

SAFE Labs can be GREEN Labs

2010 conference

Hard Facts and Data for the EH&S Community, Tools, Tips and Hints for Lab Designers

LEARN HOW TO ACHIEVE MASSIVE ENERGY SAVINGS WITHOUT COMPROMISING SAFETY

The Laboratory Safety Institute presents four, day-long conferences featuring notable speakers from the Lab Design Industry and the Environmental Health & Safety Community. The presenters will come together to educate the lab community on green trends and safety issues, and how the two really CAN coexist in the same lab...without breaking the bank. Please click on the dates below to join us at one of the following locations:

September 14

University of Florida
Gainesville, FL

September 15

Georgia Tech
Atlanta, GA

September 16

North Carolina State U.
Raleigh, NC
(next to campus)

September 17

Harvard Medical School
Boston, MA

■ **Lab Safety: Choices, Ventilation and The OSHA Lab Standard**

Dr. Jim Kaufman, President/CEO;
The Laboratory Safety Institute (LSI)

■ **Fume Hoods / Quantum Leaps**

Jon Zboralski, Director Air Flow Products;
Thermo Fisher Scientific

■ **ASHRAE 110 and Containment Testing as Applied to Filtered Hoods**

Tom Smith, President; Exposure Control Technologies

■ **Strategies for Approaching Net Zero Carbon Footprint Lab Building**

James Blount, AIA LEED AP, Associate Principal; Ellenzweig

■ **The Science Supporting GreenFumeHood®: Molecular Adsorption Explained**

Dr. Cédric Herry
Director of Research & Development; Erlab

■ **A Realistic Vision of the Lab of the Future Beyond 21st Century Design - Identifying, Then Connecting the Right Dots**

Clay Stafford, Principal;
Health, Education + Research Associates

■ **Save Energy and Cut your Carbon Footprint with Demand-Based Control of Lab Flow**

Tom Kolsun, Eastern Regional Manager; Aircuity, Inc.
David Belleville, Northeast Regional Manager; Aircuity, Inc.

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\$595 One day entry to all presentations

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afternoon and morning refreshments

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each presentation

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Sept 1st**

Moderated by: Karl Aveard

LEED AP, Vice President, GFH® Technologies

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BIOS & ABSTRACTS

8:30 a.m.



Lab Safety: Choices, Ventilation and The OSHA Lab Standard

Dr. Jim Kaufman President/CEO; The Laboratory Safety Institute (LSI)

"Life is filled with choices and, unfortunately, hazards too. The only persons free to choose are those who know the choices...The persons best prepared to choose will know the likely outcomes. In many cases, the people in labs are not free to choose because they know neither the choices nor the consequences.

I've spend the last 35 years talking with folks in labs about the choices and the consequences. In this presentation, I would like to describe some of the choices and consequences, particularly as they relate to lab ventilation and the requirements of the OSHA lab standard."

Dr. James Kaufman is President/CEO of The Laboratory Safety Institute (LSI) and former Professor of Chemistry and EHS Director at Curry College. He received his bachelor's degree in chemistry from Tufts University and his doctorate in organic chemistry from Worcester Polytechnic Institute (WPI).

After two years as a post-doctoral fellow in the WPI Chemical Engineering Department converting garbage into fuel oil, Dr. Kaufman joined the Dow Chemical Company's New England Research Laboratory as a Process Research Chemist. During his four years with Dow, he became increasingly involved in laboratory safety related activities. He authored "Laboratory Safety Guidelines". Originally distributed by Dow, now over two million copies of the widely requested and reprinted brochure are in circulation.

Dr. Kaufman is the founder and President/CEO of The Laboratory Safety Institute – an international, non-profit center for safety in science and science education. LSI's lectures and training programs, AV-lending library, Mini-Grants, Internet discussion list, and publications help both academic and non-academic institutions throughout the world. Over 60,000 scientists and science educators have attended these courses and presentations. LSI is supported, in part, by grants from individuals, foundations, companies and professional societies.

LSI conducts seminars, short courses, audits and inspections for schools, colleges, and companies. They also provide advice on regulatory compliance, safety program development, facilities design, editorial commentary on laboratory texts, and expert witness testimony.

