

GLOBAL INDOOR HEALTH NETWORK

"WORKING TOGETHER FOR HEALTHY INDOOR ENVIRONMENTS"

<http://globalindoorhealthnetwork.com>

Inside This Issue

- 1 Welcome New Member
- 1 Aging Mobile Homes: Mold is a Life-and-Death Issue
- 2 New Source of Fetal Immune Cells Found
- 3 "Sick Houses" in Sweden
- 3 Bioaerosols Conference, September 6-9, 2011
- 4 Member Profile: Scott Armour
- 4 Sensitivity-Related Illness: The Escalating Pandemic
- 5 Living Green on the Coast
- 6 ASEHA (resources) in Australia
- 6 New Discount Code for "Surviving Mold"
- 6 Highlights of 2010

Welcome New Member

We have one new member. Please join me in welcoming David Stough (Maryland).

David Stough has 23 years of experience investigating and evaluating indoor environments. He is President of Next Generation Technologies Group, Inc. in Maryland. He has a Bachelor's Degree in Human Resource Management and a Master's Degree in Business Administration from the University of Maryland. David has earned many industry certifications including E-CLR, CMI, CIE, CRMI, CMR and WRT. He is joining our organization to help advance the education and awareness of this important public health issue.

Welcome David

Aging Mobile Homes: Mold is a Life-and-Death Issue

Denny Newton awakened to the sound of his own choking. Fumbling in the darkness, Newton dropped his cell phone as he called his daughter, and fell to the floor of his mobile home. All he could think to yell as he lost consciousness was "Help!" - a cry that probably saved his life.

Newton, 55, a disabled painter, had gone to bed that Friday night in early October feeling good. When he awoke, he was covered in rashes from head to toe, inside his body and out. His esophagus had become so swollen in the short time he had been sleeping that he began choking on his own saliva.

What likely almost killed Newton was mold, a health hazard prevalent in the oldest mobile homes, medical experts say.

Mold produces allergens that spread over time and create potentially toxic substances known as mycotoxins, which pose serious health hazards to human beings. Among them: respiratory problems, rashes, eye irritation, migraines, fungal infections and even death.

Under state law, mobile home park owners are expected to follow all city, county and state codes materially affecting the health and safety of residents. That means they are responsible for all repairs to keep spaces in a "fit and habitable condition; keep common areas clean and safe; (and) maintain in good and safe working order and condition all facilities supplied or required to be supplied by the landlord," including "electric, water and sewer services."

To read the entire article:

[Aging Mobile Homes](#)

See *New Source of Fetal Immune Cells Found* on page 2

New Source of Fetal Immune Cells Found

For the first time ever, it is shown that human fetal immune system arises from a completely different source than the adult immune system, and is more likely to tolerate than fight foreign substances in its environment.

This finding could lead to a better understanding of how newborns respond to infections and vaccines, and may explain some mysteries as to why many infants of HIV-positive mothers are not infected with the disease before birth. In addition, it could help scientists better understand how childhood allergies develop, as well as how to manage adult organ transplants.

Until now, the fetal and infant immune system had been thought to be simply an immature form of the adult system, one that responds differently because of a lack of exposure to immune threats from the environment. The new research has revealed an entirely different immune system in the fetus at mid-term that comes from a completely different set of stem cells than the adult system.

“In the fetus, we found that there is an immune system whose job it is to teach the fetus to be tolerant of everything it sees, including its mother and its own organs,” Joseph M. McCune, MD, PhD, a professor in the UCSF Division of Experimental Medicine who is a co-senior author on the paper, was quoted as saying. “After birth, a new immune system arises from a different stem cell that instead has the job of fighting everything foreign.”

“The adult immune system’s typical role is to see something foreign and to respond by attacking and getting rid of it. The fetal system was thought in the past to fail to ‘see’ those threats, because it didn’t respond to them,” Jeff E. Mold, first author on the paper and a postdoctoral fellow in the McCune laboratory, was quoted as saying. “What we found is that these fetal immune cells are highly prone to ‘seeing’ something foreign, but instead of attacking it, they allow the fetus to tolerate it.”



