

EPILOGUE

Putting it all Together

“You’re interested in the legal implications of health effects caused by exposure to the air inside water-damaged buildings,” I told an audience of attorneys and mold experts at a recent conference in Las Vegas. “I’m interested in *treating* those health effects. Our interests aren’t necessarily the same. I believe that litigation shouldn’t obscure the paramount need to improve the health of mold-illness sufferers.”

In Chapter Seven, we met Bishop May, a minister in the United Methodist Church. He demanded that his staff be treated for mold illness caused by exposure to a building his organization leased, even if it meant that he and his employer might be named as defendants in a subsequent lawsuit.

Now we’ll meet Matthew Hudson, chairman of Maine-based Scotia Prince Cruises. Like Bishop May, Hudson adamantly safeguarded his employees’ health when they found themselves in a dangerous situation that involved mold in their workplace, a building his business had leased for 35 years. Luckily, Hudson realized his employees and his customers deserved to work and do their business in a safe place. So he took the necessary steps to ensure their safety, even if those actions lead him to litigation.

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The Scotia Prince Cruises mold story includes all of the things necessary for a good drama: compelling characters and cover-ups, mysteries and heroes, stonewalling and enough intrigue to make a major motion picture. Matthew Hudson's efforts to heal his employees and protect his customers—the public—shouldn't have been so complicated or so difficult: it should be an easy, everyday practice. But it wasn't easy, and it probably won't be for some time to come. After reading this book, you understand why.

While both Bishop May and Chairman Hudson offer exemplary examples for the rest of us to follow, there aren't enough of them. In more than seven years of treating mold illness, I've only met a few people like these two men. Regrettably, many other mold-injured patients don't work for enlightened, generous individuals; instead, they're forced every day to fight for their right to a safe workplace, their benefits and their jobs, all the while fighting to regain their health. It's an overwhelming task.



If you've ever been to the rocky coast of Maine in spring, summer, or fall, you've probably seen the 485-foot ferry that travels back and forth between Portland and Yarmouth, Nova Scotia every day. The *M/S Scotia Prince* is the pride of Scotia Prince Cruises, which offers daily ferry service and cruise-drive vacation packages too. Some people ride the ship over at night and come back the next day just to enjoy the food, the entertainment, the hospitality and the sea.

The ship's comings and goings are a familiar sight to those near the port cities where it docks. Each evening about 7 p.m. during tourist season for the past 35 years, the ship has glided past Bug Light and eased into its berth at Portland's International Marine Terminal (IMT). An hour later, the ship begins the eleven-hour trip across the Gulf of Maine, filled with passengers, vehicles and supplies. Since 1970, the ship has hosted 5.4 million

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passengers and has securely transported 930,000 vehicles. That's more people and cars than most cities can claim!

During the crossing, passengers usually enjoy an excellent dinner followed by entertainment and a comfortable night's sleep in one of the *M/S Scotia Prince's* 322 renovated cabins or suites. In the morning, a sunrise breakfast is a fitting start to the day. Afterward, passengers enjoy the immense beauty of Nova Scotia, Prince Edward Island, Cape Breton or other destinations in the Maritime Provinces. The return voyage features sightseeing over the picturesque North Atlantic, with whale sightings, bird watching and sunshine-soaking popular activities.

The *M/S Scotia Prince* employees do their jobs well, reaping praise from their many repeat clients, and earning top-notch scores from the government agencies that periodically evaluate them. That's because safety, courtesy and efficiency form the foundation of Scotia Prince Cruises' ferry operation. Safety demands that every detail be checked twice, despite the need to keep to a tight schedule. They take just sixty minutes to unload and load the *M/S Scotia Prince* twice each day, every day for six months, without slowing for occasional wind, rain, high seas or hurricanes. That means they load and unload onto the ferry in only one hour everything necessary to keep a floating luxury hotel and all its typical amenities, 200 crewmembers, 1,000 passengers, and a 200-vehicle parking garage operating at full steam.

As owner and chairman, Matthew Hudson believes he is ultimately responsible for the quality of service aboard the ship and for the safety of his clients and employees, whether they work onboard the *M/S Scotia Prince* or in one of Scotia Prince Cruises' land-based operations.

Bishop May and Professor Hudson showed us the honorable way to take care of mold issues as employers and as people. They refused to shy away from the medical, legal, professional or human responsibilities involved, regardless of the costs. Their actions make them champions for mold patients everywhere.

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You've already read about Bishop May's dilemma and how he handled it. Now put yourself in Matthew Hudson's place and ask yourself: What would you have done?



It was a new millennium, and at age 58, Professor Matthew Hudson had recently completed a distinguished career as a corporate savior. Trained initially as a barrister and solicitor, he'd succeeded as a venture capitalist and "turn-around" specialist focusing on aerospace, electronics and transportation. While living in Scotland, he was asked by Margaret Thatcher's former Minister of Defence Lord Younger, then Chairman of the Royal Bank of Scotland, to save Prestwick Airport in Glasgow, Scotland, from closing. Under Hudson's leadership, the airport introduced low-cost airfares to Scotland, made a remarkable recovery and became a model for airport privatization worldwide. His moniker, "Professor," came from his subsequent tenure as visiting professor at the University of Glasgow's Business School.

In 2000, Scotia Prince Cruises was called Prince of Fundy Cruises. Its owner had died some years earlier, senior management was ready to retire and the business was winding down. No one with the necessary money had stepped up to buy the firm, and the ship needed too much in additional capital expenditure to meet the regulatory requirements that allow large ocean-going ferries to sail safely on international waters.

