Future, Part I

**Moderator:** Penney Stanch, Stanch Worker Health. Presenters: Penney Stanch, Stanch Worker Health; Chris Brennan, Huntsman International LLC; Marjorie Werrell, ERGOWORKS Consulting, LLC.

- 1:15 p.m.–1:40 p.m.
- Exhibitor Learning Pavilion by Industrial Scientific

INDUSTRIAL Latest Technology SCIENTIFIC Making Confined Space Entries Safer and Smarter

- 2:00 p.m.-2:25 p.m.
- Exhibitor Learning Pavilion by BSI Group America

Next-Gen Safety: Disrupting **Industry With Emerging** Technology

**DSI** 

H&W: Make Time to Move More

- 2:15 p.m.-3:15 p.m.
- Ol: Research Roundup Chemical Hazards 2

2:15 p.m.-2:45 p.m.

**A Quantitative Exposure Assessment** for Formaldehyde During the use of **Urea-Resin Coated Sanding Discs.** Eduardo Reyes, International Safety Systems Inc.

2:45 p.m.-3:15 p.m.

**Determination of Gaseous and Particle**bound Polychlorinated Biphenyls (PCB 47, 51, 68) for Workplace Air Monitoring. Leonhard Nünemann, Institute for Occupational Safety and Health of the German Social Accident Insurance.

### 02: Increasing the Usefulness of OSHA Sampling and Analysis Methods for Field Hygienists

Moderator: Dean Lillquist, U.S. Department of Labor - OSHA. Presenters: Philip Smith; Daniel Johansen; Daren Pearce, U.S. Department of Labor - OSHA.





Moderator/Presenter: Blake McGowan, VelocityEHS | Humantech.

#### 04: Is Green Energy the New Safe Energy?

Moderator: David Duncan, ERM.

Presenters: David Duncan, ERM; Elizabeth Thornhill, Geosyntec Consultants, Inc.

#### 05: Data Management Best Practices

Moderator: John Dony, National Safety Council. Presenter: Katherine Mendoza, National Safety Council.

#### 06: Protecting Workers' Reproductive and **Developmental Health**

Moderator: Michael McCoy, Exponent. Presenters: Michael McCoy, Exponent;

Sharon Bessa,

Sharon J. Bessa & Associates, Inc.

#### 07: U.S. Army Corps of Engineers' Alternate Care Facilities COVID-19 Response

Moderator: Laura Weems, US Army Corps of Engineers. Presenters: Bonnie Rathbun; Jose Herrera; Genet Tulu, U.S. Army Corps of Engineers.

#### **08: Impact of COVID-I9 on Work** Transformation – Benefits and Challenges of Modifying the Workplace to Match Remote Work of the Future, Part 2

**Moderator:** Penney Stanch, Stanch Worker Health. Presenters: Penney Stanch, Stanch Worker Health; Chris Brennan, Huntsman International LLC; Marjorie Werrell, ERGOWORKS Consulting,LLC.

#### 09: Lessons Learned From Fatality Assessment and Control Evaluations (FACE) Investigations in Michigan

Moderator: Bonnie Lockhart, Ameren. Presenter: Anthony Oliveri, Michigan State University.

2:45 p.m.-3 :10 p.m. Exhibitor Learning Pavilion by PID Analyzers, LLC: Advances in Real-Time Gas

**Detection Systems** 

PID|V**ANALYZERS** 

3:00 p.m.-3:25 p.m. H&W: Melt Tension Away

3:30 p.m.-4:45 p.m.

### Closing Keynote: Workplace of the Future— New Rules for a New World

#### Mike Walsh

COVID-19 hastened the arrival of a radical new future of work. To survive, every organization will have to virtualize. Whether it be serving customers through digital channels or leveraging artificial intelligence (AI), algorithms, and automation to ensure business continuity, for leaders, now, more than ever, is a time to upgrade their capabilities, embrace new technologies, and reimagine what they do.

