2017 ASTM Johnson Conference

Sponsored by ASTM Committee D22 on Air Quality

July 31-August 4, 2017
University of Vermont
Burlington, VT

Conference Co-Chairs:

- Michael Breu
  Fiberquant Analytical Services
  Phoenix, AZ

- Frank Ehrenfeld
  International Asbestos Testing
  Mount Laurel, NJ

- Jim Millette
  Millette Technical Consulting
  Lilburn, GA

- Jim Webber
  Webber Environmental Health Consulting
  Pleasantville, NJ

ABOUT THE CONFERENCE

Since 1986, Johnson Conferences have served as forums for the discussion of asbestos issues. Held in the beautiful summers of northern Vermont, the Johnson Conference has a tradition of no recording/no publication that has encouraged forthright presentations and discussions of novel ideas and controversial issues. As such, these conferences have generated lively exchanges of ideas that have shaped many of the asbestos monitoring methods and strategies used today.

CONFERENCE SCHEDULE

The conference will be held over five days (Monday, July 31 through Friday, August 4), consisting of nine sessions.

POSTER SESSIONS

Posters will be presented from Monday through Thursday of the Johnson Conference in the lobby of the lecture auditorium. Poster presenters will be at their posters for discussion during morning and afternoon breaks as well as for one half hour before the morning session begins and one half hour after the afternoon session adjourns.
MONDAY, JULY 31, 2017

SESSION 1: WORKSHOP ON NOVEL RESEARCH FINDINGS ON ASBESTOS HEALTH EFFECTS

8:15 AM
Welcome
James S. Webber, Ph.D., Johnson Conference Co-Chair

8:20 AM
Introduction
Deborah Keil, Ph.D., Montana State University

Non-Cancer Outcomes Session (Moderator: Deborah Keil, Ph.D., Montana State University)

8:30 AM
Speaker: Jean Pfau, Ph.D., Montata State University

9:00 AM
Panel Member #1: Brad Black, M.D., Center for Asbestos Related Diseases, Libby, MT

9:20 AM
Panel Member #2: Bob Benson, Ph.D., U.S. Environmental Protection Agency, Region 8

9:40 AM
Panel Member #3: Arnold Brody, Ph.D., Tulane University Medical School

10:00 AM
Panel and Audience Discussion

10:45 AM  BREAK

Asbestos Biomarker Session (Moderator: Jean Pfau, Ph.D.)

11:00 AM
Speaker: Harvey Pass, M.D., New York University, Langone Medical Center

11:40 AM
Panel Member #1: Ian Blair, Ph.D., University of Pennsylvania

12:00 PM  LUNCH (On Your Own)

1:00 PM
Panel Member #2: Raphael Bueno, M.D., Harvard Medical School
1:20 PM
Panel Member #3: Arti Shukla, Ph.D., University of Vermont, College of Medicine

1:40 PM
Panel and Audience Discussion

2:20 PM       BREAK

**Cancer Outcomes Session (Moderator: Arti Shukla, Ph.D.)**

2:30 PM
Speaker: Chris Weis, Ph.D., NIEHS

3:00 PM
Panel Member #1: Nicholas Heintz, Ph.D., University of Vermont Cancer Center

3:20 PM
Panel Member #2: David W. Kamp, M.D., Northwestern University Medical School

3:40 PM
Panel Member #3 Audrey Korchevskiy, Ph.D., Chemistry & Industrial Hygiene, Inc.

4:00 PM
Panel and Audience Discussion

4:45 PM       WRAP UP (Jean Pfau)

6:00 PM
Reception at Sheraton Hotel (Cash Bar)

**TUESDAY, AUGUST 1, 2017**

**SESSION 2: GEOLOGY**  
Session Co-Chairs: Mickey E. Gunter  
Sean Fitzgerald

8:20 AM
**Introduction and Announcements**  
Frank Ehrenfeld, Johnson Conference Co-Chair

8:30 AM
**Towards a Training Program for Geologists and Other Asbestos Professionals Working on NOA Projects**  
R. Mark Bailey, Bradley Erskine
8:50 AM
NOA at the Calaveras Dam Replacement Project: A status report
Bradley Erskine

