

Conference program (overview)

Tuesday, September 9, 2003

4.00	pm			Opening registration
4.00	pm			Opening speakers bureau
6.00	pm	7.30	pm	Meeting scientific committee/session chairs
10.00	pm			Closing registration
10.00	pm			Closing speakers bureau

Wednesday, September 10, 2003

Focus: **Health & Epidemiology**

7.00	am			Opening registration
7.00	am	8.15	am	Speakers bureau open
7.30	am	8.30	am	Continental breakfast
8.30	am	8.40	am	Conference opening
8.40	am	10.00	am	Session A: Health Effects I
10.00	am	10.15	am	Coffee-break
10.15	am	11.45	am	Session B: Health Effects II
11.45	am	12:45	pm	Lunch
11.45	am	2.00	pm	Speakers bureau open
12.45	pm	1.45	pm	Poster session 1
2.00	pm	3.20	pm	Session C: Health Effects III
3.20	pm	3.35	pm	Coffee break
3.35	pm	5.00	pm	Session D: Health Effects IV
5.00	pm	6.00	pm	Poster session 2
5.00	pm	8.00	pm	Speaker bureau open
6.00	pm			Closing registration
6.00	pm	7.10	pm	Dinner
7.30	pm	8.30	pm	Plenum discussion: Health and Microbes

Thursday, September 11, 2003

Focus: **Environmental Assessment**

7.00	am			Opening registration
7.00	am	7.45	am	Speakers bureau open
7.00	am	8.00	am	Continental breakfast
8.00	am	10.00	am	Session E: Assessment I
10.00	am	10.15	am	Coffee break
10.15	am	12.00	pm	Session F: Assessment II
12.00	pm	1.00	pm	Lunch

12.00	pm	2.15	pm	Speakers bureau open
1.00	pm	2.00	pm	Poster session 3
2.15	pm	3.30	pm	Session G: Assessment III
3.30	pm	3.45	pm	Coffee break
3.45	pm	5.15	pm	Session H: Assessment IV
5.10	pm	7.30	pm	Speakers bureau open
5.15	pm	5.30	pm	Soft drink break
5.30	pm	6.30	pm	Poster session 4
6.30	pm			Closing registration
6.30	pm	7.30	pm	Plenum discussion: Assessment
7.30	pm	9.00	pm	Reception/buffet

Friday, September 12, 2003

Focus: **Prevention & Control**

7.00	am			Opening registration
7.00	am	7.45	am	Speakers bureau open
7.00	am	8.00	am	Continental breakfast
8.00	am	9:00	am	Session I: Transitional countries
9.00	am	10.25	am	Session J: Remediation
10.25	am	10.40	am	Coffee break
10.40	am	12.20	pm	Session K: Prevention and control
12.30	pm	1:30	pm	Poster session 5 – Lunch Buffet
1.30	pm	2:15	pm	Plenum discussion: Transitional Countries, Remediation, and Prevention and Control

2:30 pm 4:30 pm

SPECIAL EVENT: Grand Rounds with moderator Mary Darcy, producer of “The Health Show” and “51%”, WAMC National Productions
 “Medical issues and patients perspective: Caring for the patient while medical science is in development”

Conference closing & remarks

Detailed conference program

Wednesday, September 10, 2003

7.30 Conference opening

Eckardt Johanning (Conference Chair and Director)

8.40 – 9:45 Session A: *Health effects I – epidemiological research*

Session chairs/monitors:

Torben Sigsgaard

Carl-Gustaf Bornehag

Aa. Summary presentation, Health effects I (Patho-mechanism)

Torben Sigsgaard

Ab. Summary presentation, Health effects I

Dampness in buildings as a risk factor for health effects – Multidisciplinary review of the literature on dampness in buildings and health effects, NORDAMP and EUROEXPO

Carl-Gustaf Bornehag

A1. Effects of repair of school mold problems and teachers' health

Riita-Liisa Patovirta, Tuula Husman, Ulla Haverinen, Mika Toivola, Marjut Reiman, Mikko Vahteristo, Jukka Uitti, Hannu Tukiainen, and Aino Nevalainen

A2. Assessment of exposure to indoor environmental factors for an infant cohort at risk for asthma

Catherine M. Catranis, Susan E. Anagnost, Analie Fernando, Shannon Morey, Chun J.K. Wang, Paula Defestano, Chris Garback, Melanie LaMoy, Geralyn Hall, Deepa Naishadham, Judith Crawford, Andrew Hunt, and Jerrold L. Abraham.

