

3 September 2011

**Subject: Use of Path-Away™ Anti-Pathogenic Solution in a medical setting.**

The following examples are representative of how effective Path-Away™ Anti-Pathogenic Solution is when used as a means of reducing and/or eliminating pathogens.

Example #1 is a very large medical clinic located in Houston, Texas, USA. There was an incidence of secondary infections to patients reported by staff. An investigation by the medical facility engineering and infection control staff could not identify a causal agent or agents. The infection rate continued to climb unabated and we were brought in to identify, quantify and structure a protocol to fix the problem.

Example #2 is a premier dental clinic located in Savannah, Georgia, USA. The situation was similar to that of the Houston Health Clinic in that nobody had been able to identify and quantify a causal agent or agent responsible for a rise in patient secondary infections. We were tasked with solving the issue.

Example #3 is a hospital owned Dialysis Center. Dialysis patients are already immune compromised and the presence of any pathogens can have a critical impact on the survivability of the patient. No apparent causal agent could be found here. Through the investigative techniques of The M3 System™ approach not only were pathogens identified and quantified but also eliminated bringing a safe secure environment to patients as well as staff and visitors.

In both situations our investigative M3 System Program™ was able to not only identify and quantify the pathogens and their sources but we were able to construct a site specific protocol to deal with the problem. In each situation a specialty contractor was brought in with our guidance and supervision and oversight to rectify the issues. In both situations the use of Path-Away™ Anti-Pathogenic Solution was instrumental in eliminating or significant reducing the incidence of pathogenic contaminants and in bringing the rate of secondary infection under control back to acceptable levels.

Path-Away™ Anti Pathogenic Solution is a broad spectrum anti-pathogenic solution derived from natural sources with no added chemicals, drugs or alcohol. It is synthesized from all naturally occurring substances. It is an extremely potent and effective anti-pathogen that acts as a bactericide, fungicide, anti-viral and anti-parasitic compound. Path-Away™ Anti Pathogenic Solution is environmentally safe with extremely low toxicity to humans, plants, animals and the environment. Path-Away™ Anti Pathogenic Solution extract is a powerful anti-microbial that is presently the natural prophylactic with the broadest spectrum action against diseases that attack animals and plants. It can be utilized as a safe and friendly disinfectant on hard and porous surfaces as well as in the air you breathe.

The shelf life of path-away is 5 years and is ecologically safe. Path-Away™ Anti Pathogenic Solution has been proven to be effective against 150+ fungi, bacteria yeasts and viruses.

Path-Away™ Anti Pathogenic Solution extract is a powerful anti-microbial that is presently the natural prophylactic with the broadest spectrum action against diseases that attack humans, animals and plants. Path-Away™ Anti Pathogenic Solution is biodegradable according to the “Standard Test Methods for Determining the Anaerobic Biodegradation Potential of Organic Chemicals”, ASTM Standards, Section 11, Water and Environmental Technology, Procedure E 1196-2, pp. 879-901, 1993 even though it contains no added chemicals.

Sufficient experimentation has been completed to conclude that Path-Away™ Anti-Pathogenic Solution exhibits two primary effects upon selected microorganisms. These are: (1) an alteration of the cell membrane with inhibition of cellular respiration and (2) a dose-dependent inhibition of cellular respiration. This latter effect results in moderate growth of the microorganisms and a biocidal activity with higher levels of Path-Away™ Anti-Pathogenic Solution. This biocidal activity is related to specific effects upon the cell membrane that may influence permeability. The more sensitive effect is the inhibition of cell respiration. Determination of the "mechanism of action" of any material in a microbial system is a formidable chore. This work demonstrates two "primary effects," however, with additional research, other effects may be determined. Do not consider this work to be terminal in the quest for a "mechanism of action" for this material. No attempt was made in our studies to differentiate the actions of any single component in Path-Away™ Anti-Pathogenic Solution from the supplied intact product. All studies were approached from the view point of Path-Away™ Anti-Pathogenic Solution representing a product and all work was done on the product. The primary original test organisms used in these studies included: Salmonella spp., E. coli, Listeria monocytogenes, Candida albicans, Aspergillus parasiticus and Penicillium cyclopium but this experimentation was expanded to the attached list.

