



AERIS
BIOTECHNOLOGIES

A BREATH OF FRESH AIR IN ASTHMA CONTROL

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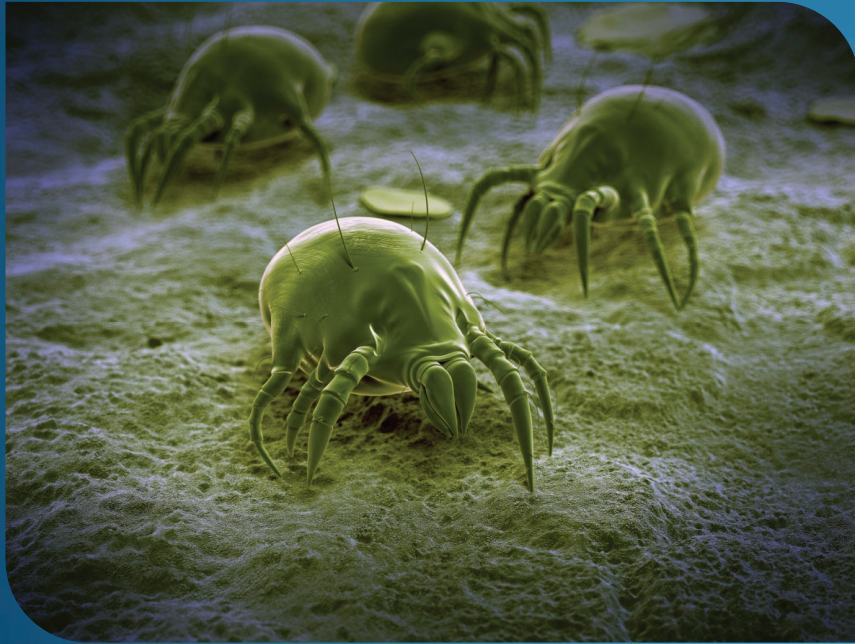
<https://www.sec.gov/Archives/edgar/data/1907923/000182912622008698/0001829126-22-008698-index.htm>

AERIS Investment Summary

- Groundbreaking unique approach to asthma and allergy control
- Natural, “green” technology that specifically targets a major source of asthma
- Technology protected by broad, **awarded** patents in key markets, including USA, UK, EU, Switzerland, Hong Kong, Japan, and Australia.
- Technology valuation predicted from published industry comparators in excess of \$200M after candidate product demonstrated
- Potential sales in patent protected markets alone exceed \$2B per annum
- Future markets will increase potential sales to upwards of \$4B

THE PROBLEM:

House Dust Mite Allergens



They're in your home. They're in your bed. And you can't get rid of them...

