

MEMORANDUM

October 10, 2010

TO New York Mold Task Force

FROM Jack Thrasher, Ph.D.
Scott McMahon, M.D.
Melinda Ballard
Policyholders of America
Laura Mark, M.D.
Cheryl Wisecup

RE Draft Report of the New York Mold Task Force

We reviewed your draft report. It was apparent that you spent a lot of time writing the report, and it was good to see that you included some of the relevant references. However, there are many additional, important facts and research papers that need to be included. We are providing comments on specific items mentioned in your report, as well as some general comments for your consideration.

To begin, we focused our attention on the main goals of the Task Force as defined in your draft report.

The main goals of the Task Force were to summarize and assess existing evidence and information relevant to the tasks listed in the law and to assess the feasibility of possible recommendations for any further actions to be taken by the state legislature or state agencies based on its analysis. To achieve these goals, the Task Force activities were organized into four main areas of inquiry: (1) health effects of molds in indoor environments; (2) exposure limits and assessment of mold in buildings; (3) approaches to mold mitigation and remediation; (4) building codes, regulations and other actions taken by other governments and private-sector organizations that relate to building mold problems.

You state that your main goals were “to summarize and assess existing evidence and information relevant to the tasks listed in the law.” Although your report includes several good reference materials, there are many others that are missing from your review and analysis.

One of the most noticeable problems with your report is that you use the 2004 IOM Report as your key resource for information. On page 25 of the report, you state that the 2004 IOM Report was “the most current and thorough evaluation conducted to date of the state of the scientific evidence regarding the public health significance of, and response to, dampness and molds in buildings.” That statement is incorrect. The 2004 IOM Report is NOT current or thorough. As stated in the IOM report, their literature review ended in October of 2003 (making it 7 years old), and they excluded many important research papers. In contrast, you could have relied on the 2009 report by the World Health Organization which is more current and more thorough. However, in the footnote on page 25, you state that the World Health Organization’s 2009 report titled Guidelines on Indoor Air Quality “was not thoroughly reviewed for this Task Force report.” Why not? You had an excellent (and more current) source of information available to you from the global medical governing body, and you chose to ignore it.

In connection with the 2009 report by the WHO, Cheryl Wisecup gave you a copy of her October 7, 2009, response to the World Health Organization. Cheryl had conducted an extensive review and analysis of the 2004 IOM Report and the 2009 WHO Report, and she prepared a list of important research reports that were excluded from both of those efforts. Another copy of Cheryl’s October 7, 2009, report is available at the following link:

[October 7, 2009 Response to the WHO](#)

We have copies of other comments that have been submitted to the Task Force including the comments from Dr. Ritchie Shoemaker. In his two responses to the Task Force, Dr. Shoemaker makes very specific points about the shortcomings of your report and provides valuable insights on how to improve your report. We agree with and support Dr. Shoemaker's assessment.

SPECIFIC COMMENTS

We will begin with some specific comments. This is not intended to reflect all of our concerns regarding your report but is merely an overview of some of the key issues.

Date of the Report

The Review Draft for Public Comment is dated August 2010. Based upon this date and the list of literature reviewed, a Disclaimer is needed that clearly states that the literature review was limited and not up to date.

Executive Summary (pages 10-17)

Health Effects

Conclusions (page 11):

- Exposure to building dampness and dampness-related agents including mold has been recognized nationally and at the state and local level as a potential public health problem.
 - Our comments: Exposure has been recognized globally--not just at the national, state and local level.
- Evidence for associations between non-respiratory effects and mold exposures in buildings is much more limited and generally does not allow clear conclusions to be drawn one way or the other.
 - Our comments: This statement is incorrect and misleading. There are thousands of research papers available regarding the multitude of health effects caused by exposure to molds and other contaminants in water-damaged buildings.
- Molds, along with other organisms such as bacteria, mites and insects that proliferate in damp buildings, produce volatile compounds, spores and other minute particles that can cause irritant and allergic responses that range from annoying to serious depending on the amount of exposure and the immune system of the individual. Although some molds produce toxins, their contribution to adverse health effects in damp buildings, based on existing scientific information, is uncertain.
 - Our comments: These statements are incorrect and misleading. This public health threat is not about "irritant and allergic responses," and it can affect immune competent and immune compromised individuals. As stated above, there are thousands of research papers available on this subject.