Walsh's keynote will offer insights into the organizations and leaders that are successfully navigating this period of change and how to create a playbook for your own transformation. Becoming future-proof is more than just about getting through the current crisis—it is about being ready for the new world that awaits us on the other side.

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### Thursday, May 27 At A Glance



All events held on Central Time unless otherwise noted.

Click the titles for full descriptions.

#### 8:00 a.m.-Noon

- PDC 902: Estimating Health-Based Limits for Data Poor Chemicals
- PDC 903: Evaluating Indoor Surface Contamination
- PDC 904: Effective Engineering Solutions for Noise Control
- PDC 905: The ABCs of Electromagnetic Energy **NEW!**
- PDC 906: A Qualitative Risk Analysis
  Tool

#### 8:00 a.m.-5:00 p.m.

- PDC 803: Effective IH Management of Petrochemical Turnarounds and Related Projects
- PDC 805: Planning for Increases in Legionellosis **NEW!**
- PDC 807: The Fundamentals of an Effective Respiratory Protection Program
- PDC 808: Introduction to Quantitative Asbestos
  Risk Assessment

#### 1:00 p.m.-5:00 p.m.

- PDC 1001: Misunderstandings and Misinterpretations of the OSHA HAZWOPER Standard NEW!
- PDC 1002: A Comprehensive Look at IH Monitoring Equipment **NEW!**
- PDC 1003: Nonionizing Radiation Hazards and Protection **NEW!**