9:10 AM
Conceptual Model for Surficial Redistribution of Naturally Occurring Asbestos in Arid and Semi-Arid Landscapes: Case Study in Southern Nevada, USA
Brenda J Buck, Rodney V. Metcalf, Brett T. McLaurin

9:30 AM
Update on Erionite
Martin Harper

9:50AM
Erionite Analysis by TEM
Robyn Ray

10:10 AM    BREAK

10:30 AM
Two Modes of Fibrous Growth Habit in Amphiboles
Rodney V. Metcalf, Brenda J. Buck

10:50 AM
Proposal of a Partition in the Diagram Si vs. Mg / Mg + Fe, Taking Into Account All Calcic Asbestiform Amphiboles
Maxime Misseri, Didier Lahondere

11:10 AM
Additional XRD and Pre-Concentration Developmental Work on the Determination and Characterization of Erionite and Other Zeolites in Support Of ASTM Work Item, WK 39550, PLM Analysis of Soils And Gravels and NIOSH (Martin Harper) Evaluations for Erionite by PLM, Microprobe, and TEM Analyses
Gary P. Tomaino

11:30 AM
Using Stable O and H Isotope Ratios to Constrain Conditions of Talc Formation in Southwest Montana and Other Economically Significant Locations
Marian E. Buzon, Mickey E. Gunter

11:50 AM
Mineralogical Resources for Those Dealing with Respirable Mineral Dust
Mickey E. Gunter

12:10 PM    LUNCH (On your own)
SESSION 3: REGULATORY PERSPECTIVES
Session Co-Chairs: Myron Getman
Daniel T. Crane

1:40 PM
ASTM E2356-14 "Standard Practice for Comprehensive Building Asbestos Surveys" - The Application to Industry
Tom Laubenthal

2:00 PM
Asbestos at the Source: Understanding the Differences Between Regulated Commercial Asbestos, Asbestiform Minerals in Rocks, and False Positives
Don Halterman

2:20 PM
Avoiding 1%: Analytical Mindfulness and Statistical Monitoring
Frank Ehrenfeld

2:40 PM
Finalizing the Libby Action Plan Research Program
Maureen R. Gwinn, David L. Berry, Andrea Kirk, Annie Jarabek, David Bussard, Ronald Hines, Deborah McKean, Michael Scozzafava

3:00 PM
State Asbestos Regulations Between the Lines: What is the Nature of Enforcement?
Thomas B. (Brad) Mayhew

3:20 PM  BREAK

3:40 PM
…Any of These Minerals That Have Been Chemically Treated and/or Altered – Part 1
Background of the Issue
Daniel T. Crane

4:00 PM
…Any of These Minerals That Have Been Chemically Treated And/Or Altered – Part 2
How OSHA Uses Standard Tools to Address This Requirement
Daniel T. Crane

4:20 PM
Death by Point Counting
F. Stephen Masek

4:40 PM  SESSION ADJOURNS
WEDNESDAY AUGUST 2, 2017

SESSION 4: DEVELOPING ANALYTICAL METHODS
Session Co-Chairs: Frank Ehrenfeld
Jeanne Spencer

8:20 AM
Introduction and Announcements
Michael Breu, Johnson Conference Co-Chair

8:30 AM
Challenges of Reconciling Two Asbestos Testing Laboratories’ Analytical Results on an NOA Job Site with Complicated Amphibole Mineralogy
R. Mark Bailey, John Harris

8:50 AM
ASTM Dust Methods: The Effects of the Ultrasonic Preparation Technique on Asbestos Concentration, How to Interpret the Results
Andreas Saldivar, Leonard Burrelli

9:10 AM
Gary P. Tomaino

9:30 AM
Fluidized Bed Asbestos Segregator – Inter-Laboratory Round Robin
Jed Januch, David Berry, Lynn Woodbury

9:50 AM
Update on New Methods for Asbestos in Pharmaceutical Grade Talc
Martin Rutstein, Julie Pier, Daniel Crane, Sean Fitzgerald, Mickey Gunter, Don Halterman, Kate Houck, Lee Poye, Matthew Sanchez, Alan Segrave, Gary Tomaino, Drew VanOrden, James Webber, Jeffrey Medwid (FDA), Steven Wolfgang (FDA), Kevin Moore