State and Local Actions

a) Codes—Recommended Actions (page 12):

- Provide targeted training and education to CEOs to improve understanding of subtle moisture problems in buildings (e.g., uncontrolled air flows causing condensation) and to enable them to address potential or existing water and mold problems more effectively.

Our comments:

- The CEOs already know exactly what needs to be done and many are impeding and intentionally blocking the dissemination of the facts. They are only concerned about their profits and maintaining the status quo. Their efforts to deny the truth about this important public health issue are being supported by the U.S. Chamber of Commerce and funded by insurance companies and other “big money” interests. They are using the same strategy that was used by the big tobacco companies when they spent 50 years denying the truth about the health effects of tobacco.
- Instead of asking for millions of dollars to “train and educate” CEOs who already know the truth, you should focus your attention on educating government officials and law enforcement and code enforcement officials, so that current laws are enforced and new laws are passed. These naysayers who have been spending their extensive financial and political resources to deny the truth (while so many are suffering and dying) need to know that there are consequences for their civil and criminal actions.
- You should also focus your attention on the medical community at large, so injured individuals and families can obtain proper medical care.

b) Regulation of Mold Assessment or Remediation Services—Recommended Actions (page 12):

In regard to Mold Assessment and Remediation (pages 12-13), in order to get a clear picture of the current state of mold assessment and remediation, you need to read the research and technical guidance. Most importantly, you need to talk to the people who work in this field. They have concerns about political bodies who try to make and enforce regulations without understanding the true nature of the business and the day-to-day challenges. They have additional concerns regarding the inconsistent application of rules and regulations, especially in regard to working in this industry from one state to the next. The optimum solution would be a national approach.

You can find information on 1) international, federal, state and local legislative and regulatory efforts, 2) mold assessment and remediation, 3) moisture content and water damage in buildings, and related topics on the following website:

<http://globalindoorhealthnetwork.com/>

II. Task Force Findings

A. Mold Background

2. What is “toxic mold?” (page 21)

Our comments: There is an attempt to minimize what is or is not considered toxic mold. Certain species of molds do produce mycotoxins and hemolysins that have been demonstrated in water-damaged buildings, in sera of occupants and in tissues and body fluids of individuals ill from exposure to WDB conditions. Although all fungi can cause a toxic exposure as pointed out by the

Task Force, certain fungi, e.g. *S. chartarum* and *A. flavus*, add a different dimension to the indoor contaminants. In this regard, they did cite Brasel et al, 2004. We recommend that the Task Force cite additional publications on this subject, as follows:

Smoragiewicz W, Cossette B, Boutard A, Krzystyniak K. 1993. Trichothecene mycotoxins in the dust of ventilation systems in office buildings. *Int Arch Occup Environ Health* 65:113-7.

Tuomi T, Reijula K, Johnsson T, Hemminki K, et al. 2000. Mycotoxins in crude building materials from water-damaged buildings. *Appl Environ Microbiol* 66:1899-1904

Gottschalk C, Bauer J. 2008. Detection of satratoxin G and H in indoor air from a water-damaged building. *Mycopathologia* 166:103-107.

Bloom E, Nyman E, Must A, Pehrson C, Larsson L. 2009. Molds and mycotoxins in indoor environments – a survey in water-damaged buildings. *J Occup Environ Hyg* 6:671-8.

Hooper DG, Bolton VE, Guilford FT, Straus DC. 2009. Mycotoxins detection in human samples from patients exposed to environmental molds. *Int J Mol Sci* 10:1465-75.

Straus DC. 2009. Molds, mycotoxins, and sick building syndrome. *Toxicol Indust Health* 25:617-35.

Vesper SJ, Varma M, Wymer LJ, Dearborn DG, et al. 2004. Quantitative polymerase chain reaction analysis of fungi in dust from homes of infants who developed idiopathic pulmonary hemorrhage. *J Occup Environ Med* 46:596-601.