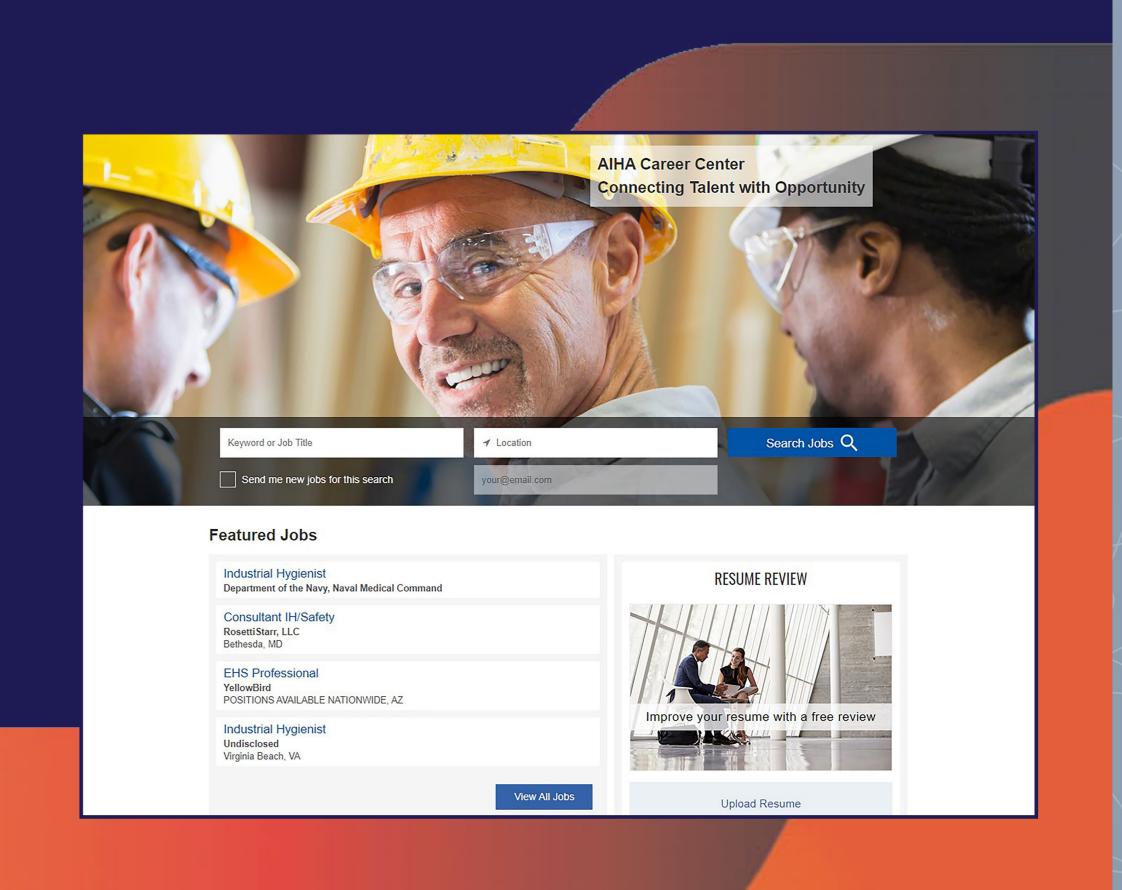


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#### How to Apply:

- 1. Go to: USAJobs.gov and create an account
- 2. Build and upload your resume
- 3. Search for job series 0690 Industrial Hygienist, or 0640 Industrial Hygiene Technician
- 4. Apply! We are also accepting applications at https://www.usajobs.gov/GetJob/PrintPreview/591795300

For additional information contact: Sheryl Brockington, Industrial Hygiene Recruiter, Office of Civilian Human Resources, Philadelphia at (215) 697-0389.

### Poster Sessions

### Poster Session I

Monday, May 24

Author Attend Time 11:15 a.m.-12:15 p.m.

**Topics:** Aerosols, Engineering Controls and Ventilation, Hazard Recognition/Exposure Assessment, Indoor Environmental Quality/Indoor Air Quality, Nanotechnology, Sampling and Analysis.

- 1015 Decomposition of Formaldehyde by a Photochemical Ductless Fume Hood System Equipped with an Excimer Light Source for Industrial Hygiene Applications. Presenter: Keisuke Naito, USHIO Inc.
- 1042 A Comparison of Airborne Respirable Crystalline Silica and Particulate Exposures for Workers Performing Duties Inside and Outside Operator Enclosures in Mining and Construction. Presenter: Edgar Reed, Liberty Mutual Insurance Company.
- 1219 Characterization of Airborne Particles Released during Sanding of Copper-Treated Wood. Presenter: Eun Gyung (Emily) Lee, NIOSH.
- 1227 Using Passive Samplers to Estimate the Exposures
   of the Chemicals in Indoor Environment Finding the
   Correlations Between Air and Dust Concentrations.
   Presenter: Hsing-Yi Chou, National Taiwan University.
- 1246 Asbestos Exposure during Simulated Use of Synthetic Rubber Solution Duct Sealer. Presenter: Brooke Simmons, Cardno ChemRisk.
- 1277 Problems in Measuring Personal Exposure to Gaseous
   Organic Solvents in the Workplace Case of Highly Volatile
   Substances in Passive Sampler. Presenter: Yoshihiro Suzuki,
   SIBATA Scientific Technology Ltd.

- 1293 Asbestos Exposures Associated with the Use of Drilling Mud Additives. Presenter: Jennifer Ellis, Ramboll.
- 1314 Passive Sampling of Airborne Terpenes by Using Silicone Wristbands. Presenter: Shih-Wei Tsai, National Taiwan University.
- 1325 Measurement and Computational Fluid Dynamics
   Models of Airflow Around a Heated Manikin on a Litter.
   Presenter: George Lemmer, Centauri.
- 1379 Analysis of Size-Selective Sampling Methods for Comparison with Welding Fume Metals Occupational Exposure Limits. Presenter: Beth Regan, The Travelers Companies, Inc.
- 1443 A Review and Analysis of Airborne Wood Dust
   Exposures in the United States. Presenter: Amber Banducci,
   Insight Exposure and Risk Sciences.

#### Student Poster Session

Monday, May 24

Author Attend Time 3:15 p.m.-4:15 p.m.