10:10 AM BREAK

10:30 AM
Concentration Methods Improve Detection Limits for the Analysis of Talc for Asbestos
Julie W. Pier

10:50 AM
Effectiveness of PLM for the Analysis of Chrysotile Asbestos Spiked Into Talc
Julie W. Pier

11:10 AM
Libby and Other Amphiboles, the Ends Are In Sight
Jeanne Spencer

11:30 AM
Optical Analysis of the Fibrous/Acicular Zeolites: A Spindle Stage Approach
Kristina Pourtabib, Mickey Gunter

11:50 AM LUNCH (On your own)

1:40 PM
Electron Backscatter Diffraction for Phase Identification in Asbestos Analysis: Real World Case Studies
Bryan Bandli

2:00 PM
Comparison Between PCM and TEM Analysis of Filters Loaded with LA-Spiked Soil Standards Using the FBAS Preparation Method
David Berry, Lynn Woodbury

2:20 PM
Update on ASTM WK52495: Standard Test Method For Qualitative Determination of Fibers Consistent with Libby Amphibole Asbestos Fibers in Loose Fill Vermiculite by Transmission Electron Microscopy
Jeanne Spencer

2:40 PM
Insight into the Analysis on Dispersion Staining Curves
Derek Ho

3:00 PM BREAK

3:20 PM
Examples of Determining the Detection Limit for Asbestos Analysis Using ASTM6620
James R. Millette

3:40 PM
Micro-Raman and Wavelength Dispersive Spectroscopy (WDS) Analysis Comparison of Samples from Former Talc Mines in the Gouverneur Mining District, New York.
Brittani D. McNamee, Aaron Celestian

4:00PM SESSION ADJOURNS
THURSDAY, AUGUST 3, 2017

SESSION 5: METHODS AROUND THE WORLD & MISCELLANEOUS
Session Co-Chairs: Eric J. Chatfield
James S. Webber

8:30 AM  
**Measuring Asbestos in Heavy Dusting Conditions**  
Reiner Koenig

8:50 AM  
**Asbestos-IN-Soil (ASBINS) - Australian Experience**  
Ross McFarland

9:10 AM  
**Drywall Joint Compound by Visual Estimation, Point Counting, and TEM**  
Andreas Saldivar

9:30 AM  
**Framework for Assessment and Phytoremediation of Asbestos-Contaminated Sites**  
Brenda B. Casper, Cedric Gonneau

9:50 AM  
**Site Assessment and Characterization of Talc at Fontana, Gianna and Paola Horizons, Italy**  
Alan Segrave

10:10 AM  
**BREAK**

10:30 AM  
**ISO Standard Methods for Determination of Asbestos**  
Eric J. Chatfield

10:50 AM  
**Evaluation of Friction Materials for Asbestos and Investigation of Fiber Release**  
Steve Compton

11:10 AM  
**Asbestos-Containing Materials Associated with Steam Locomotives**  
William Ewing

11:30 AM  
**Italian Asbestos Superfund: The Importance of On-Site Surveys, Sampling and Analysis**  
Federica Paglietti, S. Malinconico, B. Conestabile della Staffa, S. Bellagamba, P. De Simone
Sergio Malinconico, F. Paglietti, B. Conestabile della Staffa, S. Bellagamba, P. De Simone

SESSION 6: LEGAL ASPECTS
Session Co-Chairs: James R. Millette
Drew Van Orden

1:40 PM
The Case of Asbestos-Containing Cigarettes
James R. Millette

2:00 PM
Differentiation of Amphiboles and Inadequacy of Current Methods for Asbestos Analysis
Sean Fitzgerald

2:20 PM
Asbestos Exposure Litigation Case Types: What is Hitting the Courtrooms Today
Sean Fitzgerald

3:00 PM BREAK

3:20 PM
Liberty Fibers: Asbestos Neshaps Investigation, Criminal Prosecution and Superfund Victim Restitution Order
Ann Strickland, Peggy Forney

