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WELCOME to the latest news from the Aspergillus Trust. All members who have registered with the trust will receive this newsletter direct to their registered email account. You can change your options at: [www.aspergillustrust.org/updatedetails.asp](http://www.aspergillustrust.org/updatedetails.asp) if you no longer wish to receive newsletters direct to your inbox.

## Jillian Geary's Manchester to Blackpool bike ride

On Sunday 8th July 2007 Jillian Geary completed the Manchester to Blackpool bike ride to raise sponsorship for the Aspergillus Trust.



Here's a very happy Jillian after completing the bike ride ...it's amazing that she is still smiling after She had to cycle 12 miles in a thunderstorm and had 3 extra miles added at the finish, poor girl, a really fantastic achievement! Read Jillian's personal report [http://www.aspergillustrust.org/Main\\_content.asp?Page\\_Name=bikeride](http://www.aspergillustrust.org/Main_content.asp?Page_Name=bikeride) ...A big 'THANK YOU' to all who have sponsored her so far.

Want to show your appreciation and support to Jillian? - It's not too late!

You can click here to [donate directly to our Aspergillus Trust Sponsorship Appeal](#) via our secure online donation facility. (Choose [Jillian Geary's Manchester to Blackpool bike ride](#) from the drop-down menu)

## AGM and General Meeting

The AGM and next General Meeting will take place at the Directory of Social Change Charity Centre in London on 29<sup>th</sup> September commencing at 12 noon.

Access to the venue is excellent as it is situated a very short walk from Euston mainline and underground stations: <http://www.dsc.org.uk/charitycentre/travel.html>

If you would like more information about the Aspergillus Trust AGM - please contact us by post at

Aspergillus Trust  
PO Box 168  
Hexham NE46 9AN  
United Kingdom

or you can email [info@aspergillustrust.org](mailto:info@aspergillustrust.org)



## The AT is now registered with ebay for charity

John Smout our trustee, media advisor and webmaster has registered the AT with ebay's charity Missionfish - check out our page at: [http://www.missionfish.org.uk/NPMMF/nphomepage.jsp?NP\\_ID=20132](http://www.missionfish.org.uk/NPMMF/nphomepage.jsp?NP_ID=20132)

You can now buy and sell your unwanted items and donate all or part of the proceeds to the Aspergillus Trust.

*"It strikes me we all have stuff in the attic we could sell and make a few pounds out of. It would be something we could nag our supporters with, so they can get rid of stuff to make donations to us rather than dig in their pockets for real cash" - John Smout.*

To see how it works in 5 easy steps go to: <http://www.missionfish.org.uk/About/howitworks.jsp#forsellers>

## Antifungal activity of the silver ion against contaminated fabric

Jung WK, Kim SH, Koo HC, Shin S, Kim JM, Park YK, Hwang SY, Yang H, Park YH.

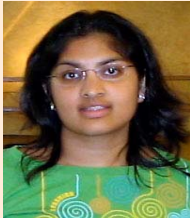
Department of Microbiology, College of Veterinary Medicine, and BK21 Program for Veterinary Science, Seoul National University, Seoul, Korea.

An anti-fungal efficacy test of the silver laundry machine, which electrically generates silver ions, was carried out against four fungi - Trichophyton rubrum, Candida albicans, Microsporium canis and Aspergillus flavus - which cause major fungal infection in humans and animals. Compared with the conventional laundry machine, washing with the silver laundry machine regardless of detergent use was effective against most of the fungi with about 4 log(10) (CFU ml(-1)) reduction and eliminated almost all the fungi when using the detergent. Moreover, the cleaning activity of the silver laundry machine with detergent was higher than that of the conventional laundry machine with detergent both after wash and after final spin step against all four examined fungi. The silver laundry machine may be useful in preventing skin irritation caused by fungi-contaminated fabric in the hospital and in the home.

PMID: 17576317 [PubMed - in process]

## Annual Competition for Medical Students

The fifth Aspergillus Trust medical student competition was aimed at helping us to devise an appropriate patient information leaflet on the complications of ABPA. This year we asked students to draft and illustrate a leaflet on **Bronchiectasis, Pseudomonas and other bacterial super-infections** which are sources of additional respiratory problems for Aspergillus sufferers. The topics covered the symptoms, diagnosis and treatment of these problems. This year's first prize winner is Suchitra Chinthapalli of Imperial College, London.