**Topics:** Aerosols & Airborne Particulates, Biosafety/ Microbiology, Epidemiology, Hazard Recognition/Exposure Assessment, Healthcare, Nanotechnology, Noise/Hearing Loss Prevention, Protective Clothing and Equipment, Respiratory Protection, Total Exposure Health/Total Worker Health®

- 1062 Hazards of Organic Waste By-Products Within the Amish Community: A Review. Presenter: Francis Pleban, Tennessee State University.
- 1255 Case-Based Surveillance of Work-Related Lung Disease in Massachusetts. Presenter: Callan Krevanko, Exponent.



For a full list of co-authors and detailed abstracts, see the AIHce EXP 2021 website.

- 1453 Permeation of Gun Cleaning Solvents Through
   Disposable Nitrile Gloves. Presenter: Travis Cribbs, University of California, Los Angeles.
- 1454 Characterization of Occupational Exposures to Engineered Nanomaterials in an Electronic Recycling Facility.
   Presenter: Cynthia Pugh, Indiana University of Pennsylvania.
- 1460 Biomonitoring of Chemical Exposure in Electronics
   Manufacturing Facilities in Batam, Indonesia: A Union Initiated Investigation. Presenter: Jung Hyun Lee, School of
   Health Sciences, Purdue University.
- 1462 Transmission of Hand-Arm Vibration (HAV) and Vascular Disorder of Hand-Arm Vibration Syndrome (HAVS): Laboratory Simulation of Grass Trimmer Operations.
   Presenter: Nathan Chen, University of Alabama at Birmingham.
- 1469 Establishing Hearing Loss Predictive Models Using Artificial Intelligence Approach for Steel-Making Industry Workers. Presenter: Thanawat Khajonklin, Department of Environmental and Occupational Health, National Cheng Kung University.
- 1470 Vacuum Truck Operator Exposures to Fecal Borne
  Pathogens and Airborne Endotoxin During Portable Toilet
  Sanitation Work: A Pilot Study. Presenter: Michael Kado, UC
  Berkeley.
- 1471 Investigation of Protection Efficiency for Masks
   Commonly Used for Ultrafine Particles and Their Effects
   on Aerosol Respiratory Deposition. Presenter: Jinho Lee,
   University of Texas Health Science Center at Houston.
- 1472 Assessment of Aerosol Transport and Ventilation
   Systems in Public Transit Rail Cars Under Static and
   Dynamic Conditions. Presenter: Kelsey Babik, Johns Hopkins
   School of Public Health.
- 1478 Assessing Workplace Exposure to E-cigarette
   Aerosols Among Vape Shop Workers in Southern California.

   Presenter: Robert Schupp, UCLA.

### Poster Sessions

- 1485 Transmission of Hand-Arm Vibration (HAV) during Backpack Blower Operations. Presenter: Christopher Hughes II, University of Alabama at Birmingham.
- 1486 Understanding the Association Between Frequency of Contact by Healthcare Workers on Surfaces and Likelihood of Antineoplastic Drug Contamination in Healthcare Settings. Presenter: Mandie Kramer, University of Minnesota.
- 1489 The Correlation between Anthropometric Parameters and the Fit Test of N95 Respirators. Presenter: Pei Hsuan Chen, Fu Jen Catholic University.
- 1491 The Difference of Permeation Rates and Breakthrough
   Times Between the Chemical Protective Gloves After
   Repeated Exposure. Presenter: Tzu Han Hung, Fu Jen Catholic
   University.
- 1492 Development of a Fit Matching App: Prioritizing Gap
   Measurement Locations between Safety Eyewear and the
   Wearer' Face. Presenter: Erin Lindsey, University of Alabama at
   Birmingham.
- 1495 Assessing Residential Bioaerosol and Black Carbon-Related Air Contamination in the Context of COVID-19
   Shutdown. Presenter: Yao Addor, University of Cincinnati.
- 1500 Backpack Blower Noise Exposure Assessment: A
   Laboratory Simulation. Presenter: David McMahan, University of Alabama at Birmingham.
- 1501 Noise Exposure during Laboratory Simulation of Grass-Trimmer Operations. Presenter: Andrew Spivey, University of Alabama at Birmingham.
- 1502 Assessing Exposure to Airborne Swine Influenza A
   Virus (IAV) in a Minnesota Wean-to-Finish Facility. Presenter:
   Adepeju Adesina, University of Minnesota.

