

DIVISION OF CHEMICAL HEALTH AND SAFETY

About US

DCHAS is a technical division of the American Chemical Society. We have about 1700 members and very active in partnering with other technical divisions and committees of the ACS, as well as sister organizations outside the ACS. We are also the parent division of the ACS Cannabis Subdivision.

Vision Statement

Improving people's lives through the power of best chemical health and safety practices

Mission Statement

The ACS Division of Chemical Health and Safety provides authoritative technical resources and mentorship in chemical health and safety for all.

Be sure to join us for:

Social Hour

a networking event co-sponsored by

Corporation Associates,

CHAS, and SCHB

Monday Evening, April 1, 2019

6:30 PM - 8:00 PM

Hilton Orlando

Room Orlando III

6001 Destination Parkway

Orlando, FL 32819



Hilton

ORLANDO

CHEMISTRY

FOR
NEW

FRONTIERS

2019
NATIONAL
MEETING &
EXPOSITION

MARCH 31 - APRIL 4

ORLANDO, FL



CH&S

CONNECTING CHEMISTRY
AND SAFETY

DIVISION OF CHEMICAL HEALTH AND SAFETY

Debbie Decker
& Joseph Pickel

Program Chairs

Please plan on attending the Division of Chemical Health and Safety's Technical Program and Workshops in Orlando, FL, April 2019. We have listed for your consideration our workshops and technical programming. We believe we have put together the best technical program to help you be successful and work safely in your laboratory.



Third ACS NASA Symposium
Chemistry for Humanity's Next Giant Leap
Monday & Tuesday

Convention Center, Room W314A

Bringing Together Industry, Academia, Government and the Public to Enlarge and Enhance the STEM Talent Pool Cutting-edge developments in chemical sciences to advance human space travel and translate them into new knowledge to improve the lives of people and make their dreams a reality. Two days packed with inspirational research, industry, jobs.

WORKSHOPS

(see <http://www.dchas.org> for registration information) *All workshops are at the Orange County Convention Center*

Fri. Mar. 29, 2019- 8:00AM - 4:00PM

Laboratory Safety - Beyond the Fundamentals *Conv Ctr Rm. W221C*

Why it went wrong: Blame-free investigation of lab-scale incidents *Conv Ctr Rm. W221A*

Sat. Mar. 30, 2019- 8:30AM - 5:00PM

Reactive Chemical Management for Laboratories and Pilot Plants *Conv Ctr Rm. W221C*

How to be a More Effective Chemical Hygiene Officer *Conv Ctr Rm. W221B*

Sun. Mar. 31, 2019- 3:00PM - 6:00PM

Developing Graduate Student Leadership Skills in Laboratory Safety *Conv Ctr Rm. W240D*

SUNDAY SESSIONS

Educating the Educators

Convention Center, Room W232C

Cosponsored by CCS

S. B. Sigmann, Organizer, Presiding

1:30 Introductory Remarks.

1:35 Safety education: *Not the same as safety training.*

R.H. Hill

2:00 Creative tension between safety education and training. **R. Stuart**

2:25 Communicating facility limitations: Lab design and beyond. **S.M. Hick, B. Butkus, C. Collier, R. Michel**

2:50 Engaging students to gain understanding of chemical safety information. **E. Sweet**

3:15 Intermission.

3:25 Easy implementation of risk assessment. **M.R. Wilhelm**

Wilhelm

3:50 Dissemination of a RAMP toolbox to K-12 teachers through NSTA workshops. **M.U. Gmurczyk, J. Bishoff, I.G. Cesa, S.B. Sigmann**

4:15 Using a "mock safety sort" to raise the many issues a high school science teacher may face. **S.D. Wiediger**

4:40 New break-out safety activity for educating educators safe laboratory practices. **R. Sunasee, S. Nephew**

MONDAY SESSIONS

A Decade Later: The Death of Sheri Sangji as a Catalyst for a Change in Safety Culture

Convention Center, Room W232C

Cosponsored by CCS and PROF

H. Weizman, Presiding

8:00 Introductory Remarks.

8:05 Evaluating the perspective of chemistry graduate students' on the 2008 UCLA incident. **H. Weizman**

8:30 Review of progress and challenges in promoting enhance safety instruction. **D.C. Finster**

8:55 Transitioning from graduate student researcher to safety professional. **B. Armstrong**

9:20 A decade later: Moving safety culture forward in the University of California. **D.M. Decker**

9:45 Intermission.