Congratulations Suchitra on winning our prize of £200.

Again this year we were impressed by the submissions of the runners up and have decided to award joint second prizes of £100 each to both Phey Ming Yeap of the University of Edinburgh and Rachna Bajaj of the Royal Free and University College Medical School, London. The Aspergillus Trust would like to sincerely thank all those who participated in the competition this year.

See what our winners had to say at:

[http://www.aspergillustrust.org/Main\\_content.asp?Page\\_Name=competition\\_06-07](http://www.aspergillustrust.org/Main_content.asp?Page_Name=competition_06-07)

## Recent advances in antifungal chemotherapy

**Petrikkos G, Skiada A**  
National and Kapodistrian University of Athens, Medical School, 1st Department of Propedeutic Medicine, Research Laboratory for Infectious Diseases and Antimicrobial Chemotherapy "G.K. Daikos", Greece.

For over 50 years, amphotericin B deoxycholate (AmBD) has been the 'gold standard' in antifungal chemotherapy, despite its frequent toxicities. However, improved treatment options for invasive fungal infections (IFIs) have been developed during the last 15 years. Newer antifungal agents, including less toxic lipid preparations of AmBD, triazoles and the echinocandins, have been added to our armamentarium against IFIs. Some of these newer drugs can now replace AmBD as primary therapy (e.g. caspofungin for candidiasis, voriconazole for aspergillosis), whilst others offer new therapeutic options for difficult-to-treat IFIs (e.g. posaconazole for zygomycosis, fusariosis and chromoblastomycosis). It is interesting that extended use of newer antifungals such as fluconazole, despite decreasing the mortality attributed to candidiasis, resulted in selection of species resistant to several antifungals (*Candida krusei*, *Candida glabrata*); whilst several publications suggest that prolonged use of voriconazole may expose severely immunocompromised patients to the risk of zygomycosis (breakthrough). On the other hand, the differences in the mode of action of newer antifungals such as echinocandins raise the question whether combination antifungal therapy is more effective than monotherapy. Finally, the availability of an oral formulation with excellent biosafety of several newer antifungals (e.g. posaconazole) makes them candidates for prophylactic or prolonged maintenance therapy.

PMID: 17524625 [PubMed - as supplied by publisher]

## Aspergillus flavus: human pathogen, allergen and mycotoxin producer

Hedayati MT, Pasqualotto AC, Warn PA, Bowyer P, Denning DW.

Department of Medical Mycology and Parasitology, School of Medicine, Mazandaran University of Medical Sciences, Sari, Iran.

Aspergillus infections have grown in importance in the last years. However, most of the studies have focused on *Aspergillus fumigatus*, the most prevalent species in the genus. In certain locales and hospitals, *Aspergillus flavus* is more common in air than *A. fumigatus*, for unclear reasons. After *A. fumigatus*, *A. flavus* is the second leading cause of invasive aspergillosis and it is the most common cause of superficial infection. Experimental invasive infections in mice show *A. flavus* to be 100-fold more virulent than *A. fumigatus* in terms of inoculum required. Particularly common clinical syndromes associated with *A. flavus* include chronic granulomatous sinusitis, keratitis, cutaneous aspergillosis, wound infections and osteomyelitis following trauma and inoculation. Outbreaks associated with *A. flavus* appear to be associated with single or closely related strains, in contrast to those associated with *A. fumigatus*. In addition, *A. flavus* produces aflatoxins, the most toxic and potent hepatocarcinogenic natural compounds ever characterized. Accurate species identification within *Aspergillus flavus* complex remains difficult due to overlapping morphological and biochemical characteristics, and much taxonomic and population genetics work is necessary to better understand the species and related species. The *flavus* complex currently includes 23 species or varieties, including two sexual species, *Petromyces alliaceus* and *P. albertensis*. The genome of the highly related *Aspergillus oryzae* is completed and available; that of *A. flavus* in the final stages of annotation. Our understanding of *A. flavus* lags far behind that of *A. fumigatus*. Studies of the genomics, taxonomy, population genetics, pathogenicity, allergenicity and antifungal susceptibility of *A. flavus* are all required.