3:40 PM
Evaluation of the Proposed Correction Factor for Comparing the Ratio of Indirect and Directly Prepared TEM Samples Containing Amphiboles
Drew Van Orden

4:00 PM
Serpentine and Amphibole Group Mineral Characterization in Talc Ores and Talc Based Products Accurate, Repeatable, and Defensible SAED Evaluations
Matthew S. Sanchez, Monica McGrath, Long Li
4:20 PM
**Detect or Not to Detect: A Discussion on When is Zero Actually Zero?**
Richard Lee, Bryan Bandli, Drew Van Orden, Matt Sanchez

4:40 PM  SESSION ADJOURNS

**FRIDAY, AUGUST 4, 2017**

**SESSION 7: RISK EVALUATION**
Session Co-Chairs: Julie Wroble
Martin Harper

8:30 AM
**The Good, The Bad, And The Ugly: Selecting Analytical Methods for Different Purposes**
James S. Webber

8:50 AM
**Elongate Mineral Particles: What Should Be Measured?**
Eric J. Chatfield

9:10 AM
**A New PCM Equivalent TEM Method for Risk Assessments**
John Harris

9:30 AM
**Comparison of PC and TEM-PCME Concentrations for Nearly 10,000 Air Samples Collected from the Libby Asbestos Superfund Site**
Lynn Woodbury, Erin Formanek

9:50 AM
**A Bayesian Approach for Estimating Exposure Point Concentrations with Low Count Asbestos Air Data**
Ralph Perona

10:10 AM  BREAK

10:30 AM
**Mesothelioma in Jefferson Parish, Louisiana: A Follow-Up of America's Largest Current Asbestos Epidemic**
Bruce W. Case

10:50 AM
**Chrysotile in California Reservoir Water: Is it an H&S Impact?**
Bradley Erskine

11:10 AM
Asbestiform Minerals in Nature, Legal Jurisdiction, and Areas of Responsibility: The Boulder City, Nevada, Bypass Project as a Case Study of Misunderstanding and Misconception
Don Halterman, Dan Crane

11:30 AM
River Street Warehouse Fire: A Case Study of an EPA Emergency Response (When it Rained Asbestos on Portland)
Julie Wroble

11:50 AM LUNCH (On your own)

1:30 PM
Asbestos Soil Remediation: In Situ Versus Excavation and Disposal Off Site Respirable Asbestos in Soil
Shimson Lerman

1:50 PM
Respirable Asbestos in Soil
Ed Cahill

2:10 PM
Use of FBAS Prepared Soil Samples to Make Cleanup Decisions at an ACM-Contaminated Site
Tim Frederick, David Berry

2:30 PM
Our Experience with Three Different Preparation Methods for Lung Tissue Fiber Burden Analysis
Ed Cahill

2:50 PM
Closing Remarks
James R. Millette, Johnson Conference Co-Chair

3:00 PM CONFERENCE ADJOURNS
MONDAY’S POSTERS

Quantitative Analysis of the Role of Fiber Length on Phagocytosis and Inflammatory Response by Alveolar Macrophages
Trudy Padmore, Carahline Stark, Julie Champion, and Leonid A. Turkevich

MicroRNA as Exosomal Biomarkers for Mesothelioma
Phillip B. Munson and Arti Shukla

Arizona Amphibole Asbestos Induces Autoimmunity and Fibrosis in Mice
Deborah Keil, Caleb Stair, Zoie Kaupish, Jean C. Pfau

TUESDAY’S POSTERS

Rainbows and Colored Pencil Drawings
Don Halterman

A Tale of Two Quarries
Sean Fitzgerald

WEDNESDAY’S POSTERS

Elutriation Techniques
Sean Fitzgerald

ASTM D22.07: Method Development Updates
Frank Ehrenfeld

Sink or Swim
Don Halterman

THURSDAY’S POSTERS

Width and Aspect Ratios Distributions of Amphiboles
Sook-Nye Chung

Asbestos in Consumer Products
Sean Fitzgerald

ASTM D22 E-Learning Project Update
Frank Ehrenfeld