
Correspondence

To the Editor:

This letter is written in response to your February 2003 guest editorial entitled "Membership apathy." There is significant truth in Dr. Claflin's suggested reason for membership apathy. Caring for family and patients certainly plays a leading role in the lives of many of our colleagues. Dwindling remuneration for our services by third-party payers has caused many of our colleagues, especially those starting out in practice, to spend a great deal more time taking care of patients to make a reasonable living.

I agree with Dr. Claflin that those of our fellow physicians who have given much of their time and effort toward the establishment and maintenance of our professional societies may be nearing burnout. I do believe, however, that our past and present failure to unite on a professional level and in a professional manner has been a major contributor to membership apathy. When one peruses the many generic medical publications, one encounters primarily criticism, but seldom does one find, along with such criticism, proposals of solutions to the many problems we face.

Many of our younger colleagues consider generic medical societies to be "old boys' clubs" in which they cannot have a voice. Today's "what's in it for me" attitude causes others from joining and having a voice in their future.

It is not very often that one finds generic medical societies reaching out to attract new members, especially young physicians who have only recently entered the world of private practice either as principals or as employees, by offering worthwhile programs that help them understand the multitude of problems associated with practice management, billing, malpractice coverage, coding, Medicare, Medicaid, HIPAA, and the very basic economic elements of running, or participating in the running, of a practice. None of our medical schools prepares us for the real world of medicine, and, except for costly consultants, there are few avenues a new physician can pursue to learn the basics of running a practice.

So often the power politics of medicine become the regular topics of our generic societies, and the real needs of our colleagues are neglected. Apathy grows rapidly when the needs of the membership are not met.

I believe that it behooves all of us to take a good look at the mission of our societies. It may not be all that difficult to recognize that we can do much more to keep members and attract new ones. If we do, then perhaps we can attract young and energetic colleagues into our ranks, and burnout will not be a problem.

SURESH C. ANAND, MD
President
Maricopa County Medical Society
Phoenix, Arizona

CROSSING OVER TO THE DARK SIDE OF THE MOLD ISSUE: A DISSENTING VIEW

To the Editor:

Because of the sensational stories in the lay press concerning "black mold" published over the past few years, allergists and immunologists have both an opportunity and an obligation to help the concerned lay public sort out the junk from the junk science and to stem the tide of public hysteria. There is no doubt that mold may cause human disease and we all treat patients in whom mold allergy is a significant contributor to illness. But the issue of illness secondary to the mycotoxin from *Stachybotrys* is less well established. According to many experts, *Stachybotrys* has not been proven to cause verifiable disease by inhalation, including those patients whose immune systems are suppressed such as transplant recipients, patients on chemotherapy, and AIDS patients. As one examines publications that address the *Stachybotrys* mold issue, it is easy to understand that all is not black and white concerning issues relating to black mold. Harriet A. Burge, PhD (Harvard School of Public Health), states that extensive literature review "yielded many studies of the role of fungi in allergic disease, but none that systematically documented a role for mycotoxins or fungals volatiles."¹ Her review concluded that the primary consequence of fungal exposure is allergic disease and that evidence to support mycotoxin exposure as a causative agent for inhalation disease is "extremely weak." Abba I. Terr, MD, wrote a review in the same medical journal entitled "*Stachybotrys*: relevance to human disease."² Dr. Terr states in his review that "published reports fail to establish inhalation of *Stachybotrys* spores as a cause of human disease even in water-damaged buildings," although he does point out that ingestion of food prepared from *Stachybotrys*-contaminated grains may cause a toxic gastroenteritis. More recently, Jean Chapman, MD, published an excellent review of this subject; he concluded that "there is no compelling evidence that exposure levels expected in most mold-contaminated indoor environments are likely to result in measurable health effects."³

In the February 2003 issue of the *Annals*, Santilli and Rockwell⁴ claim, in the absence of scientific evidence, that our school children are in imminent danger from mold. We believe this study is misleading and may add to the public's confusion as to what is fact and what is fiction regarding mold. The absolute quantity of mold means little unless the individual is allergic to mold or has a hypersensitivity pneumonitis. Clearly, the presence of an "elevated" mold count does not necessarily define an unhealthy environment in the absence of proven allergy. This report is an uncontrolled retrospective speculation based on symptoms extracted from a questionnaire. Furthermore, the authors did not measure

mycotoxins or volatile organic compounds in the affected schools or in a parallel controlled environment. The fact that one of the schools described by Santilli and Rockwell was demolished is disturbing, and we would submit that the taxpayers of Connecticut might better use those funds for education. The accompanying guest editorial by Portnoy⁵ is equally disturbing. Portnoy states that we are “experiencing an epidemic of mold-related complaints . . . so the next time a patient arrives in your practice with a mold exposure, greet them enthusiastically.” As allergists and as immunologists, we are frequently called upon by our communities; I urge allergists to become a voice of reason in the murky dark waters of black mold. Without sound science, many well meaning allergists might be tempted to go to the “dark side” of this issue and be sucked into the whirling vortex, contributing to unnecessary lawsuits.