Happenstance brought Matthew Hudson into the picture, but love of a challenge kept him there. Hudson thought an upgraded ship and high-value cruise/drive vacation packages between New England and Nova Scotia would prove popular. The ferry business there had always been profitable. After all, there are only three ways to get from New England to Nova Scotia: drive a full day; fly from Boston to Halifax and rent a car; or take a ferry. That's why Scotia Prince Cruises is a key player in Maine's tourism-based economy. The economic benefit to Maine

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associated with the ship and its passengers easily reaches \$55 to \$75 million each year.

Portland's International Marine Terminal building has had maintenance problems since soon after it was built in 1970. Owned by the City of Portland, it's been the leased headquarters of Prince of Fundy Cruises or Scotia Prince Cruises ever since. It was also used over the years by staff in Nova Scotia's tourism department, the U.S. Coast Guard, U.S. Department of Agriculture and a few federal border protection agencies.

Portland officials were anxious for Hudson to buy the firm, but he insisted that as a prior condition to his family's investment—more than \$30 million to buy the company, plus the needed additional millions to upgrade ship, software, computers and skills—city officials had to agree to enter a new long-term lease agreement, and to move the business and the ship to a new ferry terminal located in the city's center by the end of 2002. The present terminal is located in a run-down part of town and isn't conducive to growth. When city administrative officials told him the long-planned Ocean Gateway project—a waterfront rehabilitation plan—that included the needed physical plant upgrades—was already approved and financed, and the city manager signed a formal Letter of Intent *guaranteeing* that the city would meet all of the requested obligations, the last of the deal conditions was satisfied.

The Hudson family bought the business the next day, Aug. 18, 2000.



Although the *M/S Scotia Prince* provided amenities like a casino, dining and entertainment, the Hudsons immediately upgraded it. To add value to the ferry experience and to move the brand up-market, they spent \$2 million on the ship's unused upper deck, adding a Tiki Bar & Grill, two hot tubs, a disco, an

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exercise area and a sun deck; below, new additions included a new salon and massage spa, photo shop and laboratory, doctor's office with fully equipped infirmary and a remodeled and expanded tax & duty-free shop. Existing cabins were refurbished and new passenger cabins and suites were added. Many new safety and navigational aids were installed, and they expanded the number and variety of vacation packages offered.

The Professor brought in top-notch senior management staff with whom he'd worked before, including John Hamill as chief operating officer, attorney Bob Schrader as general counsel and his son, Mark Hudson, as vice president of finance and marketing. The new management team created a solid foundation for success, developing an entirely new ethos that included new ways to report on programs, new methods to measure success and and new ways to encourage responsive management from the wharf to the call center, from the engine room to the bridge.

Hudson also promoted from within and brought in new people with the talents necessary to reorganize the business to meet 21st Century market demands. His employees were well educated, competent and willing to work at a demanding level year-round.

John Hamill moved into an office in the far corner of the terminal in 2001. Another take-charge guy, Hamill had worked with the Professor in Florida; before that he was in charge of all buildings and IT facilities at Miami International Airport.

Hamill bought an apartment in Portland, although his family remained in Sarasota. He saw them whenever he could during the summer operating season and was mainly home in Florida during the winter. When in Portland, he worked constantly, spending long hours in the terminal.

Bob Schrader had an office just down the hall. Now the legal eye of Scotia Prince Cruises, he too had worked with the Professor in Florida, where he'd been a prominent member of Florida's second largest law firm.

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After just a few months, Schrader, who'd achieved 99.9 percentile ranking in his college and law school test scores, started having trouble remembering things. His back began bothering him and his allergies too, and he had frequent doctors' appointments for a variety of problems.

At the same time, the Professor noticed that John Hamill was often too tired to finish the 12- to 14-hour days required to run the company during high season. Hudson was concerned and increasingly frustrated when these top-tier professionals began to lose focus and to make errors. He heard anecdotally about alarming symptoms in his other employees; they were taking sick days more frequently than ever before, and their health problems not only defied diagnosis, but didn't go away.

In spring 2001, Hudson rented a house near Portland for his family so he could work directly with the management team. He spent many hours every week checking reports, projections and financial results, making corrections constantly. Months went by, with errors and cognitive impairment now features of his daily life. Why are they making so many mistakes, he wondered? Worse yet, the same errors were being made over and over again, as if this staff had lost the ability to learn new things.

It must be the stress, Hudson thought. Long hours without a break create problems for everyone, even his dedicated staff; when you added separation from their families, of course things would be tough.

Or was there something else? Hudson was having his own short-term memory lapses. He didn't like to admit it, but he was irritable and more critical of shortcomings in others than he'd ever been as well. He was tired but not sleeping, putting on weight and becoming clumsy. Must be his age; perhaps he was "losing his touch." Why had he ever given up that nice retirement on Biscayne Bay?

That fall new accounting and reservations management staff were hired. By January 2002, however, these departments and

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their ancillary functions were moved from the terminal building to Yarmouth, Nova Scotia because the terminal was such an unpleasant place to work. Also, it had become quite clear that the city would not meet its 2002 deadline to complete the promised new facilities.



Portland's International Marine Terminal building is located behind a semi-porous sea wall in the harbor, and rests on what was once an old railway embankment. Rather than construct the building on pilings, the original builders added crushed stone and cribbing to the embankment, put down a reinforced concrete floor slab over that, and then built the terminal building on top of the whole thing. This "floating" construction method met city building codes at the time, and tends to stand up well over time unless it's disturbed.