A3. Cluster of autoimmune disease in association with microbial exposure in moisture damaged buildings

Tuula Husman, J. Pelkonen, and R. Luosujärvi

9.45 – 10.00 Coffee break

10.00 – 11.45 Session B: *Health effects II – Toxicology and Neurological Effects*

Session chairs/monitors:

Harriet Ammann

Manfred Gareis

- Ba. Summary presentation, Health effects II**
Harriet Ammann
- Bb. Summary presentation, Health effects II**
Manfred Gareis (Mycotoxin analytical issues and public health prevention)
- B1. Cytotoxicity of different actionmycetes isolated from building materials**
A. Mehrer, Wolfgang Lorenz, Manfred Gareis, C. Trautmann, R.M. Kroppenstedt, and E. Stackebrandt
- B2. Human and animal pathology of inhalation trichothecene mycotoxicosis**
William A. Croft, Bonnie Jastromski, Amanda Croft, and Henry Peters
- B3. Sick building syndrome in water damaged buildings: Generalization of the chronic biotoxin associated illness paradigm to indoor toxigenic-fungi exposure**
Ritchie C. Shoemaker, H. Kenneth Hundell, and Dennis House
- B4. Visual contrast sensitivity: a sensitive indicator of neurotoxicity for risk assessment and clinical applications**
H. Kenneth Hudnell, Dennis E. House, and Ritchie C. Shoemaker
- B5. Clinical evaluation of suspected mold neurotoxicity**
Raymond Singer
- B6. Cognitive impairment associated with exposure to toxic mold: a replication of previous findings**
Wayne A. Gordon, Joshua Cantor, Heather Charatz, Janis Breeze, and Eckardt Johanning
- B7. The chronicity of cognitive impairment associated with exposure to toxic mold**
Wayne A. Gordon, Joshua Cantor, Heather Charatz, Teresa Ashman, and Eckardt Johanning
- B8. Association of molds indoor with neurobehavioral and pulmonary impairment**
Kaye Kilburn

11.45 – 12.45 Lunch

12.45 – 1.45 **Poster session 1**
Presenters A1 – B8

2.00 – 3.20 **Session C: *Health effects III – Health assessment & case studies***

Session chairs/monitors:

Tuula Husman

Eckardt Johanning

- Ca. Summary presentation, Health Effects III: Health Effects of moisture damage associated microbes**
Tuula Husman
- C1. Laboratory signs of sickness due to mold metabolites in indoor environment**
Anja Tiilikainen, Irmeli Heikkinen, Leila Mikkilä, and Aini Bloigu
- C2. Assessing the allergic potential of indoor air fungal contaminants**
Marsha D.W. Ward, Michael E. Viana, Yongjoo Chung, Najwa Haykal-Coates, Lisa B. Copeland, Steven H. Gavett, and MaryJane K. Selgrade
- C3. Alleged mercury poisoning symptoms in sewage treatment workers likely linked to bacteria, fungal, and endotoxin exposure**
Chris van Netten and Karen Bartlett
- C4. Clinical evaluation of surviving twin after fatal case of pulmonary hemosiderosis following *Stachybotrys chartarum* and other indoor mold product exposure – first case control study**
Gary J. Ordog, Jonathan Wasserberger, and Dennis Hooper
- C5. Epidemiological investigation of a mold-contaminated “sick” building**
James Craner, Stuart Alderman, and Neil Willits
- C6. Symptomatic improvement after cessation of mold exposure: clinical experience in environmental and occupational health**
Iris G. Udasin, Howard Lu, Elisheva Rovner, and Howard Kipen
- C7. Clinical Experience with exposure to fungi and laboratory testing**
Eckardt Johanning and Raymond Lührman

3.20 – 3.35 Coffee break

3.35 – 5.00 **Session D: *Health Effects IV – Experimental research***

Session chairs/monitors:

Maija-Riitta Hirvonen

Dorr Dearborn

- Da. Summary presentation, Health effects IV. Cytotoxicity and inflammatory responses induced by moldy house microbes**
Maija-Riitta Hirvonen
- D1. Nasal effects of VOC-ozone reaction products: Do reactions with ozone enhance irritation due to MVOCs?**
Robert Laumbach
Robert J. Laumbach, N. Fiedler, C. Weschler, C.R. Gardner, J. Zhang, P. Liou, T. Fan, K. Kelly-McNeil, and H.M. Kipen
- D2. Ocular effects in humans by experimental exposure to different types of dust**
Zhiwei Pan, Lars Mølhave, Søren K. Kjærsgaard, Torben Sigsgaard, Jan-Erik Juto, Kjell Andersson, and Göran Stridh
- D3. The synergistic interaction between microbial metabolites and actionbacteria *Streptomyces californicus***
Kati Huttunen, J. Pelkonen, U. Nuutinen, Kristian Fog Nielsen, and Maija-Riitta Hirvonen
- D4. Nasal lavage in the evaluation of upper airway inflammation in three different exposure environments**
Marjut Roponen
- D5. Effects of spores of two *Stachybotrys chartarum* strains on pulmonary surfactant formation, *in vitro***
Thomas G. Rand, and J.E. Scott
- D6. Inflammatory lung responses in mice after intra-tracheal exposure to spores of two *Stachybotrys chartarum* strains**
Thomas G. Rand, B. Hudson, L. Gregory, and J. Flemming
- D7. Comparison of the acute effects of *S. chartarum* and other indoor molds on the lungs of infant rats**
Iwona Yike, Ronald Walenga, and Dorr G. Dearborn
- C8. Glucan spiking of office dust increases nasal inflammation in volunteers**
Torben Sigsgaard, S.K. Kjærsgaard, L. Mølhave, E.C. Bonefeld-Jørgensen, J.H. Bonlokke, J-E Juto, G. Stridh, and H. Lofstedt

5.00 – 6.00 **Poster session 2**
Presenters C1 – D8

6.00 – 7.00 Dinner

7.30 – 8.30 **Plenum discussion: Health and Microbes**
Introductions by Torben Sigsgaard, Harriet Ammann, Tuula Husman, and Maija Riita Hirvonen

Thursday, September 11, 2003

8.00 – 10.00 **Session E: *Assessment I – Assessment methods and field findings***

Session chairs/monitors:

Aino Nevalainen

Phil Morey

Ea. Summary presentation, Assessment I

Exposure in moldy buildings

Aino Nevalainen

E1. Development of a gel-trap system coupled with PCR for Nasal effects of VOC-ozone Development of a gel-trap system coupled with PCR for microorganisms environmental detection: application to *Mycobacterium tuberculosis* complex

Valerie Bex, C. Vadrot, L. Bordenave, A. Mouilleseaux, V. Joseph, and F. Squinazi

E2. Home dust: an efficient and affordable tool for the assessment of microbial contamination

Paul Widden, Tonia DeBellis, Charles Deblois, Claude Mainville, and Marie-France Pinard

E3. Comparison of different mold detection methods in mold damaged buildings

Hans Schleibinger, H. Samwer, D. Laußmann, A. Nickermann, D. Eis, and H. Rueden

E4. Microbial indoor air quality in office buildings with central air conditioning installations in Belgium. An easy tool for a fungal quality evaluation

Camille Chasseur, Sébastien Gofflot, and Nicole Nolard

E5. Microbial indoor air quality in office buildings with central air conditioning installations in Belgium. An easy tool for a bacterial quality evaluation

Camille Chasseur, Sébastien Gofflot, V. De Maertelaer, and Nicole Nolard

E6. Comparison of PVC cassettes versus vacuum bags for collection and enumeration of culturable filamentous fungi in settled dust

Brad Prezant

E7. Assessment of mold sources in the indoor environment

Satheesh Kumar Sivasubramani, Tiina Reponen, and S.A. Grinshpun

E8. Evaluation of bacterial and fungal indoor air contamination using a preventative approach and an alternative bacterial identification method

Sara Bonetta, Silvia Bonetta, Simonetta Sampò, Sabrina Mosso, and Elisabetta Carraro

- E9. **Wall relative humidity: A simple and reliable index for predicting *Stachybotrys chartarum* infestation in dwellings**
Sandrine Boutin-Forzano, Carmel Charpin-Kadouch, Henri Dumon, Nadia Bennedjai, and Denis Charpin
- E10. **Comparison of mold, allergen and endotoxin exposure among residential, academic and commercial buildings**
Cynthia M. Lange, W. Elliot Horner, and Phil Morey
- E11. **The Natural Distribution of MVOC (Microbially Produced Volatile Organic Compounds) in Buildings without Mold Infestation**
Reinard Keller

10.00 – 10.15 Coffee break

10.15 – 12.15 **Session F: *Assessment II – Field findings (continued) and mycology***

Session chairs/monitors:

Anna-Liisa Pasanen

Claude Mainville

- Fa. **Summary presentation, Assessment I : Sampling: a neglected part of building investigations and microbial exposure assessment**
Anna-Liisa Pasanen
- F1. **Airborne allergens, bacteria, and fungi in 100 office buildings: Study, sampling and database design and selected results from the BASE study**
Derek G. Shendell, Feng C. Tsai, Janet M. Macher, and Laureen Burton
- F2. **Comparison of fungal air sampling in water damaged buildings vs. base buildings and outdoors**
Michael S. Andrew, Phil R. Morey, and B.K. Ligman
- F3. **Shared air: examining the contribution of mold from home crawl spaces to home interiors**
Wayne Thomann and Marie Lynn Miranda
- F4. **Modeling the equilibrium spore load for a building**
John C. Banta and James Holland
- F5. **Physical factors and distribution of fungal contamination in a high rise building**
Herman Sabath and Eric Shapiro
- F6. **Release of *Aspergillus versicolor* fragments and spores from contaminated surfaces**
Seung-Hyun Cho, Sergey Grinshpun, Mikhail Yermakov, and Tiina Reponen

- F7. Micro-particles from fungi**
Anne Mette Madsen, J. Kildesø, and O.M. Poulsen
- F8. Methods for detecting indoor bacteria producing substances toxic to human cells**
Maria A. Andersson, Elina Jääskeläinen, Camelia Appettoaie, Douwe Hoornstra, Vera Teplova, and Mirja Salkinoja-Salonen
- F9. [POSTER ONLY] Multidisciplinary Survey of a Microbial Contaminated Complex of Residential Apartments**
Herman Sabath

12.00 – 1.00 Lunch

1.00 – 2.00 **Poster session 3**
Presenters E1 – F9

2.15 – 3.55 **Session G: *Assessment III - Mycology***
Session chairs/monitors:
Robert Samson
Ken Dillon

- Ga. Summary presentation, Assessment III - Fungal identification of indoor molds: current methods and new developments**
Robert Samson
- Gb. Summary presentation, Assessment III**
Ken Dillon
- G1. Gypsum amendment in nutrient medium enhances the growth of *Stachybotrys chartarum***
Anna-Mari Pessi and Auli Rantio-Lehtimäki
- G2. Nutrient and pH demands of *Streptomyces* isolated from indoor environments**
Ulla Lignell, M. Kontro, Marja-Riita Hirvonen, and Aino Nevalainen
- G3. The microbial interactions between *Stachybotrys chartarum* and *Streptomyces californicus***
Piia Penttinen M.M. Keinänen, M. Toivola, Kati Huttunen, J. Pelkonen, and Maija-Riita Hirvonen
- G4. Methods to classify environmental samples based on mold analysis by QPCR**
Richard A. Haugland, Manju Varma, Larry Wymer, Teija Meklin, and Steve Vesper

- G5. Qualitative identification of *Meruliporia incrassata* using real time polymerase chain reaction (real time PCR)**
King-Teh Lin, De-Wei Li, Derrick A. Dennis, Ray C. Woodcock, and Chin S. Yang
- G6. A new ecological niche for the pathogenic yeast, *Cryptococcus neoformans* var. *gattii*, in a temperate climate zone**
Karen H. Bartlett, Murray Fyfe, Laura MacDougall, Craig Stephen, and Sarah Kidd
- G7. Individual exposure assessment in residents near large scale composting sites**
Caroline E.W. Herr, A. zur Nieden, J. Bünger, N.I. Stilianakis, and Th.F. Eikmann

3.55 – 4.10 Coffee break

4.10 – 5:15 **Session H: *Assessment IV–Mycology (continued)***
Session chairs/monitors:
Linda Stetzenbach
Ed Olmsted

- Ha. Summary presentation, Assessment IV**
Linda Stetzenbach
- H1. Cross-reactivity patterns of monoclonal antibodies against *Aspergillus versicolor* and their implications for the development of antibody-based monitoring techniques for fungi**
Detlef Schmechel, Janet P. Simpson, and Daniel M. Lewis
- H2. Characterization of fungal flora from moisture damaged building material by molecular methods**
Miia Viikari, H. Rintala, and L. Paulin
- H3. Fungal enzymes in indoor dust**
Anne Mette Madsen and H. Würtz
- H4. Fungal growth enhancement and solubilization ability on calcareous building materials**
Anna-Mari Pessi, Minna Rekola, and Auli Rantio-Lehtimäki
- H5. Evaluation of airborne data for small sample sizes: Results from PCR field validation study, and its incorporations into data assessment**
David Kahane
- H6. [POSTER ONLY] Rapid detection and quantitation of fungal spores from dust samples using real-time PCR**
Jyoti Keswani, M. Kashon, and B. Chen