10:00 Using safety climate surveys to measure the impact of faculty engagement and leadership on laboratory safety. **C.A. Merlic**

10:50 Collaboration in laboratory safety. **E. Sweet**

11:15 Using acid etch safety to promote collaboration between university professions. **E. Chartier**

Cannabis Chemistry's First Annual EISohly Award Symposium

Monday cont. Convention Center, Room W232C

K. Boyar, E. M. Pryor, Presiding

1:30 Opening Remarks.

1:35 Constituents of cannabis: Less Is more?

S. Goldman

2:00 Analytical expressions for viscosity of concentrated cannabis oils. **M.T. Coffin**

2:25 Brief synopsis of basic propagation and breeding techniques in cannabis. **B.A. Jones**

2:50 Intermission.

3:00 Old wine in new bottles: The health and safety implications of the cannabis access law on

the prescription drug epidemic. **J. Marcu, J. Roberts**

3:25 Innovation involves inspiration. **M. Vialpando**

3:50 Frontiers in the development of cannabis-based therapeutics. **M.A. Elsohly**

The Chemistry of Disasters

Sponsored by PRES, Cosponsored by CCS & CHAS

Convention Center Room W414C

Joe Pickel, Organizer, Presiding

1:30 Introductory Remarks

1:45 Caught in the Storm: Extreme Weather Hazards in the Chemical Enterprise. **K.M. Kulinowski**

2:30 Hurricane María: Forging the future of science in Puerto Rico. **I. Montes**

3:00 Intermission

3:20 Looking Back to See Forward: Lessons from a Plant Explosion. **D. Mason**

3:50 Importance of Business Continuity and Emergency Planning for Research. **M.B. Koza**

Chemistry in Space: Future Directions

Sponsored by YCC, Cosponsored by AGFD, ANYL, BIOT, BMGT, CHAS, ENVR, FLUO, GEOC, HIST, I&EC, MEDI, POLY and PROF

Convention Center Room W414D

Attila Pavlath, Ferenc Darvas Organizers, Presiding

12:30 Introductory Remarks

12:35 Decentralized pharmaceutical manufacturing. **F. Gupton**

1:00 On-demand reagents. **D.T. McQuade**

1:25 Perspectives on continuous-flow capture and conversion of CO₂ in martian space. **D. Kim**

1:50 Polymers and nanomaterials for space manufacturing: Flow chemistry demonstration. **R.C. Advincola**

2:15 Towards compact configurable flow devices for synthesis and crystallization. **V.S. Sangorin**

2:40 Intermission

Monday cont.

2:55 Harvesting solar energy for pharmaceutical production in outer space using flow chemistry.

T. Noel

3:20 Hands-on solar spectroscopy for introductory chemistry classes. **J.M. Newman**

3:45 Flow chemistry applications in microgravity: Innovative approaches to chemical synthesis and microreactor systems. **J. Stoudemire**

4:10 Exploring the chemistry of spaceflight with the National Air and Space Museum. **V.L. Miller**

Sci-Mix

Convention Center, West Hall C

J. M. Pickel, Organizer

8:00 - 10:00pm

- Developing SOPs for hazardous chemical manipulations. **T. Chandra**
- Division of Chemical Health and Safety Poster. **J.M. Pickel**
- Impacts of various acids on thermal decomposition of tetrahydrocannabinolic acid (THCA) and tetrahydrocannabinol (THC) in methanol and ethanol. **M.N. Bauer, B.M. Canfield**
- Database of pharmacokinetic time-series data and parameters for evaluating the safety of environmental chemicals. **R. Sayre, J. Wambaugh, C. Grulke**

TUESDAY SESSIONS

Cannabis Chemistry's First Annual EISohly Award Symposium

Convention Center, Room W232C

K. Boyar, E. M. Pryor, Presiding

9:00 Opening Remarks.