Van Emon JM, Reed AW, Yike I, Vesper SJ. 2003. ELISA measurement of Stachylysin in serum to quantify human exposures to the indoor mold *Stachybotrys chartarum*. *J Occup Environ Med* 45:582-91.

Pieckova E, Wilkins K. 2004. Airway toxicity of house dust and its fungal composition. *Ann Agric Environ Med* 11:67-73.

3. Mold Ecology (pages 22-24)

Our comments: It is recognized that fungi are present in the outdoor environment and that their role is to biodegrade organic matter. The Task Force fails to state that certain species of fungi as well as Gram positive and negative bacteria are elevated in WDB vs outdoors. Thus, indoor sources of *S. chartarum*, *A. flavus* and *versicolor*, *Chaetomium* and certain species of *Penicillium* must be identified and eliminated. The most applicable method for detecting these potentially toxic species of fungi is Real Time PCR DNA testing. Furthermore, the Task Force does recognize that multiple agents are present in WDB but chose to not focus on individual contaminants. This approach is in error because different contaminants affect humans via different innate immune responses, e.g., endotoxins vs 1, 3-beta-D-glucans.

The most prevalent bacteria that have been identified in WDB include the Actinomycetes. Of these bacteria, species of *Streptomyces* and *Mycobacterium* are associated with human illness ranging from hypersensitivity pneumonitis through mycobacterium avium complex (MAC). We suggest that the Task Force add the following references:

Rintala H, Hyvarinen A, Paulin L, Nevalainen A. 2003. Detection of streptomyces in house dust – comparison of culture and PCR methods. *Indoor Air* 14:112-9.

Griffith DE, Akasmit T, Brown-Elliott GA, Catanzaro A, et al. 2007. An official ATS/IDSA statement: Diagnosis, treatment, and prevention of nontuberculous mycobacterial diseases. *Am J Respir Crit Care Med* 175:367-416.

Pessi A-M, Suonketo J, Pentti M, Kurkilahti M, et al. 2002. Microbial growth inside external walls as an indoor air biocontamination source. *Appl Environ Microbiol* 68:963-67.

Suihko ML, Priha O, Alakomi HL, Thompson P, et al. 2009. Detection and molecular characterization of filamentous Actinobacteria and thermo-actinomycetes present in water-damaged building materials. *Indoor Air* 19:268-77.

Hirvonen MR, Huttunen K, Roponen M. 2005. Bacterial strains from moldy buildings are highly potent inducers of inflammatory and cytotoxic effects. *Indoor Air* 15(Suppl 9):65-70

Rintala H, Nevalainen A, Suutari M. 2002. Diversity of streptomyces in water-damaged building materials based on 16D rDNA sequences. *Lett Appl Microbiol* 34:439-43.

B. Health Effects of Mold and Dampness Exposure (page 24)

“Evaluations of weight-of-evidence from epidemiologic studies are often informed by a set of criteria described by Hill (1965) that include, among other factors, the strength of measured associations, their biological plausibility, their temporality (i.e., did the exposure precede the health outcome?), the coherence among studies and how well studies control for factors such as bias, confounding and chance findings.³ Although the Task Force did not conduct a formal weight of evidence evaluation, it relied on expert reviews that followed these concepts to summarize large bodies of existing evidence and employed the Hill criteria as an informal conceptual guide when reviewing more recent scientific evidence.”

Our comments: Hill’s Criteria are not a panacea. The Task Force has used Hill’s Criteria as the panacea for acceptance of epidemiology studies. The Task Force needs to add Dr. Hill’s qualifications as to the significance of his criteria. The following is a direct quote from his paper on this subject:

Perhaps the single most important individual in the development of research methods and analysis in Epidemiology is Sir Austin Bradford Hill (1897-1991). Bradford Hill developed a list of criteria that continues to be used today. When using them, don’t forget Hill’s advice:

“None of these nine viewpoints can bring indisputable evidence for or against a cause and effect hypothesis What they can do, with greater or less strength, is to help answer the fundamental question—is there any other way of explaining the set of facts before us, is there any other answer equally, or more, likely than cause and effect?” (Cited in Doll, 1991).