*Arthur V. Martin*

Arthur V. Martin  
President and Principal Research Scientist

## Houston Health Clinic Air Sample Pre-Treatment

Client: Arthur V. Martin Associates  
C/O: Mr. Arthur Martin  
Re: Houston Health Care

Environmental Microbiology Laboratory, Inc.  
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066  
(650) 829-5800 Fax (650) 829-5852 www.emlab.com

Date of Sampling: 01-21-2005  
Date of Receipt: 01-25-2005  
Date of Report: 01-27-2005

### SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	7836006: Outdoor air		7835951: Physicians lounge		7835946: A/C unit		7836011: Adjacent to file room		7836005: Hallway	
Comments (see below)	None		None		None		None		None	
Lab ID-Version†:	572295-1		572296-1		572297-1		572298-1		572299-1	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria										
Arthrinium										
Ascospores*	4	53			48	640	255	3,400		
Ascotricha									10,416	139,000
Aureobasidium										
Basidiospores*	8	107			24	320	85	1,130	24	320
Bipolaris/Drechslera group										
Botrytis										
Chaetomium					1	13				
Cladosporium	4	53	96	1,280	72	960	170	2,270	48	640
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Other brown			2	27			2	27		
Other colorless										
Penicillium/Aspergillus types†	4	53	144,528	1,930,000	25,512	340,000	2,210,000	29,500,000	53,616	715,000
Pithomyces										
Rusts*										
Scopulariopsis			19,344	258,000	8,472	113,000	274,890	3,670,000	6,144	81,900
Smuts*, Periconia, Myxomycetes*							1	13		
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Unknown										
Zygomycetes										
Background debris (1-4+)††	2+		4+		3+		> 4+		4+	
Sample volume (liters)	75		75		75		75		75	
<b>TOTAL SPORES/M3</b>		<b>266</b>		<b>2,189,307</b>		<b>454,933</b>		<b>33,176,840</b>		<b>936,860</b>

**Comments:**

\* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.  
 † The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
 †† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.  
 ‡ A "Version" greater than 1 indicates amended data.

The pre-treatment sample was collected to baseline the bioaerosol content in the facility in various sections and locations. The HVAC unit was investigated as part of The M3 System™ process. Reservoirs of pathogen growth will sporulate on a continuous basis. These spores, while gravimetrically light will in fact be entrained in the buildings air supply. A typical HVAC unit turns over the entire interior air volume 8-10 times per hour. The HVAC unit becomes the pathway to pollution by spreading the pathogens throughout the conditioned space. The typical adult will breathe approximately 25,000 cubic meters of air per day so this part of the investigative process is critical. The issue with most pathogenic environmental contamination is that the majority of infection control professionals do not fully understand the link between the problem and the HVAC system. It is an absolute part of The M3 System™ investigative process to include this vital component.

The pre-treatment assessment identified numerous pathogenic bioaerosols. The most significant numbers were identified as being *Ascotrichia*, *Aspergillus*, *Penicillium* and *Scopulariopsis*. Some levels exceeded 29,000,000 spores per cubic meter of respirable air supply.

### **Houston Health Clinic Air Sample Post-Treatment**

The facility was HEPA vacuumed on all surfaces. The HVAC system went through a multi-point systematic decontamination process. Actual contaminant reservoirs were removed. The application of Path-Away™ Anti-Pathogenic Solution was done under the supervision of our staff.

The results proving the efficacy of Path-Away™ Anti-Pathogenic Solution are evident in the post-application testing results as shown below. Nearly all previous pathogens were completely eliminated and a few remained at levels so low as to be insignificant.

It is important to note that the post application testing was conducted approximately 30 days after the project was completed. The project took a while due to the bureaucratic and budgeting process.