The terminal building is constructed of a steel skin over two-inch by four-inch wood framing, with insulation in the space between the metal outer skin and the interior wallboard. There's no interior vapor or outer condensation barriers. The corrugated steel skin is simply attached to plywood panels. The cellulose in plywood is the food that mold needs to thrive.

Every morning the sun heats up one side of the steel structure, warming the seaside moisture-laden air in the wall spaces until it turns into vapor. As long as the skin and the wall cavity stay warm, the water stays in its vapor form, but as the sun moves overhead, one wall moves into shadow and begins to cool, while another wall begins to receive the solar "gain" and begins to heat up. As the metal skin cools further, moisture condenses inside the wall against the cooling steel, trickling down a corrugated valley to the bottom of the wall cavity, where a welcome mat of damp, moldy plywood awaits it.

Unfortunately, the building's outer wall has no flashing, weep

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holes or drainage sites, errors made too commonly in other cavity-wall construction like brick and block, where thermal gain inevitably causes condensation when subsequent cooling occurs. Water sitting in the bottom of a *hidden* wall cavity creates a haven for mold.

The terminal is a cavernous structure; its top story is an open attic that provides a safe roost for hundreds of pigeons, which in turn provide the building with an ongoing supply of guano. Mold isn't the only environmental agent that can make people sick, although guano wasn't the source of the illnesses in the staff. It didn't matter though, because the landlord, the City of Portland, didn't bother to investigate either problem.

Who knows when the mold silently spreading inside the walls of the terminal started to make people sick?



In a strategy common among ship owners, Hudson planned to add a winter route to the ship's itinerary, maximizing the *M/S Scotia Prince's* year-round income potential. He thought a new route between Tampa, Fla., and the Yucatan Peninsula would be popular. It wouldn't take much to modify the ship for the waters of the Gulf of Mexico and its longer voyages, and even with competition from endless cruise liners leaving from Miami, Fort Lauderdale and Tampa for the Caribbean and the Yucatan, a Tampa-to-Mexico ferry route made sense. The route could cater to U.S. travelers who wanted a cruise/drive Mexican vacation, as well as for Mexican vacationers who wanted to visit Florida.

In the winter of 2002–2003, several Scotia Prince Cruises executives spent a few months in Mexico and Florida to look after the route. Hudson feared his team would make far more mistakes in a new, challenging business environment, but happily, they didn't. In fact, things went surprisingly well, and no one really worried about the group's ongoing ill health and the mistakes. Except Matthew Hudson.

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Up north, 2003 brought a struggling economy, new restrictions on international travelers, the Iraq war and SARS, a major problem in Canada. As a result, not many people planned to visit Canada. Scotia Prince Cruises had done well financially in 2001, even after 9/11, and 2002 had been solid as well.

The City of Portland had repeatedly formally agreed that no other ferry would compete with the *M/S Scotia Prince* on the Portland-Yarmouth route; in turn, they required that Scotia Prince Cruises never operate a competing ferry service from anywhere else in New England to Nova Scotia.

Nonetheless, that agreement didn't stop the owners of a high-speed catamaran ferry running between Bar Harbor and Yarmouth, Nova Scotia, from discussing an expansion into Portland in local newspaper articles. Legal questions complicated the issue, and many doubted the Portland-Yarmouth market could support both ships, but the Cat's owners have continued to express interest in bringing the high-speed ferry to Portland.

At this same time, local newspaper editorials asked whether Portland had outgrown the ferry agreement; some even questioned whether the city should continue to honor the existing agreement between the city and Scotia Prince Cruises, *the agreement on which the Hudsons had based their multi-million dollar investment.*

Don't forget that in 2003 the cruise industry was suffering. Portland newspapers estimated the number of cruise ships docking in their harbor in 2003 would drop 50 percent, causing as much as a \$20 million loss to the local economy.

On September 29, 2003, a Category Two hurricane hit Nova Scotia. The storm brought a lethal storm surge nearly five feet above normal, causing an estimated \$100 million in damages and eight deaths. U.S. and Canadian news shows reported that Hurricane Juan was one of the most devastating storms to hit Nova Scotia in more than a hundred years, further scaring visitors away.

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There was a bright side, though: The catamaran, with its much shorter trip across the protected Bay of Fundy, was forced to cancel, but the larger monohulled *M/S Scotia Prince* sailed, arriving and departing Yarmouth on time.

Meanwhile, travel to Nova Scotia from the U.S. was down, too. By the end of 2003, the province had 20 percent fewer visitors from the previous year, although Scotia Prince Cruises increased its share of the market. Despite the slump in 2003, the efficiencies brought in by Hudson earned the company a profit and new capital investment continued. The tough market conditions continued into early 2004 but then picked up. By August, sales were excellent.



By summer 2004, Hudson knew that the problem with his management team wasn't just that they were "losing their touch" or "getting old." There was something *wrong*. He suspected that the mysterious respiratory illnesses, chronic fatigue, unusual joint complaints and the cognitive problems his management team suffered from might *all* be related to exposure to the indoor air of the terminal building.

Hudson had definitively noticed that his own health was deteriorating as well. He was out of breath, he wasn't sleeping well, he was chronically thirsty, and most troubling of all, he was forgetting little things that he had in mind only moments before, and he wasn't finding words that he'd always known. And that bizarre taste! For a man whose wife is a fantastic cook, having everything taste like he was sucking on copper pennies was a real setback.