Our comments: When it comes down to the conditions of water-damaged buildings (WDB) and exposure to multi-factors in WDB (e.g., fungal species, bacterial species and byproducts of fungi and bacteria), not all of the criteria can be applied to the illness caused by the exposure. For example, Criteria: Dose-Response is not applicable when multiple toxins, e.g. mycotoxins, particulates <1 micron, endotoxin, 1, 3-beta-D-glucans, MCVOCS and VOCS, are present and interact. Threshold values cannot be defined under these conditions because the dose response is non-monotonic, i.e., the occupants of WDB develop multiple health problems ranging from IgE allergies through chronic systemic inflammatory responses (hypersensitivity pneumonitis, chronic rhinitis and sinusitis, CNS decline. A specific factor has not been identified as causative for WDB illness.

Other Criteria that may or may not apply to the conditions of WDB are: Criterion 4 - Consistency (not everyone develops allergies or asthma, but they do develop inflammatory conditions); and Criterion 8 – Specificity (This criterion requires a single putative cause to produce a specific effect. Since we do

not know what the single putative cause in a multifactor situation is, this criteria cannot be applied to WDB until the full extent of illnesses are understood.

The most applicable criteria are numbers 1 (Temporal relationship); 2 (Strength); 4 (Consistency) and 7 (Experiment). The publications of Dr. Shoemaker clearly show that these three criteria are the most applicable when it comes to WDB and chronic inflammatory response of the occupants.

1. Current Scientific Evidence (pages 25-31)

Our comments: The discussion and conclusions in this section are not current. The Task Force relies upon IOM and NORDDAMP and the California Research Bureau for most of its information. The following disclaimers should be apparent:

- The IOM panel had a cut-off date of October 2003 for its review of the peer-reviewed literature. As such, the conclusions of the report are out of date by seven years.
- The NORDDAMP conclusions and discussion meet the same lack of literature search as does the IOM report.
- The California Research Bureau also lacks the literature search and is not current.
- In addition, other outdated and poorly written and ill-conceived conclusions are included in the following reference materials included in the Task Force report: ACOEM, 2002 & 2004; Bush et al, 2006; Khalili and Bardana, 2005; Reinhard et al, 2007; and Stone et al, 2006.

The problems with these citations have been reviewed in the attached POA paper by Shoemaker et al, 2010. Examples of the poor scientific conclusions are: (a) ACOEM position paper, 2002 is based upon calculations regarding supposed concentrations of mycotoxins in *S. chartarum* spores. These data are not consistent with the well designed study of Brasel et al, 2005 a, b who reported mycotoxins in fine particulates and in sera of exposed symptomatic subjects.; (2) Khalili and Bardana 2005 performed IME on 82 patients. 32 were excluded with no rationale given for exclusion. The other 50 were reported on. However, no clinical data or a detailed assessment of the complex environments were reported. The authors failed to follow Dr. Portnoy's recommendations regarding assessment of the indoor environments; c) Reinhard et al and Stone et al were cited as being critical of the observations of Gordon et al. However, the Task Force failed to comment on the successful rebuttal of the criticism published by Gordon et al, 2006.

Dr. Kaye Kilburn has published several papers on neurological and respiratory abnormalities of individuals ill from exposure to water damaged buildings. We suggest that the Task Force update this information by including Dr. Kilburn's latest paper as well as a paper by neurologist, L. D. Empting, M.D., as follows:

Kilburn KH. 2009. Neurobehavioral and pulmonary impairment in 105 adults with indoor exposure to molds compared to 100 exposed to chemicals. *Toxicol Indus Health* 25:681-92.

Empting LD. 2009. Neurologic and neuropsychiatric syndrome of mold and mycotoxin exposure. *Toxicol Indust Health* 25:577-82.

The Task Force can also find additional information in the following monographs:

Straus DC, ed. 2004. Sick Building Syndrome. Adv Appl Microbiology. Vol 55.