Client: Arthur V. Martin Associates  
C/O: Mr. Kevin Martin  
Re: Houston

**Environmental Microbiology Laboratory, Inc.**  
1150 Bayhill Drive, Suite 100, San Bruno, CA 94066  
(650) 829-5800 Fax (650) 829-5852 www.emlab.com  
Date of Sampling: 06-28-2005  
Date of Receipt: 06-30-2005  
Date of Report: 07-05-2005

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	9490195: Outdoor		9505584: Indoor main	
Comments (see below)	None		A	
Lab ID-Version‡:	694388-1		694389-1	
	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria				
Arthrinium				
Ascospores*	20	267		
Aureobasidium				
Basidiospores*	84	1,120		
Bipolaris/Drechslera group	1	13		
Botrytis				
Chaetomium				
Cladosporium	52	693		
Curvularia	6	80	1	22
Epicoccum				
Fusarium	2	27		
Myrothecium				
Nigrospora				
Other brown	1	13		
Other colorless	1	13		
Penicillium/Aspergillus types†	12	160	30	667
Pithomyces	4	53		
Rusts*	1	13		
Smuts*, Periconia, Myxomycetes*	2	27		
Stachybotrys			1	22
Stemphylium				
Torula	1	13		
Ulocladium				
Unknown				
Zygomycetes				
Background debris (1-4+)††	2+		2+	
Sample volume (liters)	75		45	
<b>TOTAL SPORES/M3</b>		<b>2,492</b>		<b>711</b>

Comments: A) 26 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

\* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.  
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels. The minimum reporting limit is based on a raw count of one, which the lowest count that can be detected.  
‡ A "Version" greater than 1 indicates amended data.

## Sheridan Dental Clinic Air Sample Pre-Treatment

		<b>EMLab P&amp;K</b>					
		1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com					
Client: Arthur V. Martin Associates		Date of Sampling: 09-08-2007					
C/O: Mr. Arthur Martin		Date of Receipt: 09-11-2007					
Re: Dr Sheridan Bldg		Date of Report: 09-12-2007					
<b>SPORE TRAP REPORT: NON-VIABLE METHODOLOGY</b>							
Location:	12776585: Outdoor air		12776577: Sheridan office		12776566: Vacant office		
Comments (see below)	None		None		None		
Lab ID-Version‡:	1462980-1		1462981-1		1462982-1		
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Alternaria							
Arthrinium							
Ascospores*	1	53					
Aureobasidium							
Basidiospores*	1	53			1	53	
Bipolaris/Drechslera group							
Botrytis							
Chaetomium							
Cladosporium	4	213	2	107	3	160	
Curvularia	1	13			1	13	
Epicoccum							
Fusarium							
Myrothecium							
Nigrospora	1	13					
Other colorless							
Penicillium/Aspergillus types†	1	53	14	747	4,342	5,790,000	
Pithomyces							
Rusts*							
Smuts*, Periconia, Myxomycetes*			1	13			
Stachybotrys							
Stemphylium							
Torula							
Ulocladium							
Unknown							
Zygomycetes							
Background debris (1-4+)††	1+		2+		2+		
Hyphal fragments/m3	<13		13		<13		
Pollen/m3	<13		<13		13		
Skin cells (1-4+)	None		1+		1+		
Sample volume (liters)	75		75		75		
<b>TOTAL SPORE/m3</b>		<b>398</b>		<b>867</b>		<b>5,790,226</b>	
<b>Comments:</b>							

\* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.  
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paeclomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.  
†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels.  
When detected, the minimum detection and reporting limit is a raw count of 1. The minimum detection value when multiplied by 1000 and divided by the sample volume collected provides the analytical sensitivity in counts/m3 for the sample analyzed.  
‡ A "Version" greater than 1 indicates amended data.

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The pre-treatment sample was collected to baseline the bioaerosol content in the facility in various sections and locations. The HVAC unit was investigated as part of The M3 System™ process. Reservoirs of pathogen growth will sporulate on a continuous basis. These spores, while gravimetrically light will in fact be entrained in the buildings air supply. A typical HVAC unit turns over the entire interior air volume 8-10 times per hour.