- 5.15 – 5.30 Refreshment break
- 5.30 – 6.30 **Poster session 4**
Presenters G1 – H6
- 6.30 – 7.30 **Plenum discussion: Assessment and Field Studies**
Introductions by Anna-Liisa Pasanen, Linda Stetzenbach, Aino Nevalainen,
and Ken Dillon
- 7.30 – 9.30 **Reception/buffet, Hall of Springs, Saratoga Springs**

Friday, September 12, 2003

- 8.00 – 9.00 **Session I: *Transitional Countries***
Session chairs/monitors:
Nceba Gqaleni
Leila Brickus
- Ia. Summary presentation**
Nceba Gqaleni
- I1. The indoor environment and allergy as potential stressors in Durban hospitals, South Africa**
A. Shadwell, Nceba Gqaleni, and L. Schlebusch
- I2. Ventilation efficiency, dampness and mouldiness in dwellings in the Waterloo housing development (Durban metropolitan area). A case study of indoor air quality.**
Ajay Gansan, Nceba Gqaleni, and J.E. Ehiri
- I3. Hetrogenety in microbial exposure in schools in Sweden, Poland and Jordan revealed by analysis of chemical markers**
Loay Wady, Asem Shehabi, Bogumila Szponar, Christina Pehrson, Yezhou Sheng,
and Lennart Larsson
- I4. Fungi surveys in tropical southeastern Brazil**
Leila Brickus, M F Costa, J M Machado, and J C Moreira
- 9.00 – 10.25 **Session J: *Re mediation***
Session chairs/monitors:
Phil Morey
Ken Ruest

- Ja. Summary presentation: Remediation**
Phil Morey
- J1. A critical review of mold remediation standards**
Mike McGuinness
- J2. The effect of construction site dust on mold clearance sampling**
David Brinkerhoff and Phil Morey
- J3. Clearance protocols and the valuation of an electronic nose for mold contaminated structures**
Stephen C. Wilson, W.H. Holder, R.F. Johnson, L.A. Andriychuk, Michael D. Larrañaga, and D.C. Straus
- J4. Assessment and remediation of mold contamination in fan coil units of a 341 suite residential condominium**
Christine White
- J5. A model for economic decision making in indoor air quality**
Michael D. Larrañaga, M.G. Beruvides, H.W. Holder, S.C. Wilson, and D.C. Straus

10.25 – 10.40 Coffee break

10.40 – 12.20 **Session K: *Prevention and Control***

Session chairs/monitors:

Laura Kolb

Claude Mainville

- Ka. Summary presentation: Remediation**
Laura Kolb
- Kb. Summary presentation: Prevention and control**
Claude Mainville
- K1. Biological assessment focusing on mold**
Micheline Sedlar and Robert Douglas
- K2. A building microbiology database**
Adnan Uzunovic, Karen Bartlett, Bill Deacon, and Randy Urbanowski
- K3. Impact of ventilation design on fungal proliferation in a school HVAC system**
Brenda E. Barry, Timothy M. Lockhart, and David S. Jessup

- K4. Mold identification and control strategies in a Canadian training complex**
Lan Chi Nguyen Thi, C. Kerr, and J. Johnson
- K5. Risk assessment of bioaerosols in indoor environments: current paradigms and evolving concepts**
R. Vincent Miller and Harriet Ammann
- K6. Evaluating the success of implemented IEQ management plans for the prevention of microbial manifestations within HVAC systems in a high-rise building**
Jaclyn Dispensa, Katherine Wilde, Steve Hart, and Jon Wybar
- K7. Sustained fungal control through interior finish performance requirements**
Olaf C.G. Adan, M.M. Sanders, and Robert A. Samson

12.30 – 1.30 **Poster session 5** Presenters I1 – K7
Lunch-buffet

1.30 – 2.15 **Plenum discussion**
Introductions by Nceba Gqaleni, Phil Morey, and Laura Kolb

2.15 – 2.30 Refreshment break

2.30 – 4.30 **Grand Rounds: “Medical issues and patients history: providing best medical care while medical science is in development”**
Moderator: Mary Darcy, producer “The Health Show”, WAMC National Productions

Dorr Dearborn, Michael Gray, Michael Harbut, Tuula Husman, Eckardt Johanning, Vincent Marinkovich, and patients

Conference closing & remarks
Eckardt Johanning