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## In this issue:

Antimicrobial  
Synergism

Tick Warning

Telstra Small  
Business Award  
Winner

Dermcare Club

Derm Dinner

Hot Spots

Privacy  
Statement

## ANTIMICROBIAL SYNERGISM, CAN IT BE CLINICALLY SIGNIFICANT?

A commentary by Ken Mason

Synergism is when the effect is manifestly greater than the sum of the two components. If we investigate synergistic effects *in vitro* is the data relevant in the clinical setting? I thought about this subject after reading a recent article in the latest issue of the Veterinary Dermatology Journal. In this article the *in vitro* anti-microbial effect of miconazole and chlorhexidine was found to be synergistic against *Microsporum canis* according to researchers Perkins and Bond (2003) from the Department of Veterinary Clinical Sciences Royal Veterinary College London.

Previous studies by Sparks *et al* (2000) and Patterson (1999) revealed Malaseb was effective in clinical cases of dermatophytosis when all other medications had failed and it would appear Perkins and Bond set out to understand why.

Similarly microbiologists (Bowker *et al*, 1998) at the Medical School University of Bristol had also demonstrated the same synergy of Malaseb actives against the other dermatophytes of dogs, cats and horses.

Perkins and Bond (2003) concluded the synergy resulted because one component of Malaseb must have increased the penetration of the other into the fungal cell wall and also revealed the combination overcame resistance. The same synergistic interaction has been demonstrated for *Candida albicans* (Codd and Deasy 1998), *Malassezia pachydermatis* and *Staphylococcus intermedius* (Tewierik 2002). This gives Malaseb its super quick rapid kill response in the clinical setting, a fact that still seems to intrigue dermatologists and academics overseas.

The clinical relevance of this unique synergistic interaction between miconazole and chlorhexidine is revealed in the many publications showing efficacy of Malaseb in published blinded clinical trials (Patterson 1997 & 1999; Bond *et al* 1995; Bond and Lloyd 1998; Robinson *et al* 1999, Sparkes *et al* 2000) in Dermcare's trials (Mason 1994, Mason and Atwell 1995, Power 1996) and a Danish Masters thesis (Jensen 2001) and UK PhD thesis (Bond 1996).

In developing Malaseb, Dermcare set an anti-microbial *in vitro* standard of being effective at a shampoo dilution of over 1:1000 but eventually due to this unexpected synergism, Malaseb is effective at >1:3000. We do not agree that *in vitro* data generated with shampoo dilutions of 1:1 to 1:25 are likely to equate to clinical efficacy on the coat. Data from studies while developing Malaseb found the dilution of shampoo on the coat in a clinical setting was between 1:45 to 1:100 (Mason S, 1995). Having set this *in vitro* standard and *in vivo*, Dermcare validated the standard on clinical cases and found an excellent clinical response. Remember this was in the late 1980's and early 1990's when no other topical treatment was available. There are some of these cases still on Sebolyse today, albeit



This tick  
season,  
remember  
**PERMOXIN**  
for fleas, flies  
and ticks!



## Congratulations ...

To the **OCEAN GROVE ANIMAL HOSPITAL** on being awarded the **VICTORIAN TELSTRA SMALL BUSINESS AWARD**.

The Ocean Grove Animal Hospital is situated on the Bellarine Peninsula in Victoria. Those of you who watched *Sea Change* on the ABC, will know the area well, as it was filmed near here.

Dr Lynda Reynolds is the principal of the practice. She started the business 3 years ago, after working in a large practice on the Bellarine Peninsula.

Dr Reynolds graduated from the University of Melbourne in December 1981, loves all aspects of Small Animal Veterinary Medicine. Lynda has a special interest in dermatology and likes to keep herself well informed and up-to-date on the subject.

Being a highly respected member of the community, it gives Dermcare enormous pleasure in offering our congratulations to her and her very dedicated staff on this award.

Continued from Page 1 ...

they are coming to the natural term of their life. We have looked for but have not found resistance developing. A Perkins and Bond (2003) recent report confirmed and explained why this is so.

In development of Dermcare Pyohex, a dose response *in vivo* trial was performed to determine the best concentration of chlorhexidine in a shampoo for pyoderma. Now that the results are published 3% is now copied as the standard (Mason et al 2000). Pyohex with 3% chlorhexidine was demonstrated to have a superior anti-microbial and clinical effectiveness over a benzyl-peroxide shampoo on the UK market in an independent blinded clinical trial on cases with pyoderma at the Royal Veterinary College London (Bond 1996). This was in addition to Dermcare's Australian clinical trials.