The HVAC unit becomes the pathway to pollution by spreading the pathogens throughout the conditioned space. The typical adult will breathe approximately 25,000 cubic meters of air per day so this part of the investigative process is critical. The issue with most pathogenic environmental contamination is that the majority of infection control professionals do not fully understand the link between the problem and the HVAC system. It is an absolute part of The M3 System™ investigative process to include this vital component.

A contaminated VAV box was found that had been missed during normal HVAC maintenance. The box was located above a vacant office that had suffered a water leak. Through The M3 System™ investigative process a section of wall cavity in the hallway was found to harbor a large colony of viable fungi. The wall cavity was open to the area above the dropped ceiling where the pathogens mixed with air entering the VAV box.

The facility was HEPA vacuumed on all surfaces. The HVAC system went through a multi- point systematic decontamination process. Actual contaminant reservoirs were removed. The application of Path-Away™ Anti-Pathogenic Solution was done under the supervision of our staff.

The results proving the efficacy of Path-Away™ Anti-Pathogenic Solution are evident in the post-application testing results as shown below. Nearly all previous pathogens were completely eliminated and a few remained at levels so low as to be insignificant.

Post testing was conducted approximately 30 days AFTER the remediation was completed and at the 30 day time period the efficacy of Path-Away™ Anti-Pathogenic Solution was still evident.

## Sheridan Dental Clinic Air Post Treatment

Client: Arthur V. Martin Associates C/O: Mr. Arthur Martin Re: Sheridan - clear		<b>EMLab P&amp;K</b> 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com Date of Sampling: 10-05-2007 Date of Receipt: 10-08-2007 Date of Report: 10-09-2007	
<b>SPORE TRAP REPORT: NON-VIABLE METHODOLOGY</b>			
Location:	12743648: Outdoor air	12743682: Indoor air	
Comments (see below)	None	None	
Lab ID-Version‡:	1510395-1	1510396-1	
	raw ct.	spores/m3	raw ct.
Alternaria			
Arthrinium			
Ascospores*	21	2,330	
Aureobasidium			
Basidiospores*	144	16,000	
Bipolaris/Drechslera group			
Botrytis	1	13	
Cercospora	1	13	
Chaetomium	10	133	2
Cladosporium	6	667	
Curvularia	2	27	
Epicoccum			
Fusarium			
Myrothecium			
Nigrospora	1	13	
Oidium	12	160	
Penicillium/Aspergillus types†	21	2,330	60
Pithomyces			
Rusts*			
Smuts*, Periconia, Myxomycetes*	2	27	1
Stachybotrys			
Stemphylium			
Torula			
Ulocladium			
Unknown			
Background debris (1-4+)††	2+		2+
Hyphal fragments/m3	< 13		13
Pollen/m3	40		< 13
Skin cells (1-4+)	< 1+		1+
Sample volume (liters)	75		75
<b>TOTAL SPORE/m3</b>		<b>21.713</b>	<b>3.240</b>
<b>Comments:</b>			
<p>* Most of these spore types are not seen with culturable methods (Andersen sampling), although some may appear as non-sporulating fungi. Most of the basidiospores are "mushroom" spores while the rusts and smuts are plant pathogens.</p> <p>† The spores of <i>Aspergillus</i> and <i>Penicillium</i> (and others such as <i>Acremonium</i>, <i>Paeclomyces</i>) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.</p> <p>†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be actually higher than reported. Background debris also affects the reporting limit for some spore types. The reporting limit is dependent on spore size, background debris, sample volume, and the percentage of the trace analyzed. It is important to account for sample volumes when evaluating dust levels.</p> <p>The Limit of Detection and Minimum Reporting Limit is a raw count of 1. The analytical sensitivity (counts/m3) is the product of the Limit of Detection and 1000 divided by the sample volume.</p> <p>‡ A "Version" greater than 1 indicates amended data.</p>			