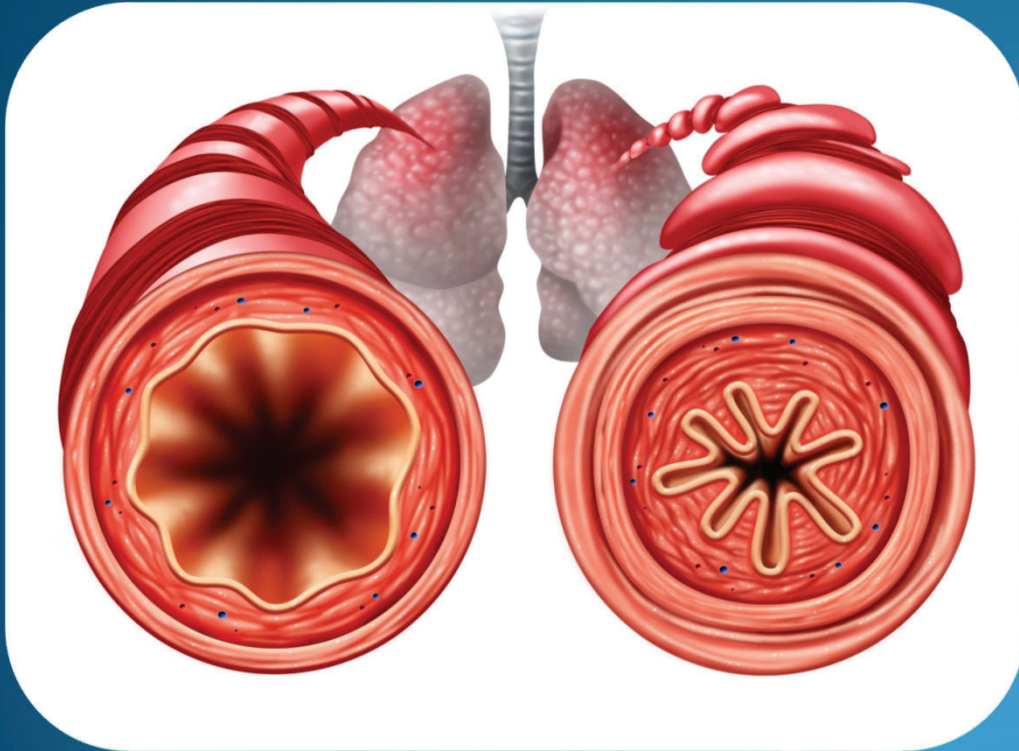
- At 0.3mm they're so small they are almost invisible
- A typical mattress holds more than 2,500,000 mites
- A female mite will lay 20-50 eggs in 3 months
- Mite droppings contain powerful allergens
- Each mite produces 20 droppings every day
- These allergens are a key cause of, and trigger for asthma attacks & other allergies

THE RESULT: Asthma

Imagine being paralyzed by fear as you struggle to breathe, unable to speak, unable to ask for help. That's what an asthma attack feels like.

Every two seconds someone is having a potentially life-threatening asthma attack somewhere in the United States. Every day, the lives of families across the USA are devastated by the death of a loved one to an asthma attack





Airways constricted during an asthma attack

- Asthma affects 339 million people worldwide
- It's a chronic, lifelong disease
- 400,000+ people die every year
- Costs exceed \$100 billion a year just in Europe and the US

House dust mites are a key cause of asthma and many other allergic diseases

CURRENT ASTHMA TREATMENTS:

Drugs

A wide range of drugs are used to treat asthma.

Expensive clinical trials are needed for new drugs

Despite this, asthma deaths are rising

So... why not prevent the effects of dust mite allergens by stopping them from ever reaching the patient in the first place?



The AERIS answer:

Stop the dust mites before the patient is exposed to their allergens

CURRENT DUST MITE TREATMENTS: Chemical and Physical Methods

A major scientific review bringing together over 50 different studies concluded that “*Chemical and physical methods aimed at reducing exposure to house dust mite allergens cannot be recommended*”

Methods include chemicals, barriers, and filters

A family's costs can run into thousands of dollars per year

Billions of dollars are being spent

The need is so great...

Allergy 2008; 63: 646–659

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DOI: 10.1111/j.1398-9995.2008.01690.x

Review article

House dust mite control measures for asthma: systematic review

The major allergen in house dust comes from mites. We performed a systematic review of the randomized trials that had assessed the effects of reducing exposure to house dust mite antigens in the homes of people with mite-sensitive asthma, and had compared active interventions with placebo or no treatment. Fifty-four trials (3002 patients) were included. Thirty-six trials assessed physical methods (26 mattress covers), 10 chemical methods and eight a combination of chemical and physical methods. Despite the fact that many trials were of poor quality and would be expected to exaggerate the reported effect, we did not find an effect of the interventions. For the most frequently reported outcome, peak flow in the morning (1565 patients), the standardized mean difference was 0.00 (95% confidence interval (CI) –0.10 to 0.10). There were no statistically significant differences in number of patients improved (relative risk 1.01, 95% CI 0.80–1.27), asthma symptom scores (standardized mean difference –0.04, 95% CI –0.15 to 0.07) or in medication usage (standardized mean difference –0.06, 95% CI –0.18 to 0.07). Chemical and physical methods aimed at reducing exposure to house dust mite allergens cannot be recommended.