Kilburn KH, ed. 2004. Molds and Mycotoxins, Heldref Publications, Washington DC

Kilburn KH, ed. 2009. A special issue on mold and mycotoxins: Towards Healthy Homes. Toxicol Indust Health 25 (No. 9-10).

Block ML, Calderon-Garciduenas L. 2009. Air pollution: mechanisms of neuroinflammation and CNS disease. Trends Neurosci 32:506-16.

The paper by Block and Calderon-Garciduenas is key to understanding the role of fine particles, present in both indoor and outdoor air, with the absorbed toxins cause brain inflammation and subsequent CNS diseases.

Chronic Fungal/Bacterial Sinusitis. This condition has been recognized since the initial publications of Ponikau and colleagues beginning in 1999. More currently published papers have demonstrated that involvement of the sinuses can also adversely affect the pituitary axis and also lead to invasion of the brain and meninges of immune competent patients. We suggest that the Task Force include the following papers on both fungal and bacterial CRS.:

Dennis DP. 2003. Chronic sinusitis: defective T-cells responding to superantigens, treated by reduction of fungi in the nose and air. Arch Environ Health 58:433-42.

Dennis DP, Robertson D, Curtis L, Black J. Fungal exposure endocrinopathy in sinusitis with growth hormone deficiency: Dennis-Robertson syndrome. Toxicol Indust Health 25:669-80.

Siddiqui AA, Shah AA, Bashir SH. 2004. Craniocerebral aspergillosis of sinonasal origin in immunocompetent patients: clinical spectrum and outcome of 25 cases..

Niederjuhr A, Kirsche H, Riechelmann H, Wellinghausen N. 2009. The bacteriology of chronic rhinosinusitis with and without nasal polyps. Arch Otolaryng Head Neck Surg 135:131-6.

Chakabarti A, Denning DW, Ferguson BJ, Ponikau J, et al. 2009. Fungal rhinosinusitis: A categorization and definitional schema addressing current controversies. Laryngoscope 119:1809-18.

Lee H, Myers A, Kim J. 2009. Vascular endothelial growth factor drives autocrine epithelial cell proliferation and survival in chronic rhinosinusitis with nasal polyposis. Am J Respir Crit Care Med 180:1056-67.

D. Mold Exposure Limits and related information (page 63)

Our comments: We agree with the Task Force that exposure limits regarding indoor mold cannot be established because of the complexity of biocontaminants. Approaches should be developed to investigate the biocontaminants which include the following:

- PCR DNA identification of fungal species indoors vs outdoors
- Mycotoxins indoors vs outdoors
- Endotoxins indoors vs outdoors.

- 1,3-beta-D-glucans and galactomannans indoors vs outdoors
- Gram Negative and Positive bacteria indoors vs outdoors
- Bacterial exotoxins indoors vs outdoors
- Microbial VOCS and other VOCs indoors vs outdoors
- Particulate matter related to fungi and bacteria from nano particles through spores

For more information on this subject see the following reports. The direct links to these reports are provided on the following pages.

Thrasher JD, Crawley S. 2009. The biocontaminants and complexity of damp indoor spaces: more than what meets the eyes. *Toxicol Indust Health* 25:583-616.

Shoemaker et al. 2010. Research Committee Report on Diagnosis and Treatment of Chronic Inflammatory Response Syndrome Caused by Exposure to the Interior Environment of Water-Damaged Buildings. Policyholders of America, July 27, 2009.