Dr. Kaufman is a former, ten-year member of the American Chemical Society's (ACS) Council Committee on Chemical Safety and is past-chairman of the 2,500-member ACS Division of Chemical Health and Safety. He is the author-narrator of the ACS Audio Course on Laboratory Safety and editor of "Waste Disposal at Academic Institutions" from Lewis Publishers. He recorded and edited the "One-Day Laboratory Safety Audio Seminar" and "Two-Day Lab Safety Video Course." He is a co-author of "Safety Is Elementary: the new standard for safety in the elementary science classroom" Most recently, Dr. Kaufman was appointed chair of the Safety in Science Education committee of the International Council of Associations for Science Education (ICASE).

9:30 a.m.



Fume Hoods / Quantum Leaps

Jon Zboralski, Director Air Flow Products; Thermo Fisher Scientific

This session will provide an overview of the past and current quantum leaps in the industry. Approximately every decade a new technology has entered the industry in attempt to minimize the cost impact of fume hoods in the laboratory marketplace. Current low flow & high performance hood designs from various manufacturers, VAV systems, as well as the current filter technology will be discussed.

Mr. Jon Zboralski has over 40 years of experience in the design, development, and application of laboratory products, specializing in laboratory fume hoods. Jon is a published author and holds numerous patents on airflow related products. He is active in the lab industry serving on the Scientific Equipment and Furniture Association (SEFA) Fume Hood Committee. Jon has been deeply involved in the development and application of the ASHRAE 110 fume hood test procedure since its inception in 1985. He is a voting member on the re-write committee that maintains the standard. Jon speaks nationally on fume hood related issues and is in demand as a recognized innovative authority on the subject.

10:30 a.m.



The Science Supporting GreenFumeHood®: Molecular Adsorption Explained

Dr. Cédric Herry Director of Research & Development; Erlab

Dr. Herry will focus on addressing the concerns of the Environmental Health and Safety Professional / Industrial Hygienist Professional regarding filtration technology as a viable option to ducted fume hoods. Issues like, trusting a filtered hood in your lab, understanding desorption, knowing when filters are saturated, and proper disposal of expired filters will be discussed.

Dr. Cédric Herry earned his PhD in Environmental Chemistry and Microbiology as well as a Masters Degree in Environmental Technologies. He is an expert on activated carbon and standardization (French Committee UNM61 and European Committee WG4) and has been the director of R&D for ERLAB, France since 2001.

11:30 a.m.



ASHRAE 110 and Containment Testing as Applied to Filtered Hoods

Thomas C. Smith, President; Exposure Control Technologies

All fume hoods are factory tested to perform in accordance with the ASHRAE-110 protocol. Tom outlines the “as installed” testing necessary to insure proper integration in lab ventilation system and continuous routine testing to meet the guidelines of the Environmental Health and Safety Department.

Mr. Tom Smith is a leader in lab safety and energy management. He specializes in helping laboratories provide safe, dependable and energy efficient operation of laboratory hoods and ventilation systems. He holds a BS degree in Mechanical Engineering from North Carolina State University and a MS degree in Environmental Engineering from the University of North Carolina.

Mr. Smith is active in developing national and international standards for lab ventilation and has served as Chairman of ASHRAE TC9.10 Laboratory Systems, Vice Chairman of ANSI/ASHRAE 110 Fume Hood Testing, and is the Vice Chairman of ANSI/AIHA Z9 Standards for Ventilation and Health. Since 1985, Mr. Smith has participated in hundreds of laboratory ventilation projects and evaluated thousands of laboratory hood systems. His work has helped improve the safety of lab environments, reduced energy consumption and saved millions of dollars in operating costs.

1:00 p.m.



Strategies for Approaching a Net Zero Carbon Footprint Lab Building

James Blount, AIA LEED AP, Associate Principal; Ellenzweig

As we enter the second decade of the 21st century with scientific and medical research, energy costs and environmental sensitivities all on the rise, we need to re-think the way we program and design laboratory buildings. Building owners and lab designers need to advance with new strategies and technologies that offer the possibilities of safe and more energy efficient high performance laboratory buildings.

Within the United States, buildings account for almost 40% of all energy use. With laboratory buildings considered among the largest consumers of energy within the built environment, we need to go beyond the simple “check-point” approach to sustainability with this building type.