Although many would try to emulate the success of Malaseb and Pyohex no other shampoo has the unique base developed by Dermcare for these shampoos.

One of the many requirements of the Government regulatory authorities for topical products is to demonstrate preservation against common expected contaminants in multi-use situations. Both Malaseb and Pyohex passed the required preservative efficacy test (PET) against *Pseudomonas aeruginosa*, *Candida albicans*, *Aspergillus fumigatus* and *Staphylococcus aureus*. Dermcare Malaseb and Pyohex pass the PET with out having to resort to phenol preservatives like chloroxenol, or formaldehyde that are common in other anti-microbial shampoos.

We do not claim clinical efficacy against these organisms on the basis of a PET test. Dermcare prefers the traditional approach of truth in claims with data from independent clinical trials. We believe that clinical data from trials is the most reliable method of making a claim that will ensure relevance in clinical practice. Then again Dermcare has set this standard from the beginning for any products developed. If a Dermcare anti-microbial product failed clinical trials you would never know, as we would not put it on the market. We would never use *in vitro* data at dilutions of 1 to 1 or 1 to 10, when on animal data suggests 1 to 50 and up to 1 in 100 dilutions are occurring on the coat.

For the safety and reliability of treating your client's pets we urge all veterinarians to insist on clinical trial data. Without it company representatives are no more than 'snake oil salesmen' rather than valued and important visitors to clinics with technical product knowledge needed by the veterinarian.

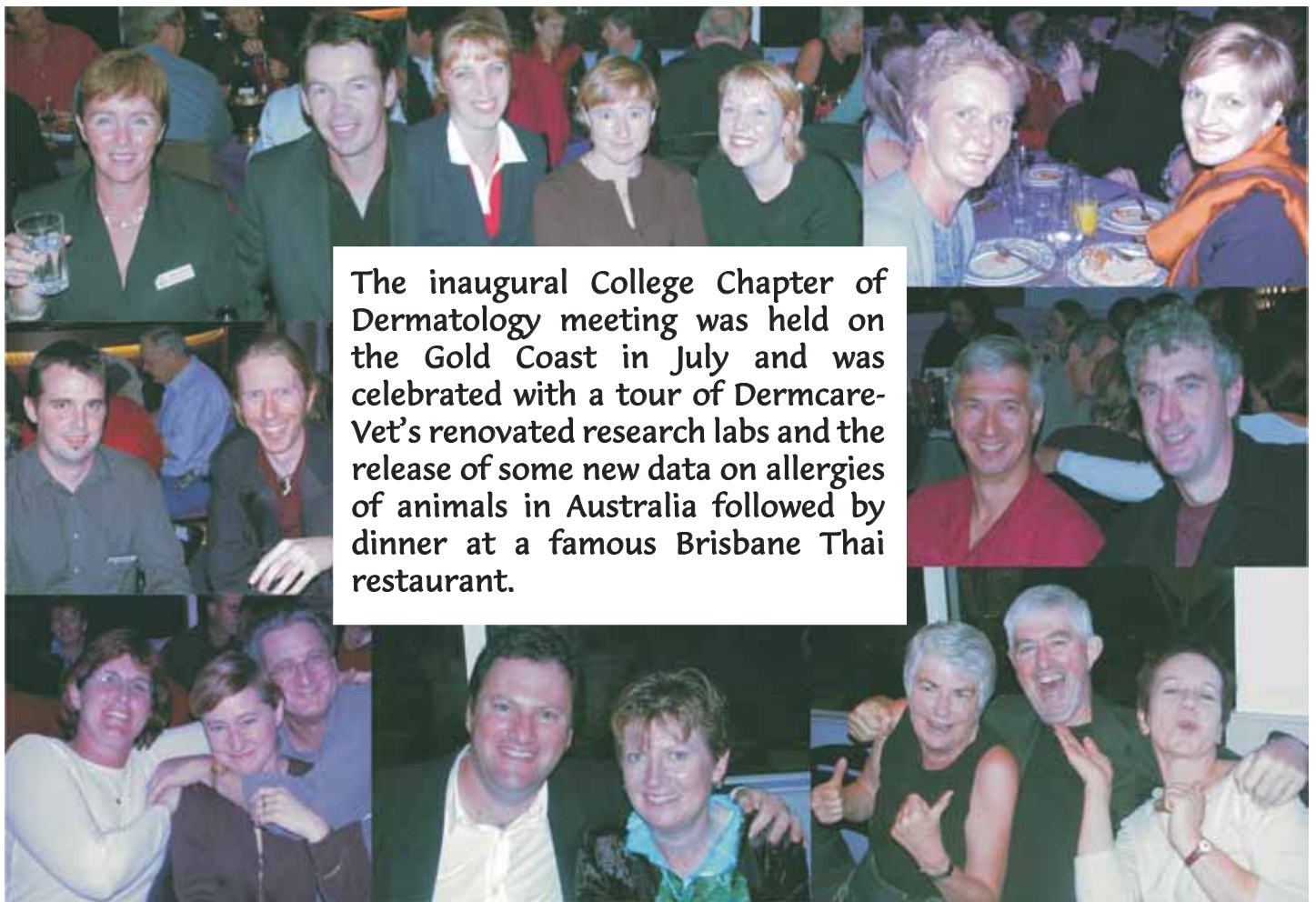
Did you know ...