GENERAL COMMENTS

As you must know, there are thousands of research papers and technical guidance documents available on this topic. The following list provides direct links to several additional papers that should be included in your report. Cheryl previously sent you information about several of these items. There are hundreds of additional research papers available on the following website:

<http://globalindoorhealthnetwork.com/>

Toxicology and Industrial Health--Special Issue on Mold and Mycotoxins: Towards Healthy Homes

<http://tih.sagepub.com/content/25/9-10.toc>

26th Annual International Symposium on Man and his Environment in Health and Disease: Special Focus on Molds and Mycotoxins, Hidden Connections for Chronic Diseases

http://globalindoorhealthnetwork.com/files/26th_Annual_International_Symposium_on_Man_and_His_Environment_2008.pdf

(The) Biocontaminants and Complexity of Indoor Spaces: More Than What Meets the Eyes (2009) by Jack D. Thrasher and Sandra Crawley

http://globalindoorhealthnetwork.com/files/Thrasher_paper_The_Biocontaminants_and_complexity_of_damp_indoor_spaces_-_more_than_what_meets_the_eyes.pdf

Fungal and Actinobacteria in Moisture-Damaged Building Materials—Concentrations and Diversity

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VG6-44CNNK9-1&_user=10&_origUdi=B6VG6-3W368R2-2&_fmt=high&_coverDate=01/31/2002&_rdoc=1&_orig=article&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=f7ba86eb04c48874504fb294e11d3758

Canada Mortgage and Housing Corporation—A Selective Bibliography (several resources)

http://globalindoorhealthnetwork.com/files/Canadian_Mortgage_and_Housing_Corporation_Moisture_Problems_in_Buildings_A_Selective_Bibliography_2006.pdf

Brown University Study Finds Link Between Depression and Household Mold

<http://news.brown.edu/pressreleases/2007/08/depression-and-household-mold>

Exposure to Interior Environments of Water-Damaged Buildings Causes a CFS-like Illness in Pediatric Patients: a Case/Control Study

<http://www.iacfsme.org/BULLETINSUMMER2009/Summer09ShoemakerExposuretoInterior/tabid/381/Default.aspx>

Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture Indoors (2004) by the University of Connecticut Health Center

<http://oehc.uchc.edu/images/PDFs/MOLD%20GUIDE.pdf>

Indoor Mold: Better Coordination of Research on Health Effects and More Consistent Guidance Would Improve Federal Efforts by the GAO--Government Accountability Office (2008)

<http://www.gao.gov/new.items/d08980.pdf>

Is Indoor Mold Contamination a Threat to Health? (2003) by Dr. Harriet Ammann

http://globalindoorhealthnetwork.com/files/Is_Indoor_Mold_Contamination_a_Threat_to_Health.html

Spectrum of Noninfectious Health Effects from Mold (2007) from *Pediatrics: Official Journal of the American Academy of Pediatrics* (2007)

http://globalindoorhealthnetwork.com/files/Pediatrics_Journal_Spectrum_of_Noninfectious_Health_Effects_from_Mold_2007.pdf

What the Primary Care Pediatrician Should Know About Syndromes Associated with Exposures to Mycotoxins (2006) by Ruth A. Etzel, M.D., Ph.D.

http://globalindoorhealthnetwork.com/files/What_the_Primary_Care_Pediatrician_Should_Know_About_Syndromes_Associated_with_Exposures_to_Mycotoxins_2006.pdf

The federal government acknowledges illness caused by exposure to mold and indoor contaminants. The following links provides two examples of mold-related disability claims that have been approved by the Social Security Administration.

http://globalindoorhealthnetwork.com/files/Social_Security_Disability_approval_for_Kristina_Townsend.pdf

http://globalindoorhealthnetwork.com/files/Imler_Sherman_Social_Security_Disability_approved.pdf

Acute Inhalation Toxicity of T-2 Mycotoxin in Mice. “*Inhalation of T-2 mycotoxin is at least 10 times more toxic than systemic administration and at least 20 times more toxic than dermal administration...*”

<http://toxsci.oxfordjournals.org/cgi/content/abstract/8/2/230>

World Health Organization report on mold titled “Guidelines for Indoor Air Quality—Dampness and Mould” (2009)

http://www.euro.who.int/_data/assets/pdf_file/0017/43325/E92645.pdf

Cheryl’s October 7, 2009, response to the World Health Organization which identifies several of the important research reports that were excluded from the 2009 WHO report and the 2004 IOM report.

http://globalindoorhealthnetwork.com/files/Response_to_WHO_Report_Submission_to_WHO_Oct_7_2009_complete_report.pdf