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Key words: asthma; house dust mites; systematic review.

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And yet current approaches just don't work!

THE SOLUTION: *Aeris* Biotechnologies

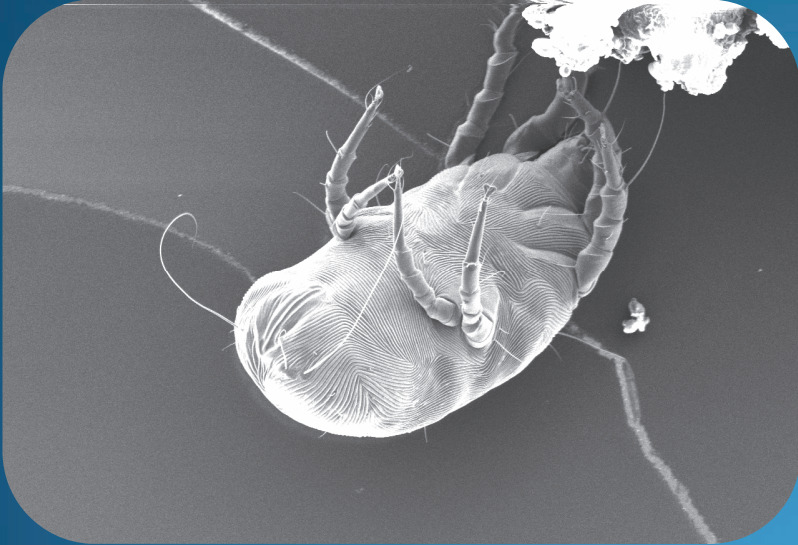
Instead of treating the patient with drugs, or the environment with dangerous chemical pesticides, *Aeris* treats the source

Aeris targets dust mites, specifically & exclusively, to stop them producing the allergens so that people are never exposed to their powerful and damaging effects



The *AERIS* approach is different:
Treat the **SOURCE**, not the Symptoms

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Treat the **SOURCE**, not the Symptoms



Aeris has a unique, patent protected approach that uses “green” biological control – natural agents that kill dust mites – a *biopesticide*

The US Environmental Protection Agency has stated “*biopesticides tend to pose fewer risks than conventional pesticides*”

The *Aeris* Approach: Biological Control



By preventing asthma before the patient is exposed, the risks of drugs and need for expensive clinical trials is avoided.

Biological control is able to spread out from initially treated areas to treat a whole room from a few, limited applications, and exerts control as long as its target is present

With a simple application to the carpets and injections into the furniture and bedding, dust mites can be naturally controlled

Infected dust mites become the vector that propagates the agent through the population

Aeris Product Strategy

Aeris' product will have unique advantages.

Projections assume:

Pricing estimated at a minimum of \$60 for a kit containing a unique, protected formulation

Kit is to be used 1-4 times a year, based on asthma/allergy severity

Uptake projections range from 1% among the worried well, to 25% for difficult-to-treat and severe asthmatics facing frequent hospitalization

Secondary markets add to this, including additional allergies, sales to hotels and businesses, and travel/car kits



AERIS: Market Protection

Aeris controls **awarded** patents on its broad technology until 2036, including the USA, UK, Europe, Switzerland, Japan, Hong Kong, and Australia

Projections show a potential market in patent protected areas of more than \$2 billion for in-home use alone

Hospitality and commercial property/office sales will expand the market potential

Longer term, *Aeris* will target Indian and Chinese markets for further market expansion

AERIS controls a multi-billion dollar potential market



The *AERIS* Team

Dr. David R. Harper, Chairman, CSO

- 20+ years' biotechnology experience
- Brought first company to an NYSE listing
- Expert microbiologist with books, papers, and multiple patents
- Pioneering worker on biological control of the house dust mite