PMID: 17526826 [PubMed - in process]

## MAARA Pollen and Spore Report

If you live in the midlands area of the UK, you can get up-to-date pollen and spore reports from **MAARA (Midlands Asthma and Allergy Research Association)**. Registered Charity No. 257131

### Latest report

Recent overall pollen levels have fluctuated between low and very high. Principal tree pollens are lime and sweet chestnut, also low levels of dock, fat hen and plantain and high levels of nettle.

### Fungal spore concentrations

Current airborne fungal spore levels range from high to exceedingly high, caused by the continued wet weather. Counts consist predominantly of *Sporobolomyces*, *Tilletiopsis* and *Didymella* spores, amongst hyaline basidiospores and ascospores. Warm dry periods lead to high levels of *Cladosporium* and *Alternaria*.

### Seasonal peaks for some pollen trouble makers: -

Hazel (February and March)

Alder (February and March)

Birch (April)

Oak (May)

Grass (June and July)

Nettle (June- September)

## University of Florida to lead research on life-threatening fungus

Filed under Research, Health on Tuesday, July 31, 2007.  
GAINESVILLE, Fla. — Hear the word fungus, and mushrooms and mould might leap to mind. But the University of Florida is about to house the nation's first research repository for one species that has nothing to do with pizza toppings or marbling blue cheese: *Aspergillus*, which increasingly poses a major health threat to cancer patients and transplant recipients.

The National Institutes of Health has awarded \$9 million over the next seven years to the effort.

"*Aspergillus* is everywhere, particularly in the air we breathe; all of us breathe it in all the time," said principal investigator John Wingard, M.D., director of UF's blood and marrow transplant program and deputy director of the UF Shands Cancer Center. "On a windy day, especially in a dusty environment or every time some dirt gets moved around, lots of these organisms get aerosolized."

The number of people contracting *Aspergillus* infections jumped enormously in the 1990s

Read the full transcript here:

[http://www.aspergillustrust.org/forums/topic.asp?TOPIC\\_ID=35](http://www.aspergillustrust.org/forums/topic.asp?TOPIC_ID=35)

## Welcome to our new trustee

Georgina Powell a respiratory nurse specialist based at the Wythenshawe Hospital in Manchester has agreed to join the board of trustee's. Her appointment to the board will be formally endorsed at the next general meeting.

We extend a warm welcome on behalf of all members and supporters of the AT. Georgina's professional expertise, help and advice will be greatly appreciated by us all.

## Fundraising Update

### Section 64 Grants - THE BAD NEWS!

On the 2<sup>nd</sup> August 2007 Peter Henriksen our trustee and financial advisor wrote, "It does not look as if there is any scope for an AT application for a S64 grant for the next funding round. I have now down loaded and read the following documents which are in addition to the funding priorities already shared with you: (1) Sec 64 General Scheme of Grants - S64 Core Script and Q & A - 2008-09; (2) Sec 64 General Scheme of Grants - On-line Application User Guide - 2008-09; and (3) Sec 64 General Scheme of Grants - Notes of Guidance 2008-09.

The first point to note is that the prohibition on 'research' remains in place. The bombshell that the D of H has now dropped is that they have decided to carry out a strategic review of all of its funding for the third sector. As a consequence it has decided to suspend all applications for core funding; only those core grants already awarded in earlier years will be honoured...and only for one more year. (Not unnaturally this has caused consternation in the sector, especially for those organisations whose plans were to be funded by these 3 to 4 year grants.) So, no new core grants are available, only project and capital grants. However, the latter must be in support of HMG's health priorities, already well publicised"

Peter's final words summed it all up "So that it's folks - we are stymied for this year's application round. Lets us hope that after their strategic review HMG creates some space for the likes of us"

If you have any ideas on how the trust might be able to raise much-needed funds to help us to move forward to a more secure future? ...please let us know!