If medical science does not justify the excessive public concern about this mold, then what group is driving this train? Perhaps the answer to that question can be found in an article written by Stephanie Francis Cahill, a writer with the *American Bar Association Journal*.⁶ In her article entitled “For some lawyers, mold is gold,” she states that “[t]oxic troubles translate into millions of dollars” and that “the practice area is growing rapidly.” She further adds, “In the past decade, attorneys have won millions of dollars in toxic mold verdicts in Texas, Delaware, and California.” She goes on to note that claims for asbestos are fading into memory but that “with mold, it’s naturally occurring and the supply is endless . . . claims involving adult onset asthma or cognitive functions such as short term memory loss can be lucrative. . . .” Well, perhaps we do know who is driving this train. The thoughtful allergist and immunologist may not wish to climb aboard this train until the engine is fueled by controlled scientific studies.

EMIL J. BARDANA, MD

JEAN A. CHAPMAN, MD

ERNEST N. CHARLESWORTH, MD

ROBERT L. JACOBS, MD

ABBA L. TERR, MD

REFERENCES

1. Burge HA. Fungi: toxic killers or unavoidable nuisances? *Ann Allergy Asthma Immunol.* 2001;87(Suppl 3):52–56.
2. Terr AI. *Stachybotrys*: relevance to human disease. *Ann Allergy Asthma Immunol.* 2001;87(Suppl 3):57–63.
3. Chapman JA. *Stachybotrys chartarum* (*chartarum* = *atra* = *alternans*) and other problems caused by allergenic fungi. *Allergy Asthma Proc.* 2003;24:1–7.
4. Santilli J, Rockwell W. Fungal contamination of elementary schools: a new environmental hazard. *Ann Allergy Asthma Immunol.* 2003;90:203–208.
5. Portnoy JM. Evaluation of indoor mold exposure is what allergists do best. *Ann Allergy Asthma Immunol.* 2003;90:175.
6. Cahill SF. For some lawyers, mold is gold. *Am Bar Assoc J.* 2001;87:22.

Response:

We read with interest the comments expressed by the authors of the above letter. We completely agree with their premise that sound data are necessary to dispel the myths and fallacies surrounding the mold issue. That is precisely why we performed this study. Although we feel that honest differences may exist among colleagues, it is imperative to point out that the February article was subjected to rigorous peer review and benefited from the constructive critiques provided by the reviewers.

Our research results published in the February issue of the *Annals* were gathered from observations made in patients seen in our private practice from 2 local schools in a state of disrepair. The atopic students and teachers in these schools were suffering from a variety of allergy-related symptoms that were linked to exposure to the high level of mold found in the schools.

Those hired to remediate the neglected schools found that extensive and costly repairs were needed, to the point where one of the towns involved decided it was more cost-effective to rebuild the school. Although the authors of the dissenting view may not consider indoor exposure to mold the major cause of any measurable health effects, we found that the 20% of the students and teachers affected by the mold were immeasurably relieved to see their health improve upon elimination of mold exposure.

The publicity surrounding the issue of “sick buildings,” although detrimental at times, was helpful in this case by making parents more aware of increased mold-associated illness at the start of the school year, and this in turn has led to the earlier identification of mold contamination in a number of other public schools nationwide. The extent of mold contamination in public schools in Connecticut and across the country, however, has yet to be fully determined. In most of the schools we have been asked to examine, a wide range of health problems, from minor to very serious, could be attributed to indoor mold exposure. In some of these cases, the health issues cleared up once the buildings were remediated. In other more troublesome cases, however, the patient’s health was not regained.

It is generally accepted that sensitivity to mold is a significant factor in the pathogenesis of allergic diseases. These diseases include allergic asthma, allergic rhinitis, allergic fungal sinusitis, bronchopulmonary mycoses, and hypersensitivity pneumonitis.¹ The cognizance of this association provided the rationale for the experimental design and research approach that we used in our study.