A Critique of the (2003) ACOEM Statement on Mold

http://globalindoorhealthnetwork.com/files/A_Critique_of_the_ACOEM_Mold_Statement_2008.pdf

You should also read the letter that ACHEMMIC sent to the EPA on February 16, 2010. This letter provides many important statistics and facts that are important to this issue. Cheryl previously sent you a link to this letter.

http://achemic.com/files/ACHEMMIC_February_2010_Letter_to_EPA_CIAQ4.pdf

Cognitive Impairment Associated With Toxicogenic Fungal Exposure: A Replication and Extension of Previous Findings

<http://www.informaworld.com/smpp/content~content=a783682706~db=all>

Diseases Caused by Molds in Humans

http://healthandenergy.com/diseases_linked_to_molds.htm

Psychological, Neuropsychological, and Electrocortical Effects of Mixed Mold Exposure

http://globalindoorhealthnetwork.com/files/Psychological_Neuropsychological_and_Electrocortical_Effects_of_Mixed_Mold_Exposure_2004.pdf

Neurobehavioral and Pulmonary Impairment in 105 Adults with Indoor Exposure to Molds Compared to 100 Exposed to Chemicals

http://globalindoorhealthnetwork.com/files/Neurobehavioral_and_Pulmonary_Impairment_in_105_Adults_with_Indoor_Exposure_to_Molds_in_Water_Damaged_Buildings_2009.pdf

Toxicology of Mycotoxins

<http://tih.sagepub.com/content/25/9-10.toc>

Molds and Mycotoxins: Effects on the Neurological and Immune System in Humans

http://globalindoorhealthnetwork.com/files/Mold_and_Mycotoxins_Effects_on_the_Neurological_and_Immune_System_in_Humans_2004.pdf

Toxic Effects of Mycotoxins in Humans

http://globalindoorhealthnetwork.com/files/Toxic_Effects_of_Mycotoxins_in_Humans_Peraica_1999.pdf

The Treatment of Patients with Mycotoxin-Induced Disease

http://globalindoorhealthnetwork.com/files/Rea_Treatment_of_Patients_with_Mycotoxin-Induced_Disease_2009.pdf

Neural Autoantibodies and Neurophysiologic Abnormalities in Patients Exposed to Molds in Water-Damaged Buildings

http://globalindoorhealthnetwork.com/files/Neural_Autoantibodies_and_Neurophysiologic_Abnormalities_in_Patients_Exposed_to_Molds_in_Water_Damaged_Buildings_2004.pdf

Neurologic and Neuropsychiatric Syndrome Features of Mold and Mycotoxin Exposure (2009)

http://globalindoorhealthnetwork.com/files/Neurologic_and_Neuropsychiatric_Syndrome_Features_of_Mold_and_Mycotoxin_Exposure_2009.pdf

The Validity of Environmental Neurotoxic Effects of Toxigenic Molds and Mycotoxins

http://www.ispub.com/journal/the_internet_journal_of_toxicology/volume_5_number_2_40/article/the_validity_of_the_environmental_neurotoxic_effects_of_toxigenic_molds_and_mycotoxins.html#h1-6

And, most importantly, be sure to read the new research paper that was just announced on July 27, 2010. The authors of the paper are Ritchie Shoemaker, M.D., Scott McMahon, M.D., Laura Mark, M.D., Jack Thrasher, Ph.D. and Carl Grimes, HHS, CIEC. The name of the paper is “Research Committee Report on Diagnosis and Treatment of Chronic Inflammatory Response Syndrome Caused by Exposure to the Interior Environment of Water-Damaged Buildings.” This research paper was just released in July of this year, and it could add a lot of value to your report by helping you to present a thorough and up-to-date perspective. In addition, as Dr. Shoemaker pointed out, this paper contains hundreds of references to important research papers that cover a time span of many years. Here’s the link for the paper:

http://www.policyholdersofamerica.org/doc/CIRS_PEER_REVIEWED_PAPER.pdf

Thank you for your time and your interest in presenting a thorough and accurate view of this important public health issue.