## Unusual Remedies For Insect Bites

Mosquito bites seem to come with summer. It's best to think ahead and apply an insect repellent some even are combined with sunscreen to give double protection from summer hazards before going out. But if you forgot and get an itchy welt, Ken Haller, M.D., associate professor of pediatrics at Saint Louis University, suggests this treatment. Dab a bit of roll-on antiperspirant directly on the bug bite and the itching will stop.

"The aluminium salts in the antiperspirant help the body to reabsorb the fluid in the bug bite. The swelling goes down and the itching goes away," he says.

Saint Louis University Medical Center

St. Louis, MO 63103

United States

<http://www.slu.edu/pr>

## Fungal Disease: An Update CME/CE American Thoracic Society (ATS) 103rd International Conference

Christopher J. Lettieri, MD Disclosures

### Introduction

Numerous mycotic organisms produce a wide range of clinical infections in humans. With the evolution of society and medicine, we have seen a parallel evolution of these pathogens. Increased construction has increased the incidence of endemic mycosis and a shift in the population at risk. Advances in medicine, with a greater use of invasive devices and more immunosuppression, have increased opportunistic fungal infections and the development of antimicrobial resistance. These pathogens are often difficult to diagnose and may mimic bacterial infections. This commonly leads to inappropriate treatment with antibiotics, prolonged illnesses, and inherent delays in diagnosis and initiation of appropriate therapy -- further contributing to morbidity and mortality. This article described the pathogenesis and diagnosis of fungal diseases with specific emphasis on the most common pathogens: *Aspergillus*, blastomycosis, histoplasmosis, coccidioidomycosis, and *Candida*.

### Microbial and Host Factors in the Pathogenesis of Fungal Diseases

There are 1.5 million different fungal species worldwide, of which roughly 300 are known to cause disease in humans. Many of these organisms share similar characteristics with extensive cross-reactivity to confirmatory testing, making proper identification difficult. However, the specific organism can often be estimated on the basis of geographic region, host immunity, and the pattern of clinical infection.

### New Guidelines

An updated guideline statement from the American Thoracic Society in regard to the management of fungal diseases is pending publication. This statement will focus primarily on endemic fungi and will present evidence-based treatment recommendations with detailed dosing guidance.

You can read the full transcript of this conference session by Christopher J. Lettieri, MD at:

[http://www.aspergillustrust.org/forums/topic.asp?TOPIC\\_ID=34](http://www.aspergillustrust.org/forums/topic.asp?TOPIC_ID=34)

"A wise man should consider that health is the greatest of human blessings, and learn how by his own thought to derive benefit from his illnesses"

Hippocrates Greek physician (460 BC - 377 BC)

## The efficacy of HEPA filtration

The utility of intensified environmental surveillance for pathogenic moulds in a stem cell transplantation ward during construction work to monitor The efficacy of HEPA filtration Authors: Nihtinen A, Anttila VJ, Richardson M, Meri T, Volin L, Ruutu T

A 12-week environmental study was performed to ensure that the patient rooms of an SCT ward with high-efficiency particulate air (HEPA) filtration remained uncontaminated by moulds during close-by construction work. The sampling included measuring the ventilation channel pressure, particle count measurements, air sampling, settled dust analysis and fungal cultures from the oral and nasal cavities of the patients. No changes in the air pressure occurred. Median particle counts in patient rooms were 63-420 particles/l. The mean particle count of the outside air was 173 659 particles/l. Patient room air samples were negative for aspergilli in 32 of 33 cases. All samples of the outside air were positive for moulds. *Aspergillus fumigatus* was isolated at the beginning of excavation works at the construction area and in two of 33 dust samples from patient rooms. All 70 nasal samples were negative. Of 35 mouth samples, one sample was positive for *A. niger* in a patient with a previously diagnosed aspergillus infection. During a median follow-up of 214 days, no invasive aspergillus infections were diagnosed in the 55 patients treated during the construction period. In conclusion, the HEPA filters seemed to have performed well in preventing an aspergillosis outbreak.

