

Clinical trial to assess the effectiveness of honey to treat dry, sore, red eyes

October 13 2014, by Sandra Hutchinson

Honey's antibacterial benefits are widely recognised but now a QUT team of optometry researchers is conducting clinical trials of the therapeutic effect of the sweet nectar as a remedy for dry, red and sore eyes, which are an irritating and chronic problem for one in three Australian adults.

Clinical Optometrist and [dry eye](#) researcher Dr Julie Albietz, from the QUT Health Clinics and the School of Optometry and Vision Sciences, has studied the benefits of antibacterial medical honeys on the eye's surface tissues for more than a decade and will lead two trials comparing traditional eye lid hygiene and lubricant eye products with honey-based therapies for the management of dry eye symptoms and signs.

"Dry eye disease, which commonly presents as red, sore and irritated eyes and blurry vision is a problem for about 30 per cent of adults," she said.

"It is primarily suffered by females, the elderly, individuals with autoimmune collagen vascular diseases, contact lens wearers, those using glaucoma eye drop medications and those who have recently undergone eye surgery."

Dr Albietz, who as part of her post-doctoral research at QUT pioneered the use of honey-based treatments for dry eye and other ocular surface diseases, said her studies had shown the use of honey offered significant benefits in treating eye problems.

Her research led to Australian company Melcare® developing and commercialising two Therapeutic Goods Administration-licensed honey-based products for eye care, both of which will be included in the clinical trials.

"There are a number of ways to treat chronic dry eye disease including the use of lubricating eye drops, ointments and gels, as well as antibiotic eye drops and steroids," she said.

"The problem with these treatments is that lubricants are insufficient in relieving dry eye symptoms and signs, antibiotics are toxic to the eye's surface tissues and can lead to development of resistance with prolonged use, and steroids have side effects including increased risk of eye infection.

"Now we have a safe, clinically effective, non-toxic alternative in the TGA-licensed Optimel® Antibacterial Manuka Eye Drops."

Dr Albietz said QUT would conduct two clinical trials to evaluate the effectiveness of antibacterial honey eye drops versus conventional lubricant [eye drops](#) and other clinic-based treatments.

"One is a pilot study involving participants who wear contact lenses but are struggling to remain in contact wear due to dry eye symptoms," she said

"The other is a large scale trial involving participants with meibomian gland dysfunction, or chronic red, inflamed eye lids and blocked oil glands in the eye lid margins which is a major cause of dry [eye](#) symptoms and signs."

Dr Albietz said one of the antibacterial benefits of honey was that bacteria could not grow in concentrated honey solutions, due to its

acidity and high glucose concentration which created an unfavourable environment for bacteria to survive.

"Manuka Eye Drops have also demonstrated a reduction in inflammatory markers on the ocular surface.

"These anti-inflammatory effects of honey require further investigation as inflammation is a key factor in the development of [dry eye disease](#) and its chronic course."

Melcare chief executive Anthony Moloney said Optimel® Antibacterial Manuka Eye Drops contained a unique mix of honeys from Australian *Leptospermum* commonly called Manuka or Jelly Bush, which had all been selected for their high and consistent level of antibacterial benefits.

"We have developed two products, one that contains a concentrated level of honey and is only used by practitioners, and one that we have just released to the market which is a user-friendly Manuka honey saline drop available over the counter at pharmacies," he said.

"What we are producing in a world first is a high value natural product to help in the management of chronic dry disease," Mr Moloney said.

"These two products have been approved for sale in Australia and Europe, and there has been strong international interest from the US, China and the Middle East."

Mr Moloney said Melcare and Dr Albietz were also working on developing a honey-based product for sinus problems, or sinusitis, which often co-exist in individuals with chronic red, sore and irritated eyes.

Provided by Queensland University of Technology

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