Motivated by ever-increasing energy costs and concerns for the environment, our laboratory building designs are integrating new strategies aimed towards higher performance systems, energy efficiency as well as increased laboratory safety. Advanced by emerging sustainable technologies and enabled by changing mechanical ventilation regulations, guidelines and standards, these sustainable initiatives are gaining in number and better positioning laboratory buildings to approach a goal once thought to be unachievable “the net zero energy laboratory”.

Mr. James Blount is a laboratory planning architect and Associate Principal with Ellenzweig, an architectural design firm located in Cambridge, Massachusetts, providing programming, planning, and design services to more than 70 research institutions throughout the country.

Jim has focused his career on the design of buildings for science; his experience in sustainable laboratory design has been circulated in both national publications and conferences. “As a laboratory design professional, I’m inspired by the idea that we have the opportunity to promote the principles of high performance architecture and contribute to the advancement of learning and discovery by way of innovative sustainable design solutions.” Jim welcomes the constant challenge to redefine scientific program, and is intrigued by the complexity of program, space, and systems; he enjoys the teamwork and collaborations integral to creating a highly sustainable and visionary expression of science as the built environment.

2:00 p.m.



A Realistic Vision of the Lab of the Future Beyond 21st Century Design - Identifying, Then Connecting the Right Dots

Clay Stafford, Principal; Health, Education + Research Associates

“Connecting the dots” – before the dots can be connected, you must collect the right dots. Starting with bad or old information can lead to outdated, problem-laden or even bloated solutions. For example, recent facilities - lauded for “changing the paradigm,” upon closer inspection are simply repackaged concepts placed in pretty buildings. So, what (really) is the lab of the future? New challenges such as safety, capital, demand, competition and saturation are the chief concerns of decision influencers (policy makers, EHS, facility and engineering staff). How will these concerns affect full sustainability? Shared use? Will technology advancements lead to something unforeseen? Collecting the right dots is the starting point for the real future proof lab.

As a programmer and strategist - I intend to present “thought starters” to open the presentation, and discuss formative questions to truly achieve change in lab design.

Mr. Clay R. Stafford has focused on strategic and master planning, facility programming and planning for more than 20 years. He has planned and programmed over 30 million square feet of facilities for corporations, academic institutions, governments, crime investigation agencies and medical clients around the world. Most recently Clay has been working with the FBI to re-invent their 460,000 SF Forensic Laboratory Building in Quantico, Virginia. A gifted communicator and strategic thinker, he has lectured and authored on the topic of laboratory planning throughout the decade. His contribution to the R+D Handbook, “The Care and Feeding of Scientists – How much is too much?” has quickly become an industry standard for “right sizing” lab facilities.

3:00 p.m.



Save Energy and Cut your Carbon Footprint with Demand-Based Control of Lab Flow

Tom Kolsun, Eastern Regional Manager; Aircuity, Inc.

David Belleville, Northeast Regional Manager; Aircuity, Inc.

Mr. Tom Kolsun is the Eastern Regional Sales Manager of Aircuity, Inc. where he is responsible for business development, primarily for the markets of higher education and life sciences. He is also responsible for the management of the sales rep network. Prior to joining Aircuity, he had over 15 years of wide-ranging entrepreneurial experience primarily in the commercial construction field as founder and president of two technology related companies.

Mr. Kolsun is an active participant in Labs21, Association of Physical Plant Administrators of Universities and Colleges, The Building Owners and Managers Association and the US Green Building Council.

Mr. David Belleville has over 25 years experience in the building industry focused on HVAC systems serving commercial facilities, with a primary focus on technical sales, system design, and project management. David co-founded Aircuity in 2000. Prior to that, David was the VP of Technical Services for Phoenix Controls, providing sales and technical support for their worldwide sales channel for laboratory ventilation control systems. David has both a BS and MBA degree from Southern New Hampshire College, and lives in the Boston area with his wife and 2 daughters.



Moderated by: Karl Aveard, LEED AP, Vice President; GFH Technologies

A lab design expert and LEED accredited Professional, Karl has held several impressive industry professions, including National Architectural Services Manager at Durcon, Inc.; Associate Partner at Syska Hennessy; Assistant Director of Engineering/Marketing at Earl Walls Associates. Currently he is Vice President for GFH Technologies USA. Karl is also actively involved in the following industry groups: ASHRAE, CSI, AIA, USGBC, CETA and SEFA.

3:00 to 5:00 – Panel Discussions: All of your questions answered