Bone Marrow Transplantation advance online publication, 25 June 2007; doi:10.1038/sj.bmt.1705749.  
PMID: 17589532 [PubMed - as supplied by publisher]

## Infants May Be Protected Against Future Allergies By Early Exposure To Indoor Fungal Molecules

Maybe being a fussy housekeeper isn't such a good thing after all. Environmental health scientists at the University of Cincinnati (UC) say they have confirmed what other scientists have only suspected: early-life exposure to certain indoor fungal components (molecules) can help build stronger immune systems, and may protect against future allergies. [http://www.aspergillustrust.org/forums/topic.asp?TOPIC\\_ID=37](http://www.aspergillustrust.org/forums/topic.asp?TOPIC_ID=37)

## Top 25 Cities for Clean Air in the USA

If you live in the USA you may be interested to note that L.A. Has the Dirtiest Air; Cleanest Air is in Cheyenne, Wyo. By Miranda Hitti

May 1, 2007 -- The American Lung Association today released its 2007 "State of the Air" report, which includes good news and bad news about America's air quality.

**The good news:** Smog levels across much of the country are lower than they were from 2003 to 2005, especially in the eastern U.S.

**The bad news:** Soot levels are rising in the eastern half of the nation. Soot levels are also high in many parts of the western U.S., but soot levels have dropped there since 2003-2005.

SOURCES: American Lung Association: "State of the Air: 2007."  
WebMD Medical News: "Top 25 Towns for Clean Air, Dirty Air."

## On a final note

Julia, our membership secretary is organising an Aspergillus Support day in aid of the trust to help fund the backlog of patient leaflets ...further details of this event will be released very soon - please show your support.

Jim Breen

© Aspergillus Trust - August 2007

## A favourite Recipe - Bruschetta

Each topping makes 8 Bruschetta 'a tasty starter or light lunch'

For a Classic Tuscan topping you will need:

6 ripe plum tomatoes  
15g (half a cup) basil, shredded  
1 garlic clove, finely chopped  
2 tablespoons extra virgin olive oil

**Method:** Score a cross in the base of each tomato and place in a bowl of boiling water for 10 seconds, then plunge into cold water. Peel the skin away from the cross. Cut in half and scoop out the seeds with a teaspoon. Finely dice the flesh, then combine with the basil, garlic and oil.

For a Mushroom and Parsley topping you will need:

2 tablespoons extra virgin olive oil  
200g (7ozs) small button mushrooms, quartered  
1 tablespoon of lemon juice  
50g (1 ¾ oz) goat's cheese, crumbled  
1 tablespoon finely chopped flat-leaf parsley  
1 teaspoon chopped thyme

**Method:** Heat the oil in a frying pan and cook the mushrooms over medium heat for 5 minutes, or until just tender. Remove from the heat and transfer to a small bowl. Stir in the lemon juice, goat's cheese, parsley and thyme.

Crust white Italian-style ciabatta bread

Cut into 8 x 1cm (½ inch) slices  
2 garlic cloves  
Extra virgin olive oil

**Method:** Toast the bread and, while still hot rub with the cut side of a garlic clove. Drizzle olive oil over each slice of bread; season with a little salt and ground black pepper. Divide the topping among the bread slices.

This recipe is from a recipe book called Veggie Food by Murdoch Books ISBN 174053050 £ 9.99

## Will you help?

There are many ways that you can help the Aspergillus Trust in its work, these include:

- Becoming a Member ...join us and pledge your support.
- Contribute to our Voluntary Subscription scheme.
- Support other members by joining our online community forum
- Share your skills and ideas with us to further the aims and objectives of the AT.
- Volunteer to help us in organising our regional meetings and distributing information and help to other Aspergillus sufferers in your area.
- Invite family and friends to become AT supporters ...many companies for example have 'Dress Down Charity Days' - suggest that they consider nominating the AT as their Charity.
- Help with fundraising by taking part in or organising events and raising sponsorship for the trust.
- By making a donation.

"We make a living by what we get, we make a life by what we give" Sir Winston Churchill  
British politician (1874 - 1965)

## News Items

If you have any news, articles, ideas, comments, or information you would like to contribute to future publications of the AT News please get in touch at: [news@aspergillustrust.org](mailto:news@aspergillustrust.org)

**Please Note:**

Articles will be included entirely at the discretion of the board of Trustee's.