He was receiving regular medical care from some of America's finest physicians: nothing had changed in his life except where he lived and worked. Nothing on his short list of medical problems explained the deterioration.

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By this time, every senior manager was ill or acting strangely. Bob Schrader got lost driving to the office in Portland from his home in New Hampshire. John Hamill was irritable and forgetful, always achy and tired. So were all the others who worked inside. The crew on the ship was fine, and everyone else who had never worked in the terminal building was well.

One of the port crew, a rock singer well-known locally, became ill working in the warehouse and couldn't sing well or even breathe normally. He was hospitalized for a pneumonia-like illness, though no diagnosis was made. Being away from the terminal and the wharf helped, but his symptoms re-emerged when he returned to work.

Meanwhile, Hudson's plan to be a "non-executive" had fallen completely by the wayside. He again stepped into the role of hands-on CEO, because all of his senior staff seemed to be suffering from a slow mental and physical deterioration.

The loss of people had been going on for a year. Port Captain Jay Frye had abruptly retired in June 2003 after "severe arthritis" made it impossible for him to work. Jay's job for twenty-five years was simple: he was responsible for everything regarding the ship in port and her highly choreographed 60-minute turnaround—twice a day, every day, May to October. If you needed to know about anything and everything operational, the answer was, "Ask Jay." He was there night and day.

Since he'd signed on with the Scotia Prince in 1978, he'd kept himself in top physical condition, but in the fall of 1997, both knees suddenly swelled up like balloons. By November, arthroscopic surgery was necessary; surgeons found massive inflammation, but no structural problems.

But the building had been the cause of health problems before. Jay's wife, Sadie Anne, an employee of the Nova Scotia government's Tourism Department, worked in the terminal building from 1995–2003. That same winter of 1997–1998 that Jay suffered from inflamed knees, she and Jay suffered through terrible

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sinus problems. Like Jay, Sadie Anne was hard-working; she worked until two days before her daughter was born at the end of June 1998. Following her summer maternity leave, though, she felt better.

Her symptoms returned within days of her return to work in the terminal building in October 1998. In those days, no one thought the building could make anyone sick. Back then, they'd have been shocked to find that it was mold illness that started to slow both Jay and Sadie Anne down, that eventually led to Jay taking early retirement in 2003. As we now know the inflammatory arthritis that finally defeated him was *caused* by exposure to mold.

By the summer of 2004, Hudson had fully realized that quite a few others were suffering health problems or acting oddly and unlike themselves: for example, Hudson's vice president of hotel operations stopped returning calls or acknowledging emails. Another vice president exhibited irrational personal and work-related behavior, then suddenly resigned, and the company's trustworthy, reliable and hard-working director of reservations began to suffer from terrible headaches and often had to work from home.

When Hudson sent three of his senior managers for sleep apnea testing because they seemed like zombies, all three were diagnosed with the condition, which causes the body to stop breathing as many as hundreds of times each hour. That was strange because none had the obesity and extra soft tissue in the neck that would lead to obstruction of air inflow while sleeping.

What was behind all these weird illnesses? Was something was going on in the building? What was the unifying factor? Professor Hudson began to do some research online.

In August, the company celebrated when the ship passed its latest semi-annual inspection by the Centers for Disease Control and Prevention (CDC) with flying colors—of a possible 96 points, the ship and its crew scored a perfect 96. In fact, the ship's CDC

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scores had increased steadily since the Hudsons had bought the company in 2000. The perfect result was the highest in the company's history.

How could it be? The ship's staff was perfect, but those who worked in the terminal were falling apart.



When Hudson began to read about Sick Building Syndrome, the symptoms exactly matched those of his co-workers. How could he have missed such an obvious group of clues? Why didn't he see what was right in front of him?

Finally, he saw the obvious: many previously well people exposed to a building with longstanding water intrusion were ill, but the others in the company who didn't have the same exposure were not ill.

The reality of the possible source of the illness shocked him. Mold! Could the terminal building contain molds that can cause immunosuppression, cancer and all the rest? And what about that Maryland doctor who said molds activated the innate immune response inappropriately? If the building had molds—and it seemed so obvious now that it did—was this mold *the* threat that caused chronic fatigue and all of the other symptoms that plagued his staff and his company?

Who could confirm what he suspected? He asked John Hamill to hire an environmental consultant. A technician came and found significant amounts of mold in the building in both air and bulk samples. The numbers were astonishing: they showed high levels of toxin-forming fungi growing throughout Scotia Prince Cruises' sections of the building.

When Hudson read more online about what amplified mold growth could do to people, his heart sank. He saw clearly why his senior staff had mysteriously turned into people who were in such a fog some days that they could barely tie their own shoes.

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He couldn't sit still and do nothing. Mold was taking from him his most precious business resource, his friends and co-workers.

What he did, and what Bishop May did, needs to be done by anyone who confronts mold growing in water-damaged buildings.

The next morning, Monday, Aug. 23, Bob Schrader delivered copies of the lab results to the mayor and city manager of Portland. John Hamill had already closed Scotia Prince Cruises' portions of the building, although the city kept open the parts used by federal agency employees and the passengers being processed inbound. In fact, as I write this epilogue in mid-January 2005, they've never closed those areas. Attempted remediation? Yes. Cross-contaminated? Undoubtedly, and re-contaminated them too. But closed them? No.