Aaron M. Gunn, CEO

- 20+ years' experience founding and growing companies
- Active investor in multiple private companies in technology and banking
- Extensive experience in managing business operations



Edward C. Cappabianca, CBO

- 20+ years' experience advising and raising capital
- Highly experienced investment banker, guiding progress to public listing
- Broad experience as biotechnology C-grade officer



Steven Portnoy, Corporate Legal Counsel

- Experienced corporate lawyer, more than 35 years in US practice
- 25+ years' experience in founding/operating successful companies



Aeris Investment Summary

- Technology is protected by broad, **awarded** patents in key markets
- Sales potential in excess of \$2 billion annually
- Technology valuation at completion of trials is expected to be in the hundreds of millions of dollars on way to a multi-billion dollar market
- Data showing effect then to support progress to market through joint ventures
- Public market listing planned upon achievement of near term milestones



AERIS
BIOTECHNOLOGIES

Treating the **SOURCE**, not the **SYMPTOMS**

aerisbiotech.com

Source materials:

Calderón MA et al (2015). Respiratory allergy caused by house dust mites. *Journal of Allergy and Clinical Immunology* 136: 38-48.

Global Asthma Report: <http://www.globalasthmareport.org/Global%20Asthma%20Report%202018.pdf>

Gøtzsche PC, Johansen HK. House dust mite control measures for asthma. *Cochrane Database of Systematic Reviews* 2008, Issue 2. Art. No.: CD001187. DOI: 10.1002/14651858.CD001187.pub3. <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD001187.pub3/full>

Environmental Protection Agency: What are Biopesticides: <https://www.epa.gov/ingredients-used-pesticide-products/what-are-biopesticides>

Halken S et al (2003). Effect of mattress and pillow encasings on children with asthma and house dust mite allergy. *Journal of Allergy and Clinical Immunology* 111: 169-176.

Harper DR (2021). Biological control by micro-organisms. In “The Encyclopedia of Life Sciences”, John Wiley and Sons, Chichester; www.els.net. <https://onlinelibrary.wiley.com/doi/10.1002/9780470015902.a0029369>

Harper DR, Brugman VA, Gunn AM (2020). Biological Control of the House Dust Mite, with Potential for Use in the Prevention of Asthma. *International Journal of Advances in Science, Engineering and Technology(IJASEAT)* 8: 4.
[http://www.ijaseat.iraj.in/paper_detail.php?paper_id=17772&name=Biological Control of The House Dust Mite, with Potential for use in The Prevention of Asthma](http://www.ijaseat.iraj.in/paper_detail.php?paper_id=17772&name=Biological%20Control%20of%20The%20House%20Dust%20Mite,%20with%20Potential%20for%20use%20in%20The%20Prevention%20of%20Asthma)

Kuehr J et al (1995). Sensitization to mite allergens is a risk factor for early and late onset of asthma and for persistence of asthmatic signs in children. *Journal of Allergy & Clinical Immunology* 95: 655-662.

Marks GB (1998). House dust mite exposure as a risk factor for asthma: benefits of avoidance. *Allergy*. 53(48 Suppl): 108-114.

Miller JD (2018). The Role of Dust Mites in Allergy. *Clin Rev Allergy Immunol*. doi: 10.1007/s12016-018-8693-0. [Epub ahead of print]

Platts-Mills TAE (2008). Allergen avoidance in the treatment of asthma: problems with the meta-analyses. *J Allergy Clin Immunol*. 122: 694-696.
[https://www.jacionline.org/article/S0091-6749\(08\)01494-2/pdf](https://www.jacionline.org/article/S0091-6749(08)01494-2/pdf)

Sánchez-Borges M et al (2017). International consensus (ICON) on: clinical consequences of mite hypersensitivity, a global problem. *World Allergy Organ J*. 10: 14. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5394630/pdf/40413_2017_Article_145.pdf

van der Geest LPS et al (2000). Diseases of mites. *Experimental and Applied Acarology* 24: 497–560.