New Source of Fetal Immune Cells Found (cont'd)

The previous studies attributed this tolerance, at least in part, to the extremely high percentage of “regulatory T cells”, cells that provoke a tolerant response, in the fetal immune system. At mid-term, fetuses have roughly three times the frequency of regulatory T cells as newborns or adults.

The researchers continued by sorting the cells by gene expression, expecting to see similar expression of genes in the two cell groups. In fact, they were vastly different, with thousands of genes diverging from the two cell lines. When they used blood-producing stem cells to generate new cell lines from the two groups, the same divergence occurred.

“We realized there are in fact two blood-producing stem cells, one in the fetus that gives rise to T cells that are tolerant and another in the adult that produces T cells that attack,” Mold said. Why that occurs, and why the immune system seems to switch over to the adult version sometime in the third trimester, remains unknown, McCune said.

[New Source of Fetal Immune Cells Found](#)

Press release from UCSF:

[UCSF press release](#)

If you would like to have a copy of the research paper, please contact me.

See *Sick Houses in Sweden* on page 3

“Sick Houses” in Sweden

In many ways, today's Sweden faces the same problems as other countries, including corruption and the sometimes nightmarish impact of it.

Emphasizing Swedish corruption's gravity, the vast bulk of cases that have come to light are occurring in municipal housing companies and the construction industry, with the substantive "human costs" of these scandals only beginning to be appreciated. So-called "sick houses", the significant health issues they've meant, are a recognized problem in Sweden, with the ongoing scandals now suggesting why.

In 2008, Scandinavia's largest paper, Aftonbladet, noted, "In a new study from [Sweden's] Umea University, it was found that 45% of those affected by sick buildings - and who received medical treatment at a hospital clinic - are unable to work. Of these, 20% receive a disability pension, and 25% are on sick leave."

Leif Kavestad - author of the Swedish book *Sick Houses*, building engineer, and a former environmental inspector who was personally decorated by the prior prime minister - has charged that "when residents complain about health hazards and health problems in municipal housing, it's not uncommon for the municipality to hire 'consultants' that will declare the property safe." Kavestad pointedly told ATol that "in legal disputes, the environmental agency always accepts the word of the municipality's 'bought' consultants. Tenants which complain over sick buildings with health complaints are sometimes threatened - the parties together can act like a mafia against the tenants."

[Sweden Has its Own Sickness](#)

“Tenants which complain over sick buildings with health complaints are sometimes threatened—the parties together can act like a mafia against the tenants.”



Mold-damaged stucco

Bioaerosols Conference, September 6–9, 2011

The 6th Annual Scientific Conference on Bioaerosols, Fungi, Bacteria, Mycotoxins in Indoor and Outdoor Environments and Human Health will be held in Saratoga Springs, New York, September 6-9, 2011.

They have announced their Call for Abstracts. The deadline for submission is March 15, 2011. If you are interested in submitting an abstract, please go to the following link.

[Information to submit abstracts](#)

[Information about the conference](#)

Global IHN involvement in the Conference:

As I mentioned in the November 5 Newsletter, the EPA has invited our group to participate in this Conference. The CIRS-WDB paper will be on the agenda, and it will include a panel discussion. Dr. Ritchie Shoemaker and Dr. Jack Thrasher will be included on the panel. The CIRS-WDB paper is available on our website at the following link:

[Research Committee Report on Diagnosis and Treatment of Chronic Inflammatory Response Syndrome \(CIRS\) Caused by Exposure to the Interior Environment of Water-Damaged Buildings \(WDB\)](#)

See *Member Profile: Scott Armour* on page 4

Member Profile: Scott Armour

Scott Armour has a Master of Science degree from California State University where he specialized in environmental and occupational health. He earned his Bachelor's Degree in Sociology from Case Western Reserve University in Cleveland, Ohio. Scott is President of Armour Applied Science, LLC, an environmental health and safety consulting and training firm in Cleveland, Ohio. His practice focuses on Indoor Environment and Air, Mold & Moisture, Building Science, Industrial Hygiene, and Environmental Management Systems. He is a recognized expert of mold assessment and remediation and specializes in the health impacts of mold and water damaged buildings.