John Hamill was experienced at emergency operations. Some years ago, when he was facilities manager at Miami International Airport when Hurricane Andrew hit, he'd been in charge of getting the airport working again almost overnight. So it was no surprise that by that same afternoon, he had tents set up in the parking lot adjacent to the terminal building. Scotia Prince Cruises removed all of their employees from the building, refused to let the public use it and immediately began operating out of the tents, processing passengers and vehicles there from Aug. 23, 2004 until the end of their season in late October.

Hudson needed good advice about mold quickly. He hired the most knowledgeable mold experts in the U.S., including Dr. Richard Lipsey of Florida. Environmental technicians gathered more samples, which were sent to a top-flight laboratory to evaluate.

Dr. Lipsey quickly told Hudson that the spore counts were dangerously high to people and that the directive to keep an unsuspecting public as well as his staff out of the building was the right decision. To make sure, Hudson brought in other internationally known experts for second and third opinions; the

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existence and the seriousness of the mold problem was confirmed by each.

No one was happy about operating from the tents in parking lot in a post-9/11 international travel era. But was there any other way to safely do business? Hudson had a brand to protect, a company to keep afloat—literally and figuratively—and employees who needed him to make the right decision. And what about the thousands of tourists who'd made reservations and who were counting on the *M/S Scotia Prince* in 2004? Hudson simply couldn't let anyone down.

Armed with irrefutable evidence, from August 23 on, Professor Hudson repeatedly gave copies of his growing sheaf of reports to city officials. "The premises aren't safe," he told them. "Please fix them, *now*."

Instead of saying what readers know *should* have been said, the city began the maddening "deny-and-obscure" dance we've seen all too often in *Mold Warriors*.

On Aug. 23, the city's port director told two Scotia Prince execs that they were "overreacting." On Sept. 1, a city official said in a press release that they'd "concluded that the public waiting areas at the terminal were safe for public use," and that "the results of testing in the portions of the building used by U.S. Customs, Immigration and Border Patrol indicated that levels of mold were low in these areas."

"Low." What did that mean? Did that mean only mold-susceptible patients—a whopping 24 percent of the population—would be sickened by being exposed to that level of toxigenic fungi? Somehow, Hudson wasn't reassured by the public relations spin.

On Sept. 17, the city's position shifted a bit; a city representative told the media, "We don't believe there are any air quality concerns over there," but admitted that, "there had been water damage from the (heating and air conditioning) system." Furthermore, the city intended to make repairs that included "replacing

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damaged carpeting, walls and ceilings, and should be completed next week.”

In that same media release, city officials said, “they still believe Scotia Prince Cruises is overstating the threat posed by mold” and that the city “still believes passengers could safely use the building.”

You haven’t heard the whole bizarre story yet.

Curiously, on Sept. 25, 2004, City Manager Joseph Gray ordered the terminal closed after an engineering report showed its western end could collapse from a moderate seismic event, an intense snow load on the roof or a significant wind storm. He said in a written statement, “I have taken this extraordinary measure because it is imperative that no one be at risk of any injury using any city facility.”

Three days later, an assistant city manager said, “The building, or at least part of it, could be safe to occupy again within a week.”

“Based on what data is the building shown to be safe?” ask Mold Warriors. And naturally, silence is the only answer.

Things are no different in Portland, Maine than in Hampton Bays, N.Y., or Accomack County, Va. If the public doesn’t cry out in protest over the blatant blarney, then the administration can sweep the problem away, under their spore-laden rugs.

The Scotia Prince operational season mercifully came to a close in late October 2004; senior Portland staff finally had a little time off to pull themselves together. A local Portland newspaper reported “a steep drop in ridership,” and said that “the potential for new competition and its aging home on the Portland waterfront had tested” Scotia Prince Cruises, and that the business would “end its season with questions about the future of its market and its business.”

Did anyone besides Hudson question the possibility of long-term effects on his staff that the mold exposure might have on

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their future health, their ability to work as they had before or even, in Jay's case, to work at all?

(Author's note: As of mid-January 2005 the Sept. 17, 2004 promise from Portland officials that "repairs ... should be completed next week" hasn't happened. Scotia Prince Cruises still has no building and no idea if it can sail in 2005. By now it should have been into its third month of marketing this season. If the city turned over *safe* facilities today, the company would be five months behind in preparing for a six-month season.)



The last insult was when Hudson's son Mark, a new father himself, developed strange, serious, unexplained illnesses, after he began to spend time in the terminal building, including leakage of cerebral spinal fluid without any known cause.

When Mark's mold evaluation labs came back in November 2004, showing abnormally high MMP9, ADH, and ACTH, very low VEGF and MSH too low to measure, his father was upset. Like Carol Anderson's horror about *causing* her daughter's illness by bringing her into the Ritz Carlton, Matthew Hudson was deeply troubled about having brought his son into a situation that made him very ill.

City officials wrote to Scotia Prince Cruises that same month to tell them they planned to immediately demolish most of the company's leased premises—not because of mold or bird guano, but because the *roof was unsafe*. The "safe" public areas would continue to be remediated. In December 2004, city contractors started to remediate the "safe" federal areas, and they're still doing that work a month later, as I write this.



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After consulting with Dr. Lipsey and other mold experts, Hudson realized he needed an East Coast treating physician. The Professor took recommendations from his experts, and then he asked for my credentials. Shortly after an involved internal decision-making process, he decided to send a group of his staff to Pocomoke for my complete evaluation in early November. That group included Jay and Sadie Anne Frye, Bob Schrader, John Hamill, Mark Hudson and nine other Scotia Prince workers.