Malaseb, Natural, Aloveen, Pyohex & Sebolyse can be used on puppies and kittens from 1 day old?

The Dermcare Club is  
**BACK** for 2003 - 2004!  
Use your order form NOW to receive  
FREE Dermcare-Vet product. For  
details, contact your Territory  
Manager or Dermcare directly!

# Derm Dinner!



The inaugural College Chapter of Dermatology meeting was held on the Gold Coast in July and was celebrated with a tour of Dermcare-Vet's renovated research labs and the release of some new data on allergies of animals in Australia followed by dinner at a famous Brisbane Thai restaurant.

Clockwise from top left: Barb Chandler with Greg Burton; Sally McPherson with Mandy Craig & Sharon Bryden; Sharyn Mason with Mandy Burrows, Ralph Mueller & Mike Shipstone; Beth McDonald hams it up with Allen and Cheryl Bell; Larry Voglenest congratulates wife Linda on passing her Fellowship exams; Helen Powers (a visiting Dermatologist from the U.S.) with Mandy Craig & Ken Mason; Quinton 'Quino' Siddans with Dave 'Robbo' Robson.

## References List

- Bowker, K. E., Janowska, A. and Holt, H. A. (1998).** Determination of the Minimum Inhibitory Concentrations of Chlorhexidine and Miconazole Alone, and in Combination to *Microsporum canis* Isolated from the Dog, Cat and Horse.
- Bond, R (1996)** *Malassezia pachydermatis* colonisation and infection of canine skin, PhD Royal Veterinary College. The University of London.
- Bond, R and D Lloyd (1998)** Effect of topical therapy of malassezia pachydermatis associated seborrhoeic dermatitis on the oral carriage of *Malassezia pachydermatis*. *Veterinary record* vol 142 p 725-726.
- Bond, R** Comparison of the clinical and antimicrobial efficacy of a 3% Chlorhexidine shampoo (Pyohex Dermcare-vet) with a 2.5 % benzoyl peroxide shampoo (Oxydex C-vet) for the treatment of microbial dermatitis in Basset hounds. Data on file at Dermcare vet.
- Codd, J. E., Deasy, P. B. (1998).** Synergistic antifungal interaction between miconazole nitrate and chlorhexidine acetate. *International Journal of Pharmaceutics*, Vol. 173, pp.3-11
- Mason, K and Atwell R. (1995)** Clinical Efficacy Trials on a Chlorhexidine/Miconazole Shampoo for the treatment of Seborrhoeic Dermatitis associated with an overgrowth of *Malassezia pachydermatis* and coccoid bacteria, *European Society and College of Veterinary Dermatology, Proceeding Barcelona*
- Mason, S. (1995)** To determine the parameters to be taken into account in assessing the concentration of the active ingredients in Sebolyse, a shampoo for the treatment of seborrhoeic dermatitis in the dog, Animal Allergy and Dermatology Service, Queensland, Australia. Data of file at Dermcare-vet.
- Mason K V, Frost A, D O'Boyle and L McKinnon (2000)** A dose response study to determine the optimal concentration of Chlorhexidine in a shampoo. *Veterinary Dermatology* VOL 11 supplements September page 20.