- 1504 Assessment of Workplace Exposure to Metallic Nanoparticles Produced During Metal Inert Gas Welding Using Nanoparticle Respiratory Deposition Sampler.
   Presenter: Tyler Bobo, Purdue University.
- 1505 Study of Nanoparticle Interaction with Untreated and Plasma Treated Lab Coat Fabric. Presenter: Sadia Momtaz Sorna, Colorado State University.
- 1506 Developing Conversion Factors Between the United States & Germany Sampling Methodologies for Measuring Respirable Crystalline Silica. Presenter: Godwin Erekaife, West Virginia University.

#### Poster Session 2

Tuesday, May 25

Author Attend Time 11:15 a.m.–12:15 p.m.

**Topics:** Biosafety, Chemical Hazards, Engineering Controls and Ventilation, Hazard Recognition/Exposure Assessment, Healthcare, Respiratory Protection

- 1013 Adsorption Characteristics of Activated Carbon Fibers in Respirator Cartridges for Toluene. Presenter: Jo Anne Balanay, East Carolina University.
- 1111 Effectiveness of Rapid Training on Using an
  Elastomeric Half-Mask Respirator (EHMR) for Healthcare
  Personnel in a Simulated Public Health Emergency A
  Demonstrative Randomized Clinical Trial. Presenter: Jazmine
  Mui-Blackmon, Wayne State University.
- 1130 A Critical Review of Methods for Decontaminating
   Filtering Facepiece Respirators. Presenter: Kathy Chan,
   Cardno ChemRisk.



For a full list of co-authors and detailed abstracts, see the AIHce EXP 2021 website.

- 1238 Ventilation Use in Nonmedical Settings during COVID-19 — Cleaning Protocol, Maintenance and Recommendations. Presenter: Melanie Nembhard, Cardno ChemRisk.
- 1263 WTC after 20 Years Exposures to BTEX during Rescue and Recovery Operations. Presenter: Robert Adams, Ramboll.
- 1282 An Estimation of Airborne SARS-CoV-2 Infection
   Transmission Risk in New York City Nail Salons. Presenter: A.
   Michael lerardi, Cardno ChemRisk.
- 1312 Fit-Test Feasibility in Using an Elastomeric Half-Mask Respirator (EHMR) in Healthcare Settings in Response to a Simulated Public Health Emergency — A Randomized Controlled Trial. Presenter: Grace Mahasi, Wayne State University School of Medicine.
- 1377 How Clean is Clean? Deploying Fluorescents and Surrogate Pathogens to Characterize a Cleansed Workplace.
   Presenter: Luke Nienhaus, RHP Risk Management, Inc.
- 1392 World Trade Center (WTC) after 20 Years Exposures
  to Diesel Particulate Matter during Rescue and Recovery.
  Presenter: Jennifer Ellis, Ramboll.
- 1410 Commissioning of Hospital Patient Care Areas for New Building Construction Related to Texas Medical Center (TMC) Campus Expansion Involving Professional IH Airborne Assessment and Evaluation for Defined Project Baseline Parameters and Infection Control Criteria. Presenter: Jan Koehn, JK, Inc.
- 1444 Point of Care Monitoring for Benzene in Urine.
   Presenter: Linda Coyne, SKC Inc..
- 1446 Advanced Topics in Respirator Service Life
   Determination Using FTIR Measurements to Improve
   Accuracy in Service Life Testing. Presenter: Charles Manning,
   Assay Technology.

### Poster Sessions

#### Poster Session 3

Wednesday, May 26

Author Attend Time 10:30 a.m. –11:30 a.m.