## Sheridan Clinic Pre-Treatment Surface Samples

<p>Client: Arthur V. Martin Associates C/O: Mr. Arthur Martin Re: Dr Sheridan Bldg</p>	<p><b>EMLab P&amp;K</b> 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 <a href="http://www.emlab.com">www.emlab.com</a> Date of Sampling: 09-08-2007 Date of Receipt: 09-11-2007 Date of Report: 09-12-2007</p>			
<b>DIRECT MICROSCOPIC EXAMINATION REPORT</b>				
(Wet Mount)				
Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 1463155-1: Swab sample SW1: 1st room on left Moderate	Very few	3+ <i>Aspergillus</i> species	None	Mold growth
Lab ID-Version: 1463156-1: Swab sample SW2: At leak location Moderate	Few	4+ <i>Curvularia</i> species 2+ colorless spores typical of <i>Penicillium</i> / <i>Aspergillus</i>	None	Mold growth
Lab ID-Version: 1463157-1: Swab sample SW3: Front right room Moderate	Few	4+ <i>Aspergillus</i> species	None	Mold growth
Lab ID-Version: 1463158-1: Swab sample SW4: Reception area None	Very few	4+ <i>Aspergillus</i> species	None	Mold growth
Lab ID-Version: 1463159-1: Swab sample SW5: At cooler on wall Moderate	Few	4+ <i>Aspergillus</i> species 3+ <i>Chaetomium</i> species	None	Mold growth
Lab ID-Version: 1463160-1: Swab sample SW6: Ceiling tiles Moderate	Very few	4+ <i>Aspergillus</i> species	None	Mold growth

\* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

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These direct contact samples collected at various locations in the clinic verified that the spread of contaminants has affected surfaces where they had been allowed to land and grow.

These surfaces were also treated with an application of Path-Away™ Anti-Pathogenic Solution and the results of that application is shown below.

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
<b>EMLab P&amp;K</b> 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com				
Client: Arthur V. Martin Associates C/O: Mr. Arthur Martin Re: Sheridan - clear		Date of Sampling: 10-05-2007 Date of Receipt: 10-08-2007 Date of Report: 10-09-2007		
<b>DIRECT MICROSCOPIC EXAMINATION REPORT</b> (Wet Mount)				
Lab ID-Version†: 1510404-1: Swab sample SW 1: Reception Moderate	Very few	< 1+ colorless hyphae with no associated spores, ID unknown	None	Minimal mold growth
Lab ID-Version: 1510405-1: Swab sample SW 2: Left rear room Moderate	Very few	< 1+ colorless hyphae with no associated spores, ID unknown	None	Minimal mold growth
Lab ID-Version: 1510406-1: Swab sample SW 3: Entrance Moderate	Very few	< 1+ colorless hyphae with no associated spores, ID unknown	None	Minimal mold growth
Lab ID-Version: 1510407-1: Swab sample SW 4: Rear right room Moderate	Very few	< 1+ colorless hyphae with no associated spores, ID unknown	None	Minimal mold growth
Lab ID-Version: 1510408-1: Swab sample SW 5: Rear hallway Moderate	Very few	1+ <i>Penicillium</i> species	None	Mold growth
Lab ID-Version: 1510409-1: Swab sample SW 6: Laundry area Moderate	Very few	< 1+ colorless hyphae with no associated spores, ID unknown	None	Minimal mold growth
Lab ID-Version: 1510410-1: Swab sample SW 7: Left of rear door Heavy	Very few	1+ <i>Penicillium</i> species	None	Mold growth
Lab ID-Version: 1510411-1: Swab sample SW 8: Rear left inside door Moderate	Very few	< 1+ <i>Penicillium</i> species	None	Minimal mold growth
Lab ID-Version: 1510412-1: Swab sample SW 9: Mechanical room Moderate	Very few	< 1+ colorless hyphae with no associated spores, ID unknown	None	Minimal mold growth