The Fryes, Bob Schrader and John Hamill were key figures in unraveling the mold illness caused by exposure to the terminal building.

Before the first group arrived in Pocomoke, November 5, 2004, Hudson told me, “I don’t care what it takes or what it costs; I want our folks returned to health. If mold exposure isn’t their issue, tell me. If it is, tell me what to do to correct the health problems. If you can prescribe therapies that will help, let’s begin treatment right away.”

Let’s face it: I didn’t expect the health histories of the fourteen terminal building patients to be any different from any other group of mold illness sufferers. Regardless of the source or the identified species of mold, the illness is virtually identical in genetically susceptible, primed and exposed people. Whether it’s massive amounts of *Stachybotrys*, or just enough *Aspergillus* garnished with *Penicillium* to cause a primed mold patient to react, the illness involves toxins, cytokines, hormones, growth factors, autoantibodies, opportunistic, colonizing bacteria and abnormalities in the innate immune response.

Although this group had a presentation typical of mold illness, they were different in an important way. In every group, there’s always someone who *isn’t* sick, and the majority usually don’t have mold-susceptible genes. Not this group ...

And mold illness follows the same principles in all its victims; the illness *isn’t dose-related*. In a typical group, there will be a distribution of illness that matches their genotypes. My examinations

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of each of the Scotia Prince workers showed the same absence of other possible causes and the same twenty total symptoms, on average, that I see in countless other cohorts of mold-sickened patients. *But all of them were ill!*

Curiously, a couple of the workers (including the Professor) had a normal visual contrast test, despite plenty of symptoms. But overall, based on what I saw, I expected their labs to hold no surprises. They would be run-of-the mill mold patients' results.

But there were *nine* surprises:

1. the highest percentage of workers with genetic susceptibility to mold from any one building cohort I've seen since I started my biotoxin work in 1997;
2. the highest average MMP9 in any cohort;
3. the highest C3a, (over *10,000*), in the more than 800 sick people in our C3a database (normal is less than 146) and a level of 500 is alarming;
4. the highest osmolality;
5. the highest interleukin-1-beta;
6. the worst elevation of ADH and ...
7. ACTH (and both in one person!);
8. the highest VEGF (which means the *worst* VEGF-resistance!) and
9. the lowest erythropoietin, undetectable.

And these were the abnormal lab results from people who worked in a building that City of Portland officials called "safe." I wonder what they'd consider "dangerous?" Don't put my friends in there!

There was another baffling problem. If the design and construction of the walls of the terminal were the only cause of the mold growth, we might expect the illness to be very longstanding—twenty years or more. But it wasn't.

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Why didn't Jay get sick until 1997? He'd worked countless hours in that building since 1978. Sadie, too; she'd worked for Nova Scotia Tourism since 1995. Of course, they'd blamed most of her difficulties on pregnancy, then on having the baby, then on being the mother of a young child. And the work that had piled up in her absence stressed her, too.

Interrupted sleep was expected for a new mother, so of course she'd be tired. No one asked about her light sensitivity and shortness of breath? Well, hadn't she gained, "just a few pounds?" Surely, the weight gain was the cause, right? But after both Fries left the terminal building in summer 2003 their symptoms didn't go away. In November 2004, both had sky-high MMP9, with Jay's VEGF level world class.

What had happened in 1997?



The first symptoms of the mold illness seemed to suddenly appear in summer/fall 1997. What was new then?

The bridge! That was when the State of Maine drove pilings right next to the terminal building to build the new Casco Bay Bridge. When they were driving in those pilings, the building and the ground it was on shook so badly that the soils under the building caved in. The "floating" structural floor slab of steel and concrete broke, and one end of the building slumped almost a foot. After that, water came up from below the floor every time it rained.

During his medical evaluation in November 2004, Jay remembered clearly when the work crew had arrived from Rhode Island that summer. They'd drilled holes in the structural slab and sprayed foam grout to attempt to fill the new voids that had appeared under the floor, hoping to correct some of the structural engineering and water-intrusion problems that appeared after the pilings were installed.

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But the Rhode Island contractors never fixed the gaps in the floor, except where the foam might have filled in. And no one fixed the roof. The mold in the walls, now “shaken and stirred” from their wall cavity, released their mycotoxins and their spores almost as if they were sending a shower of yellow rain into the HVAC system. In late spring 1997, suddenly everything changed invisibly, as trillions of chemical nano-bombs, spread by the HVAC, colonized the newly moist areas and attacked anyone near them.



“Dr. Shoemaker,” Hudson asked me, “How can we scientifically confirm that the terminal building made us sick? My Internet reading tells me that the Environmental Protection Agency considers a facility to have Sick Building Syndrome when 20 percent of the people have symptoms. But almost *all* of our people do. Your work shows that 25 percent of the adult population will be susceptible to mold. Yet our group is full of what you call the ‘dreaded genotypes,’ and mold-susceptible genotypes dominate the rest. Why is our group full of these particular genotypes?”

“Professor,” I replied, “You hired these folks and you didn’t know their genotypes. The fact that they’re all susceptible must be a coincidence. I don’t know of any link between mold-susceptible genotypes and work groups. So I can’t comment on *why* all but one of your workers has susceptible genotypes. But now that we know your staff is highly susceptible, exposed and ill, you need to know how to approach mold illness.”

I recommended that the group try the repetitive exposure protocol, duplicating causation, as we’ve shown in hundreds of patients and hundreds of buildings before.