Current medical literature supports the detrimental role of indoor mold exposure on the health of students and teachers.^{2–4} Furthermore, governmental agencies have also recognized and commented upon the detrimental impact that exposure to high concentrations of mold and fungi can have on an individual’s health.^{5–9}

The overall indoor air quality of schools in the United States needs to be examined rigorously, particularly in areas

of the country where older schools exist. It is unfortunate that too many school districts have been forced by years of limited budgets to delay building maintenance and forgo repairs to maintain low teacher-to-student ratios. This in turn has sadly come to impact the health of many students and teachers. Allergist-immunologists can play an important role as patient advocates, protecting the health of children and teachers.

Mold exposure resulting from moisture damage has gone unchecked because of the poor condition of many schools and is contributing to this serious health issue in school-aged children and their teachers. Although there has been a dramatic increase in the awareness of the health problems caused by indoor mold exposure, as well as some increased resources to remediate the problems, there is a notable lack of standardization of testing indoor air quality. Standards are clearly needed to ensure acceptable air quality in schools. In a recent study by Bush and Portnoy,¹⁰ an unhealthy indoor environment was defined by a volumetric mold contamination count greater than 1,000 spores/m³.

It is not clear to us why the authors of the above letter chose to focus on the health impact of *Stachybotrys* exposure when it was not described in our article. Of course, some less-than-responsible members of the media have sensationalized the toxic mold story, and clearly the impact of *Stachybotrys* on human health has yet to be fully understood. However, this should not cause physicians to minimize the real suffering of atopic patients, generally thought to comprise 20% of the population, who are forced to spend their days in unhealthy indoor environments.

Physicians should not be hesitant to become public health advocates for fear of large lawsuits. The case reports described in our February article involved no class-action lawsuits or claims for multimillion dollar settlements. Rather, they reflect the results of communities working together to keep their children and teachers healthy.

Finally, we disagree with the authors in their attempts to trivialize the difficult decision made by the town of Fairfield to tear down one of their elementary schools. The taxpayers and town leaders in Fairfield are very concerned about both the health and the education of their children and did not make this decision based on sensationalized journalism. In fact, only after carefully weighing the cost/benefit consequences of all their options did they make this decision, one that they will be required to find funding for over the coming decades.

To restate the conclusions of the February article, "Due to the negative impact on health that indoor mold exposure has, particularly in atopic patients, schools should be routinely tested for fungal contamination. Total mold spore counts should be performed using volumetric air sampling such as the Allergenco MK-3 because testing air quality via semi-quantitative culture sampling alone does not give a true reflection of the extent of fungal contamination. Finally, the standard for a healthy indoor environment should be defined as having less than 1000 spores/m³."

We welcome the debate that our paper has engendered because it clearly demonstrates not only that further research is required in this critical area, but also that the allergist-immunologist has an important future role to play in resolving the many complex concerns surrounding mold issues in the school setting.

JOHN SANTILLI, MD
WILLIAM ROCKWELL, MD
Bridgeport, Connecticut

REFERENCES

1. Dziadzio L, Bush RK. Assessment and control of fungal allergens. *Curr Allergy Asthma Rep.* 2001;1:455–460.
2. Savilahti R, Uitti J, Laippala P, Husman T, Roto P. Respiratory morbidity among children following renovation of a water-damaged school. *Arch Environ Health.* 2000;55:405–410.
3. Savilahti R, Uitti J, Roto P, Laippala P, Husman T. Increased prevalence of atopy among children exposed to mold in a school building. *Allergy.* 2001;56:175–179.
4. Taskinen T, Hyvarinen A, Meklin T, Husman T, Nevalainen A, Korppi M. Asthma and respiratory infections in school children with special reference to moisture and mold problems in the school. *Acta Paediatr.* 1999;88:1373–1379.
5. Environmental Protection Agency. Mold remediation in schools and commercial buildings. Available at: www.epa.gov/iaq/molds/index.html.
6. Redd SC. *State of the Science on Molds and Human Health. Center for Disease Control and Prevention Statement for the Record before the Subcommittees on Oversight and Investigations and Housing and Community Opportunity.* July 18, 2002.
7. Occupational Safety and Health Administration, US Department of Labor. Indoor air quality. Available at: www.osha.gov/SLTC/indoorairquality/index.html.
8. Connecticut Education Association. Schoolhouse news. Available at: www.cea.org/NewsDesk/SHN/index.html.
9. The United States General Accounting Office. *Indoor Air Quality: School Facilities: America's Schools Report Differing Conditions.* GAO Report HEHS-96-103. Available at: www.gao.gov/.
10. Bush RK, Portnoy JM. The role and abatement of fungal allergens in allergic diseases. *J Allergy Clin Immunol.* 2001;107:S430–S440.