Scott's professional background spans a variety of industries, including public health, non-profit environmental health advocacy, research, industrial hygiene, OSHA/DOT/EPA compliance, and bio-safety. He has been involved in several industry organizations and is the Director of the Cleveland Chapter of the Indoor Air Quality Association. He was an active contributor and sub-committee Chair for the writing and revision of the IICRC's S520 Professional Mold Remediation Standard and Reference Guide. He was one of the founding members of the IAQA Green Committee that helped bring green information and awareness to the more than 5,000 national members of Indoor Air Quality Association. He was also on the Board of Advisors to the American Indoor Air Quality Council which is now responsible for providing the industry's highest quality independent certifications for indoor air quality and mold professionals.

As a credentialed ISO 14001 Environmental Management System trainer and consultant, he helped prepare several large organizations for certification. The ISO system is the "original" global sustainability program. He is proud to be an early proponent of sustainability as a means to improving an organization's impact on the environment.

Prior to Scott's involvement in health and safety, he was in the marine aquarium business where he hoped to help save the world's reefs from destructive fishing. As an insider to the aquarium import industry, he realized the insatiable global demand for marine fish "at any cost" would not change, and that overfishing and destruction of the reefs was a problem impacting people as well as the environment. That's when he entered the graduate school program for environmental health. Since his college freshman days, Scott has long explored a personal interest in sustainability, including deep ecology, gaia philosophy, water treatment technology, population biology, and lake ecology.

For information about Scott's company, click here:

<http://www.armourappliedscience.com/>



Scott Armour

Sensitivity-Related Illness: The Escalating Pandemic

The prevalence of allergic-related diseases, food intolerance, and chemical sensitivities in both the pediatric and adult population has increased dramatically over the last two decades, with escalating rates of associated morbidity. Conditions of acquired allergy, food intolerance and chemical hypersensitivity are frequently the direct sequelae of a toxicant induced loss of tolerance (TILT) in response to a significant initiating toxic exposure.

Following the primary toxicant insult, the individuals become sensitive to low levels of diverse and unrelated triggers in their environment such as commonly encountered chemical, inhalant or food antigens. Among sensitized individuals, exposure to assorted inciting stimuli may precipitate diverse clinical and/or immune sequelae as may be evidenced by clinical symptoms as well as varied lymphocyte, antibody, or cytokine responses in some cases. Recently recognized as a mechanism of disease development, TILT and resultant sensitivity-related illness (SRI) may involve various organ systems and evoke wide-ranging physical or neuropsychological manifestations.

[Sensitivity-Related Illness: The Escalating Pandemic](#)

See *Living Green on the Coast* on page 5

Living Green on the Coast

This article is about housing along the Oregon and Washington Coast. It discusses green building techniques, including durability, reducing energy use and improving indoor air quality.

The weather along our coast is tough on our dwellings. Seventy to ninety inches of rain per year is not uncommon. High winds pound horizontal rain at the sides of our homes. Our salt-laden air silently chews away at exposed metal surfaces. Water and vapor slither into our homes to launch colonies of mold. Earthquakes, tsunamis and fires patiently wait their turn to deliver unexpected threats to our structures. Some of the key characteristics of green homes relevant to our coastal conditions include design and construction for durability, reducing energy use, and improved indoor air quality. There are many strategies that you can use to improve the durability of your home, reduce utility costs and enhance indoor air quality.

If you're serious about your home being earth friendly, one of your first considerations should be its durability. A home designed and maintained to last 100 years or more enables the cost and environmental impacts to be amortized over a longer period of time. When we double the life of a building, we reduce the environmental impacts associated with its construction by half. A durable residence usually requires less maintenance. The added investment in durable materials and design is small in comparison to the impacts and costs of shoddy construction and cheap materials.