Strange Visions ... Here is a photomicrograph taken of a paspalum grass flower. The purple male part releases pollen to be captured by the female part. Reminiscent of an angel atop a snow covered Christmas tree.

*Merry Christmas everyone!*

# Hot Spots, Pyoderma and Pyohex

Don't forget to use Pyohex to treat and prevent Hot Spots and Pyoderma. The 3% Chlorhexidine content of Pyohex has shown to be the most efficacious when treating Pyoderma and Hot Spots (Staph Infections). Pyohex should be used on a weekly basis on Hot Spot prone animals, to prevent them from developing further infection.



Chlorhexidine has a residual of 2 days, and in Pyohex, this is extended due to its lipid sparing base. So remember to reach for the Pyohex when you diagnose a bacterial infection.



Remember, as a special bonus for Dermcare club we are upgrading you to a 500ml Pyohex rather than a 250ml.

**Patterson, S (1997)** Dermatophytosis in 25 horses, a protocol of treatment using topical therapy. *Equine Veterinary Education*. 9 (4) pp. 171-173

**Patterson, S. (1999)** Miconazole/chlorhexidine Shampoo as an Adjunct to Systemic Therapy in Controlling Dermatophytosis in Cats. *Journal of Small Animal Practice* 40: 163-166

**Perkins N and Bond R. (2003)** Synergistic inhibition of the growth *in vitro* of *Microsporum canis* by miconazole and chlorhexidine, *Veterinary Dermatology*, Vol 14, pp. 99-102.

**Power, H. (1996)** A Clinical Trial of Sebolysate at Specialty and University Clinics, in USA; *Dermatology For Animals*, California, USA on file at Dermcare-vet Australia.

**Robinson, A. Sparks A and SE Shaw (1998)** In Vitro efficacy of Malaseb for feline *Microsporum canis* infections European college and society of Veterinary dermatology 1998 Maastricht Netherlands

**Skjodt Jensen, M. (2001).** In-vivo effect of Malaseb shampoo on *Malassezia pachydermatis* in dogs with chronic dermatitis. Masters Thesis. Department of Clinical Studies. The Royal Veterinary and Agriculture University. Denmark.

**Sparkes, A. H., Robinson A., MacKay, A. D., Shaw, SE. (2000).** A study of the efficacy of topical and systemic therapy for the treatment of feline *Microsporum canis* infection. *Journal of Feline and Surgery* 2, pp. 135-142.

**Tewierik, G. (2002)** The *in-vitro* sensitivities of the pathogen *Malassezia pachydermatis* to three shampoos using agar incorporation, Data on file at Dermcare-Vet, Australia.

**Tewierik, G. (2002)** The *in-vitro* sensitivities of the pathogen *Staphylococcus intermedius* to three shampoos using agar incorporation, Dermcare-Vet, Australia.



Need some help with contact allergy?

Talk to your rep or call Dermcare directly for your FREE contact allergy poster!

## Dermcare-Vet Privacy Policy

Dermcare-Vet Pty Ltd wants to ensure that you are confident that any information collected by us is treated with the appropriate degree of confidentiality and privacy.

We collect only relevant information necessary to provide you with information about Dermcare's products, services and veterinary research that may be of interest to you.

To the extent you are entitled to under the Privacy Act and all other applicable laws, you can access the information about you, which is held by Dermcare, by contacting us:

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Dermcare's Privacy Statement is available upon request and on our website [www.dermcare.com.au](http://www.dermcare.com.au)

## WARNING!

Tick season is upon us, are you protected with Permaxin? Tick repellent action of Permaxin has excellent results!

### Ticks KILL dogs

A weekly Permaxin rinse is an effective tick preventative. The recommended dilution is 10mL Permaxin to 400mL with water. Weekly application can help establish a routine for forgetful people!

*Australian Vet Journal Vol 71 March 1994 B F Stone et al indicates reduction in tick attachment attributable to treatment with Permaxin was 100% days 1 to 12 and 99.8% day 13, 99.3% on day 14, 99.8% on day 20 and 97.9% on day 21. (Article available from Dermcare-Vet).*

Permaxin can be made up in a spray bottle for ease of application and dogs can be topped up with Permaxin at any time. Permaxin mix is stable for 3 months in spray bottle.