Response:

I respect the opinions voiced in the letter to the editor, and I agree with many of them. We do know that some individuals are sensitive to aeroallergens, including allergens from fungi. As allergists, we spend a great deal of effort identifying those patients and advising them to avoid exposure when possible.

Recently, our nation has been faced with a great deal of public concern over the potential health effects of mold exposure. This somehow is viewed differently than exposure to other allergens that have been proven to have serious adverse health effects, such as ragweed pollen. I believe that this is because although there is little we can do about ragweed exposure, and the health effects are fairly well understood. With mold, very little is known about the health effects. Even so, indoor exposure can be controlled and, most

importantly, in some cases someone can be blamed for the exposure. That is a prerequisite for any lawsuit. I doubt that the authors of the above letter would dismiss ragweed allergy if lawyers somehow figured how to file lawsuits over unmowed ragweed fields.

I appreciate the references to scientific articles cited above, but I must point out that absence of data does not prove that health effects are absent. The public is clearly concerned. To dismiss the mold issue simply as greed on the part of plaintiffs and their lawyers does our society a great disservice. If allergists do not embrace the issue in an intelligent manner and work with scared people, affected individuals may end up consulting the very mercenaries that the letter criticizes. People who believe that they have been harmed will go somewhere. The question is where will they go?

It remains my opinion that concerned individuals need to have access to knowledgeable allergy specialists who can address their fears. Allergists have had that role through the years with hidden food allergies, the yeast connection, and more recently with autism. So, I reiterate my opinion, "The next time a patient arrives in your practice with a mold exposure, greet them enthusiastically."¹ That does not mean that we should mislead them or inappropriately advocate for adverse health effects of mold, but we can at least listen to them, empathize with them, and keep an open mind. That is what we should do best.

JAY M. PORTNOY, MD
Section of Allergy/Asthma/Immunology
Children's Mercy Hospital and Clinic
Kansas City, Missouri

REFERENCE

1. Portnoy JM. Evaluation of indoor mold exposure is what allergists do best. *Ann Allergy Asthma Immunol.* 2003;90:175.

In her candid and thorough review¹ of the fourth edition of the *Manual of Allergy and Immunology*,² Dr. Susan Rudd Wynn approves of its penicillin desensitization protocol, but wonders if the chapters on connective tissue disease and immunohematology or transplantation immunology are useful for the practicing allergist. Dr. Wynn, a pediatric allergist/immunologist, notes that "few [patients with rheumatologic problems] turn to their allergists for treatment[, and] a good internist is much better qualified to treat these patients if a

rheumatologist is not available." Coincidentally, in the same issue of the *Annals*, Dr. Aaron Domm, an internal medicine resident, discusses a woman with adult-onset Still disease and anaphylaxis to infliximab, whose rheumatologist requested allergist/immunologist consultation for this drug reaction. He and I evaluated the patient and diagnosed possible IgG-mediated reactivity to infliximab. She subsequently received infliximab without complication. The moral of this story is that we allergists are also clinical immunologists by training. We may be consulted about patients with rheumatologic or other diseases treated with immunomodulatory agents. It behooves us to retain our familiarity with these entities, since we are uniquely qualified to diagnose and treat or prevent immunologic reactions to them, as well as to penicillin.

ANITA GEWURZ, MD

Departments of Immunology/Microbiology and Pediatrics
Rush Presbyterian St. Luke's Medical Center
Chicago, Illinois

REFERENCES

1. Wynn SR. Book review. *Ann Allergy Asthma Immunol.* 2003; 90:359.
2. Adelman DC, Casale TB, Corren J, editors. *Manual of Allergy and Immunology*. 4th ed. Baltimore, MD: Lippincott Williams Wilkins; 2002.
3. Domm A. A patient's reaction to infliximab. *Ann Allergy Asthma Immunol.* 2003;90:298–301.

Response:

I agree that the practicing allergist needs to have an understanding of rheumatology; my complaint about the *Manual of Allergy and Immunology* was not that rheumatology was included, but that the section seemed disproportionately large compared with the sections on allergy and asthma. We are, after all, board certified in both allergy and clinical immunology, and familiarity of all conditions with immune system dysfunction is required throughout our careers.

Drs. Gewurz and Domm's case report is an important addition to the allergy literature, but I think it reaffirms my argument; after all, the report was fundamentally about the diagnosis and management of drug allergy.

SUSAN RUDD WYNN, MD

Fort Worth Allergy and Asthma Associates
Fort Worth, Texas