“Let several of your employees improve with treatment, then show they are still well after they stop cholestyramine (CSM), but are away from the building,” I suggested. “Then allow them to

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go back into harm's way, by going back into the terminal. Since there's certainly risk, maybe just John Hamill and Bob Schrader should become test subjects, after providing informed consent, of course. If they agree (Author's Note: they did), then after they're healed with CSM, and not ill anywhere else off CSM, send them into the facility without CSM for three days. Watch them become ill within hours after they go back into the building, and re-test them in three days to prove the mold and the indoor air is causing the illness. The symptoms will recur, visual contrast scores will fall and the repeat labs will confirm what you know to be true. Then we fix the illness again."

I could feel the Professor thinking faster now.

"What about the cognitive issues?" Hudson asked. "John, our President; Bob, our general counsel; and my son Mark—I know their mental capabilities have become degraded because I deal with them every day. I catch their mistakes often but I'm certain I don't catch them all. They know it and I know it—and as I've recently discovered—some professionals they each deal with outside the company know it, too. But the deficits can be so subtle, who else is going to believe they're mentally damaged?"

"Professor, the cognitive issues in your workers are no different from mold exposure than with *Pfiesteria*," I assured him. "Whether the patient is a high-school dropout or a fully accredited academic researcher, biotoxin illnesses cause measurable deficits in formal neurocognitive functioning."

"Well, then" he decided, "We'll have both John and Bob get neurocognitive testing before and after exposure, like the kind you mentioned in *Pfiesteria: Crossing Dark Water*."

"Matthew, no one has ever done hyperacute neurocognitive testing that quickly," I pointed out. "The tests can take up to ten hours. There's no way you can arrange for the same testing in one facility to be done twice in five days on the same two people. I'd worry that the patients might be able to learn how to do better from test day one to test day two. Wait a minute, let's think

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this out. OK, these guys aren't normal. They're *neurotoxic*. They *won't be able to* learn and assimilate.”

That might have sounded like a challenge, but it wasn't. We'd been able to show neurocognitive *improvement* with therapy in few patients previously after treatment, but no one had never tried to show *loss* of faculties based on just three days of re-exposure because of the technical difficulties involved in getting the testing done. I had no proof that we could show measurable cognitive deficits in just three days, even though I see the problem constantly. If Hudson could get the tests done, proving rapid worsening in neurocognitive testing, well, we might make some neurotoxin history here.



Hudson developed a unique plan for his two senior managers. After their baseline studies were completed in Pocomoke, they would finish their first three-week treatment with cholestyramine (CSM), record symptoms and have more labs done. Then they'd stay away from the terminal—a known source of exposure to toxicogenic elements—and stay off CSM for about seven days. A normal life without toxin-binding medicine! Then they would go to Maine, do the labs again and take the neurocognitive tests. Quest Labs in Maine, New Hampshire and Florida all agreed to send the samples to the Quest Lab in Baltimore, Md., where Dr. Bill Meyer has set up an efficient series of labs for biotoxin patients.*

*Thus Baseline first assessment; then CSM for 3 weeks, then second assessment labs; then 7 days normal—no CSM no exposure to the IMT; then third assessment labs and first neurocognitive evaluation; then still no CSM & into the IMT for 3 days in December; then immediately second neurocognitive and fourth assessment labs followed by CSM and ongoing treatment to resolve the secondary and tertiary effects of the poisons that had been in their systems since originally going to work in the IMT.

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Finally, these two volunteers would go into the deserted terminal building for three days, noting any symptoms and taking the proverbial “hostage-with-newspaper” pictures of each other to prove they were there, then they would have neurocognitive tests done again and immediately go to Pocomoke for repeat testing and treatment.

Hudson had insisted the logistics of the protocol could work, and *they did*. In the end, he and I had data that no one in the world had. The repetitive exposure protocol worked well, as it always does. An extensive set of labs confirmed what I predicted. And the neurocognitive tests were thick icing on the proof—the terminal building had made those people sick.

Imagine proving prospectively that an excellent brain was *turned into mush* in three days by breathing the air in a moldy building! The next time a mold defense apologist says, “OK, we concede that *maybe* mold can cause some sniffles and a cough,” I’ll ask him if he would be so kind as to read a neurocognitive report. After reading what happened to Bob, I’ll bet he’s more likely to concede some more.

Three weeks of CSM started to make John Hamill and Bob Schrader better. Without CSM and without the building, they were improved and stable. Put back into the terminal, they both had a return of symptoms almost immediately. Not to mention the mush brains.

Professor Hudson had commissioned a team of health professionals from all over the East Coast to put together medical data that proved one thing: Portland’s International Marine Terminal made people sick, took away their higher-level brain functions and damaged the innate immune response system. I have the data, the Professor has the proof, and now the sacrificial story has been told.



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Now we need to work on healing John Hamill, Bob Schrader and the rest of the Maine cohort. We need to start the outreach process to other tenants of the terminal and to current and former employees, too. Hundreds, maybe thousands of federal employees have breathed in whatever bioaerosols were in the air inside that building for the past 35 years. Who knows how many people have been exposed overall?

Will the government of Nova Scotia cooperate to protect its employees? Quite a few were exposed since 1997. What about Customs and Border Protection staff? Scotia Prince Cruises warned the customs employees on several occasions, but in September 2004 city officials told them their premises were “safe,” so they continued to occupy the building.