9:05 Chemical barcoding for cannabis source identification. **D.J. Boston, C.A. Kinney, J. Carsella**

9:30 Formulation of customized cannabis concentrates. **T. Trah**

9:55 Cannabis microbiome sequencing and its implications for cannabis safety testing. **K. Boyar**

10:20 How a cannabis CRO can support cannabis LPs in their processing optimization needs. **M. Roggen, J. Hein, G. Sammis**

10:45 Development of an efficient method for the extraction and isolation of cannabidiol (CBD) from bulk industrial hemp using pressurized liquid extraction (PLE) and flash chromatography. **C.A. Kinney, D. Seifried**

Bridging the (Safety) Gap between Academia & Industry

Tuesday cont. Convention Center, Room W414C

Sponsored by PRES, Cosponsored by CA, CCS, CHAS[†], CHED, PROF and YCC

8:30 Introductory Remarks

8:45 Dow Lab Safety Academy: Promoting a positive safety culture in academia. **L. Seller**

9:10 UMN Joint Safety Team, the Minnesota Model for lasting changes. **A. Sitek**

9:35 Identifying key factors of safety culture in academia from those identified in industry. **M.E. Gonzalez, D.J. Casadonte**

10:00 Intermission

10:20 Peer to a mentor: Engaging graduate students in laboratory safety at northwestern. **X. Wang**

10:45 Cultivating a Safety Culture in Chemistry at Yale. **J. Freeze**

11:10 Impact of a pilot laboratory safety team workshop. **K.A. Miller, K. I. Tyler**

Improving Academic Safety Culture: Undergraduate & Graduate Student Leadership in Laboratory Safety

Convention Center, Room W232C

Cosponsored by CCS and PROF

K. A. Miller, Presiding

1:30 Introductory Remarks.

1:35 Leadership and empowerment: How to ask and answer safety questions well. **R. Stuart**

2:00 Building a stronger, sustainable safety culture at the University of Chicago. **J. Ting, R.J. Menssen, S.R. Zinn, J. Lettow, B. Slaw, L. Pulido, Q. Wu, J.H. Wright, K. Mormann**

2:25 Design your own safety education. **K.P. Fivizzani**

2:50 How effective is safety training in undergraduate teaching labs?. **K. Mesa**

3:15 Student-led safety inspections of chemistry teaching and research laboratories. **B.J. Stockman**

Ask Doctor Safety about New Materials, Processes & Products

Convention Center, Room W232C

Cosponsored by CCS

H. J. Elston, Presiding

3:50 Controlling safety when you just don't know. **H.J. Elston**

4:15 From Walmart to Target: Current initiatives to remove toxic chemicals from personal care products.

F. Umesiri

4:40 Inserting green chemistry considerations into RAMP. **D.C. Finster, R.H. Hill, J. MacKellar**

Green Chemistry as a Pillar of Safety Education Sponsored by CHED, Cosponsored by CHAS

Tuesday cont. Convention Center, Room W311C

J. Wissinger, Organizer

H. Weisman, Organizer, Presiding

1:30 Introductory Remarks

1:35 Green Chemistry: Where the concepts of safety and ethics meet. **G.M. Bodner**

1:55 Teaching safety through a green chemistry lens. **A. Sitek**

2:15 Incorporation of green chemistry and best safety practices in an organic chemistry laboratory curriculum.

M. Rao

2:35 Intermission

2:50 Combining safety and green chemistry implementation in an inorganic synthesis project. **D.C. Finster**

3:10 Educational initiatives taken by Green Chemistry Network Centre (GCNC) for integrating Green Chemistry in curriculum in India. **R.K. Sharma**

3:30 Panel Discussion

WEDNESDAY SESSIONS

New Frontiers in Cannabis: Analytical Tools, Post- Processing, & Policy Directions

Convention Center, Room W232C

A. R. Wise, Organizer, Presiding

J. Bramante, Presiding

9:00 Opening Remarks.

9:05 Using ImageJ for automated counting of colony forming units of yeast and molds in cannabis flowers. **N. Stolze, A. Sutlief, A.E. Holmes**

9:30 Standardizing the Entourage Effect: Regulating terpenes & flavor additives for inhalable cannabis products without throwing the baby out with the bathwater. **B. Douglass, J.C. Raber**

9:55 Chemistry of cannabis concentrate aerosolization. **J. Meehan-Atrash, R.M. Strongin**

10:20 Chemical and genetic origins of strain-specific aroma in *Cannabis sativa* L. **A. Gilbert**

10:45 Intermission.

10:55 Gas chromatography-mass spectrometry and tandem-mass spectrometry for cannabinoid analysis and discovery. **A. Leghissa, Z. Hildenbrand, K. Schug**

11:20 Novel formation of THC isomers in cannabis oil distillate. **N. Mosely, Z. Iszard**

11:45 Fundamental chemistry research from a collaborative cannabis research venture. **M. Roggen, G. Sammis, J. Hein**