## Hospital Dialysis Center Pre-Treatment Sampling:

Client: Arthur V. Martin Associates C/O: Mr. Arthur Martin Re: Dialysis Center		<b>EMLab P&amp;K</b> 1150 Bayhill Drive, Suite 100, San Bruno, CA 94066 (650) 829-5800 Fax (650) 829-5852 www.emlab.com Date of Sampling: 12-12-2007 Date of Receipt: 12-14-2007 Date of Report: 12-17-2007		
<b>DIRECT MICROSCOPIC EXAMINATION REPORT</b> (Wet Mount)				
Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 1618743-1: Swab sample SW-1: Insulated wall Moderate	Few	4+ <i>Chaetomium</i> species 3+ <i>Ulocladium</i> species 2+ <i>Memnoniella</i> species 2+ colorless spores typical of <i>Penicillium</i> / <i>Aspergillus</i>	None	Mold growth
Lab ID-Version: 1618744-1: Swab sample SW-2: Under wallpaper Moderate	Few	4+ <i>Chaetomium</i> species 1+ colorless spores typical of <i>Penicillium</i> / <i>Aspergillus</i>	None	Mold growth
Lab ID-Version: 1618745-1: Swab sample SW-3: Big wall #2 Moderate	Few	4+ <i>Memnoniella</i> species	None	Mold growth
Lab ID-Version: 1618746-1: Swab sample SW-4: Big wall #1 Moderate	Few	4+ <i>Memnoniella</i> species 2+ colorless spores typical of <i>Penicillium</i> / <i>Aspergillus</i>	None	Mold growth

\* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

Pre-treatment sampling indicated some high levels of several pathogenic fungi. The clinic had vinyl wall covering. Moisture retention under the wall covering allowed contamination growth in the wall cavities. The walls were constructed with aluminum framing open above the dropped ceiling level. Airborne spores were allowed to travel to the space above the ceiling where they mixed with air being circulated through the HVAC system and ending up in the breathing space where patients were undergoing dialysis.

A site specific M3 System™ protocol was devised and put in place immediately. The reduction of pathogens is noted in the second sampling taking place approximately 30 days later.

## Hospital Dialysis Center Post Treatment Sampling

<p>Client: Arthur V. Martin Associates C/O: Mr. Kevin Martin Re: Dialysis Center Clear</p>	<p><b>EMLab P&amp;K</b> 6301 NW 5th Way, Suite 2850, Ft. Lauderdale, FL 33309 (650) 829-5800 Fax (650) 829-5852 www.emlab.com</p> <p>Date of Sampling: 01-08-2008 Date of Receipt: 01-10-2008 Date of Report: 01-11-2008</p>			
<b>DIRECT MICROSCOPIC EXAMINATION REPORT</b>				
(Wet Mount)				
<b>Background Debris and/or Description</b>	<b>Miscellaneous Spores Present*</b>	<b>MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†</b>	<b>Other Comments††</b>	<b>General Impression</b>
Lab ID-Version‡: 1646897-1: Swab sample SW1: Studs 1				
Light	Very few	None	None	Normal trapping
Lab ID-Version: 1646898-1: Swab sample SW2: Studs 2				
Light	Very few	None	None	Normal trapping
Lab ID-Version: 1646899-1: Swab sample SW3: Studs 3				
Light	Very few	None	None	Normal trapping
Lab ID-Version: 1646900-1: Swab sample SW4: Studs 4				
Light	Very few	None	None	Normal trapping
Lab ID-Version: 1646901-1: Swab sample SW5: Studs 5				
Light	Very few	None	None	Normal trapping

\* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded 1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ A "Version" greater than 1 indicates amended data.

All samples tested negative for the presence of any residual pathogens after treatment with Path-Away™ Anti-Pathogenic Solution.

To see the full implications of airborne pathogenic bioaerosols and their impact on patient wellness copy the link below in your browser and view the presentation. You will have a fuller understanding of why it is so critical to conduct a proper assessment to prevent the spread of secondary infections in your facility.



<http://www.path-away.com/pdfs/HVAC%20SYNDROME.pdf>