Mold illness isn't benign; denying it exists or ignoring its health effects threatens all of us in ways we might not suspect.

As I write this epilogue in mid-January 2005, the same landlord has been undertaking a “remediation” project since December in those “safe” Customs and Border Protection premises. From the reports given to me, the effort seems poorly designed, doesn't deal with water intrusion and is already causing cross-contamination. Maybe just telling this story will spur people to demand that they receive due medical process. Returning their health may be the first step in resolving the legal issues as well.

Although Matthew Hudson acted with extraordinary speed and efficiency to protect his people and his clients, and he even tried several times to protect federal employees who work in the same building, sadly, some of his group of 14 have the dreaded multiple-susceptibility genotypes; it might be too late for them to return to a full, normal life. And although many of the Scotia Prince senior staff members have improved after taking CSM, they certainly have a marked increase in the potential for future illness from mold exposure, solely caused by the terminal building.

They're “primed.”

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Maybe we'll receive the funding we need to satisfy the FDA that MSH replacement is safe and effective. I hope MSH research will be completed when the Maine cohort needs more help, as I believe they will.

And the City of Portland cannot plead ignorance of mold issues: they knew about Stachy, as they'd demolished a local school, Jack Elementary, in 2000 because of its "bad roof" (not to mention aerosolized Stachy at a reported 100 colonies per cubic meter inside the building.) The terminal building had an aerosolized Stachy count of 5,436 colonies per cubic meter! Bulk samples taken from one of the "safe" *public waiting rooms* had:

Stachybotrys 4.5 million colony forming units per gram (CFU/g);

Acremonium strictum of 2.1 million CFU/g;

Aspergillus sydowii 2.2 million CFU/g;

Aspergillus versicolor 2.2 million CFU/g; and

Penicillium chrysogenum 1.2 million CFU/g.

These weren't the only molds in the public areas, but they're all toxigenic. In all, Scotia Prince Cruises testing showed more than 35 different molds in the terminal building plus bacteria and their toxins—every one of them capable of causing adverse human health effects. The word toxigenic can sound empty, as sampling is too expensive and can be subject to technical errors if the lab isn't first rate. Hudson had PK Jarvis look for toxins in the public areas, the "*safe parts*" of the building. They found massive amounts of *ten* different fungal toxins!

What about those Scotia Prince officers and managers who won't make a 100 percent recovery, despite everything that we do for them? Will they ever again be able to work in such a responsible, high-level managerial capacity?

How about John Hamill and his high PAI-1 and MMP9? Will he become another David Selby, suffering a premature heart attack that someone else will incorrectly blame on donuts or sleep apnea? Or maybe he'll have an unusual neurologic event that's

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first called a stroke and then a seizure. I'm terribly afraid that we won't be able to reverse all of the abnormalities generated by the inflammatory response to mold toxins (among other biotoxins in the terminal), or be able to prevent the potential for innate immune response-generated heart attacks in the future.

What about Jay and Sadie Anne's daughter Bridgette, who often visited them at work? Or Tony's wife, Cheri, who used to wait in his office for an hour for a ride home each day and who now exhibits symptoms? Or Vinnie's baby daughter Mikayla, who played on the floor in his office? That office had a *Stachybotrys* airborne spore count *fifty-four times higher* than that of the now-demolished Jack School.

The ultimate victims of the terminal mold disaster are likely to be those who have already incurred pain, suffering and loss of quality of life. Some of them will not make complete recoveries, and all of them will be especially vulnerable to other environmental toxins for the rest of their lives.

It's likely that some of the visitors to the terminal with susceptible genotypes, even those traveling on a single occasion, will have been affected. Will any of the more than *one million* passengers since spring 1997 recognize the symptoms and take the Visual Contrast Sensitivity test on-line at <http://www.chronicneurotoxins.com>? What about the many repeat clients of Scotia Prince Cruises, some who travel 10 or more times each year? If they fail the VCS, will they want to pursue further the *source* of their health problems?

Professor Matthew Hudson became a Mold Warrior when he decided to protect his staff, the federal employees and the public, regardless of the cost to him professionally or personally. Early on, the landlord accused Hudson of making false claims in order to gain a financial advantage for his company. In fact, just as you would expect, although the company's sales had risen to become better than they'd been in years, after the mold was discovered, sales fell precipitously. It was only after Scotia Prince

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Cruises set up tents in the parking lot and asked its employees and the public to do business in them that the company took a financial hit.

Among the victims of this debacle also may well be the taxpayers and voters of Portland. The City Fathers were at best reckless and at worst negligent in not properly repairing the building in 1997, in not providing proper maintenance over the years, and in not responding with due diligence in August 2004 when Bob Schrader hand-delivered fungal lab results to the mayor at his law firm, as well as to the city manager and assistant city manager at City Hall.

Will the politicians or the taxpayers be held responsible for personal injury suffered at the terminal building?

And what about the 111,000 *Aspergillus-Penicillium* colonies per cubic meter in the *air* in the warehouse office? Not 100 like the Jack School—111,000! Will some of the women who worked at the International Marine Terminal building be unable to carry pregnancies to term or be unable to give birth to *healthy* children because of their exposure to mold in the terminal building?

When I think of the ignorance and the disregard for human health that the landlord showed by ignoring such a mold problem, and the potential to harm tens of thousands, including children and the unborn, I'm angry, incredulous, speechless.

This book will have to do the speaking for me, for the Maine cohort, and for the millions of other mold victims who are out there suffering and praying for things to change.