There are many things you can do to improve the longevity and durability of your home. Design generous roof overhangs to protect the exterior walls from all but our horizontal rain. Create drainage planes behind the exterior siding, known as rain screens, that help keep moisture out of the exterior walls. Use proper flashing and sealing around windows and doors, as this is one of the most common locations for rain to penetrate into the walls. Limit the use of metals outdoor, as the salty coastal air is highly corrosive. Install adequate waterproofing and drainage around the foundation. Use protruded fiberglass windows, which will usually last longer than vinyl and aluminum window frames. Install robust and effective gutters and downspouts to divert rain water away from the perimeter of the home. Keep firewood away from the home to reduce the chance of pests and wood rot from entering the home. And finally, select experienced builders who have a proven track record of building durable homes along the coast.



Living Green on the Coast (continued)

Indoor Air Quality

One of the pillars of green building is creating and maintaining a healthy indoor environment for a home's occupants. Poor indoor air quality is a constant threat for coastal residences, with mold and mildew being the prime suspects. Household mold is a culprit in asthma, sinus infections, and weakened immune systems. Mold loves our coastal climate when the humidity is over 60% with temperatures above 50° F, especially in places where there is little or no air movement.

We advise our clients and their builders to avoid all products (and furniture) that outgas unhealthy chemicals into the home. Many building products emit Volatile Organic Compounds, known as VOCs, and urea-formaldehyde, both of which can be harmful to our respiratory systems, especially those of small children. Urea-formaldehyde is commonly found in adhesives, plywood, particleboard, and fiberglass insulation. VOCs are prevalent in paints, adhesives, and vinyl flooring. Dozens of manufacturers have recently switched to products that are free of urea-formaldehyde and VOCs.

There's more to creating a green home than durability, energy efficiency, and indoor air quality, but those are three of the key ingredients for our coastal environment.

To read the entire article:

[Living Green on the Coast](#)

ASEHA (resources) in Australia

Please be sure to check out the following resources available in Australia.

<http://www.asehaqld.org.au/>

Allergy, Sensitivity and Environmental Health Association Qld Inc. (ASEHA) is a voluntary organization. It is a self-help support group for people with allergy, food intolerance, multiple chemical sensitivity, chronic fatigue syndrome/fibromyalgia, hyperactivity, attention deficit disorder. ASEHA was formed in 1984. Their website contains several good resources, including the following:

[ASEHA Report](#) (includes links to many other resources)

[Air Quality](#)

[Health Information Template](#)

[MCS Visitors Guide](#) (guidelines for people who are likely to visit a person who has chemical sensitivities)

In Australia, the Human Rights and Equal Opportunities Commission (HREOC) has acknowledged that MCS is a disability covered by the Disability Discrimination Act.

[Disability and Medical Issues for MCS and Allergy](#)

New Discount Code for “Surviving Mold”

To make the ordering process easier, there is now a discount code for members of the Global Indoor Health Network. You can order Dr. Shoemaker’s new book through the SurvivingMold.com website. Just enter the following code when you are placing your order, and you will receive a \$2.00 discount. This code is exclusive to GIHN members.

Code: **GIHN2010**

Next Newsletter: Friday, January 14



Highlights of 2010

We accomplished a lot over the past 11 months. Here are a few of the highlights:

- Several individuals participated in the EPA CIAQ meeting on February 3
- Began organizing the experts and laypersons in the mold community into a unified effort
- Created an Action Committee (ACHEMMIC—Action Committee on the Health Effects of Mold, Microbes and Indoor Contaminants)
- Submitted a detailed letter to the EPA and hundreds of elected officials and other interested parties
- Transitioned to a nonprofit corporation (GIHN--Global Indoor Health Network)
- Applied for tax-exempt status with the IRS and trademark rights with the USPTO
- Developed a comprehensive set of guidelines for research papers
- Continuing to grow our membership (including members throughout the U.S. and in 6 other countries—Canada, Australia, Iceland, Portugal, Bahamas, and United Kingdom)
- Working together to advance the education and awareness of this issue and helping individuals and families who contact us for assistance

Congratulations to everyone for our success in 2010!!

Working Together for Healthy Indoor Environments