**Topics:** Chemical Hazards, Ergonomics, Exposure Banding/ Occupational Exposure Limits, Hazard Recognition/ Exposure Assessment, Indoor Environmental Quality/Indoor Air Quality, Sampling and Analysis

- 1058 Evaluation of OSHA's Analysis for Determining the Technical Feasibility of Setting a New PEL — Using Silica as an Example. Presenter: Taylor Tarpey, Cardno ChemRisk.
- 1073 Implications for Recommendations from a Meta-Analysis and Systematic Review Investigating Upper Extremity Discomfort among Office Workers Using a Sit-Stand Disk. Presenter: Allison Persing, Cardno ChemRisk.

- 1142 Evaluation of Urinary Glyphosate Levels Following Simulated Residential Consumer Application of Roundup®.

  Presenter: Christopher Comerford, Cardno ChemRisk.
- 1146 Evaluation of Historical Sampling Data and
   Occupational Exposure Evaluations for Metal Fabrication
   Operations Including Welding and Related Tasks Focusing
   on Carbon Steel and Stainless Steel. Presenter: Joseph David
   Ill, Travelers.
- 1161 Evaluation of Inhalation and Dermal Exposures
   to Glyphosate During Simulated Residential Consumer
   Application of Roundup®. Presenter: Kara Keeton, Cardno
   ChemRisk.
- 1276 Exposure Assessments of Benzophenone,
   Pentachlorophenol and Phthalates the Dietary Intakes
   from the Migrations in Paperboard Food Packaging.
   Presenter: Yu Tien Chou, National Taiwan University.



For a full list of co-authors and detailed abstracts, see the AIHce EXP 2021 website.

- 1309 Emerging Trends in Low-Level Occupational
   Exposures to Lead from OSHA'S Chemical Exposure Health
   Database. Presenter: Evan Anderson, Ramboll.
- 1317 Dermal Exposures of UV filters and Potential
   Volatile Organic Compounds from Personal Care Products.
   Presenter: Un I Lao, National Taiwan University.
- 1445 Emissions and Exposure Levels Associated with 3D Printing in Schools and Universities. Presenter: Aika Davis, Underwriters Laboratories Inc.
- 1447 Exposures and Emissions in Coffee Roasting Facilities and Cafés — Diacetyl, 2,3-Pentanedione, and Other Volatile Organic Compounds. Presenter: Ryan LeBouf, NIOSH.





Libra - L4



Libra Plus - 5



Elite-I



Allin 5-Pack



Allin Plus - 5



Allin Plus - 12



15.00 mini- BUCK mini-Buck M-30B





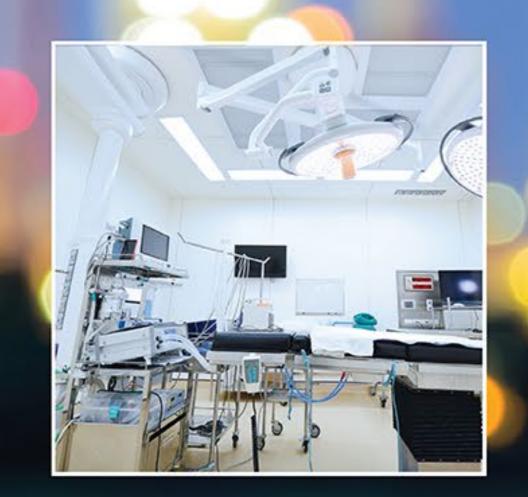
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### AlHce EXP 2021 New Product Guide

We are pleased to showcase these newly released products and services.



#### **New Respirator Fit Tester**

AccuFIT9000® Quantitative Respirator Fit Testers are OSHA-, ANSI-, CSA-, HSEcompliant and can run OSHA's 2019 streamlined protocol.



New AccuFIT9000® PRO version tests all tightfitting respirators including series 95, 99, 100, FFP1, FFP2, and FFP3. Systems are available for all your respiratory protection program requirements. Visit accutec-ihs.com/accufit9000-pro.

### CASELLA

#### Vortex3

Casella is pleased to launch the Vortex3 high flow air sampling pump. Completing our range of air sampling pumps, this innovative

pump is right at home! With 12L/min with a typical filter and unique interlocking design to enable easy transportation, the Vortex3 is built to impeccable standards.



### Dräger

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